APPLICATION FOR TITLE V AIR OPERATING PERMIT

PREPARED FOR:

HERCULES

CHEMICAL SPECIALTIES

HATTIESBURG, MISSISSIPPI
FORREST COUNTY

JANUARY 1996

PREPARED BY:

Eco-Systems, Inc.
Environmental Engineers and Scientists
2675 RIVER RIDGE ROAD
JACKSON, MISSISSIPPI 39216
PHONE (601) 366-0663

CSJ

HERCULES

Hercules Incorporated
Hercules Plaza
1313 North Market Street
Wilmington, DE 19894-0001
(302) 594-5000

CERTIFICATE OF AUTHORITY

Pursuant to the provisions of the State of Mississippi and the United States Environmental Protection Agency environmental regulations, I, Marshall Steinberg, being a principal executive officer of the Corporation of at least the level of Vice President, do hereby certify that I have this day authorized and directed, as my duly authorized representative, the person designated below (being the individual having responsibility for the overall operation of the regulated facility), to complete, sign, and submit, in the name and on behalf of the Corporation, all environmental reports or requests for information required by Federal and/or State permit issuing authorities:

Authorized Representative:	G. D. Burch Plant Manager
Regulated Facility:	Hercules Incorporated Hattiesburg, Mississippi

IN WITNESS WHEREOF, I have hereunto affixed my signature on this 2nd day of March 1995.

HERCULES INCORPORATED

Marshall Steinberg
Vice President
Health & Environment Division

coa.hbg
3/95

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APPLICATION FORMS

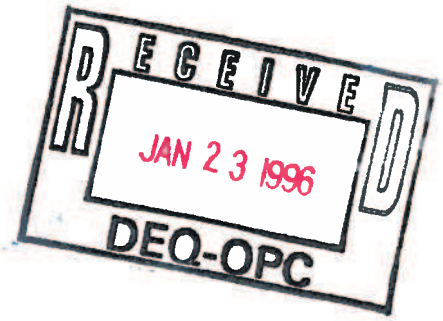
OFFICIAL USE ONLY

APPLICATION RECEIPT DATE _____

APPLICATION NO. _____

FOR MODIFICATION:
MINOR _____
SIGNIFICANT _____

STATE OF MISSISSIPPI
DEPARTMENT OF ENVIRONMENTAL QUALITY
OFFICE OF POLLUTION CONTROL
AIR DIVISION
P.O. BOX 10385
JACKSON, MS. 39289-0385
PHONE NO.: (601) 961 - 5171



APPLICATION FOR TITLE V AIR POLLUTION CONTROL PERMIT TO OPERATE AIR EMISSIONS EQUIPMENT

PERMITTING ACTIVITY:

_____X_____ INITIAL APPLICATION
_____ MODIFICATION
_____ RENEWAL OF OPERATING PERMIT

NAME: HERCULES, INC.

CITY: HATTIESBURG

COUNTY: FORREST

FACILITY No. (if known): 0800-00001

APPLICATION FOR TITLE V PERMIT TO OPERATE AIR EMISSIONS EQUIPMENT

CONTENTS

OPERATING PERMIT APPLICATION REQUIREMENTS

All applications must be submitted on the form supplied by the Permit Board. Insignificant activities which are specified in Section VII .A. of regulation APC-S-6 and listed herein need not be included in permit applications. For insignificant activities which are specified in Section VII.B. of Regulation APC-S-6, a list must be included in the application. An application may not omit information needed to determine the applicability of, or to impose, any applicable requirement, or to evaluate the fee amount required under the schedule pursuant to Section VI. of regulation APC-S-6. The forms and attachments shall include the elements specified as follows:

A. Identifying information, including company name and address (or plant name and address if different from the company name), owners name and agent, and telephone number and names of plant site manager/contact;

B. A description of the sources process and products (by Standard Industrial Classification Code) including any associated with any alternate scenario identified by the source;

C. Emission-related information as follows:

1. All emissions of pollutants for which the source is major, and all emissions of regulated air pollutants. Fugitive emissions from individual components within a facility may be determined collectively based on their relationship to the associated process unless individual emission rates are needed to determine the applicability of an applicable requirement such as NSPS, NESHAPS, a MACT standard, etc. or to determine air quality impacts. A permit application shall describe all emissions of regulated air pollutants emitted from any emissions unit, except those emissions resulting from insignificant activities listed on pages 6-8 of this application. The Permit Board shall require additional information related to the emissions of air pollutants sufficient to verify which requirements are applicable to the source, and other information necessary to collect any permit fees owed under the fee schedule pursuant to Section VI. of regulation APC-S-6;

2. Identification and description of all points of emissions described in item C.1. of this section in sufficient detail to establish the basis for fees and applicability of requirements of the Federal Act;

3. Emission rates in tpy and in such terms as are necessary to establish compliance consistent with the applicable standard reference test method;

4. To the extent it is needed to determine or regulate emissions, the information that follows: fuels, fuel use, raw materials, production rates, and operating schedules;

5. Identification and description of air pollution control equipment and compliance monitoring devices or activities;

6. Limitations on source operation affecting emissions or any work practice standards, where applicable, for all regulated pollutants at the Title V source;

7. Other information required by any applicable requirement (including information related to stack height limitations developed pursuant to Section 123 of the Federal Act);

8. Calculations on which the information requested in this section is based;

D. Air pollution control requirements as follows:

1. Citation and description of all applicable requirements, and

2. Description of or reference to any applicable test method for determining compliance with each applicable requirement;

E. Other specific information that may be necessary to implement and enforce other applicable requirements of the Federal Act or of these regulations or to determine the applicability of such requirements;

F. An explanation of any proposed exemptions from otherwise applicable requirements;

G. Additional information as determined to be necessary by the Permit Board to define alternative operating scenarios identified by the source pursuant to Section III.A.9. of regulation APC-S-6 or to define permit terms and conditions implementing 40 CFR 70.4(b)(12) or Section III.A.10. of regulation APC-S-6;

H. A compliance plan for all Title V sources that contains all of the following:

1. A description of the compliance status of the source with respect to all applicable requirements;

2. A description as follows:

   a. For applicable requirements with which the source is in compliance, a statement that the source will continue to comply with such requirements;

   b. For applicable requirements that will become effective during the permit term, a statement that the source will meet such requirements on a timely basis;

   c. For requirements for which the source is not in compliance at the time of permit issuance, a narrative description of how the source will achieve compliance with such requirements;

3. A compliance schedule as follows:

   a. For applicable requirements with which the source is in compliance, a statement that the source will continue to comply with such requirements;

   b. For applicable requirements that will become effective during the permit term, a statement that the source will meet such requirements on a timely basis. A statement that the source will meet in a timely manner applicable requirements that become effective during the permit term shall satisfy this provision, unless a more detailed schedule is expressly required by the applicable requirements;

   c. A schedule of compliance for sources that are not in compliance with all a applicable requirements at the time of permit issuance. Such a schedule shall include a schedule or remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with any applicable requirements for which the source will be in noncompliance at the time of permit issuance. This compliance schedule shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based;

4. A schedule for submission of certified progress reports, to be submitted no less frequently than every 6 months for sources required to have a schedule of compliance to remedy a violation;

5. The compliance plan content requirements specified in this paragraph shall apply and be included in the acid rain portion of a compliance plan for an affected source, except as specifically superseded by regulations promulgated under Title IV of the Federal Act with regard to the schedule and method(s) the source will use to achieve compliance with the acid rain emissions limitations;

I. Requirements for compliance certification, including the following:

1. A certification of compliance with all applicable requirements by a responsible official consistent with Section II.E of regulation APC-S-6 and Section 114(a)(3) of the Federal Act;

2. A statement of methods used for determining compliance, including a description of monitoring, recordkeeping, and reporting requirements and test methods;

3. A schedule for submission of compliance certifications during the permit term, to be submitted no less frequently than annually, or more frequently if specified by the underlying applicable requirement or by the Permit Board;

4. A statement indicating the sources compliance status with any applicable enhanced monitoring and compliance certification requirements of the Federal Act; and

J. The use of nationally-standardized forms for acid rain portions of permit applications and compliance plans, as required by regulations promulgated under Title IV of the Federal Act.

INSIGNIFICANT ACTIVITIES AND EMISSIONS

II. The following activities/emissions sources are not required to be included in a Title V permit application:

A. New or modified pilot plants, subject to temporary source regulations located in Section III.E of regulation APC-S-6.

B. Maintenance and upkeep:

1. Maintenance, structural changes, or repairs which do not change the capacity of such process, fuel-burning, refuse-burning, or control equipment, and do not involve any change in quality, nature, or quantity of potential emissions of any regulated air pollutants; and

2. Housekeeping activities or building maintenance procedures;

C. Air conditioning or ventilation: comfort air conditioning or comfort ventilating systems which do not transport, remove, or exhaust regulated air pollutants to the atmosphere;

D. Laboratory equipment:

1. Laboratory equipment used exclusively for chemical or physical analysis for quality control or environmental monitoring purposes; or

2. Non-production laboratory equipment used at non-profit health or non-profit educational institutions for chemical or physical analyses, bench scale experimentation or training, or instruction;

E. Hot water heaters which are used for domestic purposes only and are not used to heat process water;

F. Fuel use related to food preparation by a restaurant, cafeteria, residential cooker or barbecue grill where the products are intended for human consumption;

G. Clerical activities such as operating copy machines and document printers, except operation of such units on a commercial basis;

H. Hand held equipment used for buffing, polishing, carving, cutting, drilling, machining, routing, sanding, sawing, surface grinding, or turning of ceramic art work, precision parts, leather, metals, plastics, fiber board, masonry, carbon, glass, or wood;

I. Equipment for washing or drying fabricated glass or metal products, if no Voce are used in the process and no oil or solid fuel is burned;

J. Water cooling towers (except at nuclear power plants); water treatment systems for process cooling water or boiler feed water; and water tanks, reservoirs, or other water containers not used In direct contact with gaseous or liquid process streams containing carbon compounds, sulfur compounds, halogens or halogen compounds, cyanide compounds, inorganic acids, or acid gases;

K. Domestic sewage treatment facilities (excluding combustion or incineration equipment, land f farms, storage silos for dry material, or grease trap waste handling or treatment facilities);

L. Stacks or vents to prevent escape of sewer gases through plumbing traps;

M. Vacuum cleaning systems for housekeeping, except at a source with hazardous air pollutants;

N. Alkaline/phosphate washers and associated cleaners and burners;

O. Mobile sources;

P. Livestock and poultry feedlots and associated fuel burning equipment other than incinerators;

Q. Outdoor kerosene heaters;

R. Equipment used for hydraulic or hydrostatic testing;

S. Safety devices, excluding those with continuous emissions; and

T. Brazing, soldering, or welding equipment that is used intermittently or in a non-continuous mode.

III. The following activities/emissions sources must be listed in the application but emissions from these activities do not have to be quantified.

A. All gas fired, #2 oil fired, infrared, electric ovens with no emissions other than products of fuel combustion;

B. Combustion units with rated input capacity less than 10 million Btu/hr that are fueled by:

1. Liquified petroleum gas or natural gas supplied by a public utility; or

2. Commercial fuel oil #2 or lighter;

C. Eequipment used for inspection of metal products;

D. Equipment used exclusively for forging, pressing, drawing, spinning, or extruding metals;

E. Equipment used exclusively to mill or grind coatings and molding compounds where all materials charged are in paste form;

F. Mixers, blenders, roll mills, or calendars for rubber or plastics for which no materials in powder form are added and in which no organic solvents, diluents, or thinners are used;

G. All storage tanks used exclusively to store fuel oils, kerosene, diesel, jet fuel, crude oil, natural g gas, or liquified petroleum gas (the application must list the size of the tank, date constructed and/or modified, type tank, and material stored);

H. Space heaters utilizing natural or LPG gas and used exclusively for space heating;

I. Back-up or emergency use generators, boilers or other fuel burning equipment which is of equal or smaller capacity than normal main operating equipment, cannot be used in conjunction with normal main operating equipment, and does not emit, have or cause the potential to emit of any regulated air pollutant to increase;

J. Blast cleaning equipment using a suspension of abrasives in water;

K. Die casting machines;

L. Foundry sand mold forming equipment to which no heat is applied and from which no organics a are emitted.

M. Bark and wood - waste storage and handling;

N. Log wetting areas;

P. Log flumes;

Q. Sodium hydrosulfide storage tank;

R. Smelt dissolving tank view ports;

S. Spout cooling water storage;

T. Effluent drains;

U. White water chest;

V. Repupler vents;

W. Clay storage tank;

X. Alum storage tank;

Y. Starch storage tank;

Z. Steam vents and leaks;

AA. Deaerator vents;

AB. Mill air and instrument air system;

AC. Demineralizer water storage tank;

AD. Acid storage tank;

AE. Process water tank;

AF. Air purification system vents;

AG. Effluent neutralizing tank/system;

AH. Dregs washer;

AI. Lime silo;

AJ. Lime mud mix tank;

AK. H_2O_2 storage tank;

AL. Green liquor tank; and

AM. Tall oil storage tank.

IV. Notwithstanding I. and II. above, the applicant shall include all emissions sources and quantify emissions if needed to determine major source status, to determine compliance with an applicable requirement and/or the applicability of any applicable requirement such as NSPS, NESHAP, MACT standard, etc. as such term is defined in Section I of regulation APC-S-6 or collect any permit fee owed under the approved fee scheduled.

V. Notwithstanding I. and II. above, the applicant shall include all emission sources with a potential to emit:

1. Greater than 1 pound per hour of any regulated pollutant that is not a hazardous air pollutant;

2. Greater than 0.1 pound per hour of any hazardous air pollutant.

V. The permittee does not have to report the addition of any insignificant activity listed in Section I. above unless the addition is a Title I modification or requires a permit to construct. If a Title I permit or a permit to construct is required, then the modification procedures outlined in Section IV.E. of regulation APC-S-6 shall be followed.

IV. The addition of any insignificant activity listed in Section II. above, shall be handled as an administrative amendment as defined in Section IV.D. of regulation APC-S-6 unless the addition is a Title I modification or requires a permit to construct. If a Title I permit or permit to construct is required, then the modification procedures outlined in Section IV.E. of regulation APC-S-6 shall be followed.

REGULATED AIR POLLUTANTS

Total suspended particulate matter
PM10
Sulfur dioxide
Nitrogen oxides
Carbon monoxide
Volatile organic compounds(see note 1)
Lead
Dioxin/Furan
Fluorides
Hydrogen chloride
Hydrogen sulfide
Sulfuric acid mist
Total reduced sulfur
Reduced sulfur compounds
Arsenic
Asbestos
Beryllium
Benzene
Mercury
Radionuclides
Vinyl chloride
Carbon tetrachloride
Chlorofluorocarbon-11
Chlorofluorocarbon-12
Chlorofluorocarbon-13
Chlorofluorocarbon-111
Chlorofluorocarbon-112
Chlorofluorocarbon-113
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Hydrochlorofluorocarbon-21
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Hydrochlorofluorocarbon-261
Hydrochlorofluorocarbon-262
Hydrochlorofluorocarbon-271
Halon-1211
Halon-1301
Halon-2402
Methyl chloroform

Note 1 - Volatile organic compounds(VOC) includes any compound of carbon, excluding carbon monoxide, carbonic acid, metallic carbides or carbonates and ammonium carbonate, which participates in atmospheric photochemical reactions. This includes any such organic compound other than the following which have been determined to have negligible photochemical reactivity: Methane; ethane; methylene chloride; 1,1,1-trichloroethane; CFC-113; CFC-11;CFC-12; CFC-22; CFC-23; CFC-114; CFC-115; HCFC-123; HFC-134a; HCFC-141b; HCFC-142b; HCFC-124; HFC-125; HFC-134; HFC-143a; HFC-153a; and perfluorocarbon compounds which fall into these classes: (i) Cyclic, branched, or linear, completely fluorinated alkanes; (ii) Cyclic, benched, or linear, completely fluorinated ethers with no unsaturations; (iii) Cyclic, branched, or linear completely fluorinated tertiary amines with no unsaturations; and (iv) Sulfur containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine. **For the purposes of this application hazardous air pollutants that are volatile organic compounds should be included as VOCs for reflection of total VOCs from the facility but need to be identified separately as well.**

HAZARDOUS AIR POLLUTANTS

CAS No.	CHEMICAL NAME
75070	Acetaldehyde
60355	Acetamide
75058	Acetonitrile
98862	Acetophenone
53963	Acetylaminofluorene(2)
107028	Acrolein
79061	Acrylamide
79107	Acrylic Acid
107131	Acrylonitrile
107051	Allyl Chloride
92671	Aminodipheyl(4)
62533	Aniline
90040	Anisidine(o)
7440360	Antimony Compounds
7440382	Arsenic Compounds (inorganic including arsine)
1332214	Asbestos
71432	Benzene
92875	Benzidine
98077	Benzotrichloride
100447	Benzyl Chloride
7440417	Beryllium Compounds
192524	Biphenyl
117817	Bis(2-cthhylhexyl)phthalate(DEHP) (Dioctyl Phthalate)
542881	Bis(chloromethyl)ether
75252	Bromoform
106990	Butadiene(1,3)
7440439	Cadmium Compounds
156627	Calcium Cyanamide
105602	Caprolactam
133062	Captan
63252	Carbaryl
75150	Carbon Disulfide
56235	Carbon Tetrachloride
463581	Carbonyl Sulfide
120809	Catechol
133904	Chloramben
57749	Chlordane
7782505	Chlorine
79118	Chloroacetic Acid
532274	Chloroacetophenone(2)
108907	Chlorobenzene
510156	Chlorobenzinate
67663	Chloroform
107302	Chloromethyl methyl ether
126998	Chloroprene (Neoprene; 2-Chloro-1,3-Butadiene)
7440473	Chromium Compounds (IV)
10210681	Cobalt Carbonyl (as Co)
7440484	Cobalt Compounds (metal, dust, and fumes as Co)
16842038	Cobalt Hydrocarbonyl (as Co)

HAZARDOUS AIR POLLUTANTS

CAS No.	CHEMICAL NAME
65996818A	Coke Oven Emissions
1319773	Cresols/Cresylic acid
108394	Cresol(m)
95487	Cresol(o)
106445	Cresol(p)
98828	Cumene (Isopropylbenzene)
---	Cyanide Compounds (NOTE # 1)
3547044	DDE
334883	Diazomethane
132649	Dibenzofurans
96128	Dibromo-3-chloropropane(1,2)
84742	Dibutylphthalate
106467	Dichlorobenzene(1,4)(p)
91941	Dichlorobenzidene(3,3)
111444	Dichloroethyl ether (Bis(2-chloroehtyl)ether)
542756	Dichloropropene(1,3)
62737	Dichlorvos
111422	Diethanolamine
121697	Diethyl aniline (N,N) (dimethylaniline (N,N))
64675	Diethyl Sulfate
119904	Dimethoxybenzidine(3,3')
60117	4 - Dimethyl aminoazobenzene
119937	Dimethyl benzidine (3,3')
79447	Dimethyl carbamoyl chloride
68122	Dimethyl formamide
57147	Dimethyl hydrazine(1,1)
131113	Dimethyl phthalate
77781	Dimethyl sulfate
534521	Dinitro-o-cresol(4,6), and salts
51285	Dinitrophenol(2,4)
121142	Dinitrotoluene(2,4)
123911	Dioxane(1,4) (1,4-diethyleneoxide)
122667	Diphenylhydrazine(1,2)
94757	d(2,4), salts and esters
106898	Epichlorohydrin (Chloro-2,3-epoxypropane(1))
106887	Epoxybutane(1,2) (1,2-Butylene oxide)
140885	Ethyl acrylate
100414	Ethyl benzene
51796	Ethyl carbamate (Urethane)
75003	Ethyl chloride (Chloroethane)
106934	Ethylene dibromide (1,2-Dibromoethane)
107062	Ethylene dichloride (1,2-Dichloroethane)
107211	Ethylene glycol
151564	Ethylene imine (Azridine)
75218	Ethylene oxide
96457	Ethylene thiourea
75343	Ethylidene dichloride (1,1-Dichloroethane)
50000	Formaldehyde
---	Glycol ethers (NOTE #2)
76448	Heptachlor

HAZARDOUS AIR POLLUTANTS

CAS No.	CHEMICAL NAME
118741	Hexachlorobenzene
87683	Hexachlorocyclopentadiene
67721	Hexachloroethane
822060	Hexamethylene-1,6-diisocyanate
680319	Hexamethylphosphoramide
110543	Hexane
302012	Hydrazine
7647010	Hydrochloric acid
7664393	Hydrogen Fluoride (Hydrofluoric acid)
123319	Hydroquinone
78591	Isophorone
7439921	Lead Compounds
58899	Lindane (all isomers)
108316	Maleic anhydride
7439965	Manganese Compounds
7439976	Mercury Compounds
67561	Methanol
72435	Methoxychlor
74839	Methyl bromide (Bromomethane)
74873	Methyl chloride (Chloromethane)
71556	Methyl chloroform (1,1,1-Trichloroethane)
78933	Methyl ehtyl ketone (2-Butanone) (MEK)
60344	Methyl hydrazine
74884	Methyl iodide (Iodomethane)
108101	Methyl isobutyl ketone (Hexone)
624839	Methyl isocyanate
80626	Methyl methacrylate
1634044	Methyl tert butyl ether
101144	Methylene bis(2-chloroaniline)(4,4) (MOCA)
75092	Methylene chloride (Dichloromethane)
101688	Methylene diphenyl diisocynate (MDI)
101779	Methylenedianiline(4,4')
---	Mineral fibers (NOTE #3)
91203	Naphthalene
7440020	Nickel Compounds
7440020	Nickel, refinery dust
12035722	Nickel, subsulfide
98953	Nitrobenzene
92933	Nitrodiphenyl(4)
100027	Nitrophenol(4)
79469	Nitropropane(2)
62759	Nitrosodimethylamine(N) (Dimethylnitrosoamine)
59892	Nitrosomorpholine(N)
684935	Nitroso-N-methylurea(N)
56382	Parathion
82688	Pentachloronitrobenzene (Quintobenzene)
87865	Pentachlorophenol
108952	Phenol
106503	Phenylenediamine(p)
75445	Phosgene

CAS No.	CHEMICAL NAME
7803512	Phosphine
7723140	Phosphorus
85449	Phthalic anhydride
1336363	Polychlorinated biphenyls (Arochlors)
---	Polycylic Organic Matter (NOTE #5)
1120714	Propane sultone(1,3)
57578	Propiolactone(beta)
123386	Propionaldehyde
114261	Propoxur (Baygon)
78875	Propylene dichloride (1,2 dichloropropane)
75558	Propylene imine(1,2) (2-methyl aziridine)
75569	Propylene oxide
91225	Quinoline
106514	Quinone (1,4-Cyclohexadienedione)
---	Radionuclides (including radon) (NOTE #4)
7782492	Selenium Compounds
100425	Styrene
96093	Styrene oxide
1746016	Tetrachlorodibenzo-p-dioxin(2,3,7,8) (TCDD) (Dioxin)
79345	Tetrachloroethane(1,1,2,2)
127184	Tetrachloroethylene (Perchloroethylene)
7550450	Titanium Tetrachloride
108883	Toluene
95807	Toluene diamine(2,4) (2,4-diaminotoluene)
584849	Toluene diisocyanate(2,4)
95534	Toluidine(o)
8001352	Toxaphene (Chlorinated camphene)
120821	Trichlorobenzene(1,2,4)
79005	Trichloroethane(1,1,2)
79016	Trichloroethylene
95954	Trichlorophenol(2,4,5)
88062	Trichlorophenol(2,4,6)
121448	Triethylamine
1582098	Trifluralin
540841	Trimethylpentane(2,2,4)
75014	Vinyl Chloride
108054	Vinyl Acetate
593602	Vinyl Bromide
75354	Vinylidene chloride (1,1-Dichloroethylene)
1330207	Xylenes (mixed)
108383	Xylene(m)
95476	Xylene(o)
106423	Xylene(p)

NOTE # 1: X'CN where X = H' or any other group where a formal dissociation may occur, for example: KCN or Ca(CN)2.

NOTE # 2: Includes mono- and di- ethers of ethylene glycol, dietheylene glycol and triethylene glycol R-(OCH2CH2)n-OR' where:

n = 1,2,3

R = alkyl or arl groups

R' = R,H, or group which, when removed, yield glycols ethers with the structure: R-(OCH2CH2)n-OH. Polymers are excluded from the glycol category

NOTE # 3: Includes glass microfibers, glass wool fibers, rock wool fibers, and slag wool fibers, each characterized as "respirable" (fiber diameter less then 3.5 micrometers) and possessing an aspect ratio (fiber length divided by fiber diameter) greater than 3.

NOTE # 4: A type of atom which spontaneously undergoes radioactive decay.

NOTE # 5: Includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100 Celsius.

Owners Information — Section B

1. Name, Address & Contact for the Owner/Applicant

   A. Company Name: Hercules, Incorporated

   B. Mailing Address:

      1. Street Address or P.O. Box: P.O. Box 1937
      2. City: Hattiesburg 3. State: Mississippi
      4. Zip Code: 39401 5. Telephone No.: (601) 545-3450

   C. Contact:

      1. Name: Charles Jordan
      2. Title: Environmental Coordinator

2. Name, Address, Location and Contact for the Facility:

   A. Company Name: Hercules, Incorporated

   B. Mailing Address:
      1. Street Address or P.O. Box: P.O. Box 1937
      2. City: Hattiesburg 3. State: Mississippi
      4. Zip Code: 39401 5. Telephone No.: (601) 545-3450

   C. Site Location:
      1. Street: 613 West 7th Street
      2. City: Hattiesburg 3. State: Mississippi
      4. County: Forrest 5. Zip Code: 39401
      6. Telephone No.: (601) 545-3450

      Note: If the facility is located outside of the City limits, please attach a sketch or description to this application showing the approximate location of the site.

   D. Contact:

      1. Name: Charles Jordan
      2. Title: Environmental Coordinator

3. SIC Code(s)(including any associated with alternate operating scenarios): 2861, 2821, 2869, 2899

4. Number of Employees: 159

5. Is this facility a small business as defined by the Small Business Act? No

6. Principle Product(s): Rosin Derivatives and Paper Chemicals

7. Principal Raw Materials: Rosin and Paper Chemicals

8. Principal Process(es): Rosin Derivatives and Paper Chemicals Manufacturing

9. Maximum amount of principal product produced or raw material consumed per day:
332,146,000 lbs/yr (actual), 909,989 lbs/day (average), or 2,958,720 lbs/day (capacity)

10. Facility Operating Schedule:

A. Specify maximum hours per day the operation will occur: 24

B. Specify maximum days per week the operation will occur: 7

C. Specify maximum weeks per year the operation will occur: 52

D. Specify the months the operation will occur: January - December

11. EACH APPLICATION MUST BE SIGNED BY THE APPLICANT.

The application must be signed by a responsible official as defined in Regulation APC-S-6, section I.A.26.

I certify that to the best of my knowledge and belief formed after reasonable inquiry, the statements and information in this application are true, complete, and accurate, and that, as a responsible official, my signature shall constitute an agreement that the applicant assumes the responsibility for any alteration, additions, or changes in operation that may be necessary to achieve and maintain compliance with all applicable Rules and Regulations.

Gerald Burch
Printed Name of Responsible Official

Plant Manager
Title

1/21/96
Date Application Signed

Signature of Applicants Responsible Official

4. Number of Employees: 159

5. Is this facility a small business as defined by the Small Business Act? No

6. Principle Product(s): Rosin Derivatives and Paper Chemicals

7. Principal Raw Materials: Rosin and Paper Chemicals

8. Principal Process(es): Rosin Derivatives and Paper Chemicals Manufacturing

9. Maximum amount of principal product produced or raw material consumed per day:
332,146,000 lbs/yr (actual), 909,989 lbs/day (average), or 3,078,720 lbs/day (capacity)

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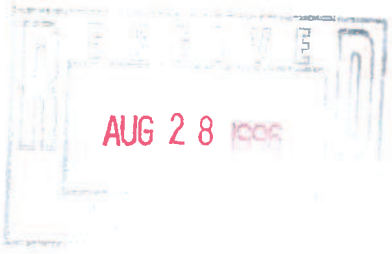
Gerald Burch
Printed Name of Responsible Official

Plant Manager
Title

8/23/96
Date Application Signed

Signature of Applicants Responsible Official



DESCRIPTION of SOURCE PROCESS and PRODUCTS

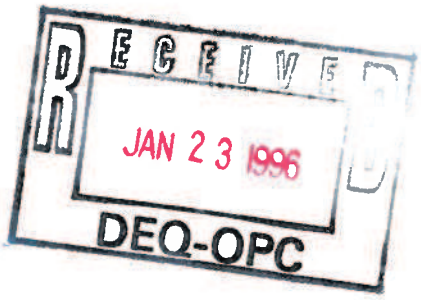
Description of source processes and products are described under each individual section and are identified on the following page.

The following processes in our current permit are being omitted from this permit application due to non-use and/or planned demolition:

130 - Pilot Plant
140 - Resin 731 *
200 - P-Menthane
210 - Para-menthane hydroperoxide process
150/152 - Stills and Dresinate **

* - Only the storage tanks will remain in service. These storage tanks are identified under the 731 Plant Tanks in Section C of the Title V application as insignificant sources.

** - Only the resin storage tanks used for resin distillation will remain in service. These resin storage tanks are identified under the Staybelite Process Area Tanks in Section C of the Title V application as insignificant sources.



EMISSION POINTS

AA-000 (160)/Kymene Process Area
- AA-001 (161)/Kettle Vent Packed Bed Water Scrubber
- AA-002 (162)/Dust Collector (Adipic Acid Baghouse)

AB-000 (270)/Paracol Process Area
- AB-001/Water Scrubber

AC-000 (030)/Poly-Pale Process Area
- AC-001 (037)/Dowtherm Boiler
- AC-002 (033)/Water Scrubber No. 1
- AC-003 (034)/Water Scrubber No. 2
- AC-004/Rosin Melter

AD-000 (038)/Neuphor Process Area
- AD-001 (038)/Activated Carbon Adsorption with Scrubber (Neuphor Process)
- AD-002 (038)/Water Eductor Scrubber with Sulfuric Acid Tank (Dresinol Process)
- AD-003/Tank NT-180 Vent with Water Scrubber

AE-000 (280)/Metal Resinates Process Area
- AE-001 (280)/Total Condenser

AF-000 (180 & 190)/Rosin Amine Derivatives Process Area
- AF-001 (181)/Dowtherm Boiler
- AF-002 (182)/Ammoniation Vent
- AF-003 (183)/Amine Reactor Vent
- AF-004 (190)/Packed Bed Scrubber with Sulfuric Acid (Ethylene Oxide)

AG-000 (080,090, & 100)/Hard Resins Process Area
- AG-001 (081)/Dowtherm Boiler
- AG-002 (091)/Dowtherm Boiler
- AG-003 (082 and 102)/Water Scrubber
- AG-004 (092)/Continuous Esterification Vent
- AG-005 (101)/Buell Norblo Dust Collector

AH-000 (040)/Rosin Shed Area

AI-000 (110)/Staybelite Process Area
- AI-001 (112)/Separator Vent (Hydrogenation Process)

AJ-000 (150)/Rosin Distillation Process Area
- AJ-001 (111)/Dowtherm Boiler (Rosin Distillation)

AK-000 (120)/Hydrogen Generation Process Area
- AK-001 (120)/Hydrogen Furnace

AL-000 (170)/Defoamer Area
- AL-001 (171)/Silica Furnace
- AL-002 (172)/Dust Collector

AM-000 (050 & 240)/Powerhouse Area
- AM-001 (050)/Package Boiler No. 5
- AM-002 (240)/Package Boiler No. 6

AN-000/Effluent Treatment
- AN-001 (230)/Carbon Regeneration Furnace with Scrubber

EMISSIONS SUMMARY for the ENTIRE FACILITY

List below the total emissions for each pollutant from the entire facility. For stack emissions, use the maximum annual allowable (potential) emissions. For fugitive emissions, use the annual emissions calculated using the maximum operating conditions.

POLLUTANT Footnote 1.	ANNUAL EMISSION RATE	
	lb/hr	tons/yr
PARTICULATE MATTER (PM/ PM_{10}) (Footnote 2)	358.08	1,568.39
SULFUR DIOXIDE (SO_2)	469.50	2,056.41
NITROGEN OXIDES (NO_X)	127.58	558.79
CARBON MONOXIDE (CO)	10.25	44.88
VOLATILE ORGANIC COMPOUNDS (VOC)	252.09	1,104.16
TOTAL HAZARDOUS AIR POLLUTANTS (HAP)	82.62	361.88
EPICHLOROHYDRIN	1.70	7.46
TOLUENE	78.49	343.80
XYLENE	0.12	0.51
ETHYLBENZENE	0.03	0.14
ETHYLENE OXIDE	1.65	7.22
BIPHENYL	0.63	2.76

1. All regulated air pollutants,including hazardous air pollutants emitted from the entire facility should be listed. A list of regulated air pollutants has been provided in section A.

2. All PM assumed to be PM_{10} for purposes of this application as no data is available for PM_{10}.

With the exception of the emissions resulting from the insignificant activities that you have listed on the following page, the pollutants listed above are all regulated air pollutants reasonably expected to be emitted from the facility.

SIGNATURE (must match signature on page 17)

EMISSIONS SUMMARY for the ENTIRE FACILITY

List below the total emissions for each pollutant from the entire facility. For stack emissions, use the maximum annual allowable (potential) emissions. For fugitive emissions, use the annual emissions calculated using the maximum operating conditions.

POLLUTANT Footnote 1	ANNUAL EMISSION RATE	
	lb/hr	tons/yr
PARTICULATE MATTER (PM/ PM_{10}) (Footnote 2)	358.08	1,568.39
SULFUR DIOXIDE (SO_2)	479.21	2,098.93
NITROGEN OXIDES (NO_X)	127.58	558.79
CARBON MONOXIDE (CO)	10.25	44.88
VOLATILE ORGANIC COMPOUNDS (VOC)	252.09	1,104.16
TOTAL HAZARDOUS AIR POLLUTANTS (HAP)	82.62	361.88
EPICHLOROHYDRIN	1.70	7.46
TOLUENE	78.49	343.80
XYLENE	0.12	0.51
ETHYLBENZENE	0.03	0.14
ETHYLENE OXIDE	1.65	7.22
BIPHENYL	0.63	2.76

1. All regulated air pollutants,including hazardous air pollutants emitted from the entire facility should be listed. A list of regulated air pollutants has been provided in section A.

2. All PM assumed to be PM_{10} for purposes of this application as no data is available for PM_{10}.

With the exception of the emissions resulting from the insignificant activities that you have listed on the following page, the pollutants listed above are all regulated air pollutants reasonably expected to be emitted from the facility.

SIGNATURE (must match signature on page 17)

For the sections listed below indicate the number that have been completed for each section as part of this application.

Section B 1	Section L1 3	Section M1 0
Section C 1	Section L2 0	Section M2 0
Section D 10	Section L3 0	Section M3 0
Section E 12	Section L4 0	Section M4 0
Section F 0	Section L5 9	Section M5 0
Section G 0	Section L6 0	Section M6 0
Section H 0	Section L7 1	Section M7 2
Section I 0		Section M8 0
Section J 0		Section N 1
Section K 0		Section O 12

As a minimum, sections B, C, M, N and O must be completed for the application to be considered complete.

Please list below all insignificant activities required by APC-S-6, Section VII.B that apply to your facility.

Effluent Treatment (per Section VII.B.19 and 32)
Shops (Painting, Welding, Sandblasting, Maintenance, etc.) (per Section VII.A.2)
Portable, Fuel-powered, Air Compressors (per mobile source exemption)

The following activities are requested as insignificant based on their emissions which are less than 1 lb/hr of any criteria pollutant and less than 0.1 lb/hr of any HAP:

Nitrogen Generation
Firehouses - including generators and pumps
Tanks (see attached list pages 22-37) (per Section VII.B.7)
Compressed Gas Cylinders

KYMENE PROCESS AREA				
I.D.	PRODUCT STORED	TYPE OF TANK	CAPACITY	DATE OF CONSTRUCTION
K-101	WATER	STEEL	2,100 GALS	PRE - 1977
K-110	EPICHLOROHYDRIN	STEEL	17,000 GALS	1980
K-111	EPICHLOROHYDRIN	STEEL	324 GALS	PRE - 1977
K-120	DIETHYLENETRIAMINE	STEEL	6,000 GALS	PRE - 1977
K-121	DIETHYLENETRIAMINE	STEEL	1,481 GALS	PRE - 1977
K-122	DIETHYLENETRIAMINE	STEEL	12,300 GALS	PRE - 1977
K-130	POLYMER 567	STEEL	14,900 GALS	PRE - 1977
K-150	93% SULFURIC ACID	STEEL	110 GALS	PRE - 1977
K-151	93% SULFURIC ACID	STEEL	5,000 GALS	1993
K-160	KYMENE	STEEL	16,900 GALS	PRE - 1977
K-161	KYMENE WET STRENGTH RESIN	STEEL	16,900 GALS	PRE - 1977
K-162	KYMENE WET STRENGTH RESIN	STEEL	16,900 GALS	PRE - 1977
K-163	KYMENE WET STRENGTH RESIN	STEEL	16,300 GALS	1980
K-164	KYMENE WET STRENGTH RESIN	STEEL	16,300 GALS	1980 & 1982
K-412	KYMENE WET STRENGTH RESIN	STEEL	16,300 GALS	1991
K-210	POLYMER 567	STEEL	16,900 GALS	PRE - 1977
K-211	WATER	STEEL	26,600 GALS	PRE - 1977
K-251	KYMENE WET STRENGTH RESIN	STEEL	150 GALS	PRE - 1977
K-260	KYMENE WET STRENGTH RESIN	STEEL	16,900 GALS	PRE - 1977
K-261	KYMENE WET STRENGTH RESIN	STEEL	16,900 GALS	PRE - 1977
K-262	KYMENE WET STRENGTH RESIN	STEEL	16,900 GALS	PRE - 1977
K-263	EMPTY	STEEL	65 GALS	1981
K-411	KYMENE WET STRENGTH RESIN	STEEL	16,300 GALS	1991
K-268	KYMENE WET STRENGTH RESIN	STEEL	16,300 GALS	1982
K-269	KYMENE WET STRENGTH RESIN	STEEL	16,300 GALS	1982
K-409	40% PROPYLENE GLYCOL/WATER	STEEL	800 GALS	1991
R-100	POLYMER	STEEL	3,000 GALS	PRE - 1977
R-401	KYMENE WET STRENGTH RESIN	STEEL	6,800 GALS	1991
K-501TC *	MATERIAL UNLOADING/LOADING	STEEL	20,000 GALS	PRE - 1977
K-502TT *	MATERIAL UNLOADING/LOADING	STEEL	6,000 GALS	PRE - 1977

* - TC - Railroad Tank Car (Mobile Source), TT - Tank Truck (Mobile Source)

PARACOL/DEFOAMER PROCESS AREA

I.D.	PRODUCT STORED	TYPE OF TANK	CAPACITY	DATE OF CONSTRUCTION
DP-1	EMPTY	STEEL	880 GALS	PRE - 1977
DP-2	EMPTY	STEEL	880 GALS	PRE - 1977
DP-3	EMPTY	STEEL	1,030 GALS	PRE - 1977
DP-4	EMPTY	STEEL	1,030 GALS	PRE - 1977
DP-6	LIGNOSOL SRX-65	STEEL	5,230 GALS	PRE - 1977
DP-8	93% SULFURIC ACID	STEEL	13 GALS	1992
DP-9	STARCH/WATER	STEEL	330 GALS	1992
DP-10	STARCH PASTE	STEEL	180 GALS	1992
DP-11	WATER/AQUAPEL/LIGNOSOL	STEEL	5,460 GALS	PRE - 1977
DP-12	WATER/AQUAPEL/LIGNOSOL	STEEL	5,300 GALS	PRE - 1977
DP-13	LIGNOSOL SFX-65	STEEL	5,300 GALS	PRE - 1977
DP-14	WATER/AQUAPEL/LIGNOSOL	STEEL	21 GALS	PRE - 1977
DP-15	ALUM/WATER	STEEL	240 GALS	PRE - 1977
DP-16	LIGNOSOL/WATER	STEEL	110 GALS	PRE - 1977
DP-19	SODIUM HYDROXIDE (50%)	STEEL	1,270 GALS	PRE - 1977
DP-23	KYMENE	STEEL	16,900 GALS	PRE - 1977
DP-24	WET STRENGTH RESIN	STEEL	16,900 GALS	PRE - 1977
DP-25	WET STRENGTH RESIN	STEEL	16,900 GALS	PRE - 1977
DP-26	CRUDE WAX	STEEL	16,900 GALS	PRE - 1977
DP-27	G-WAX	STEEL	16,900 GALS	PRE - 1977
DP-28	SLACK WAX	STEEL	16,900 GALS	PRE - 1977
DP-29	FDA WAX	STEEL	16,900 GALS	PRE - 1977
DP-30	WATER	STEEL	10,040 GALS	PRE - 1977
DP-35	AKD AND WAX DISPERSIONS	STEEL	51,800 GALS	PRE - 1977
DP-36	50% ALUM	STEEL	5,880 GALS	PRE - 1977
DP-37	AKD AND WAX DISPERSIONS	STEEL	51,800 GALS	PRE - 1977
DP-41	AKD AND WAX DISPERSIONS	STEEL	12,260 GALS	PRE - 1977
DP-42	AKD AND WAX DISPERSIONS	STEEL	12,260 GALS	PRE - 1977
DP-43	AKD AND WAX DISPERSIONS	STEEL	12,260 GALS	PRE - 1977
DP-44	AKD AND WAX DISPERSIONS	STEEL	11,840 GALS	PRE - 1977
DP-45	EMPTY	STEEL	15,220 GALS	PRE - 1977
DP-46	AKD AND WAX DISPERSIONS	STEEL	11,840 GALS	1983
DP-47	EMPTY	STEEL	15,220 GALS	PRE - 1977
DP-48	EMPTY	STEEL	12,260 GALS	1979
DP-49	AKD AND WAX DISPERSIONS	STEEL	12,680 GALS	PRE - 1977
DP-51	AKD AND WAX DISPERSIONS	STEEL	12,260 GALS	1979
DP-52	AKD AND WAX DISPERSIONS	STEEL	5,260 GALS	PRE - 1977
DP-53	AKD AND WAX DISPERSIONS	STEEL	11,890 GALS	PRE - 1977
DP-54	AKD AND WAX DISPERSIONS	STEEL	11,890 GALS	1981
DP-56	EMPTY	STEEL	19,940 GALS	PRE - 1977
DP-58	EMPTY	STEEL	19,940 GALS	1981
DP-60	EMPTY	STEEL	6,010 GALS	PRE - 1977
DP-62	PROPYLENE GLYCOL/WATER	STEEL	810 GALS	PRE - 1977
DP-63	PROPYLENE GLYCOL/WATER	STEEL	810 GALS	1984
DP-64	PROPYLENE GLYCOL/WATER	STEEL	810 GALS	1987
DP-66	AKD AND WAX DISPERSIONS	STEEL	11,890 GALS	1981

PARACOL/DEFOAMER PROCESS AREA (cont.)				
I.D.	**PRODUCT STORED**	**TYPE OF TANK**	**CAPACITY**	**DATE OF CONSTRUCTION**
DP-68	AKD AND WAX DISPERSIONS	STEEL	11,890 GALS	1981
DP-69	AKD AND WAX DISPERSIONS	STEEL	3,120 GALS	1990
DP-101TC *	MATERIAL UNLOADING/LOADING	STEEL	20,000 GALS	PRE - 1977
DP-102TT *	MATERIAL UNLOADING/LOADING	STEEL	6,000 GALS	PRE - 1977

* - TC - Railroad Tank Car (Mobile Source), TT - Tank Truck (Mobile Source)

POLY-PALE PROCESS AREA				
I.D.	PRODUCT STORED	TYPE OF TANK	CAPACITY	DATE OF CONSTRUCTION
P-59	ROSIN	STEEL	10,278 GALS	PRE - 1977
T-9	EMPTY	STEEL	52 GALS	PRE - 1977
T-10	EMPTY	STEEL	130 GALS	PRE - 1977
T-20	ROSIN	STEEL	17,167 GALS	PRE - 1977
T-22	TOLUENE/ROSIN/ACID	STEEL	400 GALS	PRE - 1977
T-33	ROSIN	STEEL	730 GALS	PRE - 1977
T-34	ROSIN	STEEL	730 GALS	PRE - 1977
T-36	PEXOIL (TOLUENE)	STEEL	190 GALS	PRE - 1977
T-48	TOLUENE/ROSIN	STEEL	505 GALS	PRE - 1977
T-71	TOLUENE/ROSIN	STEEL	2,700 GALS	PRE - 1977
T-77	98% SULFURIC ACID	STEEL	10,170 GALS	PRE - 1977
T-78	98% SULFURIC ACID	STEEL	12,750 GALS	PRE - 1977
T-85	FRESH TOLUENE	STEEL	13,600 GALS	PRE - 1977
T-86	RECYCLE TOLUENE	STEEL	2,700 GALS	PRE - 1977
T-96	CAUSTIC (25%)	STEEL	9,395 GALS	1993
T-100	98% SULFURIC ACID	STEEL	8,300 GALS	PRE - 1977
T-101	TOLUENE/ROSIN	STEEL	1,050 GALS	PRE - 1977
T-106	ROSIN	STEEL	10,310 GALS	PRE - 1977
T-119	ROSIN	STEEL	21,000 GALS	PRE - 1977
T-120	RESIN	STEEL	125,000 GALS	PRE - 1977
T-124	SOLVENT/ROSIN	STEEL	71 GALS	PRE - 1977
T-128	EMPTY	STEEL	300 GALS	PRE - 1977
T-129	RESIN	STEEL	240 GALS	PRE - 1977
T-130	RESIN	STEEL	32,200 GALS	PRE - 1977
T-132	RESIN	STEEL	82,000 GALS	PRE - 1977
T-133	ROSIN	STEEL	31,200 GALS	PRE - 1977
T-134	DOWTHERM	STEEL	75 GALS	1989
T-135	DOWTHERM	STEEL	350 GALS	1990
T-136	DOWTHERM	STEEL	1,100 GALS	1990
T-137	COOLING WATER	STEEL	4,000 GALS	PRE - 1977
T-138	DOWTHERM	STEEL	1,100 GALS	1992
T-204	ROSIN	STEEL	2,000 GALS	PRE - 1977
T-301TC *	MATERIAL UNLOADING/LOADING	STEEL	20,000 GALS	PRE - 1977
T-302TT *	MATERIAL UNLOADING/LOADING	STEEL	6,000 GALS	PRE - 1977

* - TC - Railroad Tank Car (Mobile Source), TT - Tank Truck (Mobile Source)

NEUPHOR PROCESS AREA				
I.D.	**PRODUCT STORED**	**TYPE OF TANK**	**CAPACITY**	**DATE OF CONSTRUCTION**
NT-104	ROSIN	STEEL	158,500 GALS	PRE - 1977
NT-105A	ROSIN	STEEL	110,500 GALS	PRE - 1977
NT-105B	ROSIN	STEEL	110,500 GALS	PRE - 1977
NT-R-106	ROSIN ADDUCT	STEEL	11,400 GALS	PRE - 1977
NT-106-1	PEXOIL	STEEL	320 GALS	PRE - 1977
NT-107	ROSIN ADDUCT	STEEL	37,500 GALS	PRE - 1977
NT-108	ROSIN ADDUCT	STEEL	11,400 GALS	PRE - 1977
NT-109	ROSIN ADDUCT	STEEL	13,500 GALS	PRE - 1977
NT-113	MALEIC ANHYDRIDE	STEEL	6,200 GALS	PRE - 1977
NT-121A	EMPTY	STEEL	158,500 GALS	PRE - 1977
NT-123	EMPTY	STEEL	158,500 GALS	PRE - 1977
NT-124	EMPTY	STEEL	110,500 GALS	PRE - 1977
NT-131	EMPTY	STEEL	110,500 GALS	PRE - 1977
NT-141	ROSIN	STEEL	4,100 GALS	PRE - 1977
NT-180	RESIDUE	STEEL	158,500 GALS	PRE - 1977
NT-202	CAUSTIC	STEEL	110 GALS	PRE - 1977
NT-205A	WATER PHASE	STEEL	700 GALS	PRE - 1977
NT-20B	WATER PHASE	STEEL	700 GALS	PRE - 1977
NT-206-1	WATER	STEEL	610 GALS	PRE - 1977
NT-208A	RESIN DISPERSIONS	STEEL	19,900 GALS	PRE - 1977
NT-208B	RESIN DISPERSIONS	STEEL	19,900 GALS	PRE - 1977
NT-208C	RESIN DISPERSIONS	STEEL	11,400 GALS	PRE - 1977
NT-209	RESIN DISPERSIONS	STEEL	158,500 GALS	PRE - 1977
NT-210	CAUSTIC & WATER	STEEL	900 GALS	PRE - 1977
NT-300	WET STRENGTH RESIN	STEEL	20,300 GALS	PRE - 1977
NT-302A	WET STRENGTH RESIN	STEEL	10,600 GALS	PRE - 1977
NT-302B	WET STRENGTH RESIN	STEEL	10,600 GALS	PRE - 1977
NT-309A	RESIN DISPERSIONS	STEEL	27,100 GALS	PRE - 1977
NT-309B	RESIN DISPERSIONS	STEEL	27,100 GALS	PRE - 1977
NT-310	RESIN DISPERSIONS	STEEL	158,500 GALS	PRE - 1977
NT-310B	RESIN DISPERSIONS	STEEL	147,300 GALS	PRE - 1977
NT-311	ALUM	STEEL	10,100 GALS	PRE - 1977
NT-400	EMPTY	STEEL	30,100 GALS	PRE - 1977
NT-A401A	WATER	STEEL	890 GALS	PRE - 1977
NT-401B	WATER	STEEL	890 GALS	PRE - 1977
NT-501TC *	MATERIAL UNLOADING/LOADING	STEEL	20,000 GALS	PRE - 1977
NT-502TT *	MATERIAL UNLOADING/LOADING	STEEL	6,000 GALS	PRE - 1977

* - TC - Railroad Tank Car (Mobile Source), TT - Tank Truck (Mobile Source)

METAL RESINATES PROCESS AREA				
I.D.	PRODUCT STORED	TYPE OF TANK	CAPACITY	DATE OF CONSTRUCTION
S-92	ROSIN ADDUCT	STEEL	16,075 GALS	PRE - 1977
S-96A	SOLVENT	STEEL	1,028 GALS	PRE - 1977
S-96B	SOLVENT	STEEL	1,200 GALS	1994
S-206	SOLVENT/WATER	STEEL	80 GALS	PRE - 1977
S-301TC *	PRODUCT LOADING	STEEL	20,000 GALS	1994
S-302TC *	SOLVENT UNLOADING	STEEL	20,000 GALS	PRE - 1977
S-303TC *	ADDUCT UNLOADING	STEEL	20,000 GALS	PRE - 1977
S-304TC *	MATERIAL UNLOADING/LOADING	STEEL	20,000 GALS	PRE - 1977
S-305TC *	MATERIAL UNLOADING/LOADING	STEEL	20,000 GALS	PRE - 1977
S-306TT *	MATERIAL UNLOADING/LOADING	STEEL	6,000 GALS	PRE - 1977

* - TC - Railroad Tank Car (Mobile Source), TT - Tank Truck (Mobile Source)

** - Subject to NSPS 40 CFR 60 Subpart K_b. The only applicable requirement of Subpart K_b is Section 60.116b(a & b).

ROSIN AMINE DERIVATIVES PROCESS AREA

I.D.	PRODUCT STORED	TYPE OF TANK	CAPACITY	DATE OF CONSTRUCTION
TX-2	EMPTY	STEEL	50,000 GALS	PRE - 1977
TX-3	EMPTY	STEEL	50,000 GALS	PRE - 1977
TX-5	EMPTY	STEEL	25,468 GALS	PRE - 1977
TX-6	EMPTY	STEEL	25,468 GALS	PRE - 1977
TX-7	EMPTY	STEEL	25,450 GALS	PRE - 1977
TX-8	EMPTY	STEEL	150,000 GALS	PRE - 1977
TX-9	EMPTY	STEEL	50,000 GALS	PRE - 1977
TX-10	EMPTY	STEEL	150,000 GALS	PRE - 1977
TX-11	EMPTY	STEEL	150,000 GALS	PRE - 1977
RA-1	AMINE D	STEEL	8,218 GALS	PRE - 1977
RA-2	AMINE D	STEEL	4,512 GALS	PRE - 1977
RA-3	AMINE D	STEEL	4,512 GALS	PRE - 1977
RA-4	AMMONIA WATER (OIL LAYER)	STEEL	5,702 GALS	PRE - 1977
RA-6	AMINE D	STEEL	5,207 GALS	PRE - 1977
RA-7	CRUDE NITRILE	STEEL	11,844 GALS	PRE - 1977
RA-8	EMPTY	STEEL	150 GALS	PRE - 1977
RA-9	DISTILLED NITRILE	STEEL	8,215 GALS	PRE - 1977
RA-10	DISTILLED NITRILE	STEEL	8,215 GALS	PRE - 1977
RA-11	CRUDE NITRILE	STEEL	14,100 GALS	PRE - 1977
RA-12	EMPTY	STEEL	25,380 GALS	PRE - 1977
RA-13	EMPTY	STEEL	4,464 GALS	PRE - 1977
RA-15	SURFACTANT	STEEL	10,400 GALS	PRE - 1977
RA-16	POLYRAD/SURFACTANT	STEEL	2,406 GALS	PRE - 1977
RA-17	POLYRAD/SURFACTANT	STEEL	3,065 GALS	PRE - 1977
RA-18	POLYRAD/SURFACTANT	STEEL	3,065 GALS	PRE - 1977
RA-19	POLYRAD/SURFACTANT	STEEL	488 GALS	PRE - 1977
RA-20	POLYRAD/SURFACTANT	STEEL	488 GALS	PRE - 1977
RA-23	RESIN	STEEL	4,510 GALS	PRE - 1977
RA-24	SODIUM HYDROXIDE (5%)	STEEL	40 GALS	PRE - 1977
RA-25	PEXOIL (NITRILE)	STEEL	4,464 GALS	PRE - 1977
RA-26	NITRILE	STEEL	2,840 GALS	PRE - 1977
RA-27	LIME/NITRILE	STEEL	225 GALS	PRE - 1977
RA-28	AMINE D ACETATE	STEEL	2,812 GALS	PRE - 1977
RA-29	EMPTY	STEEL	2,924 GALS	PRE - 1977
RA-37	ROSIN	STEEL	1,990 GALS	PRE - 1977
RA-40	WASTE WATER	STEEL	25,350 GALS	PRE - 1977
RA-41	WASTE WATER	STEEL	25,350 GALS	PRE - 1977
RA-44	EMPTY	STEEL	9,877 GALS	PRE - 1977
RA-49	WASTE OILS	STEEL	17,230 GALS	PRE - 1977
RA-50	ETHYLENE OXIDE	STEEL	17,550 GALS	PRE - 1977
RA-51	ISOPROPYL ALCOHOL	STEEL	17,550 GALS	PRE - 1977
RA-52	ACETIC ACID	STEEL	11,280 GALS	PRE - 1977
RA-53	DOWTHERM	STEEL	1,176 GALS	PRE - 1977
RA-54	AMMONIA	STEEL	12,113 GALS	PRE - 1977
RA-55	AMMONIA	STEEL	12,113 GALS	PRE - 1977

ROSIN AMINE DERIVATIVES PROCESS AREA (cont.)				
I.D.	PRODUCT STORED	TYPE OF TANK	CAPACITY	DATE OF CONSTRUCTION
RA-56	WASTE WATER	STEEL	12,750 GALS	PRE - 1977
RA-57	WASTE WATER	STEEL	12,750 GALS	PRE - 1977
RA-58	EMPTY	STEEL	10,570 GALS	PRE - 1977
RA-60	EMPTY	STEEL	50,000 GALS	PRE - 1977
RA-61	EMPTY	STEEL	50,000 GALS	PRE - 1977
RA-63	AMMONIA	STEEL	25 GALS	1987
RA-101TC *	MATERIAL UNLOADING/LOADING	STEEL	20,000 GALS	PRE - 1977

* - TC - Railroad Tank Car (Mobile Source), TT - Tank Truck (Mobile Source)

HARD RESINS PROCESS AREA

I.D.	PRODUCT STORED	TYPE OF TANK	CAPACITY	DATE OF CONSTRUCTION
H-23	DOWTHERM	STEEL	8,812 GALS	PRE - 1977
P-1	ROSIN	STEEL	564 GALS	PRE - 1977
S-5	PEXOIL	STEEL	2,115 GALS	PRE - 1977
S-17	GLYCERINE	STEEL	264 GALS	PRE - 1977
S-19	GLYCERINE	STEEL	370 GALS	PRE - 1977
S-20	RESIN	STEEL	264 GALS	PRE - 1977
S-23	RESIN	STEEL	6,187 GALS	PRE - 1977
S-34	PEXOIL	STEEL	66 GALS	PRE - 1977
S-40	GLYCERINE	STEEL	18,320 GALS	PRE - 1977
S-57	RESIN	STEEL	2,838 GALS	PRE - 1977
S-75	EMPTY	STEEL	8,804 GALS	PRE - 1977
S-80	DOWTHERM	STEEL	2,203 GALS	PRE - 1977
S-82	EMPTY	STEEL	2,475 GALS	PRE - 1977
S-83	PEXOIL	STEEL	2,475 GALS	PRE - 1977
S-84	RESIN	STEEL	34,264 GALS	PRE - 1977
S-85	RESIN	STEEL	34,264 GALS	PRE - 1977
S-86	RESIN	STEEL	34,264 GALS	PRE - 1977
S-89	EMPTY	STEEL	51,819 GALS	PRE - 1977
S-91	RESIN	STEEL	13,151 GALS	PRE - 1977
S-94	RESIN	STEEL	8,804 GALS	PRE - 1977
S-95	RESIN	STEEL	8,804 GALS	PRE - 1977
S-101	GLYCERINE	STEEL	1,028 GALS	PRE - 1977
D-102	RESIN	STEEL	4,669 GALS	PRE - 1977
S-103	RESIN	STEEL	85,094 GALS	PRE - 1977
S-104	DOWTHERM	STEEL	94 GALS	PRE - 1977
S-105	PEXOIL	STEEL	71 GALS	PRE - 1977
S-106	PEXOIL	STEEL	212 GALS	PRE - 1977
S-107	ROSIN	STEEL	2,420 GALS	PRE - 1977
S-108	ROSIN	STEEL	2,420 GALS	PRE - 1977
S-110	RESIN	STEEL	3,933 GALS	PRE - 1977
S-111	RESIN	STEEL	3,933 GALS	PRE - 1977
S-114	BRINE	STEEL	533 GALS	PRE - 1977
S-115	PEXOIL	STEEL	2,730 GALS	PRE - 1977
S-116	PEXOIL	STEEL	1,222 GALS	PRE - 1977
S-117	PEXOIL	STEEL	83 GALS	PRE - 1977
S-118	DOWTHERM	STEEL	43 GALS	PRE - 1977
S-119	DOWTHERM	STEEL	43 GALS	PRE - 1977
S-120	DOWTHERM	STEEL	43 GALS	PRE - 1977
S-121	DOWTHERM	STEEL	43 GALS	PRE - 1977
S-122	DOWTHERM	STEEL	43 GALS	PRE - 1977
S-123	ROSIN	STEEL	16,061 GALS	PRE - 1977
S-124	RESIN	STEEL	19,036 GALS	PRE - 1977
S-73	RESIN	STEEL	2,135 GALS	PRE - 1977
S-28	RESIN	STEEL	2,135 GALS	PRE - 1977
S-29	RESIN	STEEL	2,135 GALS	PRE - 1977

HARD RESINS PROCESS AREA				
I.D.	PRODUCT STORED	TYPE OF TANK	CAPACITY	DATE OF CONSTRUCTION
S-70	EMPTY	STEEL	2,135 GALS	PRE - 1977
S-74	RESIN	STEEL	2,135 GALS	PRE - 1977
S-200	EMPTY	STEEL	370 GALS	PRE - 1977
S-401TC *	MATERIAL UNLOADING/LOADING	STEEL	20,000 GALS	PRE - 1977
S-402TT *	MATERIAL UNLOADING/LOADING	STEEL	6,000 GALS	PRE - 1977

* - TC - Railroad Tank Car (Mobile Source), TT - Tank Truck (Mobile Source)

ROSIN SHED AREA				
I.D.	PRODUCT STORED	TYPE OF TANK	CAPACITY	DATE OF CONSTRUCTION
B-18	RESIN	STEEL	18,613 GALS	PRE - 1977
B-19	RESIN	STEEL	12,796 GALS	PRE - 1977
B-20	RESIN	STEEL	6,662 GALS	PRE - 1977
B-21	RESIN	STEEL	5,264 GALS	PRE - 1977
B-101 TC *	MATERIAL UNLOADING/LOADING	STEEL	20,000 GALS	PRE - 1977
B-102 TT *	MATERIAL UNLOADING/LOADING	STEEL	6,000 GALS	PRE - 1977

* - TC - Railroad Tank Car (Mobile Source), TT - Tank Truck (Mobile Source)

LOADING SHED AREA				
I.D.	PRODUCT STORED	TYPE OF TANK	CAPACITY	DATE OF CONSTRUCTION
L-1	EMPTY	STEEL	6,200 GALS	PRE - 1977
L-2	EMPTY	STEEL	6,200 GALS	PRE - 1977
L-4	EMPTY	STEEL	5,000 GALS	PRE - 1977
L-5	EMPTY	STEEL	5,000 GALS	PRE - 1977
L-7	PINE OIL	STEEL	5,600 GALS	PRE - 1977
L-8	PINE OIL	STEEL	2,900 GALS	PRE - 1977
L-9	PINE OIL	STEEL	2,900 GALS	PRE - 1977
L-101TC *	MATERIAL UNLOADING/LOADING	STEEL	20,000 GALS	PRE - 1977
L-102TT *	MATERIAL UNLOADING/LOADING	STEEL	6,000 GALS	PRE - 1977

* - TC - Railroad Tank Car (Mobile Source), TT - Tank Truck (Mobile Source)

STAYBELITE PROCESS AREA				
I.D.	PRODUCT STORED	TYPE OF TANK	CAPACITY	DATE OF CONSTRUCTION
FL-1	EMPTY	STEEL	881 GALS	PRE - 1977
FL-3	EMPTY	STEEL	1,903 GALS	PRE - 1977
FL-4	PEXOIL	STEEL	71 GALS	PRE - 1977
FL-10	RESIN	STEEL	14,210 GALS	PRE - 1977
FL-11	RESIN	STEEL	14,210 GALS	PRE - 1977
H-4	EMPTY	STEEL	220 GALS	PRE - 1977
H-6	WATER	STEEL	1,775 GALS	PRE - 1977
H-9	WATER	STEEL	1,535 GALS	PRE - 1977
H-10	WATER	STEEL	1,535 GALS	PRE - 1977
H-11	DOWTHERM	STEEL	660 GALS	PRE - 1977
H-12	DOWTHERM	STEEL	33 GALS	PRE - 1977
H-14	EMPTY	STEEL	740 GALS	PRE - 1977
H-16	DOWTHERM	STEEL	188 GALS	PRE - 1977
H-18	EMPTY	STEEL	78 GALS	PRE - 1977
H-19	EMPTY	STEEL	78 GALS	PRE - 1977
H-20	EMPTY	STEEL	103 GALS	PRE - 1977
H-22	DOWTHERM	STEEL	19 GALS	PRE - 1977
H-25	EMPTY	STEEL	1,762 GALS	PRE - 1977
H-26	EMPTY	STEEL	2,008 GALS	PRE - 1977
H-27	EMPTY	STEEL	421 GALS	PRE - 1977
H-28	RESIN	STEEL	31,724 GALS	PRE - 1977
H-29	SODIUM HYDROXIDE (16%)	STEEL	734 GALS	PRE - 1977
H-30	SODIUM HYDROXIDE (25%)	STEEL	734 GALS	PRE - 1977
SA-605	HYDROGEN	STEEL	6,925 CF	PRE - 1977
H-101TC *	MATERIAL UNLOADING/LOADING	STEEL	20,000 GALS	PRE - 1977
H-102TT *	MATERIAL UNLOADING/LOADING	STEEL	6,000 GALS	PRE - 1977

* - TC - Railroad Tank Car (Mobile Source), TT - Tank Truck (Mobile Source)

EFFLUENT TREATMENT

I.D.	PRODUCT STORED	TYPE OF TANK	CAPACITY	DATE OF CONSTRUCTION
ET-1	TOLUENE LAYER/	STEEL		
	40% SULFURIC ACID	STEEL	3,300 GALS	PRE - 1977
ET-2	TOLUENE LAYER/	STEEL		
	40% SULFURIC ACID	STEEL	4,300 GALS	PRE - 1977
ET-5	98% SULFURIC ACID	STEEL	4,900 GALS	1978
ET-6	OILS/WATER	STEEL	8,800 GALS	1978
ET-7	WASTE WATER	STEEL	7,600 GALS	PRE - 1977
ET-8	WASTE WATER	STEEL	169,600 GALS	1978
ET-9	WASTE WATER/AIR	STEEL	3,300 GALS	1978
ET-10	WASTE WATER	STEEL	5,111,100 GALS	1982
ET-11	EMPTY	STEEL	17,100 GALS	1981
ET-12	CARBON/WASTE WATER	STEEL	9,300 GALS	1985
ET-14	WASTE WATER	STEEL	169,600 GALS	PRE - 1977
ET-15	WASTE WATER/AIR	STEEL	3,300 GALS	PRE - 1977
ET-16	WASTE WATER/CARBON	STEEL	280 GALS	1978
ET-17	WASTE WATER/CARBON	STEEL	1,210 GALS	1978
V-1	WASTE WATER/CARBON	STEEL	46,900 GALS	1979
V-2	WASTE WATER/CARBON	STEEL	46,900 GALS	1979
V-3	WASTE WATER/CARBON	STEEL	46,900 GALS	1979
V-4	WASTE WATER/CARBON	STEEL	4,300 GALS	PRE - 1977
V-5	WASTE WATER/CARBON	STEEL	4,300 GALS	PRE - 1977
V-6	WASTE WATER/CARBON	STEEL	4,300 GALS	PRE - 1977
V-7	WASTE WATER/CARBON	STEEL	2,200 GALS	PRE - 1977
V-8	WASTE WATER/CARBON	STEEL	8,500 GALS	PRE - 1977
V-10	WASTE WATER/CARBON	STEEL	160 GALS	PRE - 1977
V-11	WASTE WATER/CARBON	STEEL	15,200 GALS	PRE - 1977
V-12	WASTE WATER/CARBON	STEEL	4,300 GALS	PRE - 1977
ET-101TC	MATERIAL UNLOADING/LOADING	STEEL	20,000 GALS	PRE - 1977

* - TC - Railroad Tank Car (Mobile Source), TT - Tank Truck (Mobile Source)

FIRE WATER

I.D.	PRODUCT STORED	TYPE OF TANK	CAPACITY	DATE OF CONSTRUCTION
FP-1	WATER	STEEL	444,500 GALS	PRE - 1977
FP-2	GASOLINE	STEEL	280 GALS	PRE - 1977
FP-3	DIESEL	STEEL	350 GALS	PRE - 1977

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I.D.	PRODUCT STORED	TYPE OF TANK	CAPACITY	DATE OF CONSTRUCTION
D-1	EMPTY	STEEL	16,650 GALS	PRE - 1977
D-20	EMPTY	STEEL	11,560 GALS	PRE - 1977
D-24	RESIN	STEEL	11,421 GALS	PRE - 1977
D-27	RESIN	STEEL	25,046 GALS	PRE - 1977
D-101TC *	MATERIAL UNLOADING/LOADING	STEEL	20,000 GALS	PRE - 1977
D-101TT *	MATERIAL UNLOADING/LOADING	STEEL	6,000 GALS	PRE - 1977

* - TC - Railroad Tank Car (Mobile Source), TT - Tank Truck (Mobile Source)

YARD TANKS

I.D.	PRODUCT STORED	TYPE OF TANK	CAPACITY	DATE OF CONSTRUCTION
Y-8	EMPTY	STEEL	51,790 GALS	PRE - 1977
Y-10	EMPTY	STEEL	51,790 GALS	PRE - 1977
Y-11	EMPTY	STEEL	51,790 GALS	PRE - 1977
Y-16	EMPTY	STEEL	51,790 GALS	PRE - 1977
Y-17	EMPTY	STEEL	51,790 GALS	PRE - 1977
Y-21	EMPTY	STEEL	51,790 GALS	PRE - 1977
Y-22	EMPTY	STEEL	203,634 GALS	PRE - 1977
Y-23	EMPTY	STEEL	158,540 GALS	PRE - 1977
Y-25	EMPTY	STEEL	317 GALS	PRE - 1977
Y-34	EMPTY	STEEL	202,680 GALS	PRE - 1977
Y-35	EMPTY	STEEL	202,680 GALS	PRE - 1977
Y-36	EMPTY	STEEL	202,680 GALS	PRE - 1977
Y-37	GASOLINE (FUEL)	STEEL	17,615 GALS	PRE - 1977
Y-45	DIESEL (FUEL)	STEEL	5,640 GALS	PRE - 1977
Y-46	EMPTY	STEEL	202,680 GALS	PRE - 1977

SYNTHETIC RESINS				
I.D.	PRODUCT STORED	TYPE OF TANK	CAPACITY	DATE OF CONSTRUCTION
VN-1	EMPTY	STEEL	47,049 GALS	PRE - 1977
VN-3	PAMAK TP	STEEL	21,149 GALS	PRE - 1977
TP-2	EMPTY	STEEL	10,260 GALS	PRE - 1977
TP-3	EMPTY	STEEL	5,640 GALS	PRE - 1977
TP-101TC *	MATERIAL UNLOADING/LOADING	STEEL	20,000 GALS	PRE - 1977

* - TC - Railroad Tank Car (Mobile Source), TT - Tank Truck (Mobile Source)

FUEL OIL				
I.D.	PRODUCT STORED	TYPE OF TANK	CAPACITY	DATE OF CONSTRUCTION
FO-1	EMPTY	STEEL	171,000 GALS	PRE - 1977

PASTE SIZE

I.D.	PRODUCT STORED	TYPE OF TANK	CAPACITY	DATE OF CONSTRUCTION
PS-2	EMPTY	STEEL	12,400 GALS	PRE - 1977
PS-3	EMPTY	STEEL	11,750 GALS	PRE - 1977
PS-4	EMPTY	STEEL	11,750 GALS	PRE - 1977
PS-5	EMPTY	STEEL	11,750 GALS	PRE - 1977
PS-6	EMPTY	STEEL	13,536 GALS	PRE - 1977
PS-7	EMPTY	STEEL	13,536 GALS	PRE - 1977
PS-11	EMPTY	STEEL	1,269 GALS	PRE - 1977
PS-21	EMPTY	STEEL	12,269 GALS	PRE - 1977
PS-22	EMPTY	STEEL	12,269 GALS	PRE - 1977
PS-23	EMPTY	STEEL	12,269 GALS	PRE - 1977
PS-24	EMPTY	STEEL	12,269 GALS	PRE - 1977
PS-29	EMPTY	STEEL	11,750 GALS	PRE - 1977
PS-30	EMPTY	STEEL	11,750 GALS	PRE - 1977
PS-33	EMPTY	STEEL	5,182 GALS	PRE - 1977
PS-34	EMPTY	STEEL	5,182 GALS	PRE - 1977
PS-35	EMPTY	STEEL	25,831 GALS	PRE - 1977
PS-38	EMPTY	STEEL	51,819 GALS	PRE - 1977
PS-39	EMPTY	STEEL	15,146 GALS	PRE - 1977
PS-41	EMPTY	STEEL	51,819 GALS	PRE - 1977
PS-42	EMPTY	STEEL	51,819 GALS	PRE - 1977
PS-43	EMPTY	STEEL	51,819 GALS	PRE - 1977
PS-50	EMPTY	STEEL	51,819 GALS	PRE - 1977
PS-51	PARRAFIN OIL	STEEL	51,819 GALS	PRE - 1977
PS-52	HERCON	STEEL	51,819 GALS	PRE - 1977
PS-55	RESIN	STEEL	51,819 GALS	PRE - 1977
PS-56	WASTEWATER	STEEL	51,819 GALS	PRE - 1977
PS-57	EMPTY	STEEL	51,819 GALS	PRE - 1977
PS-58	BHMT	STEEL	51,819 GALS	PRE - 1977
PS-60	OIL (3030)	STEEL	51,819 GALS	PRE - 1977
PS-61	EMPTY	STEEL	51,819 GALS	PRE - 1977
PS-62	EMPTY	STEEL	51,819 GALS	PRE - 1977
PS-63	EMPTY	STEEL	926 GALS	PRE - 1977
PS-64	EMPTY	STEEL	251,270 GALS	PRE - 1977
PS-65	SODIUM HYDROXIDE (50%)	STEEL	251,270 GALS	PRE - 1977
PS-66	EMPTY	STEEL	14,218 GALS	PRE - 1977
PS-101TC *	MATERIAL UNLOADING/LOADING	STEEL	20,000 GALS	PRE - 1977
PS-102TT *	MATERIAL UNLOADING/LOADING	STEEL	6,000 GALS	PRE - 1977

* - TC - Railroad Tank Car (Mobile Source), TT - Tank Truck (Mobile Source)

RISK MANAGEMENT PLANS

If the source is required to develop and register a risk management plan pursuant to Section 112(r) of the Title III of the Clean Air Act, the permittee need only specify that it will comply with the requirement to register such a plan. The content of the risk management plan need not itself be incorporated as a permit term.

Please answer the following questions:

I. Are you required to develop and register a risk management plan pursuant to Section 112(r)?

__X__ Yes _____ No

Only if "yes", answer questions II., III., and/or IV..

II. Have you submitted the risk management plan to the appropriate agency (i.e. Mississippi Emergency Management Agency (MEMA), Federal Emergency Management Agency (FEMA), etc.)?

_____ Yes __X__ No

III. If yes, give agency name and date submitted. _____

IV. If no, provide a schedule for developing and submitting the risk management plan to the appropriate agency and providing our agency with certification that this submittal was made.

The promulgation date for section 112(r) is March 1996. It is uncertain as to which Tier Hercules, Inc., will be classified. Hercules, Inc., will submit a risk management plan pursuant to the provisions of the final rule of section 112(r).

MANUFACTURING PROCESSES (page 1 of 2) SECTION E

1. Emission Point No./ Name: AA-000 (160)/Kymene Process Area

2. Process Description: see attached process description

3. Was this unit constructed or modified after August 7, 1977? _____ yes ___X___ no
If yes please give date and explain. _____

4. Rated Capacity (tons/hr): see attached Appendix D, Confidential Business Information

5. Raw Material Input:

MATERIAL	QUANTITY/HR AVERAGE	QUANTITY/HR MAXIMUM	QUANTITY/YEAR (1994)
see attached Appendix D, Confidential Business Information			

6. Product Output:

PRODUCT or BY-PRODUCT	QUANTITY/HR AVERAGE	QUANTITY/HR MAXIMUM	QUANTITY/YEAR (1994)
see attached Appendix D, Confidential Business Information			

7. Stack Data:

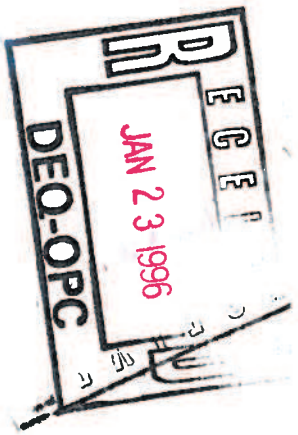
AA-001 (161)/Kettle Vent Packed Bed Water Scrubber:

A. Height: 15 ft
B. Inside diameter: 1.5 ft
C. Exit gas velocity: Variable
D. Exit gas temperature: Ambient

AA-002 (162)/Dust Collector (Adipic Acid Baghouse):

A. Height: 40 ft
B. Inside diameter: 0.67 ft
C. Exit gas velocity: 27.56 fps
D. Exit gas temperature: Ambient

8. UTM Coordinates:
A. Zone 16 B. North 3,469,400m C. East 280,600m



KYMENE PROCESS AREA

This section describes the facility's Kymene production operations and summarizes the assumptions and methods used to determine batch and total emission rates. A diagram of the Kymene process area is included in Figure 2.

Kymene resins are specialty chemicals used primarily as internal sizing agents in the manufacture of paper. Kymene products are used in consumer paper products, personal care products, paper towels, tissues, and many types of writing and publication paper. Kymene resins are water-soluble, low molecular weight, cross-lined polyamine resins typically containing between 50 and 95 percent water by weight. They are considered nonflammable, nonhazardous liquids.

The facility routinely produces several types of Kymene products and blends these products in two batch reactors and numerous process tanks. Raw materials are stored in tanks in the Kymene Process Area. Finished products are stored in product storage tanks located in the Kymene Process Area. Work and scale tanks in the Kymene Process Area supply raw materials to the Kymene reactors. The materials in the Kymene reactors are allowed to polymerize at controlled temperatures and concentrations to form water-soluble amine polymers. The reaction, involving cross-linking of the materials, is stopped by dilution with water, cooling, and pH adjustment with acid or caustic soda. The finished resin products are then filtered and pumped to storage tanks before being shipped in railcars, tank trucks, drums, or other containers.

Emissions associated with the Kymene Process Area primarily include: (1) reactor losses resulting from displacement, thermal expansion, etc.; (2) tank losses from raw material and product storage; (3) Fugitive losses; and (4) accounting inventories and mass balances.

The two batch reactors in the Kymene Process Area include a 3,000 gallon reactor (Polymer) and a 6,800 gallon reactor (Kymene).

The Kymene reactor is equipped with a column water scrubber in series with an I.D. Fan. This unit is typically used to control the exhausts from the Kymene reactor. The control system is designed to achieve a removal efficiency of 99 percent.

The Polymer reactor is equipped with a condenser and the same scrubber system in series. The condenser is primarily used as a reflux condenser and is integral to the system.

Dry, powdered materials are routinely added to the Polymer reactor. The Polymer reactor is fitted with a dry chemical feeder system containing bag filters to remove particulate emissions. Each reactor is equipped with a rupture disk assembly for over-pressurization protection.

Pollutants emitted from the Kymene production operation include PM, VOCs, and HAPs. HAPs include 1,3-Dichloropropene (< 0.1 lb/hr based on process knowledge) and epichlorohydrin.

MANUFACTURING PROCESSES (page 2 of 2) SECTION E

13. POLLUTANT EMISSIONS:

Emission rate calculations, monitoring data, or stack test data must be attached! ***(see Calculations Section)***

EMISSION POINT NO.	POLLUTANT (note 1)	CONTROL EQUIPMENT		ACTUAL EMISSION RATE			PROPOSED ALLOWABLE EMISSION RATE		
		yes/no*	effic.	note 2	lb/hr	tn/yr	note 2	lb/hr	tn/yr
AA-000 (160)	PM	YES	99	NA	0.212	0.93	NA	None Requested	
	VOC	YES	75	NA	0.29	1.28	NA	None Requested	
	HAP	YES	75	NA	0.29	1.28	NA	None Requested	
	VOC (fugitive)	NO	NA	NA	1.16	5.10	NA	None Requested	
	HAP (fugitive)	NO	NA	NA	1.16	5.10	NA	None Requested	
	All Other Criteria Pollutants	NO	NA	NA	< 1	NA	NA	None Requested	
	All Other HAPs	NO	NA	NA	< 0.1	NA	NA	None Requested	

1. All regulated air pollutants including hazardous air pollutants emitted from this source should be listed. A list of regulated air pollutants has been provided in section A.

2. Provide emission rate in units of applicable emission standard, e.g. lb/MMbtu, gr/dscf, etc. This may not apply to every emission point or every pollutant from an emission point.

* If yes, attach appropriate Air Pollution Control Data Sheet from Section L or manufacturers specifications if other.

SCRUBBERS (Page 1 of 2) SECTION L5

1. Emission Point No. / Name: AA-001

2. Manufacturers Name and Model No.: Croll Reynolds 18T-15H

3. Date of construction for existing sources or date of anticipated start-up for new sources:
April 2, 1991

4. Scrubber Data:

a) Scrubber type:

____	Venturi	____	Orifice
X	Packed Tower	____	Gravity Tower
____	Cyclonic	____	Condenser
X	Mist Eliminator	____	Impingement Plate
____	Other:		

b) Liquid injection rate:

1) Design maximum: 15 gpm @ 15 psia
2) Expected average: 15 gpm @ 10 pisa

c) Pressure drop: 6 inches H_2O

d) Scrubbing liquid:

1) X Once - through ____ Recycled
2) If recycled: NA gpm make - up rate
3) If water, describe settling basin: NA
4) Solution / Reactant systems:
   a) Chemical make - up: NA
   b) How is discharge handled, treated? Effluent Treatment Plant

e) Gas flow: X Counter current ____ Concurrent

1) Flow rate: 512 acfm
2) Inlet Temperature: 100 °F

f) Venturi Data: NA

1) Inlet Area: ____ ft^2
2) Throat Area: ____ ft^2
3) Throat velocity: ____ ft / sec
4) ____ Fixed throat ____ Variable throat

g) Packed or Plate Tower Data:

1) Surface Area: 1.5 ft diameter
2) Packing depth: 15 ft
3) Type of packing: X Rings ____ Saddles
   ____ Other: ____
4) No. of plates: NA
5) Type of plates: NA

SCRUBBERS (Page 2 of 2) SECTION L5

h) Demisting Data:

1) Mist eliminator filter area: 1.5 ft diameter

2) Type: _____ Cyclone _____ Vanes _____ Pad

X Other: 2" thick mesh

i) Efficiency: 95-99 %

j) Are extra nozzles readily available? _____ Yes X No

How many? _____

k) Pressure measurement devices installed? _____ Yes X No

5. Which process(es) does the scrubber control emissions from? Kymene Process (Epichlorohydrin)

BAGHOUSES — SECTION L1

1. Emission Point No. / Name : AA-002

2. Manufacturers Name & Model No.: Unknown

3. Date of construction for existing sources or date of anticipated start-up for new sources:
Pre-1977

4. Baghouse Data:

a) Cloth area: 47 ft^2

b) Air to cloth ratio: Unknown acfm/ft^2

c) Type of bag: ____ Woven ____ Felted
____ Membrane X Other: Nylon

d) Bag material: Nylon

e) No. of bags: 24

f) No. of compartments: 1

g) Bag length: 3 ft

h) Bag diameter: 2.5 inches

i) Pressure drop: Unknown inches H_2O

j) Pressure measurement device installed: ____ Yes X No

k) Air flow: Unknown acfm @ 72 °F

l) Efficiency: 99 % (estimated)

m) Dirty air on: ____ inside X outside of bag

n) Time between bag cleaning: Continuous during batch operation

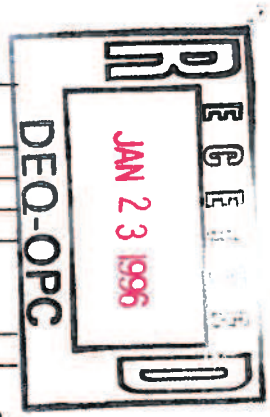
o) Method of bag cleaning: ___X___ Shaking _____ Reverse Air
_____ Pulse Jet _____ Other:

p) Are extra bags readily available: ____ Yes_X__ NoHow Many? _____

q) How is the collected dust stored, handled, disposed of? Collected into bin from baghouse and reused.

5. Which process(es) does the baghouse control emissions from? Powdered Adipic Acid Loading

MANUFACTURING PROCESSES (page 1 of 2) SECTION E



1. Emission Point No./ Name: AB-000 (270)/Paracol Process Area

2. Process Description: see attached process description

3. Was this unit constructed or modified after August 7, 1977? _____yes ___X___no
If yes please give date and explain. _____

4. Rated Capacity (tons/hr): see attached Appendix D, Confidential Business Information

5. Raw Material Input:

MATERIAL	QUANTITY/HR AVERAGE	QUANTITY/HR MAXIMUM	QUANTITY/YEAR (1994)
see attached Appendix D, Confidential Business Information			

6. Product Output:

PRODUCT or BY-PRODUCT	QUANTITY/HR AVERAGE	QUANTITY/HR MAXIMUM	QUANTITY/YEAR (1994)
see attached Appendix D, Confidential Business Information			

7. Stack Data:

AB-001/Water Scrubber:

A. Height: 20 ft
B. Inside diameter: 0.5 ft
C. Exit gas velocity: 50.9 fps (212 fps max)
D. Exit gas temperature: Ambient

8. UTM Coordinates:
A. Zone 16 B. North 3,469,400m C. East 280,700m

PARACOL PROCESS AREA

This section describes the facility's Paracol Area production operations and summarizes the assumptions and methods used to determine emission rates. A diagram of the Paracol process area is included in Figure 3.

Alkyl Ketene Dimer (AKD) dispersions, including Hercon and IP Size, and Wax dispersions, including Paracol, are manufactured in the Paracol area. AKD and Wax dispersions are specialty chemicals used primarily as internal and surface sizing agents in the manufacture of paper. AKD and Wax dispersions are water soluble and contain between 50-88 percent water by weight. They are considered nonflammable, nonhazardous liquids. AKD and Wax dispersions meet FDA and U.S. Food and Drug Administration standards for use in materials contacting food.

The facility routinely produces AKD and Wax dispersions continuously. Dry raw materials are stored in a Paracol Area warehouse. They are transferred using fork lifts and fed to the process either manually or by using a screw conveyor. Liquid raw materials are stored in work tanks or tote bins in the Paracol area and are pumped to the process. Finished products are stored in product storage tanks and tote bins in the Paracol area. Tote bins are relocated to shipping warehouses located throughout the plant.

The manufacturing scheme for AKD and Wax dispersions is the same. A Water phase, including chemicals that are soluble, is produced in water. An organic phase is melted and held at elevated temperatures above the AKD or Wax melting point. The organic phase and water phase are brought together under controlled flow rates, temperature, and pressure. Mechanical energy (work) is performed on the crude dispersion producing an AKD or Wax emulsion. The AKD or Wax emulsion is cooled to produce the AKD or Wax dispersion and transferred to work tanks. Finally, the AKD or Wax dispersion in the work tanks is treated with biocide and stabilizing chemicals and corrected to final solids. The on-grade resin dispersion is either packaged or stored in bulk storage for later bulk shipment packaging. During transfer from either the work tank or bulk storage tank the final product is filtered.

Emissions associated with the Paracol Process Area primarily include 1) Jet Cooker/Water phase makeup; 2) AKD melter, 3) tank losses from raw material and product storage; 4) Fugitive losses; and 5) accounting inventories and mass balances. Althoug the Paracol Process Area is identified in the operating permit as a closed process since any emissions occur within the building, non-point source emissions within the building have been reduced by diverting emissions to a common vent system water scrubber (AB-001) outside the building for health and safety reasons. Controlled emissions include insignificant amounts of particulate matter from dry material loading and volatile organic compounds from the AKD melter and jet cooker/water-phase makeup units.

The water phase is made in a Jet starch cooker or work tanks. The Jet starch cooker is equipped with a hoist for lifting the starch supersacks. The hoist is typically used to control the spilling of starch from the process. The control system is designed to achieve a spills reduction of 100 percent. Dry, powdered materials are routinely added to the Jet cooker. The Jet cooker is fitted with a dry chemical feeder.

The AKD melter is equipped with an exhaust fan which is used to control the exhaust from the AKD melter.

Pollutants emitted from the Paracol Process Area include the aforementioned insignificant amounts of PM, VOCs, and HAPs. HAPs include trace amouns of propylene dichloride.

MANUFACTURING PROCESSES (page 2 of 2) SECTION E

13. POLLUTANT EMISSIONS:

Emission rate calculations, monitoring data, or stack test data must be attached! ***(see Calculations Section)***

EMISSION POINT NO.	POLLUTANT (note 1)	CONTROL EQUIPMENT		ACTUAL EMISSION RATE			PROPOSED ALLOWABLE EMISSION RATE		
		yes/no*	effic.	note 2	lb/hr	tn/yr	note 2	lb/hr	tn/yr
AB-000 (270)	PM	YES	99	NA	< 1	NA	NA	None Requested	
	VOC	YES	75	NA	< 1	NA	NA	None Requested	
	All Other Criteria Pollutants	NO	NA	NA	< 1	NA	NA	None Requested	
	All Other HAPs	NO	NA	NA	< 0.1	NA	NA	None Requested	

1. All regulated air pollutants including hazardous air pollutants emitted from this source should be listed. A list of regulated air pollutants has been provided in section A.

2. Provide emission rate in units of applicable emission standard, e.g. lb/MMbtu, gr/dscf, etc. This may not apply to every emission point or every pollutant from an emission point.

* If yes, attach appropriate Air Pollution Control Data Sheet from Section L or manufacturers specifications if other.

SCRUBBERS (Page 1 of 2) SECTION L5

1. Emission Point No. / Name: AB-001

2. Manufacturers Name and Model No.: Hercules, Incorporated

3. Date of construction for existing sources or date of anticipated start-up for new sources:
1987

4. Scrubber Data:

a) Scrubber type:

____	Venturi	____	Orifice
____	Packed Tower	X	Gravity Tower
____	Cyclonic	____	Condenser
____	Mist Eliminator	____	Impingement Plate
____	Other:		

b) Liquid injection rate:

1) Design maximum: 6.1 gpm @ 40 psia
2) Expected average: 6.1 gpm @ 40 pisa

c) Pressure drop: 6 inches H_2O

d) Scrubbing liquid:

1) X Once - through ____ Recycled
2) If recycled: NA gpm make - up rate
3) If water, describe settling basin: NA
4) Solution / Reactant systems:
   a) Chemical make - up: NA
   b) How is discharge handled, treated? Effluent Treatment Plant

e) Gas flow: X Counter current ____ Concurrent

1) Flow rate: 500 acfm
2) Inlet Temperature: Ambient °F

f) Venturi Data: NA

1) Inlet Area: ____ ft^2
2) Throat Area: ____ ft^2
3) Throat velocity: ____ ft / sec
4) ____ Fixed throat ____ Variable throat

g) Packed or Plate Tower Data: NA

1) Surface Area: ____ ft^2
2) Packing depth: ____ ft
3) Type of packing: ____ Rings ____ Saddles
   ____ Other: ____
4) No. of plates: ____
5) Type of plates: ____

SCRUBBERS (Page 2 of 2) SECTION L5

h) Demisting Data: NA

1) Mist eliminator filter area: _____ ft^2

2) Type: _____ Cyclone _____ Vanes _____ Pad

_____ Other: _____

i) Efficiency: 75 %

j) Are extra nozzles readily available? _____ Yes X No

How many? _____

k) Pressure measurement devices installed? _____ Yes X No

5. Which process(es) does the scrubber control emissions from? Paracol Process

MANUFACTURING PROCESSES (page 1 of 2) SECTION E

1. Emission Point No./ Name: AC-000 (030)/Poly-Pale Process Area

2. Process Description: see attached process description

3. Was this unit constructed or modified after August 7, 1977? ____yes __X__no
If yes please give date and explain. ____

4. Rated Capacity (tons/hr): see attached Appendix D, Confidential Business Information

5. Raw Material Input:

MATERIAL	QUANTITY/HR AVERAGE	QUANTITY/HR MAXIMUM	QUANTITY/YEAR (1994)
see attached Appendix D, Confidential Business Information			

6. Product Output:

PRODUCT or BY-PRODUCT	QUANTITY/HR AVERAGE	QUANTITY/HR MAXIMUM	QUANTITY/YEAR (1994)
see attached Appendix D, Confidential Business Information			

7. Stack Data:

AC-002 (033)/Water Scrubber No. 1:

A. Height: 35 ft
B. Inside diameter: 0.25 ft
C. Exit gas velocity: 1.4 scfh
D. Exit gas temperature: Ambient

AC-003 (034)/ Water Scrubber No. 2:

A. Height: 35 ft
B. Inside diameter: 0.25 ft
C. Exit gas velocity: 404 scfh
D. Exit gas temperature: Ambient

8. UTM Coordinates:
A. Zone 16 B. North 3,469,400m C. East 280,400m

POLY-PALE PROCESS AREA

This section describes the facility's Poly-Pale area production operations and summarizes the assumptions and methods used to determine emission rates. A diagram of the Poly-Pale process area is included in Figure 4.

Poly-Pale is manufactured by the continuous acid-catalyzed dimerization of blended resins in solvent solution. Other co-products of by-products are Melhi, Pexoil, and weak acid. The process consists of several separate units for rosin dedrumming and melting; rosin-solvent mixing; polymerization; separation; hydrolysis; decomposition; washing; solvent evaporation; resin heat treatment; and storage. Raw materials are stored in tanks, tank cars, and drums. Products are stored in tanks, tank cars, and drums. In general the process is divided into two common vent systems with a few tanks venting directly to the atmosphere. Each vent system is equipped with a water scrubber.

Emissions associated with the Poly-Pale process area primarily include: (1) losses resulting from displacement, thermal expansion, etc., (2) tank losses from raw materials and product storage; (3) fugitive losses; and (4) accounting inventories and mass balances.

Pollutants emitted from the Poly-Pale Process Area include PM, SO_2, VOCs, and HAPs. HAPs include toluene.

MANUFACTURING PROCESSES (page 2 of 2) SECTION E

13. POLLUTANT EMISSIONS:

Emission rate calculations, monitoring data, or stack test data must be attached! ***(see Calculations Section)***

EMISSION POINT NO.	POLLUTANT (note 1)	CONTROL EQUIPMENT		ACTUAL EMISSION RATE			PROPOSED ALLOWABLE EMISSION RATE		
		yes/no*	effic.	note 2	lb/hr	tn/yr	note 2	lb/hr	tn/yr
AC-000 (030)	PM	YES	99	NA	1.57	6.89	NA	None Requested	
	SO_2	YES	60	NA	0.904	3.96	NA	None Requested	
	VOC	YES	50	NA	19.56	85.67	NA	None Requested	
	HAP	YES	50	NA	17.81	78.01	NA	None Requested	
	SO_2 (fugitive)	NO	NA	NA	1.10	4.81	NA	None Requested	
	VOC (fugitive)	NO	NA	NA	19.57	85.72	NA	None Requested	
	HAP (fugitive)	NO	NA	NA	19.57	85.72	NA	None Requested	
	All Other Criteria Pollutants	NO	NA	NA	< 1	NA	NA	None Requested	
	All Other HAPs	NO	NA	NA	< 0.1	NA	NA	None Requested	

1. All regulated air pollutants including hazardous air pollutants emitted from this source should be listed. A list of regulated air pollutants has been provided in section A.

2. Provide emission rate in units of applicable emission standard, e.g. lb/MMbtu, gr/dscf, etc. This may not apply to every emission point or every pollutant from an emission point.

* If yes, attach appropriate Air Pollution Control Data Sheet from Section L or manufacturers specifications if other.

MANUFACTURING PROCESSES (page 2 of 2) SECTION E

13. POLLUTANT EMISSIONS:

Emission rate calculations, monitoring data, or stack test data must be attached! ***(see Calculations Section)***

EMISSION POINT NO.	POLLUTANT (note 1)	CONTROL EQUIPMENT		ACTUAL EMISSION RATE			PROPOSED ALLOWABLE EMISSION RATE		
		yes/no*	effic.	note 2	lb/hr	tn/yr	note 2	lb/hr	tn/yr
AC-000 (030)	PM	YES	99	NA	1.57	6.89	NA	None Requested	
	SO_2	YES	60	NA	0.904	3.96	NA	None Requested	
	VOC	YES	50	NA	19.56	85.67	NA	None Requested	
	HAP	YES	50	NA	17.81	78.01	NA	None Requested	
	SO_2 (fugitive)	NO	NA	NA	10.81	47.33	NA	None Requested	
	VOC (fugitive)	NO	NA	NA	19.57	85.72	NA	None Requested	
	HAP (fugitive)	NO	NA	NA	19.57	85.72	NA	None Requested	
	All Other Criteria Pollutants	NO	NA	NA	< 1	NA	NA	None Requested	
	All Other HAPs	NO	NA	NA	< 0.1	NA	NA	None Requested	

1. All regulated air pollutants including hazardous air pollutants emitted from this source should be listed. A list of regulated air pollutants has been provided in section A.

2. Provide emission rate in units of applicable emission standard, e.g. lb/MMbtu, gr/dscf, etc. This may not apply to every emission point or every pollutant from an emission point.

* If yes, attach appropriate Air Pollution Control Data Sheet from Section L or manufacturers specifications if other.

SCRUBBERS (Page 2 of 2) SECTION L5

h) Demisting Data: NA

1) Mist eliminator filter area: _____ ft^2

2) Type: _____ Cyclone _____ Vanes _____ Pad

_____ Other: _____

i) Efficiency: 50 % *(estimated)*

j) Are extra nozzles readily available?_____ Yes X No

How many? _____

k) Pressure measurement devices installed? _____ Yes X No

5. Which process(es) does the scrubber control emissions from? Poly-Pale Process, approximately one-half of the common vent system is controlled by this scrubber.

SCRUBBERS (Page 1 of 2) SECTION L5

1. Emission Point No. / Name: AC-002

2. Manufacturers Name and Model No.: Hercules, Incorporated

3. Date of construction for existing sources or date of anticipated start-up for new sources:
pre-1977

4. Scrubber Data:

a) Scrubber type:

____	Venturi	____	Orifice
____	Packed Tower	__X__	Gravity Tower
____	Cyclonic	____	Condenser
____	Mist Eliminator	____	Impingement Plate
____	Other:		

b) Liquid injection rate: *(estimated)*

1) Design maximum: 6.1 gpm @ 40 psia
2) Expected average: 6.1 gpm @ 40 pisa

c) Pressure drop: 6 inches H_2O *(estimated)*

d) Scrubbing liquid:

1) X Once - through ____ Recycled
2) If recycled: NA gpm make - up rate
3) If water, describe settling basin: NA
4) Solution / Reactant systems:
   a) Chemical make - up: NA
   b) How is discharge handled, treated? Effluent Treatment Plant

e) Gas flow: X Counter current ____ Concurrent

1) Flow rate: Variable acfm
2) Inlet Temperature: Ambient °F

f) Venturi Data: NA

1) Inlet Area: ____ ft^2
2) Throat Area: ____ ft^2
3) Throat velocity: ____ ft / sec
4) ____ Fixed throat ____ Variable throat

g) Packed or Plate Tower Data: NA

1) Surface Area: ____ ft^2
2) Packing depth: ____ ft
3) Type of packing: ____ Rings ____ Saddles
   ____ Other: ____
4) No. of plates: ____
5) Type of plates: ____

SCRUBBERS (Page 1 of 2) SECTION L5

1. Emission Point No. / Name: AC-003

2. Manufacturers Name and Model No.: Hercules, Incorporated

3. Date of construction for existing sources or date of anticipated start-up for new sources:
pre-1977

4. Scrubber Data:

a) Scrubber type:

____	Venturi	____	Orifice
____	Packed Tower	__X__	Gravity Tower
____	Cyclonic	____	Condenser
____	Mist Eliminator	____	Impingement Plate
____	Other:		

b) Liquid injection rate: *(estimated)*

1) Design maximum: 6.1 gpm @ 40 psia
2) Expected average: 6.1 gpm @ 40 pisa

c) Pressure drop: 6 inches H_2O *(estimated)*

d) Scrubbing liquid:

1) X Once - through ____ Recycled
2) If recycled: NA gpm make - up rate
3) If water, describe settling basin: NA
4) Solution / Reactant systems:
   a) Chemical make - up: NA
   b) How is discharge handled, treated? Effluent Treatment Plant

e) Gas flow: X Counter current ____ Concurrent

1) Flow rate: Variable acfm
2) Inlet Temperature: Ambient °F

f) Venturi Data: NA

1) Inlet Area: ____ ft^2
2) Throat Area: ____ ft^2
3) Throat velocity: ____ ft / sec
4) ____ Fixed throat ____ Variable throat

g) Packed or Plate Tower Data: NA

1) Surface Area: ____ ft^2
2) Packing depth: ____ ft
3) Type of packing: ____ Rings ____ Saddles
   ____ Other: ____
4) No. of plates: ____
5) Type of plates: ____

SCRUBBERS (Page 2 of 2) SECTION L5

h) Demisting Data: NA

1) Mist eliminator filter area: _____ ft^2

2) Type: _____ Cyclone _____ Vanes _____Pad

_____ Other: _____

i) Efficiency: __50__ % *(estimated)*

j) Are extra nozzles readily available?_____ Yes __X__ No

How many? _____

k) Pressure measurement devices installed? _____ Yes __X__ No

5. Which process(es) does the scrubber control emissions from? Poly-Pale Process, approximately one-half of the common vent system is controlled by this scrubber.

FUEL BURNING EQUIPMENT (page 1 of 2) SECTION D

1. Emission Point No. / Name: AC-001(037)/Dowtherm Boiler

2. Equipment Description: First Thermal Sytems. Inc., Model 200-3-HTF-PF-G-FM

3. Was this unit constructed or modified after August 7, 1977? X Yes _____ No
If yes please give date and explain. The two McKee Boilers (Emission points 031 and 032) were replaced with one 3.2 MMBTU/hr Boiler, formerly emission point 037 in 1989.

4. Rated Capacity: 3.2 MMBTU/hr 5. Type of burner: Forced Draft Gas

6. Usage: Process Heat

7. Complete the following table, identifying each type of fuel and the amount used. Specify the units for heat content, hourly usage, and yearly usage.

FUEL TYPE	HEAT CONTENT	% SULFUR	% ASH	MAXIMUM HOURLY USAGE	ACTUAL YEARLY USAGE
Natural Gas	1,000 Btu/cf	_____	_____	3,200 cf	18,405 mcf
Fuel Oil No. 2	141 Mbtu/gal	0.5	_____	22.7 gal	0

8. Please list any fuel components that are hazardous air pollutants and the percentage in the fuel.
Per 12/93 joint API/EPA and Radian refinery study, No. 2 fuel oil has the following weight percentages of HAPs: Trimethylpentane 0.01%, Benzene 0.33%, Biphenyl 0.03%, Cresols 0.05%, Cumene 0.21%, Ethylbenzene 0.23%, Hexane 0.41%, Naphthalene 0.75%, Phenol 0.06%, Styrene 0.03%, Toluene 0.38%, and Xylene 0.77%.

9. Operating Schedule: 24 hours/day 7 days/week 52 weeks/year

10. Stack Data:
A. Height: 31' C. Exit gas velocity: 15.5 fps
B. Inside diameter: 1.5' D. Exit gas temperature: 840 °F

11. UTM Coordinates:
A. Zone 16 B. North 3,469,400m C. East 280,400m

FUEL BURNING EQUIPMENT (page 2 of 2) SECTION D

12. POLLUTANT EMISSIONS:

Emission rate calculations. monitoring data. or stack test data must be attached!

EMISSION POINT NO.	POLLUTANT (note 1)	CONTROL EQUIPMENT		ACTUAL EMISSION RATE			PROPOSED ALLOWABLE EMISSION RATE		
		yes/no*	effic.	note 2	lb/hr	tn/yr	note 2	lb/hr	tn/yr
AC-001	PM	NO		0.004 lb/mmbtu	0.014	0.041	0.6 lb/mmbtu	None Requested	
	PM_{10}	NO		NA	0.024	0.069	NA	None Requested	
	SO_2	NO		0.0006 lb/mmbtu	0.002	0.006	4.8 lb/mmbtu	None Requested	
	NO_X	NO		NA	0.320	0.920	NA	None Requested	
	CO	NO		NA	0.067	0.193	NA	None Requested	
	VOC	NO		NA	0.017	0.049	NA	None Requested	
	All Other Criteria Pollutants	NO		NA	< 1	NA	NA	None Requested	
	All Other HAPs	NO		NA	< 0.1	NA	NA	None Requested	

1. All regulated air pollutants including hazardous air pollutants emitted from this source should be listed. A list of regulated air pollutants has been provided in section A.

2. Provide emission rate in units of applicable emission standard, e.g. lb/MMbtu, gr/dscf, etc. This may not apply to every emission point or every pollutant from an emission point.

* If yes, attach appropriate Air Pollution Control Data Sheet from Section L or manufacturers specifications if other.

06/19/95

TANK DATA FORM

TANK SUMMARY SECTION H

1. emission point no./name:	T-84/M1160	40% ACID STORAGE	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE LAYER/40% ACID	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		100	DEG F
a) true vapor pressure at stg temp:		1.025	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		11	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		322797	GALS/YR
f) tank capacity:		17000	GALS
g) tank diameter:		12	FT
h) tank height/length:		20	FT
i) average vapor space height:		8	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		NO	Y/N
if yes, describe:			
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		1	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1	COLOR
p) tank paint condition(good/poor):		FAIR	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)		0	FACTOR
estimate small tank diameter factor for d=	12		
5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)		0.6	FACTOR
estimate number of turnovers factor for n=	19		
<35(1.0),50(.8),100(.6),200(.3),400(.25)		1	FACTOR

5. emissions summary

1. breathing losses:	204 LBS/YR	0.102 TPY
2. working losses:	731 LBS/YR	0.365 TPY
3. loading losses:	0 LBS/YR	0.000 TPY
4. total emissions:	934 LBS/YR	0.467 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes:

06/19/95

TANK DATA FORM

TANK SUMMARY — SECTION H

1. emission point no./name:	T-88/M0413	POLY-PALE SOL'N HYDROLIZER	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		185	DEG F
a) true vapor pressure at stg temp:		6.6	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		7.8	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		2151978	GALS/YR
f) tank capacity:		1400	GALS
g) tank diameter:		6.25	FT
h) tank height/length:		6	FT
i) average vapor space height:		2	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		NO VENT	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.39	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0)		0	FACTOR
submerged loading of a clean tank(.5):			
sub load, dedicated normal service(.6)			
sub load, dedicated vapor balance ser(1.0)			
splash loading of a clean tank(1.45)			
spl load, dedicated normal service(1.45)			
spl load, dedicated vapor balance ser(1.0)			
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	6.25	0.32	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	1537	0.25	FACTOR
5. emissions summary			
1. breathing losses:	0 LBS/YR	0.000	TPY
2. working losses:	0 LBS/YR	0.000	TPY
3. loading losses:	0 LBS/YR	0.000	TPY
4. total emissions:	0 LBS/YR	0.000	TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: NO VENT, THEREFORE % EFFIC. = 100 = 0 FACTOR

06/19/95

TANK DATA FORM

TANK SUMMARY SECTION H

1. emission point no./name:	T-93/M0247	SLUDGE DECOMPOSER	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ ROSIN/ACID	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		100	DEG F
a) true vapor pressure at stg temp:		1.025	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		9.8	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		537995	GALS/YR
f) tank capacity:		1700	GALS
g) tank diameter:	6	7.8	FT
h) tank height/length:	8	8	FT
i) average vapor space height:		3	FT
j) tank orientation(vertical/horizontal):		HOR	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		TO SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.517	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.4	COLOR
p) tank paint condition(good/poor):		POOR	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)		0	FACTOR
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	7.8	0.4	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	316	0.26	FACTOR

5. emissions summary		
1. breathing losses:	28 LBS/YR	0.014 TPY
2. working losses:	164 LBS/YR	0.082 TPY
3. loading losses:	0 LBS/YR	0.000 TPY
4. total emissions:	192 LBS/YR	0.096 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: % EFF = 48.3%, = 0.517 FACTOR

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TANK DATA FORM

TANK SUMMARY SECTION H

1. emission point no./name:	T-99/M1321	TOLUENE/WATER SEPARATOR	
2. constructed/modified after 8/7/77(yes/no):		YES	Y/N
if yes give date and explain:		REPLACED 1/94	
3. product stored:		TOLUENE/WATER	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		100	DEG F
a) true vapor pressure at stg temp:		1.025	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		7.8	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		2271533	GALS/YR
f) tank capacity:		2065	GALS
g) tank diameter:	5	9.4	FT
h) tank height/length:	14	14	FT
i) average vapor space height:		2.5	FT
j) tank orientation(vertical/horizontal):		HOR	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.517	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.4	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)		0	FACTOR
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	9.4	0.47	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	1100	0.25	FACTOR

5. emissions summary		
1. breathing losses:	42 LBS/YR	0.021 TPY
2. working losses:	664 LBS/YR	0.332 TPY
3. loading losses:	0 LBS/YR	0.000 TPY
4. total emissions:	706 LBS/YR	0.353 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: % EFF = 48.3%, = 0.517 FACTOR

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TANK DATA FORM

TANK SUMMARY SECTION H

1. emission point no./name:	T-105/M0507	TOLUENE FEED TANK	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		RECOVERED TOLUEN	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		100	DEG F
a) true vapor pressure at stg temp:		1.025	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		7.4	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		2271533	GALS/YR
f) tank capacity:		2065	GALS
g) tank diameter:	5	9.4	FT
h) tank height/length:	14	14	FT
i) average vapor space height:		2.5	FT
j) tank orientation(vertical/horizontal):		HOR	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.517	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.4	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0)		0	FACTOR
submerged loading of a clean tank(.5):			
sub load, dedicated normal service(.6)			
sub load, dedicated vapor balance ser(1.0)			
splash loading of a clean tank(1.45)			
spl load, dedicated normal service(1.45)			
spl load, dedicated vapor balance ser(1.0)			
estimate small tank diameter factor for d=	9.4		
5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)		0.47	FACTOR
estimate number of turnovers factor for n=	1100		
<35(1.0),50(.8),100(.6),200(.3),400(.25)		0.25	FACTOR
5. emissions summary			
1. breathing losses:	42	LBS/YR	0.021 TPY
2. working losses:	664	LBS/YR	0.332 TPY
3. loading losses:	0	LBS/YR	0.000 TPY
4. total emissions:	706	LBS/YR	0.353 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: % EFF = 48.3%, = 0.517 FACTOR

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TANK DATA FORM

TANK SUMMARY SECTION H

1. emission point no./name:	T-108/M0500	MELHI BLEND TANK	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		ROSIN (TOLUENE)	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		222	DEG F
a) true vapor pressure at stg temp:		14.695	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		7.4	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		107599	GALS/YR
f) tank capacity:		1070	GALS
g) tank diameter:		6	FT
h) tank height/length:		5	FT
i) average vapor space height:		2	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		NO	Y/N
if yes, describe:			
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		1	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.39	COLOR
p) tank paint condition(good/poor):		FAIR	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)		0	FACTOR
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	6	0.3	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	101	0.7	FACTOR
5. emissions summary			
1. breathing losses:	27967 LBS/YR	13.984	TPY
2. working losses:	2444 LBS/YR	1.222	TPY
3. loading losses:	0 LBS/YR	0.000	TPY
4. total emissions:	30411 LBS/YR	15.206	TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes:

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TANK DATA FORM

TANK SUMMARY SECTION H

1. emission point no./name:	T-116/M0942	TOLUENE/WATER SEPARATOR	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/WATER	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		100	DEG F
a) true vapor pressure at stg temp:		1.025	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		7.8	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		6216827	GALS/YR
f) tank capacity:		3500	GALS
g) tank diameter:	7	10.4	FT
h) tank height/length:	12	12	FT
i) average vapor space height:		2.5	FT
j) tank orientation(vertical/horizontal):		HOR	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.517	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.4	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)		0	FACTOR
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	10.4	0.51	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	1776	0.25	FACTOR

5. emissions summary		
1. breathing losses:	54 LBS/YR	0.027 TPY
2. working losses:	1819 LBS/YR	0.909 TPY
3. loading losses:	0 LBS/YR	0.000 TPY
4. total emissions:	1873 LBS/YR	0.936 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: % EFF = 48.3%, = 0.517 FACTOR

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TANK SUMMARY SECTION H

1. emission point no./name:	T-117/M0547	WASHING FEED TANK	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		150	DEG F
a) true vapor pressure at stg temp:		3.32	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		7.8	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		6814598	GALS/YR
f) tank capacity:		2400	GALS
g) tank diameter:		7.5	FT
h) tank height/length:		7.2	FT
i) average vapor space height:		3	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.133	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.4	COLOR
p) tank paint condition(good/poor):		POOR	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)		0	FACTOR
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	7.5	0.37	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	2839	0.25	FACTOR

5. emissions summary		
1. breathing losses:	16 LBS/YR	0.008 TPY
2. working losses:	1661 LBS/YR	0.830 TPY
3. loading losses:	0 LBS/YR	0.000 TPY
4. total emissions:	1677 LBS/YR	0.838 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: % EFF = 86.7%, = 0.133

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TANK SUMMARY SECTION H

1. emission point no./name:	T-131/M1194	POLY-PALE SOL'N HYDROLIZER	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		185	DEG F
a) true vapor pressure at stg temp:		6.6	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		7.8	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		2151978	GALS/YR
f) tank capacity:		1400	GALS
g) tank diameter:		6.25	FT
h) tank height/length:		6	FT
i) average vapor space height:		2	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		NO	Y/N
if yes, describe:		NO VENT	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.39	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0)		0	FACTOR
submerged loading of a clean tank(.5):			
sub load, dedicated normal service(.6)			
sub load, dedicated vapor balance ser(1.0)			
splash loading of a clean tank(1.45)			
spl load, dedicated normal service(1.45)			
spl load, dedicated vapor balance ser(1.0)			
estimate small tank diameter factor for d=	6.25		
5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)		0.32	FACTOR
estimate number of turnovers factor for n=	1537		
<35(1.0),50(.8),100(.6),200(.3),400(.25)		0.25	FACTOR
5. emissions summary			
1. breathing losses:	0 LBS/YR	0.000	TPY
2. working losses:	0 LBS/YR	0.000	TPY
3. loading losses:	0 LBS/YR	0.000	TPY
4. total emissions:	0 LBS/YR	0.000	TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: NO VENT; THEREFORE, % EFF. = 100 = 0 FACTOR

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TANK DATA FORM

TANK SUMMARY SECTION H

1. emission point no./name:	T-139/M1324	PROCESS SUMP	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/WATER	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		100	DEG F
a) true vapor pressure at stg temp:		1.025	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		8.34	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		13091202	GALS/YR
f) tank capacity:		2500	GALS
g) tank diameter:		16	FT
h) tank height/length:		6.7	FT
i) average vapor space height:		4.3	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		NO	Y/N
if yes, describe:			
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		1	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.33	COLOR
p) tank paint condition(good/poor):			G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)		0	FACTOR
estimate small tank diameter factor for d=	16		
5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)		0.76	FACTOR
estimate number of turnovers factor for n=	5236		
<35(1.0),50(.8),100(.6),200(.3),400(.25)		0.25	FACTOR
5. emissions summary			
1. breathing losses:	411	LBS/YR	0.206 TPY
2. working losses:	7407	LBS/YR	3.704 TPY
3. loading losses:	0	LBS/YR	0.000 TPY
4. total emissions:	7818	LBS/YR	3.909 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes:

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TANK DATA FORM

TANK SUMMARY SECTION H

1. emission point no./name:	T-201	#7 REACTOR	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		80	DEG F
a) true vapor pressure at stg temp:		0.6	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		7.8	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		4315912	GALS/YR
f) tank capacity:		1500	GALS
g) tank diameter:		6	FT
h) tank height/length:		7.5	FT
i) average vapor space height:		1	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.915	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.4	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)		0	FACTOR
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	6	0.3	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	2877	0.25	FACTOR

5. emissions summary

1. breathing losses:	9 LBS/YR	0.005 TPY
2. working losses:	1308 LBS/YR	0.654 TPY
3. loading losses:	0 LBS/YR	0.000 TPY
4. total emissions:	1317 LBS/YR	0.659 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: % EFF = 8.5%, = 0.915 FACTOR

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TANK DATA FORM

TANK SUMMARY SECTION H

1. emission point no./name:	T-202	#8 REACTOR	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		80	DEG F
a) true vapor pressure at stg temp:		0.6	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		7.8	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		4315912	GALS/YR
f) tank capacity:		1500	GALS
g) tank diameter:		6	FT
h) tank height/length:		7.5	FT
i) average vapor space height:		1	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.915	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.4	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)		0	FACTOR
estimate small tank diameter factor for d=	6		
5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)		0.3	FACTOR
estimate number of turnovers factor for n=	2877		
<35(1.0),50(.8),100(.6),200(.3),400(.25)		0.25	FACTOR

5. emissions summary		
1. breathing losses:	9 LBS/YR	0.005 TPY
2. working losses:	1308 LBS/YR	0.654 TPY
3. loading losses:	0 LBS/YR	0.000 TPY
4. total emissions:	1317 LBS/YR	0.659 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: % EFF = 8.5%, = 0.915 FACTOR

06/19/95

TANK DATA FORM

TANK SUMMARY SECTION H

1. emission point no./name:	T-203	#9 REACTOR	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		80	DEG F
a) true vapor pressure at stg temp:		0.6	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		7.8	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		4315912	GALS/YR
f) tank capacity:		1500	GALS
g) tank diameter:		6	FT
h) tank height/length:		7.5	FT
i) average vapor space height:		1	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.915	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.4	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)		0	FACTOR
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	6	0.3	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	2877	0.25	FACTOR

5. emissions summary

1. breathing losses:	9 LBS/YR	0.005 TPY
2. working losses:	1308 LBS/YR	0.654 TPY
3. loading losses:	0 LBS/YR	0.000 TPY
4. total emissions:	1317 LBS/YR	0.659 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: % EFF = 8.5%, = .915 FACTOR

TANK SUMMARY SECTION H

Poly-Pale Process Area Tanks

The tanks listed in this section have been determined to have a potential to emit above the 0.1 lb/hr HAP (toluene) limit. Part 5 of each Tank Summary form lists actual emissions from tank breathing, working, and loading losses. The potential uncontrolled emissions calculations are included with the appropriate capacity mass balance sheet in the attached Appendix D, Confidential Business Information.

01/18/96

TANK DATA FORM

TANK SUMMARY **SECTION H**

1. emission point no./name:	T-83/M0222	DECOMPOSER SEPARATOR	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
If yes give date and explain:			
3. product stored:		TOLUENE/ ROSIN/40%ACID	
If more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		100	DEG F
a) true vapor pressure at stg temp:		1.025	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		9.8	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		537995	GALS/YR
f) tank capacity:		3450	GALS
g) tank diameter:		7	FT
h) tank height/length:		12	FT
i) average vapor space height:		6	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
If yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.517	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.33	COLOR
p) tank paint condition(good/poor):			G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0)		0	FACTOR
submerged loading of a clean tank(.5):			
sub load, dedicated normal service(.6)			
sub load, dedicated vapor balance ser(1.0)			
splash loading of a clean tank(1.45)			
spl load, dedicated normal service(1.45)			
spl load, dedicated vapor balance ser(1.0)			
estimate small tank diameter factor for d=	7		
5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)		0.36	FACTOR
estimate number of turnovers factor for n=	156		
<35(1.0),50(.8),100(.6),200(.3),400(.25)		0.36	FACTOR
5. emissions summary			
1. breathing losses:	29	LBS/YR	0.014 TPY
2. working losses:	227	LBS/YR	0.113 TPY
3. loading losses:	0	LBS/YR	0.000 TPY
4. total emissions:	255	LBS/YR	0.128 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: % EFF = 48.3%, = 0.517 FACTOR

TANK SUMMARY SECTION H

1. emission point no./name:	T-3/M0503	FEED SOLUTION	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		100	DEG F
a) true vapor pressure at stg temp:		1.025	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		7.8	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		4303957	GALS/YR
f) tank capacity:		2055	GALS
g) tank diameter:	5	9.4	FT
h) tank height/length:	14	14	FT
i) average vapor space height:		2.5	FT
j) tank orientation(vertical/horizontal):		HOR	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.517	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.4	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0)		0	FACTOR
submerged loading of a clean tank(.5):			
sub load, dedicated normal service(.6)			
sub load, dedicated vapor balance ser(1.0)			
splash loading of a clean tank(1.45)			
spl load, dedicated normal service(1.45)			
spl load, dedicated vapor balance ser(1.0)			
estimate small tank diameter factor for d=	9.4		
5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)		0.47	FACTOR
estimate number of turnovers factor for n=	2094		
<35(1.0),50(.8),100(.6),200(.3),400(.25)		0.25	FACTOR

5. emissions summary		
1. breathing losses:	42 LBS/YR	0.021 TPY
2. working losses:	1259 LBS/YR	0.629 TPY
3. loading losses:	0 LBS/YR	0.000 TPY
4. total emissions:	1301 LBS/YR	0.650 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: % EFF = 48.3%, = 0.517 FACTOR

TANK SUMMARY SECTION H

1. emission point no./name:	T-7	#1 SEPARATOR	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN/ACID	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		70	DEG F
a) true vapor pressure at stg temp:		0.44	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		9	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		2391087	GALS/YR
f) tank capacity:		52	GALS
g) tank diameter:		1.7	FT
h) tank height/length:		3	FT
i) average vapor space height:		1	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		1	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.39	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0)		0	FACTOR
submerged loading of a clean tank(.5):			
sub load, dedicated normal service(.6)			
sub load, dedicated vapor balance ser(1.0)			
splash loading of a clean tank(1.45)			
spl load, dedicated normal service(1.45)			
spl load, dedicated vapor balance ser(1.0)			
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	1.7	0.08	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	45982	0.25	FACTOR

5. emissions summary		
1. breathing losses:	0 LBS/YR	0.000 TPY
2. working losses:	581 LBS/YR	0.290 TPY
3. loading losses:	0 LBS/YR	0.000 TPY
4. total emissions:	581 LBS/YR	0.290 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes:

TANK SUMMARY SECTION H

1. emission point no./name:	T-8	1# POLYMERIZER	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN/ACID	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		70	DEG F
a) true vapor pressure at stg temp:		0.44	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		9	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		2391087	GALS/YR
f) tank capacity:		130	GALS
g) tank diameter:		2.5	FT
h) tank height/length:		3.5	FT
i) average vapor space height:		1	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		1	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.39	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0)		0	FACTOR
submerged loading of a clean tank(.5):			
sub load, dedicated normal service(.6)			
sub load, dedicated vapor balance ser(1.0)			
splash loading of a clean tank(1.45)			
spl load, dedicated normal service(1.45)			
spl load, dedicated vapor balance ser(1.0)			
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	2.5	0.13	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	18393	0.25	FACTOR

5. emissions summary		
1. breathing losses:	1 LBS/YR	0.000 TPY
2. working losses:	581 LBS/YR	0.290 TPY
3. loading losses:	0 LBS/YR	0.000 TPY
4. total emissions:	582 LBS/YR	0.291 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes:

TANK SUMMARY SECTION H

1. emission point no./name:	T-11/M0364	#3 SEPARATOR	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN/ACID	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		70	DEG F
a) true vapor pressure at stg temp:		0.44	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		9	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		2391087	GALS/YR
f) tank capacity:		52	GALS
g) tank diameter:		1.7	FT
h) tank height/length:		3	FT
i) average vapor space height:		1	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		1	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.39	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)		0	FACTOR
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	1.7	0.08	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	45982	0.25	FACTOR

5. emissions summary

1. breathing losses:	0 LBS/YR	0.000 TPY
2. working losses:	581 LBS/YR	0.290 TPY
3. loading losses:	0 LBS/YR	0.000 TPY
4. total emissions:	581 LBS/YR	0.290 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes:

TANK SUMMARY SECTION H

1. emission point no./name:	T-12/M0367	#3 POLYMERIZER	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN/ACID	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		70	DEG F
a) true vapor pressure at stg temp:		0.44	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		9	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		2391087	GALS/YR
f) tank capacity:		130	GALS
g) tank diameter:		2.5	FT
h) tank height/length:		3.5	FT
i) average vapor space height:		1	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		1	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.39	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0)		0	FACTOR
submerged loading of a clean tank(.5):			
sub load, dedicated normal service(.6)			
sub load, dedicated vapor balance ser(1.0)			
splash loading of a clean tank(1.45)			
spl load, dedicated normal service(1.45)			
spl load, dedicated vapor balance ser(1.0)			
estimate small tank diameter factor for d=	2.5		
5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)		0.13	FACTOR
estimate number of turnovers factor for n=	18393		
<35(1.0),50(.8),100(.6),200(.3),400(.25)		0.25	FACTOR
5. emissions summary			
1. breathing losses:	1 LBS/YR	0.000	TPY
2. working losses:	581 LBS/YR	0.290	TPY
3. loading losses:	0 LBS/YR	0.000	TPY
4. total emissions:	582 LBS/YR	0.291	TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes:

TANK SUMMARY SECTION H

1. emission point no./name:	T-13/M0366	#5 SEPARATOR	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN/ACID	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		70	DEG F
a) true vapor pressure at stg temp:		0.44	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		9	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		2391087	GALS/YR
f) tank capacity:		52	GALS
g) tank diameter:		1.7	FT
h) tank height/length:		3	FT
I) average vapor space height:		1	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		1	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.39	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0)		0	FACTOR
submerged loading of a clean tank(.5):			
sub load, dedicated normal service(.6)			
sub load, dedicated vapor balance ser(1.0)			
splash loading of a clean tank(1.45)			
spl load, dedicated normal service(1.45)			
spl load, dedicated vapor balance ser(1.0)			
estimate small tank diameter factor for d=	1.7		
5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)		0.08	FACTOR
estimate number of turnovers factor for n=	45982		
<35(1.0),50(.8),100(.6),200(.3),400(.25)		0.25	FACTOR

5. emissions summary		
1. breathing losses:	0 LBS/YR	0.000 TPY
2. working losses:	581 LBS/YR	0.290 TPY
3. loading losses:	0 LBS/YR	0.000 TPY
4. total emissions:	581 LBS/YR	0.290 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes:

TANK SUMMARY SECTION H

1. emission point no./name:	T-14/M0367	#5 POLYMERIZER	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN/ACID	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		70	DEG F
a) true vapor pressure at stg temp:		0.44	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		9	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		2391087	GALS/YR
f) tank capacity:		130	GALS
g) tank diameter:		2.5	FT
h) tank height/length:		3.5	FT
i) average vapor space height:		1	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		1	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color;aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.39	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)			0 FACTOR
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	2.5		0.13 FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	18393		0.25 FACTOR
5. emissions summary			
1. breathing losses:		1 LBS/YR	0.000 TPY
2. working losses:		581 LBS/YR	0.290 TPY
3. loading losses:		0 LBS/YR	0.000 TPY
4. total emissions:		582 LBS/YR	0.291 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes:

TANK SUMMARY SECTION H

1. emission point no./name:	T-15/M0368	#6 SEPARATOR	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN/ACID	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		70	DEG F
a) true vapor pressure at stg temp:		0.44	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		9	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		2391087	GALS/YR
f) tank capacity:		52	GALS
g) tank diameter:		1.7	FT
h) tank height/length:		3	FT
i) average vapor space height:		1	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		1	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.39	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0)		0	FACTOR
submerged loading of a clean tank(.5):			
sub load, dedicated normal service(.6)			
sub load, dedicated vapor balance ser(1.0)			
splash loading of a clean tank(1.45)			
spl load, dedicated normal service(1.45)			
spl load, dedicated vapor balance ser(1.0)			
estimate small tank diameter factor for d=	1.7		
5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)		0.08	FACTOR
estimate number of turnovers factor for n=	45982		
<35(1.0),50(.8),100(.6),200(.3),400(.25)		0.25	FACTOR

5. emissions summary		
1. breathing losses:	0 LBS/YR	0.000 TPY
2. working losses:	581 LBS/YR	0.290 TPY
3. loading losses:	0 LBS/YR	0.000 TPY
4. total emissions:	581 LBS/YR	0.290 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes:

TANK SUMMARY SECTION H

1. emission point no./name:	T-16/M0369	#6 POLYMERIZER	
2. constructed/modified after 8/7/77(yes/no):		NO	
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN/ACID	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:			70
a) true vapor pressure at stg temp:			0.44
b) reid vapor pressure at stg temp:			
c) density of product at stg temp:			9
d) molecular weight of product vapor:			92
e) throughput for most recent calender year:			2391087
f) tank capacity:			130
g) tank diameter:			2.5
h) tank height/length:			3.5
i) average vapor space height:			1
j) tank orientation(vertical/horizontal):		VER	
k) type roof(dome/cone):		DOME	
l) does tank have vapor recovery system(yes/no):		YES	
if yes, describe:		WATER SC	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):			1
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	
n) check the closest city:		JACKSON	
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):			1.39
p) tank paint condition(good/poor):		GOOD	
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)			0
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	2.5		0.13
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	18393		0.25
5. emissions summary			
1. breathing losses:	1 LBS/YR		0.000
2. working losses:	581 LBS/YR		0.290
3. loading losses:	0 LBS/YR		0.000
4. total emissions:	582 LBS/YR		0.291

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes:

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TANK DATA FORM

TANK SUMMARY SECTION H

1. emission point no./name:	T-17	#4 SEPARATOR	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN/ACID	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		70	DEG F
a) true vapor pressure at stg temp:		0.44	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		9	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		2391087	GALS/YR
f) tank capacity:		52	GALS
g) tank diameter:		1.7	FT
h) tank height/length:		3	FT
i) average vapor space height:		1	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		1	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.39	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0)		0	FACTOR
submerged loading of a clean tank(.5):			
sub load, dedicated normal service(.6)			
sub load, dedicated vapor balance ser(1.0)			
splash loading of a clean tank(1.45)			
spl load, dedicated normal service(1.45)			
spl load, dedicated vapor balance ser(1.0)			
estimate small tank diameter factor for d=	1.7		
5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)		0.08	FACTOR
estimate number of turnovers factor for n=	45982		
<35(1.0),50(.8),100(.6),200(.3),400(.25)		0.25	FACTOR

5. emissions summary		
1. breathing losses:	0 LBS/YR	0.000 TPY
2. working losses:	581 LBS/YR	0.290 TPY
3. loading losses:	0 LBS/YR	0.000 TPY
4. total emissions:	581 LBS/YR	0.290 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes:

06/15/95 TANK DATA FORM

TANK SUMMARY SECTION H

1. emission point no./name:	T-18	#4 POLYMERIZER	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN/ACID	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		70	DEG F
a) true vapor pressure at stg temp:		0.44	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		9	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		2391087	GALS/YR
f) tank capacity:		130	GALS
g) tank diameter:		2.5	FT
h) tank height/length:		3.5	FT
i) average vapor space height:		1	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		1	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.39	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)		0	FACTOR
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	2.5	0.13	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	18393	0.25	FACTOR

5. emissions summary		
1. breathing losses:	1 LBS/YR	0.000 TPY
2. working losses:	581 LBS/YR	0.290 TPY
3. loading losses:	0 LBS/YR	0.000 TPY
4. total emissions:	582 LBS/YR	0.291 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes:

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TANK DATA FORM

TANK SUMMARY SECTION H

1. emission point no./name:	T-21/M0374	POLYMERIZED SOLUTION	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN/ACID	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		80	DEG F
a) true vapor pressure at stg temp:		0.6	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		9	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		4543066	GALS/YR
f) tank capacity:		1200	GALS
g) tank diameter:	5	7.1	FT
h) tank height/length:	8	8	FT
i) average vapor space height:		2.5	FT
j) tank orientation(vertical/horizontal):		HOR	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.915	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.4	COLOR
p) tank paint condition(good/poor):		POOR	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)		0	FACTOR
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	7.1	0.35	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	3786	0.25	FACTOR

5. emissions summary		
1. breathing losses:	23 LBS/YR	0.012 TPY
2. working losses:	1377 LBS/YR	0.688 TPY
3. loading losses:	0 LBS/YR	0.000 TPY
4. total emissions:	1400 LBS/YR	0.700 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: % EFF = 8.5%, = 0.915

TANK SUMMARY SECTION H

1. emission point no./name:	T-23/M1106	POLYMERIZER SURGE TANK	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN/ACID	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		80	DEG F
a) true vapor pressure at stg temp:		0.6	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		7.8	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		4315912	GALS/YR
f) tank capacity:		700	GALS
g) tank diameter:	4.7	5.8	FT
h) tank height/length:	5.4	5.4	FT
i) average vapor space height:		2.4	FT
j) tank orientation(vertical/horizontal):		HOR	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.915	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		OTH	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.4	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0)		0	FACTOR
submerged loading of a clean tank(.5):			
sub load, dedicated normal service(.6)			
sub load, dedicated vapor balance ser(1.0)			
splash loading of a clean tank(1.45)			
spl load, dedicated normal service(1.45)			
spl load, dedicated vapor balance ser(1.0)			
estimate small tank diameter factor for d=	5.8		
5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)		0.28	FACTOR
estimate number of turnovers factor for n=	6166		
<35(1.0),50(.8),100(.6),200(.3),400(.25)		0.25	FACTOR

5. emissions summary			
1. breathing losses:	13	LBS/YR	0.006 TPY
2. working losses:	1308	LBS/YR	0.654 TPY
3. loading losses:	0	LBS/YR	0.000 TPY
4. total emissions:	1321	LBS/YR	0.660 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: % EFF = 8.5%, = 0.915 FACTOR

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TANK SUMMARY SECTION H

1. emission point no./name:	T-24/M0377	HYDROLIZED SOL'N SEPARATOR	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN/ACID	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		150	DEG F
a) true vapor pressure at stg temp:		3.32	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		7.8	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		6814598	GALS/YR
f) tank capacity:		1175	GALS
g) tank diameter:		5	FT
h) tank height/length:		8	FT
i) average vapor space height:		4	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.133	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.4	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0)		0	FACTOR
submerged loading of a clean tank(.5):			
sub load, dedicated normal service(.6)			
sub load, dedicated vapor balance ser(1.0)			
splash loading of a clean tank(1.45)			
spl load, dedicated normal service(1.45)			
spl load, dedicated vapor balance ser(1.0)			
estimate small tank diameter factor for d=	5		
5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)		0.25	FACTOR
estimate number of turnovers factor for n=	5800		
<35(1.0),50(.8),100(.6),200(.3),400(.25)		0.25	FACTOR

5. emissions summary		
1. breathing losses:	6 LBS/YR	0.003 TPY
2. working losses:	1661 LBS/YR	0.830 TPY
3. loading losses:	0 LBS/YR	0.000 TPY
4. total emissions:	1667 LBS/YR	0.834 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: % EFF = 86.7%, = 0.133 FACTOR

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TANK SUMMARY SECTION H

1. emission point no./name:	T-25/M0871	SOLUTION WASH TANK	
2. constructed/modified after 8/7/77(yes/no):		YES	Y/N
if yes give date and explain:		REPLACED 10/26/92	
3. product stored:		TOLUENE/ROSIN/WATER	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		115	DEG F
a) true vapor pressure at stg temp:		1.42	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		7.8	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		8488359	GALS/YR
f) tank capacity:		4170	GALS
g) tank diameter:	8.5	9.2	FT
h) tank height/length:	7.8	7.8	FT
i) average vapor space height:		0.5	FT
j) tank orientation(vertical/horizontal):		HOR	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.342	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.4	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)		0	FACTOR
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	9.2	0.47	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	2036	0.25	FACTOR
5. emissions summary			
1. breathing losses:	15 LBS/YR	0.007	TPY
2. working losses:	2276 LBS/YR	1.138	TPY
3. loading losses:	0 LBS/YR	0.000	TPY
4. total emissions:	2290 LBS/YR	1.145	TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: % EF = 65.8%, = 0.342 FACTOR

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TANK DATA FORM

TANK SUMMARY SECTION H

1. emission point no./name:	T-26/M505	WASHED SOLUTION	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		100	DEG F
a) true vapor pressure at stg temp:		1.025	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		7.8	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		6814598	GALS/YR
f) tank capacity:		2060	GALS
g) tank diameter:	5	9.4	FT
h) tank height/length:	14	14	FT
i) average vapor space height:		2.5	FT
j) tank orientation(vertical/horizontal):		HOR	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.517	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.4	COLOR
p) tank paint condition(good/poor):		POOR	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)		0	FACTOR
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	9.4	0.47	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	3308	0.25	FACTOR
5. emissions summary			
1. breathing losses:	42 LBS/YR	0.021	TPY
2. working losses:	1993 LBS/YR	0.997	TPY
3. loading losses:	0 LBS/YR	0.000	TPY
4. total emissions:	2035 LBS/YR	1.018	TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: % EFF = 48.3%, = 0.517 FACTOR

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TANK DATA FORM

TANK SUMMARY SECTION H

1. emission point no./name:	T-27/M0506	WASHED SOL'N EVAP. FEED	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		100	DEG F
a) true vapor pressure at stg temp:		1.025	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		7.8	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		6814598	GALS/YR
f) tank capacity:		2060	GALS
g) tank diameter:	5	9.4	FT
h) tank height/length:	14	14	FT
i) average vapor space height:		2.5	FT
j) tank orientation(vertical/horizontal):		HOR	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.517	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.4	COLOR
p) tank paint condition(good/poor):		POOR	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)		0	FACTOR
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	9.4	0.47	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	3308	0.25	FACTOR
5. emissions summary			
1. breathing losses:	42 LBS/YR	0.021	TPY
2. working losses:	1993 LBS/YR	0.997	TPY
3. loading losses:	0 LBS/YR	0.000	TPY
4. total emissions:	2035 LBS/YR	1.018	TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: % EFF = 48.3%, = 0.517 FACTOR

06/16/95

TANK DATA FORM

TANK SUMMARY SECTION H

1. emission point no./name:	T-30/M0381	1ST SET POLY-PALE EVAP.	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		100	DEG F
a) true vapor pressure at stg temp:		1.025	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		7.8	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		6814598	GALS/YR
f) tank capacity:		420	GALS
g) tank diameter:		3.6	FT
h) tank height/length:		5.5	FT
i) average vapor space height:		2	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.517	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.4	COLOR
p) tank paint condition(good/poor):		POOR	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0)		0	FACTOR
submerged loading of a clean tank(.5):			
sub load, dedicated normal service(.6)			
sub load, dedicated vapor balance ser(1.0)			
splash loading of a clean tank(1.45)			
spl load, dedicated normal service(1.45)			
spl load, dedicated vapor balance ser(1.0)			
estimate small tank diameter factor for d=	3.6		
5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)		0.16	FACTOR
estimate number of turnovers factor for n=	16225		
<35(1.0),50(.8),100(.6),200(.3),400(.25)		0.25	FACTOR
5. emissions summary			
1. breathing losses:	2 LBS/YR	0.001	TPY
2. working losses:	1993 LBS/YR	0.997	TPY
3. loading losses:	0 LBS/YR	0.000	TPY
4. total emissions:	1996 LBS/YR	0.998	TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: % EFF = 48.3%, = 0.517 FACTOR

06/16/95 TANK DATA FORM

TANK SUMMARY SECTION H

1. emission point no./name:	T-31/M0382	2nd SET POLY-PALE EVAP.	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		100	DEG F
a) true vapor pressure at stg temp:		1.025	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		7.8	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		2510642	GALS/YR
f) tank capacity:		420	GALS
g) tank diameter:		3.6	FT
h) tank height/length:		5.5	FT
i) average vapor space height:		2	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.517	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.4	COLOR
p) tank paint condition(good/poor):		POOR	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)		0	FACTOR
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	3.6	0.16	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	5978	0.25	FACTOR
5. emissions summary			
1. breathing losses:	2 LBS/YR	0.001	TPY
2. working losses:	734 LBS/YR	0.367	TPY
3. loading losses:	0 LBS/YR	0.000	TPY
4. total emissions:	737 LBS/YR	0.368	TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: % EFF = 48.3%, = 0.517 FACTOR

06/16/95

TANK DATA FORM

TANK SUMMARY SECTION H

1. emission point no./name:	T-40/M1202	PEXOIL STORAGE TANK	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		PEXOIL (TOLUENE)	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		222	DEG F
a) true vapor pressure at stg temp:		14.697	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		7.4	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		27737	GALS/YR
f) tank capacity:		9050	GALS
g) tank diameter:		8	FT
h) tank height/length:		24	FT
i) average vapor space height:		10	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.006	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.33	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0)		0	FACTOR
submerged loading of a clean tank(.5):			
sub load, dedicated normal service(.6)			
sub load, dedicated vapor balance ser(1.0)			
splash loading of a clean tank(1.45)			
spl load, dedicated normal service(1.45)			
spl load, dedicated vapor balance ser(1.0)			
estimate small tank diameter factor for d=	8		
5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)		0.4	FACTOR
estimate number of turnovers factor for n=	3		
<35(1.0),50(.8),100(.6),200(.3),400(.25)		1	FACTOR
5. emissions summary			
1. breathing losses:	1133 LBS/YR	0.566	TPY
2. working losses:	5 LBS/YR	0.003	TPY
3. loading losses:	0 LBS/YR	0.000	TPY
4. total emissions:	1138 LBS/YR	0.569	TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: % EFF = 99.4%, = 0.006 FACTOR

06/19/95

TANK SUMMARY SECTION H

1. emission point no./name:	T-80/M1217	40% ACID STORAGE	
2. constructed/modified after 8/7/77(yes/no):		YES	Y/N
if yes give date and explain:		REPLACED '93	
3. product stored:		TOLUENE LAYER/40% ACID	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		100	DEG F
a) true vapor pressure at stg temp:		1.025	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		11	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		161398	GALS/YR
f) tank capacity:		20000	GALS
g) tank diameter:		12	FT
h) tank height/length:		23.7	FT
i) average vapor space height:		10	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		NO	Y/N
if yes, describe:			
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		1	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)		0	FACTOR
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	12	0.6	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	8	1	FACTOR
5. emissions summary			
1. breathing losses:	228 LBS/YR	0.114	TPY
2. working losses:	365 LBS/YR	0.183	TPY
3. loading losses:	0 LBS/YR	0.000	TPY
4. total emissions:	594 LBS/YR	0.297	TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes:

06/19/95

TANK DATA FORM

TANK SUMMARY SECTION H

1. emission point no./name:	T-81/M1218	40% ACID STORAGE	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE LAYER/40% ACID	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		100	DEG F
a) true vapor pressure at stg temp:		1.025	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		11	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		161398	GALS/YR
f) tank capacity:		20000	GALS
g) tank diameter:		12	FT
h) tank height/length:		23.7	FT
i) average vapor space height:		10	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		NO	Y/N
if yes, describe:			
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		1	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)		0	FACTOR
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	12	0.6	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	8	1	FACTOR

5. emissions summary		
1. breathing losses:	228 LBS/YR	0.114 TPY
2. working losses:	365 LBS/YR	0.183 TPY
3. loading losses:	0 LBS/YR	0.000 TPY
4. total emissions:	594 LBS/YR	0.297 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes:

MANUFACTURING PROCESSES (page 1 of 2) SECTION E

1. Emission Point No./ Name: AD-000 (038)/Neuphor Process Area

2. Process Description: see attached process description

3. Was this unit constructed or modified after August 7, 1977? X yes _____ no
If yes please give date and explain. The Neuphor Process was initiated in 1987, the Dresinol Process was initiated in 1991; Tanks used were installed prior to 1977.

4. Rated Capacity (tons/hr): see attached Appendix D, Confidential Business Information

5. Raw Material Input:

MATERIAL	QUANTITY/HR AVERAGE	QUANTITY/HR MAXIMUM	QUANTITY/YEAR (1994)
see attached Appendix D, Confidential Business Information			

6. Product Output:

PRODUCT or BY-PRODUCT	QUANTITY/HR AVERAGE	QUANTITY/HR MAXIMUM	QUANTITY/YEAR (1994)
see attached Appendix D, Confidential Business Information			

7. Stack Data:

AD-001 (038)/Activated Carbon Adsorption with Scrubber:

A. Height: 25 ft
B. Inside diameter: 0.5 ft
C. Exit gas velocity: 0.39 fps
D. Exit gas temperature: Ambient

AD-002 (038)/Water Eductor Scrubber with Sulfuric Acid Tank (Dresinol Process):

A. Height: 20 ft
B. Inside diameter: 0.167 ft
C. Exit gas velocity: 0.25 fps
D. Exit gas temperature: Ambient

AD-003/Tank NT-180 Vent with Water Scrubber:

A. Height: 30 ft
B. Inside diameter: 0.5 ft
C. Exit gas velocity: Variable
D. Exit gas temperature: Ambient

8. UTM Coordinates:
A. Zone 16 B. North 3,469,500m C. East 280,000m

NEUPHOR PROCESS AREA

This section describes the facility's Neuphor Area production operation and summarizes the assumptions and methods used to determine emission rates. A diagram of the Neuphor process area is included in Figure 5.

Several resin dispersions; including Neuphor, Hi pHase, and Dresinol; are manufactured in the Neuphor area. Some of the dispersions are specialty chemicals used primarily as internal sizing agents in the manufacture of paper. They are used in bleached, unbleached and recycled boxboard grades and printing and writing paper. They are resin dispersions in water containing between 50-65 percent water by weight. They are considered nonflammable, nonhazardous liquids. They meet FDA and U.S. Food and Drug Administration standards for use in materials contacting food. Other resin dispersions are specialty chemicals used as adhesives, coatings, and binders in diverse and varied industry applications. They are resin dispersions in water containing 55-60 percent water by weight. They are considered nonflammable, nonhazardous liquids. Dresinol resin dispersions meet FDA and U.S. Food and Drug Administration standards for use in materials contacting food.

The facility routinely products several types of resin dispersions. Some resin dispersions are produced continuously in the ACH process. Other resin dispersions are produced continuously in the HTP process. Dry raw materials are stored in the Neuphor area and Kymene area warehouses. They are transferred using fork lifts and fed to the process either manually or by using a screw conveyor. Liquid raw materials are stored in work tanks or tote bins in the Neuphor area. Liquid raw materials are pumped to the ACH or HTP process. Finished products are stored in product storage tanks and tote bins in the Neuphor area. Tote bins are relocated to shipping warehouses located throughout the plant. The manufacturing scheme for resin dispersions is the same for both the ACH and HTP. The Water phase, including chemicals that are soluble, is produced in water. Organic phase is adducted in the reactor and held at elevated temperatures above the resin melting point. The organic phase and water phase are brought together under controlled flow rates, temperature, and pressure. Mechanical energy (work) is performed on the crude dispersion producing a resin emulsion. The resin emulsion is cooled to produce the resin dispersion and transferred to work tanks. Finally, the resin dispersion in the work tank is treated with biocide and stabilizing chemical and corrected to final solids. The on-grade resin dispersion is either packaged or stored in bulk for later bulk shipment packaging. During transfer from either the work tank or bulk storage tanks, the final product is filtered.

Emissions associated with the Neuphor Process Area primarily include: 1) ACH water phase makeup; 2) Adduct Reactor; 3) tank losses from raw material and product storage; 4) Fugitive losses; and 5) accounting inventories and mass balances.

ACH Process Losses

Two water phase tanks are equipped with a water scrubber. The water scrubber is typically used to control the exhaust from the water phase makeup tanks. The control system is designed to achieve a removal of 99 percent.

Adduct Reactor

The Adduct reactor is equipped with a water scrubber. The unit is typically used to control the exhaust from the Adduct Reactor. The control system is designed to achieve a removal of 99 percent. Dry, powdered materials are routinely added to the Adduct reactor. The Adduct reactor is fitted with a dry chemical feeder. The reactor is equipped with a rupture disk assembly for over-pressurization protection.

Pollutants emitted from the Neuphor Process Area include PM, VOCs, and HAPs.

MANUFACTURING PROCESSES (page 2 of 2) SECTION E

13. POLLUTANT EMISSIONS:

Emission rate calculations, monitoring data, or stack test data must be attached! ***(see Calculations Section)***

EMISSION POINT NO.	POLLUTANT (note 1)	CONTROL EQUIPMENT		ACTUAL EMISSION RATE			PROPOSED ALLOWABLE EMISSION RATE		
		yes/no*	effic.	note 2	lb/hr	tn/yr	note 2	lb/hr	tn/yr
AD-000 (038)	PM	YES	99	NA	< 1	NA	NA	None Requested	
	VOC	YES	50	NA	< 1	NA	NA	None Requested	
	All Other Criteria Pollutants	NO	NA	NA	< 1	NA	NA	None Requested	
	All Other HAPs	NO	NA	NA	< 0.1	NA	NA	None Requested	

1. All regulated air pollutants including hazardous air pollutants emitted from this source should be listed. A list of regulated air pollutants has been provided in section A.

2. Provide emission rate in units of applicable emission standard, e.g. lb/MMbtu, gr/dscf, etc. This may not apply to every emission point or every pollutant from an emission point.

* If yes, attach appropriate Air Pollution Control Data Sheet from Section L or manufacturers specifications if other.

SCRUBBERS (Page 1 of 2) SECTION L5

1. Emission Point No. / Name: AD-001

2. Manufacturers Name and Model No.: Schutte and Kuerting Venturi Gas Scrubber

3. Date of construction for existing sources or date of anticipated start-up for new sources:
1987

4. Scrubber Data:

a) Scrubber type:
- X Venturi
- _____ Orifice
- _____ Packed Tower
- _____ Gravity Tower
- _____ Cyclonic
- _____ Condenser
- _____ Mist Eliminator
- _____ Impingement Plate
- X Other: Tray Carbon Filter

b) Liquid injection rate: *(estimated)*
1) Design maximum: 15 gpm @ 50 psia
2) Expected average: 10-15 gpm @ 50 pisa

c) Pressure drop: 6 inches H_2O *(estimated)*

d) Scrubbing liquid:
1) X Once - through _____ Recycled
2) If recycled: NA gpm make - up rate
3) If water, describe settling basin: NA
4) Solution / Reactant systems:
a) Chemical make - up: NA
b) How is discharge handled, treated? Effluent Treatment Plant

e) Gas flow: _____ Counter current X Concurrent
1) Flow rate: 600 acfm (venturi capacity)
2) Inlet Temperature: Ambient - 150 °F *(estimated)*

f) Venturi Data: NA
1) Inlet Area: _____ ft^2
2) Throat Area: _____ ft^2
3) Throat velocity: _____ ft / sec
4) _____ Fixed throat _____ Variable throat

g) Packed or Plate Tower Data:
1) Surface Area: 3.2 ft^2 cross-sectional area
2) Packing depth: NA ft
3) Type of packing: NA Rings NA Saddles
NA Other: _____
4) No. of plates: 2
5) Type of plates: Activated Carbon (20" width x 23" length x 6" depth)

SCRUBBERS (Page 2 of 2) SECTION L5

h) Demisting Data: NA

1) Mist eliminator filter area: _____ ft^2

2) Type: _____ Cyclone _____ Vanes _____Pad

_____ Other: _____

i) Efficiency: 75 % *(estimated)*

j) Are extra nozzles readily available?_____ Yes X No

How many? _____

k) Pressure measurement devices installed? _____ Yes X No

5. Which process(es) does the scrubber control emissions from? Rosin Adduct Reactor

SCRUBBERS (Page 1 of 2) SECTION L5

1. Emission Point No. / Name: AD-002

2. Manufacturers Name and Model No.: Unknown

3. Date of construction for existing sources or date of anticipated start-up for new sources:
Unknown

4. Scrubber Data:

a) Scrubber type:
- X Venturi
- _____ Packed Tower
- _____ Cyclonic
- _____ Mist Eliminator
- _____ Other:
- _____ Orifice
- _____ Gravity Tower
- _____ Condenser
- _____ Impingement Plate

b) Liquid injection rate: *(estimated)*
1) Design maximum: 2 gpm @ 20 psia
2) Expected average: 2 gpm @ 20 psia

c) Pressure drop: 6 inches H_2O *(estimated)*

d) Scrubbing liquid:
1) _____ Once - through X Recycled (closed loop)
2) If recycled: Variable gpm make - up rate
3) If water, describe settling basin: NA
4) Solution / Reactant systems:
a) Chemical make - up: Sulfuric Acid
b) How is discharge handled, treated? Effluent Treatment Plant

e) Gas flow: _____ Counter current X Concurrent
1) Flow rate: 7-8 acfm
2) Inlet Temperature: Ambient °F

f) Venturi Data: 2 inch eductor
1) Inlet Area: _____ ft^2
2) Throat Area: _____ ft^2
3) Throat velocity: _____ ft / sec
4) X Fixed throat _____ Variable throat

g) Packed or Plate Tower Data: NA
1) Surface Area: _____ ft^2
2) Packing depth: _____ ft
3) Type of packing: _____ Rings _____ Saddles
_____ Other: _____
4) No. of plates: _____
5) Type of plates: _____

SCRUBBERS (Page 2 of 2) SECTION L5

h) Demisting Data: NA

1) Mist eliminator filter area: _____ ft^2

2) Type: _____ Cyclone _____ Vanes _____Pad

_____ Other: _____

i) Efficiency: __99__ % *(estimated ammonia neutralization efficiency)*

j) Are extra nozzles readily available?_____ Yes __X__ No

How many? _____

k) Pressure measurement devices installed? _____ Yes __X__ No

5. Which process(es) does the scrubber control emissions from? Dresinol Process, Ammonia Vapor Neutralization

SCRUBBERS (Page 1 of 2) SECTION L5

1. Emission Point No. / Name: AD-003

2. Manufacturers Name and Model No.: Unknown

3. Date of construction for existing sources or date of anticipated start-up for new sources:
Unknown

4. Scrubber Data:

a) Scrubber type:

____	Venturi	____	Orifice
____	Packed Tower	__X__	Gravity Tower
____	Cyclonic	____	Condenser
____	Mist Eliminator	____	Impingement Plate
____	Other:		

b) Liquid injection rate: *(estimated)*

1) Design maximum: 15 gpm @ 20 psia
2) Expected average: 10-15 gpm @ 20 pisa

c) Pressure drop: 6 inches H_2O *(estimated)*

d) Scrubbing liquid:

1) __X__ Once - through ____ Recycled
2) If recycled: NA gpm make - up rate
3) If water, describe settling basin: NA
4) Solution / Reactant systems:
   a) Chemical make - up: NA
   b) How is discharge handled, treated? Effluent Treatment Plant

e) Gas flow: __X__ Counter current ____ Concurrent

1) Flow rate: Variable acfm
2) Inlet Temperature: Ambient °F

f) Venturi Data: NA

1) Inlet Area: ____ ft^2
2) Throat Area: ____ ft^2
3) Throat velocity: ____ ft / sec
4) ____ Fixed throat ____ Variable throat

g) Packed or Plate Tower Data: NA

1) Surface Area: ____ ft^2
2) Packing depth: ____ ft
3) Type of packing: ____ Rings ____ Saddles
   ____ Other: ____
4) No. of plates: ____
5) Type of plates: ____

SCRUBBERS (Page 2 of 2) SECTION L5

h) Demisting Data: NA

1) Mist eliminator filter area: _____ ft^2

2) Type: _____ Cyclone _____ Vanes _____ Pad

_____ Other: _____

i) Efficiency: 75 % *(estimated)*

j) Are extra nozzles readily available? _____ Yes NA No

How many? _____

k) Pressure measurement devices installed? _____ Yes NA No

5. Which process(es) does the scrubber control emissions from? NT-180 Tank (Rosin and Oil)

MANUFACTURING PROCESSES (page 1 of 2) SECTION E

1. Emission Point No./ Name: AE-000 (280)/Metal Resinates Process Area

2. Process Description: see attached process description

3. Was this unit constructed or modified after August 7, 1977? X yes _____ no
If yes please give date and explain. Metal Resinates Process initiated in 1985; Tanks were installed prior to 1977.

4. Rated Capacity (tons/hr): see attached Appendix D, Confidential Business Information

5. Raw Material Input:

MATERIAL	QUANTITY/HR AVERAGE	QUANTITY/HR MAXIMUM	QUANTITY/YEAR (1994)
see attached Appendix D, Confidential Business Information			

6. Product Output:

PRODUCT or BY-PRODUCT	QUANTITY/HR AVERAGE	QUANTITY/HR MAXIMUM	QUANTITY/YEAR (1994)
see attached Appendix D, Confidential Business Information			

7. Stack Data:

AE-001 (280)/Total Condenser:

A. Height: 10 ft
B. Inside diameter: 0.16 ft
C. Exit gas velocity: 0-1 fps
D. Exit gas temperature: Ambient

8. UTM Coordinates:
A. Zone 16 B. North 3,469,200m C. East 280,700m

METAL RESINATES PROCESS AREA

This section describes the facility's Metal Resinate production operations and summarizes the assumptions and methods used to determine batch and total emission rates. A diagram of the Metal Resinates Process Area is included in Figure 6.

Metal Resinates are specialty chemicals used in making Publication Gravure Printing Inks. Publication Gravure is a high quality printing process that is used to print sale ads, catalogs, inserts, and quality magazines like National Geographic. Metal Resinates are metal salts of adducted rosin at approximately 60% total solids in solvents. Metal Resinates are considered Flammable due to the solvent.

The facility produces several types of Metal Resinates in two batch reactors and associated tankage. Solvent and adduct are brought into the Metal Resinates Area via 20,000 gallon tank cars and unloaded into storage tanks. There are two solvent storage tanks and one adduct tank located in the Metal Resinates Process Area. After the Metal Resinate is produced, the product is stored in product storage tanks in the Metal Resinate Process Area or pumped directly into tank cars. Metal Resinates are primarily shipped in 20,000 gallon tank cars to the customers.

Adduct and solvent are charged to the reactors by scale readings. Slurries of the metals are made up in slurry tanks and added to the reactors under controlled conditions. Once the metal slurries are added to the reactor and allowed to react, the water of reaction is stripped from the reaction mixture and the batch adjusted to on-grade properties.

All the tanks, tank cars, and process equipment are tied together by a common vent system. A nitrogen blanket is maintained on all tanks and equipment. The vent system lets down from header to header, finally going thru a total condenser before releasing any nitrogen being displaced.

Pollutants emitted from the Metal Resinates Process Area include PM, VOCs, and HAPs.

MANUFACTURING PROCESSES (page 2 of 2) SECTION E

13. POLLUTANT EMISSIONS:

Emission rate calculations, monitoring data, or stack test data must be attached! ***(see Calculations Section)***

EMISSION POINT NO.	POLLUTANT (note 1)	CONTROL EQUIPMENT		ACTUAL EMISSION RATE			PROPOSED ALLOWABLE EMISSION RATE		
		yes/no*	effic.	note 2	lb/hr	tn/yr	note 2	lb/hr	tn/yr
AE-000 (280)	PM	YES	99	NA	< 1	NA	NA	None Requested	
	VOC	YES	50-90	NA	4.40	19.29	NA	None Requested	
	HAP	YES	50-90	NA	4.40	19.29	NA	None Requested	
	VOC (fugitive)	NO	NA	NA	11.25	49.26	NA	None Requested	
	HAP (fugitive)	NO	NA	NA	11.25	49.26	NA	None Requested	
	All Other Criteria Pollutants	NO	NA	NA	< 1	NA	NA	None Requested	
	All Other HAPs	NO	NA	NA	< 0.1	NA	NA	None Requested	

1. All regulated air pollutants including hazardous air pollutants emitted from this source should be listed. A list of regulated air pollutants has been provided in section A.

2. Provide emission rate in units of applicable emission standard, e.g. lb/MMbtu, gr/dscf, etc. This may not apply to every emission point or every pollutant from an emission point.

* If yes, attach appropriate Air Pollution Control Data Sheet from Section L or manufacturers specifications if other.

OTHER AIR POLLUTION CONTROL EQUIPMENT / DEVICES — SECTION L7

If air pollution control equipment/device(s) are different from the previous sections descriptions or new technology, then explain below and attach manufacturers specifications including efficiency.

AE-001/Total Condenser

The condenser (AE-001) for the common vent system of the Metal Resinates process cools hot vapors with an estimated efficiency of 50 - 90% at a temperature range of 95 - 158°F. Manufacturer's data and other pertinent information is not available.

TANK SUMMARY SECTION H

Metal Resinates Process Area Tanks

The tanks listed in this section have been determined to have a potential to emit above the 0.1 lb/hr HAP (toluene) limit. Part 5 of each Tank Summary form lists actual emissions from tank breathing, working, and loading losses. The potential uncontrolled emissions calculations are included with the appropriate capacity mass balance sheet in the attached Appendix D, Confidential Business Information.

06/07/95 TANK DATA FORM

1. emission point no./name:	S-63 LB-69/M528		RECOVERED SOLVENT		
2. constructed/modified after 8/7/77(yes/no):				NO	Y/N
if yes give date and explain:					
3. product stored:			RECOVERED SOLVENT TOLUENE		
if more than one product stored complete 4 a-e:					
4. tank data:					
) storage temperature:				100	DEG F
a) true vapor pressure at stg temp:				1.025	PSIA
b) reid vapor pressure at stg temp:					PSIA
c) density of product at stg temp:				7.4	LBS/GAL
d) molecular weight of product vapor:				92.5	LBS/MOLE
e) throughput for most recent calender year:				759620	GALS/YR
f) tank capacity:				14838	GALS
g) tank diameter:	9.5			18.4	FT
h) tank height/length:	28			28	FT
i) average vapor space height:				4.75	FT
j) tank orentation(vertical/horizontal):				HOR	VER/HOR
k) type roof(dome/cone):				DOME	D/C
l) does tank have vapor recovery system(yes/no):				YES	Y/N
if yes, describe:		CONSERV	VENT		
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):				0.484	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)				FR	TYPE
n) check the closest city:				JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):				1	COLOR
p) tank paint condition(good/poor):				GOOD	G/P
q) type of tank loading					
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)				0	FACTOR
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)			18.4	0.86	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)			51	0.76	FACTOR
5. emissions summary					
1. breathing losses:		228	LBS/YR	0.114	TPY
2. working losses:		636	LBS/YR	0.318	TPY
3. loading losses:		0	LBS/YR	0.000	TPY
4. total emissions:		864	LBS/YR	0.432	TPY

6. umt coordinates:

zone	north	east
16RBK	6915	8067

notes:

06/06/95

TANK DATA FORM

1. emission point no./name:	S-90/M0870	REACTOR		
2. constructed/modified after 8/7/77(yes/no):			NO	Y/N
if yes give date and explain:				
3. product stored:			METAL RESINATES	
if more than one product stored complete 4 a-e:				
4. tank data:				
) storage temperature:			95	DEG F
a) true vapor pressure at stg temp:			0.9	PSIA
b) reid vapor pressure at stg temp:				PSIA
c) density of product at stg temp:			8.4	LBS/GAL
d) molecular weight of product vapor:			92.5	LBS/MOLE
e) throughput for most recent calender year:			1446317	GALS/YR
f) tank capacity:			4033	GALS
g) tank diameter:			8.6	FT
h) tank height/length:			9.6	FT
i) average vapor space height:			4.8	FT
j) tank orentation(vertical/horizontal):			VER	VER/HOR
k) type roof(dome/cone):			DOME	D/C
l) does tank have vapor recovery system(yes/no):			NO	Y/N
if yes, describe:				
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):			0.558	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)			FR	TYPE
n) check the closest city:			JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):			1.39	COLOR
p) tank paint condition(good/poor):			GOOD	G/P
q) type of tank loading				
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)			0	FACTOR
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	8.6		0.43	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	359		0.26	FACTOR
5. emissions summary				
1. breathing losses:		45 LBS/YR	0.022	TPY
2. working losses:		419 LBS/YR	0.210	TPY
3. loading losses:		0 LBS/YR	0.000	TPY
4. total emissions:		464 LBS/YR	0.232	TPY

6. umt coordinates:

zone	north	east
16RBK	6915	8067

notes:

06/08/95

TANK DATA FORM

1. emission point no./name:	S-109/M1090	REACTOR	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		METAL RESINATES	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		95	DEG F
a) true vapor pressure at stg temp:		0.9	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		8.4	LBS/GAL
d) molecular weight of product vapor:		92.5	LBS/MOLE
e) throughput for most recent calender year:		2892634	GALS/YR
f) tank capacity:		8715	GALS
g) tank diameter:		10	FT
h) tank height/length:		14.8	FT
i) average vapor space height:		7.45	FT
j) tank orentation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:	CONDENS		
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.558	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.39	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0)		0	FACTOR
submerged loading of a clean tank(.5):			
sub load, dedicated normal service(.6)			
sub load, dedicated vapor balance ser(1.0)			
splash loading of a clean tank(1.45)			
spl load, dedicated normal service(1.45)			
spl load, dedicated vapor balance ser(1.0)			
estimate small tank diameter factor for d=	10		
5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)		0.5	FACTOR
estimate number of turnovers factor for n=	332		
<35(1.0),50(.8),100(.6),200(.3),400(.25)		0.27	FACTOR
5. emissions summary			
1. breathing losses:	85 LBS/YR	0.042	TPY
2. working losses:	871 LBS/YR	0.435	TPY
3. loading losses:	0 LBS/YR	0.000	TPY
4. total emissions:	955 LBS/YR	0.478	TPY

6. umt coordinates:

zone	north	east
16RBK	6915	8067

notes:

06/07/95

TANK DATA FORM

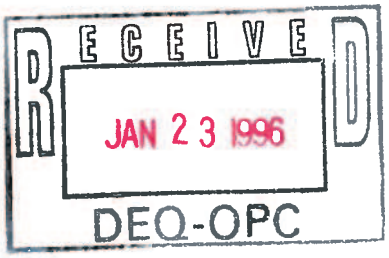
1. emission point no./name:	S-125/M1291	FRESH TOLUENE	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		100	DEG F
a) true vapor pressure at stg temp:		1.025	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		7.2	LBS/GAL
d) molecular weight of product vapor:		92.5	LBS/MOLE
e) throughput for most recent calender year:		1329639	GALS/YR
f) tank capacity:		16075	GALS
g) tank diameter:		12	FT
h) tank height/length:		19	FT
i) average vapor space height:		9.5	FT
j) tank orentation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe: CONDENS			
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		1	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0)		0	FACTOR
submerged loading of a clean tank(.5):			
sub load, dedicated normal service(.6)			
sub load, dedicated vapor balance ser(1.0)			
splash loading of a clean tank(1.45)			
spl load, dedicated normal service(1.45)			
spl load, dedicated vapor balance ser(1.0)			
estimate small tank diameter factor for d=	12		
5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)		0.6	FACTOR
estimate number of turnovers factor for n=	83		
<35(1.0),50(.8),100(.6),200(.3),400(.25)		0.53	FACTOR

5. emissions summary			
1. breathing losses:	224	LBS/YR	0.112 TPY
2. working losses:	1604	LBS/YR	0.802 TPY
3. loading losses:	0	LBS/YR	0.000 TPY
4. total emissions:	1827	LBS/YR	0.914 TPY

6. umt coordinates:

zone	north	east
16RBK	6915	8067

notes:



06/07/95

TANK DATA FORM

1. emission point no./name:	S-126/M1296	METAL RESINATE STORAGE (SO	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		METAL RESINATE	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		158	DEG F
a) true vapor pressure at stg temp:		3.92	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		8.4	LBS/GAL
d) molecular weight of product vapor:		92.5	LBS/MOLE
e) throughput for most recent calender year:		104524	GALS/YR
f) tank capacity:		19000	GALS
g) tank diameter:		13	FT
h) tank height/length:		20	FT
i) average vapor space height:		10	FT
j) tank orentation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:	CONDENS		
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.1	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.39	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0)		0	FACTOR
submerged loading of a clean tank(.5):			
sub load, dedicated normal service(.6)			
sub load, dedicated vapor balance ser(1.0)			
splash loading of a clean tank(1.45)			
spl load, dedicated normal service(1.45)			
spl load, dedicated vapor balance ser(1.0)			
estimate small tank diameter factor for d=	13		
5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)		0.66	FACTOR
estimate number of turnovers factor for n=	6		
<35(1.0),50(.8),100(.6),200(.3),400(.25)		1	FACTOR
5. emissions summary			
1. breathing losses:	118 LBS/YR	0.059	TPY
2. working losses:	91 LBS/YR	0.045	TPY
3. loading losses:	0 LBS/YR	0.000	TPY
4. total emissions:	209 LBS/YR	0.104	TPY

6. umt coordinates:

zone	north	east
16RBK	6915	8067

notes:

06/07/95

TANK DATA FORM

1. emission point no./name:	S-127/M1297		METAL RESINATE STORAGE (NO	
2. constructed/modified after 8/7/77(yes/no):			YES	Y/N
if yes give date and explain:	INSTALLE	1986		
3. product stored:			METAL RESINATE	
if more than one product stored complete 4 a-e:				
4. tank data:				
) storage temperature:			158	DEG F
a) true vapor pressure at stg temp:			3.92	PSIA
b) reid vapor pressure at stg temp:				PSIA
c) density of product at stg temp:			8.4	LBS/GAL
d) molecular weight of product vapor:			92.5	LBS/MOLE
e) throughput for most recent calender year:			104524	GALS/YR
f) tank capacity:			19000	GALS
g) tank diameter:			13	FT
h) tank height/length:			20	FT
i) average vapor space height:			10	FT
j) tank orentation(vertical/horizontal):			VER	VER/HOR
k) type roof(dome/cone):			DOME	D/C
l) does tank have vapor recovery system(yes/no):			YES	Y/N
if yes, describe:	CONDENS			
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):			0.1	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)			FR	TYPE
n) check the closest city:			JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):			1.39	COLOR
p) tank paint condition(good/poor):			GOOD	G/P
q) type of tank loading				
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)			0	FACTOR
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)		13	0.66	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)		6	1	FACTOR
5. emissions summary				
1. breathing losses:	118	LBS/YR	0.059	TPY
2. working losses:	91	LBS/YR	0.045	TPY
3. loading losses:	0	LBS/YR	0.000	TPY
4. total emissions:	209	LBS/YR	0.104	TPY

6. umt coordinates:

zone	north	east
16RBK	6915	8067

notes:

06/07/95

TANK DATA FORM

1. emission point no./name:	S-214	TOLUENE/WATER
2. constructed/modified after 8/7/77(yes/no):		NO Y/N
if yes give date and explain:		
3. product stored:		TOLUENE/WATER
if more than one product stored complete 4 a-e:		
4. tank data:		
) storage temperature:		95 DEG F
a) true vapor pressure at stg temp:		0.9 PSIA
b) reid vapor pressure at stg temp:		PSIA
c) density of product at stg temp:		7.4 LBS/GAL
d) molecular weight of product vapor:		92.5 LBS/MOLE
e) throughput for most recent calender year:		1574541 GALS/YR
f) tank capacity:		80 GALS
g) tank diameter:		2 FT
h) tank height/length:		3 FT
i) average vapor space height:		1.5 FT
j) tank orentation(vertical/horizontal):		VER VER/HOR
k) type roof(dome/cone):		DOME D/C
l) does tank have vapor recovery system(yes/no):		YES Y/N
if yes, describe:	CONDENS	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.558 FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR TYPE
n) check the closest city:		JACKSON MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.39 COLOR
p) tank paint condition(good/poor):		GOOD G/P
q) type of tank loading		
1. trucks and railcars(otherwise factor= 0)		0 FACTOR
submerged loading of a clean tank(.5):		
sub load, dedicated normal service(.6)		
sub load, dedicated vapor balance ser(1.0)		
splash loading of a clean tank(1.45)		
spl load, dedicated normal service(1.45)		
spl load, dedicated vapor balance ser(1.0)		
estimate small tank diameter factor for d=	2	
5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)		0.1 FACTOR
estimate number of turnovers factor for n=	19682	
<35(1.0),50(.8),100(.6),200(.3),400(.25)		0.25 FACTOR
5. emissions summary		
1. breathing losses:	0 LBS/YR	0.000 TPY
2. working losses:	439 LBS/YR	0.219 TPY
3. loading losses:	0 LBS/YR	0.000 TPY
4. total emissions:	439 LBS/YR	0.220 TPY

6. umt coordinates:

zone	north	east
16RBK	6915	8067

notes:

MANUFACTURING PROCESSES (page 1 of 2) SECTION E

1. Emission Point No./ Name: AF-000 (180 & 190)/Rosin Amine Derivatives Process Area

2. Process Description: see attached process description

3. Was this unit constructed or modified after August 7, 1977? _____yes __X__no
If yes please give date and explain. _____

4. Rated Capacity (tons/hr): _____see attached Appendix D, Confidential Business Information

5. Raw Material Input:

MATERIAL	QUANTITY/HR AVERAGE	QUANTITY/HR MAXIMUM	QUANTITY/YEAR (1994)
see attached Appendix D, Confidential Business Information			

6. Product Output:

PRODUCT or BY-PRODUCT	QUANTITY/HR AVERAGE	QUANTITY/HR MAXIMUM	QUANTITY/YEAR (1994)
see attached Appendix D, Confidential Business Information			

7. Stack Data:

AF-002 (182)/Ammoniation Vent:

A. Height: 1 ft
B. Inside diameter: 2 ft
C. Exit gas velocity: 0-1 fps
D. Exit gas temperature: Ambient

AF-003 (183)/Amine Reactor Vent:

A. Height: 1 ft
B. Inside diameter: 2 ft
C. Exit gas velocity: 0-1 fps
D. Exit gas temperature: Ambient

AF-004 (190)/Packed Bed Scrubber with Sulfuric Acid (Ethylene Oxide):

A. Height: 1 ft
B. Inside diameter: 2 ft
C. Exit gas velocity: 0-1 fps
D. Exit gas temperature: Ambient

8. UTM Coordinates:
A. Zone 16 B. North 3,469,600m C. East 280,700m

ROSIN AMINE DERIVATIVES PROCESS AREA

This section describes the facility's Rosin Amine Derivatives and Ethylene Oxide Derivatives production operations and summarizes the assumptions and methods used to determine emission rates. A diagram of the Rosin Amine Derivatives process area is included in Figure 7.

Rosin Amine Derivatives (RAD), including Amines and Amine Acetates, are manufactured in the RAD area. Ethylene Oxide Derivatives (EOD), including Polyrads and Surfactants, are also manufactured in the RAD area. The major use of Amine Acetates is a collector for silica and silicate minerals. Amine Acetate is used primarily in the benefication of non-metallic ores. The Polyrads are corrosion inhibitors that are used for hydrochloric acid and for petroleum refining equipment. Their detergent properties aid in loosening and dispersing scale.

The facility routinely produces RAD and/or EOD finished products. Some raw materials are stored in bulk storage tanks which are not in the immediate process area. Some resin feed is stored in tanks in the Synthetic Resins area which is dormant. Ammonia is stored in tanks in the Metal Resinates area. Ethylene Oxide is stored in an isolated storage tank away from the immediate process area. Finished products are either packaged or stored in product storage tanks in the RAD area.

The manufacturing scheme for EOD is: 1) Rosin ammoniation is the presence of a metal catalyst to produce crude Nitrile; 2) batch distillation of crude Nitrile to produce distilled Nitrile; 3) hydrogenation of distilled Nitrile in the presence of a metal catalyst to produce Amine; and 4) various blending operations to produce Amine Acetates.

The manufacturing scheme for EOD is: 1) reacting Ethylene Oxide with various feed resins; and 2) various blending operations.

Emissions associated with the RAD process area primarily include: 1) reactor losses; 2) tank losses from raw materials and product storage; 3) fugitive losses; and 4) accounting inventories and mass balances.

The RAD ammoniation reactor vent is equipped with a water scrubber/absorber drum. The Nitrile still operates under vacuum and is equipped with a barometric condenser/hot well. The hydrogenation reactors vent is equipped with a water scrubber bucket. The blending operations are associated with tank losses.

The EOD reactor vent is equipped with a weak Sulfuric Acid circulating media to connect Ethylene Oxide to Ethylene Glycol controlled blowdown.

Pollutants emitted from the RAD Process Area include PM, VOCs, and HAPs.

MANUFACTURING PROCESSES (page 2 of 2) SECTION E

13. POLLUTANT EMISSIONS:

Emission rate calculations, monitoring data, or stack test data must be attached! ***(see Calculations Section)***

EMISSION POINT NO.	POLLUTANT (note 1)	CONTROL EQUIPMENT		ACTUAL EMISSION RATE			PROPOSED ALLOWABLE EMISSION RATE		
		yes/no*	effic.	note 2	lb/hr	tn/yr	note 2	lb/hr	tn/yr
AF-000 (180 & 190)	PM	YES	99	NA	< 1	NA	NA	None Requested	
	VOC	YES	99	NA	0.02	0.07	NA	None Requested	
	HAP	YES	99	NA	0.02	0.07	NA	None Requested	
	VOC (fugitive)	NO	NA	NA	0.29	1.28	NA	None Requested	
	HAP (fugitive)	NO	NA	NA	0.29	1.28	NA	None Requested	
	All Other Criteria Pollutants	NO	NA	NA	< 1	NA	NA	None Requested	
	All Other HAPs	NO	NA	NA	< 0.1	NA	NA	None Requested	

1. All regulated air pollutants including hazardous air pollutants emitted from this source should be listed. A list of regulated air pollutants has been provided in section A.

2. Provide emission rate in units of applicable emission standard, e.g. lb/MMbtu, gr/dscf, etc. This may not apply to every emission point or every pollutant from an emission point.

* If yes, attach appropriate Air Pollution Control Data Sheet from Section L or manufacturers specifications if other.

SCRUBBERS (Page 1 of 2) SECTION L5

1. Emission Point No. / Name: AF-004

2. Manufacturers Name and Model No.: Andersen 2000 Inc. Serial No. S-4733-832

3. Date of construction for existing sources or date of anticipated start-up for new sources:
1988

4. Scrubber Data: *

a) Scrubber type:
_____ Venturi _____ Orifice
_____ Packed Tower _____ Gravity Tower
_____ Cyclonic _____ Condenser
_____ Mist Eliminator _____ Impingement Plate
_____ Other:

b) Liquid injection rate: *
1) Design maximum: _____ gpm @ _____psia
2) Expected average: _____ gpm @ _____pisa

c) Pressure drop: * _____ inches H_2O

d) Scrubbing liquid: *
1) _____ Once - through _____ Recycled
2) If recycled: _____ gpm make - up rate
3) If water, describe settling basin: _____
4) Solution / Reactant systems:
a) Chemical make - up: _____
b) How is discharge handled, treated?_____

e) Gas flow: * _____ Counter current _____ Concurrent
1) Flow rate: _____ acfm
2) Inlet Temperature: 200 °F

f) Venturi Data: *
1) Inlet Area: _____ ft^2
2) Throat Area: _____ ft^2
3) Throat velocity: _____ ft / sec
4) _____ Fixed throat _____ Variable throat

g) Packed or Plate Tower Data: *
1) Surface Area: _____ ft^2
2) Packing depth: _____ ft
3) Type of packing: _____ Rings _____ Saddles
_____ Other: _____
4) No. of plates: _____
5) Type of plates: _____

* - As of the time that this application was submitted, the complete manufacturer's data had not been received. At such time, the data will be submitted along with a completed Section L5 form.

SCRUBBERS (Page 2 of 2) SECTION L5

h) Demisting Data: *

1) Mist eliminator filter area: _____ ft^2

2) Type: _____ Cyclone _____ Vanes _____ Pad

_____ Other: _____

i) Efficiency: 99 %

j) Are extra nozzles readily available? _____ Yes X No

How many? _____

k) Pressure measurement devices installed? _____ Yes X No

5. Which process(es) does the scrubber control emissions from? Rosin Amine Derivatives Process (Ethylene Oxide)

* - As of the time that this application was submitted, the complete manufacturer's data had not been received. At such time, the data will be submitted along with a completed Section L5 form.

FUEL BURNING EQUIPMENT (page 1 of 2) SECTION D

1. Emission Point No. / Name: AF-001 (181)/Dowtherm Boiler

2. Equipment Description: Struthers Wells (Dowtherm) Boiler

3. Was this unit constructed or modified after August 7, 1977? _____ Yes __X__ No
If yes please give date and explain. _____

4. Rated Capacity: 8.3 MMBTU/hr 5. Type of burner: Multiple Port Gas

6. Usage: Process Heat

7. Complete the following table, identifying each type of fuel and the amount used. Specify the units for heat content, hourly usage, and yearly usage.

FUEL TYPE	HEAT CONTENT	% SULFUR	% ASH	MAXIMUM HOURLY USAGE	ACTUAL YEARLY USAGE
Natural Gas	1,000 Btu/cf	_____	_____	8,300 cf	18,737 mcf

8. Please list any fuel components that are hazardous air pollutants and the percentage in the fuel.

9. Operating Schedule: 24 hours/day 7 days/week 52 weeks/year

10. Stack Data:
A. Height: 55' C. Exit gas velocity: 14.3 fps
B. Inside diameter: 1.5' D. Exit gas temperature: 1,000 °F

11. UTM Coordinates:
A. Zone 16 B. North 3,469,600m C. East 280,700m

FUEL BURNING EQUIPMENT (page 2 of 2) SECTION D

12. POLLUTANT EMISSIONS:

Emission rate calculations, monitoring data, or stack test data must be attached!

EMISSION POINT NO.	POLLUTANT (note 1)	CONTROL EQUIPMENT		ACTUAL EMISSION RATE			PROPOSED ALLOWABLE EMISSION RATE		
		yes/no*	effic.	note 2	lb/hr	tn/yr	note 2	lb/hr	tn/yr
AF-001	PM	NO		0.004 lb/mmbtu	0.037	0.042	0.6 lb/mmbtu	None Requested	
	PM_{10}	NO		NA	0.062	0.070	NA	None Requested	
	SO_2	NO		0.0006 lb/mmbtu	0.005	0.006	4.8 lb/mmbtu	None Requested	
	NO_X	NO		NA	0.830	0.937	NA	None Requested	
	CO	NO		NA	0.174	0.197	NA	None Requested	
	VOC	NO		NA	0.044	0.049	NA	None Requested	
	All Other Criteria Pollutants	NO		NA	< 1	NA	NA	None Requested	
	All Other HAPs	NO		NA	< 0.1	NA	NA	None Requested	

1. All regulated air pollutants including hazardous air pollutants emitted from this source should be listed. A list of regulated air pollutants has been provided in section A.

2. Provide emission rate in units of applicable emission standard, e.g. lb/MMbtu, gr/dscf, etc. This may not apply to every emission point or every pollutant from an emission point.

* If yes, attach appropriate Air Pollution Control Data Sheet from Section L or manufacturers specifications if other.

MANUFACTURING PROCESSES (page 1 of 2) SECTION E

1. Emission Point No./ Name: AG-000 (080, 090, & 100)/Hard Resins Process Area

2. Process Description: see attached process description

3. Was this unit constructed or modified after August 7, 1977? _____yes ___X___no
If yes please give date and explain. _____

4. Rated Capacity (tons/hr): see attached Appendix D, Confidential Business Information

5. Raw Material Input:

MATERIAL	QUANTITY/HR AVERAGE	QUANTITY/HR MAXIMUM	QUANTITY/YEAR (1994)
see attached Appendix D, Confidential Business Information			

6. Product Output:

PRODUCT or BY-PRODUCT	QUANTITY/HR AVERAGE	QUANTITY/HR MAXIMUM	QUANTITY/YEAR (1994)
see attached Appendix D, Confidential Business Information			

7. Stack Data:

AG-003 (082 and 102)/Water Scrubber (Kettle Vent):

A. Height: 35 ft
B. Inside diameter: 4 ft
C. Exit gas velocity: 2 fps
D. Exit gas temperature: Ambient

AG-004 (092)/Continuous Esterification Vent:

A. Height: 65 ft
B. Inside diameter: 0.25 ft
C. Exit gas velocity: 0-1 fps
D. Exit gas temperature: 212°F

AG-005 (101)/Buell Norblo Dust Collector (Flaking Belt, Cold End):

A. Height: 12 ft
B. Inside diameter: 2.4 ft
C. Exit gas velocity: 28.73 fps
D. Exit gas temperature: Ambient

8. UTM Coordinates:
A. Zone 16 B. North 3,469,200m C. East 280,700m

HARD RESINS PROCESS AREA

This section describes the facility's Hard Resins Area (HRA) production operations and summarizes the assumptions and methods used to determine emission rates. A diagram of the Hard Resins process area is included in Figure 8.

Several Resin derivatives, including primarily simple esters, are produced in the HRA production facilities. Also, Rosin Adduct which is produced in the Neuphor Process Area can also be produced in the Hard Resins Area. The esterification reaction is enhanced by the use of a catalyst and usually requires the addition of antioxidants as well. The final products are used in many diverse and varied industry applications such as chewing gum and adhesives. Many of them meet FDA and U.S. Food and Drug Administration requirements for use in food.

The facility routinely produces products in several batch kettles with a continuous esterification unit (CEU) also available. The kettles allow feed resins and essential materials to react under specified and controlled conditions to produce desired products. The vent system/vacuum system is used to remove water of reaction and the light ends. Feed resins and other raw materials are normally stored at HRA in storage tanks, drums, or bags. Finished products are either flaked and bagged, drummed, or shipped in bulk. Storage tanks and warehouses are used to inventory both essential materials and finished products.

Emissions associated with the HRA process primarily include: 1) kettle losses resulting from displacement, thermal expansion, etc.; 2) tank losses from raw materials and product storage; 3) flaking and packaging; 4) fugitive losses; and 5) accounting inventories and mass balances.

The kettle vent system/vacuum system ties into a common water spray scrubber. The kettle atmospheric vent goes to a vent tank for collecting the light ends. The vent tank goes to a packed water scrubber followed by an induced draft fan/water box spray which discharges into the common water spray scrubber. The vacuum system removes the light ends to a catch tank. The vacuum pump discharge also ties into the packed water scrubber.

The hot end of the flaking belt goes to an induced draft fan/water box spray which also discharges into the common water spray scrubber.

The cold end of the flaking belt or packaging goes to a bag house dust collector/induced draft fan to remove particulate emissions.

Pollutants emitted from the Hard Resins Process Area include PM, VOCs, and HAPs. HAPs emitted include Acrolein, Formaldehyde, Maleic Anhydride, Phthalic Anhydride, and Ethylene Glycol.

BAGHOUSES — SECTION L1

1. Emission Point No. / Name : AG-005

2. Manufacturers Name & Model No.: Buell "Norblo" Mechanical Shaker Type Dust Collector Model No. 396-14-20

3. Date of construction for existing sources or date of anticipated start-up for new sources:
1979

4. Baghouse Data:

a) Cloth area: 7,344 ft^2

b) Air to cloth ratio: 3.06:1 $acfm/ft^2$

c) Type of bag: _____ Woven _____ Felted _____ Membrane _____ Other:

d) Bag material: Polyester

e) No. of bags: 396

f) No. of compartments: 4

g) Bag length: 14.17 ft

h) Bag diameter: 0.42 ft

i) Pressure drop: 4 - 6 inches H_2O

j) Pressure measurement device installed: _____ Yes X No

k) Air flow: 22,500 acfm @ 72 °F

l) Efficiency: 99 %

m) Dirty air on: X inside _____ outside of bag

n) Time between bag cleaning: 8 min.

o) Method of bag cleaning: ___X___ Shaking _____ Reverse Air
_____ Pulse Jet _____ Other:

p) Are extra bags readily available: ___ Yes_X___ NoHow Many? _____

q) How is the collected dust stored, handled, disposed of? Dust is collected in a hopper

5. Which process(es) does the baghouse control emissions from? Hard Resins Process, Flaking Belt (Cold End)

MANUFACTURING PROCESSES (page 2 of 2) SECTION E

13. POLLUTANT EMISSIONS:

Emission rate calculations, monitoring data, or stack test data must be attached! ***(see Calculations Section)***

EMISSION POINT NO.	POLLUTANT (note 1)	CONTROL EQUIPMENT		ACTUAL EMISSION RATE			PROPOSED ALLOWABLE EMISSION RATE		
		yes/no*	effic.	note 2	lb/hr	tn/yr	note 2	lb/hr	tn/yr
AG-000 (080, 090, & 100)	PM	YES	50-90	NA	< 1	NA	NA	None Requested	
	VOC	YES	50-90	NA	17.82	78.05	NA	None Requested	
	All Other Criteria Pollutants	NO	NA	NA	< 1	NA	NA	None Requested	
	All Other HAPs	NO	NA	NA	< 0.1	NA	NA	None Requested	

1. All regulated air pollutants including hazardous air pollutants emitted from this source should be listed. A list of regulated air pollutants has been provided in section A.

2. Provide emission rate in units of applicable emission standard, e.g. lb/MMbtu, gr/dscf, etc. This may not apply to every emission point or every pollutant from an emission point.

* If yes, attach appropriate Air Pollution Control Data Sheet from Section L or manufacturers specifications if other.

SCRUBBERS (Page 1 of 2) SECTION L5

1. Emission Point No. / Name: AG-003

2. Manufacturers Name and Model No.: Hercules, Incorporated

3. Date of construction for existing sources or date of anticipated start-up for new sources:

4. Scrubber Data:

a) Scrubber type:

____	Venturi	____	Orifice
____	Packed Tower	X	Gravity Tower
____	Cyclonic	____	Condenser
____	Mist Eliminator	____	Impingement Plate
____	Other:		

b) Liquid injection rate: *(estimated)*

1) Design maximum: 6 gpm @ 40 psia
2) Expected average: 6 gpm @ 20 pisa

c) Pressure drop: 6 inches H_2O *(estimated)*

d) Scrubbing liquid:

1) X Once - through ____ Recycled
2) If recycled: NA gpm make - up rate
3) If water, describe settling basin: sent to Effluent Treatment Plant
4) Solution / Reactant systems:
   a) Chemical make - up: NA
   b) How is discharge handled, treated? Effluent Treatment Plant

e) Gas flow: X Counter current ____ Concurrent

1) Flow rate: 8,405 acfm
2) Inlet Temperature: Ambient - 150 °F

f) Venturi Data: NA

1) Inlet Area: ____ ft^2
2) Throat Area: ____ ft^2
3) Throat velocity: ____ ft / sec
4) ____ Fixed throat ____ Variable throat

g) Packed or Plate Tower Data: NA

1) Surface Area: ____ ft^2
2) Packing depth: ____ ft
3) Type of packing: ____ Rings ____ Saddles
   ____ Other: ____
4) No. of plates: ____
5) Type of plates: ____

SCRUBBERS (Page 2 of 2) SECTION L5

h) Demisting Data: NA

1) Mist eliminator filter area: _____ ft^2

2) Type: _____ Cyclone _____ Vanes _____ Pad

_____ Other: _____

i) Efficiency: 80 % *(estimated)*

j) Are extra nozzles readily available? _____ Yes X No

How many? _____

k) Pressure measurement devices installed? X Yes _____ No

5. Which process(es) does the scrubber control emissions from? Hard Resins Process, Kettle Vent System and Flaking Belt

FUEL BURNING EQUIPMENT (page 1 of 2) SECTION D

1. Emission Point No. / Name: AG-001 (081)/Kettle Boiler

2. Equipment Description: Struthers Wells (Dowtherm) Boiler

3. Was this unit constructed or modified after August 7, 1977? _____ Yes __X__ No
If yes please give date and explain. _____

4. Rated Capacity: 8.3 MMBTU/hr 5. Type of burner: Multiple Port Gas

6. Usage: Process Heat

7. Complete the following table, identifying each type of fuel and the amount used. Specify the units for heat content, hourly usage, and yearly usage.

FUEL TYPE	HEAT CONTENT	% SULFUR	% ASH	MAXIMUM HOURLY USAGE	ACTUAL YEARLY USAGE
Natural Gas	1,000 Btu/cf	_____	_____	8,300 cf	21,408 mcf

8. Please list any fuel components that are hazardous air pollutants and the percentage in the fuel.

9. Operating Schedule: 24 hours/day 7 days/week 52 weeks/year

10. Stack Data:
A. Height: 60' C. Exit gas velocity: 10 fps
B. Inside diameter: 2.0' D. Exit gas temperature: 1,000 °F

11. UTM Coordinates:
A. Zone 16 B. North 3,469,200m C. East 280,700m

FUEL BURNING EQUIPMENT (page 2 of 2) SECTION D

12. POLLUTANT EMISSIONS:

Emission rate calculations, monitoring data, or stack test data must be attached!

EMISSION POINT NO.	POLLUTANT (note 1)	CONTROL EQUIPMENT		ACTUAL EMISSION RATE			PROPOSED ALLOWABLE EMISSION RATE		
		yes/no*	effic.	note 2	lb/hr	tn/yr	note 2	lb/hr	tn/yr
AG-001	PM	NO		0.004 lb/mmbtu	0.037	0.048	0.6 lb/mmbtu	None Requested	
	PM_{10}	NO		NA	0.062	0.080	NA	None Requested	
	SO_2	NO		0.0006 lb/mmbtu	0.005	0.006	4.8 lb/mmbtu	None Requested	
	NO_X	NO		NA	0.830	1.070	NA	None Requested	
	CO	NO		NA	0.174	0.225	NA	None Requested	
	VOC	NO		NA	0.044	0.057	NA	None Requested	
	All Other Criteria Pollutants	NO		NA	< 1	NA	NA	None Requested	
	All Other HAPs	NO		NA	< 0.1	NA	NA	None Requested	

1. All regulated air pollutants including hazardous air pollutants emitted from this source should be listed. A list of regulated air pollutants has been provided in section A.

2. Provide emission rate in units of applicable emission standard, e.g. lb/MMbtu, gr/dscf, etc. This may not apply to every emission point or every pollutant from an emission point.

* If yes, attach appropriate Air Pollution Control Data Sheet from Section L or manufacturers specifications if other.

FUEL BURNING EQUIPMENT (page 1 of 2) SECTION D

1. Emission Point No. / Name: AG-002 (091)/Dowtherm Boiler

2. Equipment Description: Struthers Wells (Dowtherm) Boiler

3. Was this unit constructed or modified after August 7, 1977? _____ Yes __X__ No
If yes please give date and explain. _____

4. Rated Capacity: 3.3 MMBTU/hr 5. Type of burner: Multiple Port Gas

6. Usage: Process Heat

7. Complete the following table, identifying each type of fuel and the amount used. Specify the units for heat content, hourly usage, and yearly usage.

FUEL TYPE	HEAT CONTENT	% SULFUR	% ASH	MAXIMUM HOURLY USAGE	ACTUAL YEARLY USAGE
Natural Gas	1,000 Btu/cf	_____	_____	3,300 cf	0

8. Please list any fuel components that are hazardous air pollutants and the percentage in the fuel.

9. Operating Schedule: 24 hours/day 7 days/week 52 weeks/year

10. Stack Data:
A. Height: 40' C. Exit gas velocity: 2.0 fps
B. Inside diameter: 1.5' D. Exit gas temperature: 1,000 °F

11. UTM Coordinates:
A. Zone 16 B. North 3,469,200m C. East 280,700m

FUEL BURNING EQUIPMENT (page 2 of 2) SECTION D

12. POLLUTANT EMISSIONS:

Emission rate calculations, monitoring data, or stack test data must be attached!

EMISSION POINT NO.	POLLUTANT (note 1)	CONTROL EQUIPMENT		ACTUAL EMISSION RATE			PROPOSED ALLOWABLE EMISSION RATE		
		yes/no*	effic.	note 2	lb/hr	tn/yr	note 2	lb/hr	tn/yr
AG-002	PM	NO		0.0 lb/mmbtu	0	0	0.6 lb/mmbtu	None Requested	
	PM_{10}	NO		NA	0	NA	NA	None Requested	
	SO_2	NO		0.0 lb/mmbtu	0	0	4.8 lb/mmbtu	None Requested	
	NO_X	NO		NA	0	NA	NA	None Requested	
	CO	NO		NA	0	NA	NA	None Requested	
	VOC	NO		NA	0	NA	NA	None Requested	
	All Other Criteria Pollutants	NO		NA	< 1	NA	NA	None Requested	
	All Other HAPs	NO		NA	< 0.1	NA	NA	None Requested	

1. All regulated air pollutants including hazardous air pollutants emitted from this source should be listed. A list of regulated air pollutants has been provided in section A.

2. Provide emission rate in units of applicable emission standard, e.g. lb/MMbtu, gr/dscf, etc. This may not apply to every emission point or every pollutant from an emission point.

* If yes, attach appropriate Air Pollution Control Data Sheet from Section L or manufacturers specifications if other.

MANUFACTURING PROCESSES (page 1 of 2) SECTION E

1. Emission Point No./ Name: AH-000 (040)/Rosin Shed Area

2. Process Description: see attached process description

3. Was this unit constructed or modified after August 7, 1977? ____yes __X__no
If yes please give date and explain. ____

4. Rated Capacity (tons/hr): see attached Appendix D, Confidential Business Information

5. Raw Material Input:

MATERIAL	QUANTITY/HR AVERAGE	QUANTITY/HR MAXIMUM	QUANTITY/YEAR (1994)
see attached Appendix D, Confidential Business Information			

6. Product Output:

PRODUCT or BY-PRODUCT	QUANTITY/HR AVERAGE	QUANTITY/HR MAXIMUM	QUANTITY/YEAR (1994)
see attached Appendix D, Confidential Business Information			

7. Stack Data: NA, Open Process with No Controls

A. Height: ____ C. Exit gas velocity: ____
B. Inside diameter: ____ D. Exit gas temperature: ____

8. UTM Coordinates:
A. Zone 16 B. North 3,469,400m C. East 280,500m

ROSIN SHED AND LIQUID LOADING SHED AREAS

This section describes the facility's Rosin Shed and Liquid Loading Shed Area operations and summarizes the assumptions and methods used to determine emission rates. A diagram of the area is included in Figure 9.

Rosin Shed

The facility's Rosin Shed is routinely used for drumming a variety of resins. It is an open drumming process along with several storage tanks. Finished product inventories, along with raw material feed resins, are stored in tanks, warehouses, or on the Rosin Shed pad.

Emissions associated with the Rosin Shed primarily include: 1) tank losses from storage; 2) open drumming losses; 3) fugitive losses; and 4) accounting inventories and mass balances.

Liquid Loading Shed

The Liquid Loading Shed is used to unload terpene shipments (Pine Oil) in bulk storage tanks. The material is then loaded as required for product shipments.

Emissions associated with the Liquid Loading Shed include: 1) tank losses; 2) fugitive losses; and 3) Accounting inventory and mass balances.

Pollutants emitted from the Rosin Shed and Liquid Loading Shed Areas include PM, VOCs, and HAPs.

MANUFACTURING PROCESSES (page 2 of 2) SECTION E

13. POLLUTANT EMISSIONS:

Emission rate calculations, monitoring data, or stack test data must be attached! ***(see Calculations Section)***

EMISSION POINT NO.	POLLUTANT (note 1)	CONTROL EQUIPMENT		ACTUAL EMISSION RATE			PROPOSED ALLOWABLE EMISSION RATE		
		yes/no*	effic.	note 2	lb/hr	tn/yr	note 2	lb/hr	tn/yr
AH-000 (040)	PM	NO	NA	NA	< 1	NA	NA	None Requested	
	VOC	NO	NA	NA	< 1	NA	NA	None Requested	
	All Other Criteria Pollutants	NO	NA	NA	< 1	NA	NA	None Requested	
	All Other HAPs	NO	NA	NA	< 0.1	NA	NA	None Requested	

1. All regulated air pollutants including hazardous air pollutants emitted from this source should be listed. A list of regulated air pollutants has been provided in section A.

2. Provide emission rate in units of applicable emission standard, e.g. lb/MMbtu, gr/dscf, etc. This may not apply to every emission point or every pollutant from an emission point.

* If yes, attach appropriate Air Pollution Control Data Sheet from Section L or manufacturers specifications if other.

MANUFACTURING PROCESSES (page 1 of 2) SECTION E

1. Emission Point No./ Name: AI-000 (110)/Staybelite Process Area

2. Process Description: see attached process description

3. Was this unit constructed or modified after August 7, 1977? ____yes __X__no
If yes please give date and explain. ____

4. Rated Capacity (tons/hr): see attached Appendix D, Confidential Business Information

5. Raw Material Input:

MATERIAL	QUANTITY/HR AVERAGE	QUANTITY/HR MAXIMUM	QUANTITY/YEAR (1994)
see attached Appendix D, Confidential Business Information			

6. Product Output:

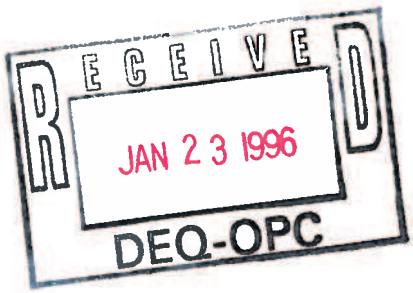
PRODUCT or BY-PRODUCT	QUANTITY/HR AVERAGE	QUANTITY/HR MAXIMUM	QUANTITY/YEAR (1994)
see attached Appendix D, Confidential Business Information			

7. Stack Data:

AI-001 (112)/Separator Vent (Hydrogenation Process):

A. Height: 20 ft
B. Inside diameter: 0.17 ft
C. Exit gas velocity: 22.6 fps
D. Exit gas temperature: 212°F

8. UTM Coordinates:
A. Zone 16 B. North 3,469,200m C. East 280,600m



STAYBELITE PROCESS AREA

This section describes the facility's Staybelite Process Area operations and summarizes the assumptions and methods used to determine emission rates. A diagram of the Staybelite Process Area is included in Figure 10.

Hydrogenated resins, including Staybelite and Foral, are manufactured in the Staybelite Process area. The area also includes hydrogen manufacturing and resin distillation. The facility routinely produces hydrogen and distilled resins.

Pollutants emitted from the Staybelite Process Area include PM, VOCs, and HAPs.

MANUFACTURING PROCESSES (page 2 of 2) SECTION E

13. POLLUTANT EMISSIONS:

Emission rate calculations, monitoring data, or stack test data must be attached! ***(see Calculations Section)***

EMISSION POINT NO.	POLLUTANT (note 1)	CONTROL EQUIPMENT		ACTUAL EMISSION RATE			PROPOSED ALLOWABLE EMISSION RATE		
		yes/no*	effic.	note 2	lb/hr	tn/yr	note 2	lb/hr	tn/yr
AI-000 (110)	PM	NO	NA	NA	< 1	NA	NA	None Requested	
	VOC	NO	NA	NA	0.328	1.44	NA	None Requested	
	All Other Criteria Pollutants	NO	NA	NA	< 1	NA	NA	None Requested	
	All Other HAPs	NO	NA	NA	< 0.1	NA	NA	None Requested	

1. All regulated air pollutants including hazardous air pollutants emitted from this source should be listed. A list of regulated air pollutants has been provided in section A.

2. Provide emission rate in units of applicable emission standard, e.g. lb/MMbtu, gr/dscf, etc. This may not apply to every emission point or every pollutant from an emission point.

* If yes, attach appropriate Air Pollution Control Data Sheet from Section L or manufacturers specifications if other.

MANUFACTURING PROCESSES (page 1 of 2) SECTION E

1. Emission Point No./ Name: AJ-000 (150)/Rosin Distillation Process Area

2. Process Description: see attached process description

3. Was this unit constructed or modified after August 7, 1977? _____ yes ___X___ no
If yes please give date and explain. _____

4. Rated Capacity (tons/hr): see attached Appendix D, Confidential Business Information

5. Raw Material Input:

MATERIAL	QUANTITY/HR AVERAGE	QUANTITY/HR MAXIMUM	QUANTITY/YEAR (1994)
see attached Appendix D, Confidential Business Information			

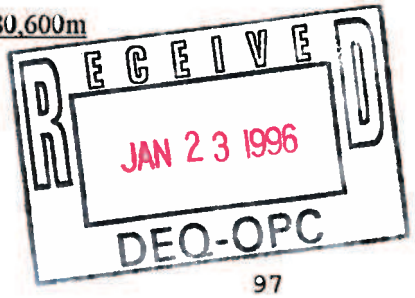
6. Product Output:

PRODUCT or BY-PRODUCT	QUANTITY/HR AVERAGE	QUANTITY/HR MAXIMUM	QUANTITY/YEAR (1994)
see attached Appendix D, Confidential Business Information			

7. Stack Data: NA, Closed Process

A. Height: _____ C. Exit gas velocity: _____
B. Inside diameter: _____ D. Exit gas temperature: _____

8. UTM Coordinates:
A. Zone 16 B. North 3,469,200m C. East 280,600m



ROSIN DISTILLATION PROCESS AREA

This section describes the facility's Rosin Distillation Process Area operations and summarizes the assumptions and methods used to determine emission rates. A diagram of the Rosin Distillation Process Area is included in Figure 11.

The rosin distillation still operates under vacuum and is equipped with a barometric condenser/hot well.

Although there are no direct stack emissions emitted from this process, the potential exists for fugitive emissions from the Rosin Distillation Process Area that would include PM, VOCs, and HAPs.

MANUFACTURING PROCESSES (page 2 of 2) SECTION E

13. POLLUTANT EMISSIONS:

Emission rate calculations, monitoring data, or stack test data must be attached! ***(see Calculations Section)***

EMISSION POINT NO.	POLLUTANT (note 1)	CONTROL EQUIPMENT		ACTUAL EMISSION RATE			PROPOSED ALLOWABLE EMISSION RATE		
		yes/no*	effic.	note 2	lb/hr	tn/yr	note 2	lb/hr	tn/yr
AJ-000 (150)	PM	NO	NA	NA	< 1	NA	NA	None Requested	
	VOC	NO	NA	NA	< 1	NA	NA	None Requested	
	All Other Criteria Pollutants	NO	NA	NA	< 1	NA	NA	None Requested	
	All Other HAPs	NO	NA	NA	< 0.1	NA	NA	None Requested	

1. All regulated air pollutants including hazardous air pollutants emitted from this source should be listed. A list of regulated air pollutants has been provided in section A.

2. Provide emission rate in units of applicable emission standard, e.g. lb/MMbtu, gr/dscf, etc. This may not apply to every emission point or every pollutant from an emission point.

* If yes, attach appropriate Air Pollution Control Data Sheet from Section L or manufacturers specifications if other.

FUEL BURNING EQUIPMENT (page 1 of 2) SECTION D

1. Emission Point No. / Name: AJ-001 (111)/Dowtherm Boiler

2. Equipment Description: Struthers Wells Boiler

3. Was this unit constructed or modified after August 7, 1977? _____ Yes __X__ No
If yes please give date and explain. _____

4. Rated Capacity: 3.3 MMBTU/hr 5. Type of burner: Multiple Port Gas

6. Usage: Process Heat

7. Complete the following table, identifying each type of fuel and the amount used. Specify the units for heat content, hourly usage, and yearly usage.

FUEL TYPE	HEAT CONTENT	% SULFUR	% ASH	MAXIMUM HOURLY USAGE	ACTUAL YEARLY USAGE
Natural Gas	1,000 Btu/cf	_____	_____	3,300 cf	5,314 mcf

8. Please list any fuel components that are hazardous air pollutants and the percentage in the fuel.

9. Operating Schedule: 24 hours/day 7 days/week 52 weeks/year

10. Stack Data:
A. Height: 40' C. Exit gas velocity: 14 fps
B. Inside diameter: 1.5' D. Exit gas temperature: 1,000 °F

11. UTM Coordinates:
A. Zone 16 B. North 3,469,200m C. East 280,600m

FUEL BURNING EQUIPMENT (page 2 of 2) SECTION D

12. POLLUTANT EMISSIONS:

Emission rate calculations, monitoring data, or stack test data must be attached!

EMISSION POINT NO.	POLLUTANT (note 1)	CONTROL EQUIPMENT		ACTUAL EMISSION RATE			PROPOSED ALLOWABLE EMISSION RATE		
		yes/no*	effic.	note 2	lb/hr	tn/yr	note 2	lb/hr	tn/yr
AJ-001	PM	NO		0.005 lb/mmbtu	0.015	0.012	0.6 lb/mmbtu	None Requested	
	PM_{10}	NO		NA	0.025	0.020	NA	None Requested	
	SO_2	NO		0.0006 lb/mmbtu	0.002	0.002	4.8 lb/mmbtu	None Requested	
	NO_X	NO		NA	0.330	0.266	NA	None Requested	
	CO	NO		NA	0.069	0.056	NA	None Requested	
	VOC	NO		NA	0.017	0.014	NA	None Requested	
	All Other Criteria Pollutants	NO		NA	< 1	NA	NA	None Requested	
	All Other HAPs	NO		NA	< 0.1	NA	NA	None Requested	

1. All regulated air pollutants including hazardous air pollutants emitted from this source should be listed. A list of regulated air pollutants has been provided in section A.

2. Provide emission rate in units of applicable emission standard, e.g. lb/MMbtu, gr/dscf, etc. This may not apply to every emission point or every pollutant from an emission point.

* If yes, attach appropriate Air Pollution Control Data Sheet from Section L or manufacturers specifications if other.

MANUFACTURING PROCESSES (page 1 of 2) SECTION E

1. Emission Point No./ Name: AK-000/Hydrogen Generation Process Area

2. Process Description: see attached process description

3. Was this unit constructed or modified after August 7, 1977? _____yes ___X___no
If yes please give date and explain. _____

4. Rated Capacity (tons/hr): see attached Appendix D, Confidential Business Information

5. Raw Material Input:

MATERIAL	QUANTITY/HR AVERAGE	QUANTITY/HR MAXIMUM	QUANTITY/YEAR (1994)
see attached Appendix D, Confidential Business Information			

6. Product Output:

PRODUCT or BY-PRODUCT	QUANTITY/HR AVERAGE	QUANTITY/HR MAXIMUM	QUANTITY/YEAR (1994)
see attached Appendix D, Confidential Business Information			

7. Stack Data: NA

A. Height: _____ C. Exit gas velocity: _____
B. Inside diameter: _____ D. Exit gas temperature: _____

8. UTM Coordinates:
A. Zone 16 B. North 3,469,200m C. East 280,600m

HYDROGEN GENERATION PROCESS AREA

This section describes the facility's Hydrogen Generation Process Area operations and summarizes the assumptions and methods used to determine emission rates. A diagram of the Hydrogen Generation Process Area is included in Figure 12.

The hydrogen manufacturing process primarily consists of: 1) natural gas catalytic cracking; 2) catalytic carbon monoxide conversion; 3) carbon dioxide and water scrubbing and caustic scrubbing (purification); and 4) methanation (purification).

Pollutants emitted from the Hydrogen Generation Process Area include PM, VOCs, and HAPs.

MANUFACTURING PROCESSES (page 2 of 2) SECTION E

13. POLLUTANT EMISSIONS:

Emission rate calculations, monitoring data, or stack test data must be attached! ***(see Calculations Section)***

EMISSION POINT NO.	POLLUTANT (note 1)	CONTROL EQUIPMENT		ACTUAL EMISSION RATE			PROPOSED ALLOWABLE EMISSION RATE		
		yes/no*	effic.	note 2	lb/hr	tn/yr	note 2	lb/hr	tn/yr
AK-000	PM	NO	NA	NA	< 1	NA	NA	None Requested	
	VOC	NO	NA	NA	< 1	NA	NA	None Requested	
	All Other Criteria Pollutants	NO	NA	NA	< 1	NA	NA	None Requested	
	All Other HAPs	NO	NA	NA	< 0.1	NA	NA	None Requested	

1. All regulated air pollutants including hazardous air pollutants emitted from this source should be listed. A list of regulated air pollutants has been provided in section A.

2. Provide emission rate in units of applicable emission standard, e.g. lb/MMbtu, gr/dscf, etc. This may not apply to every emission point or every pollutant from an emission point.

* If yes, attach appropriate Air Pollution Control Data Sheet from Section L or manufacturers specifications if other.

FUEL BURNING EQUIPMENT (page 1 of 2) SECTION D

1. Emission Point No. / Name: AK-001 (120)/Hydrogen Furnace

2. Equipment Description: Hydrogen Furnace

3. Was this unit constructed or modified after August 7, 1977? _____ Yes __X__ No
If yes please give date and explain. _____

4. Rated Capacity: 21.0 MMBTU/hr 5. Type of burner: Multiple Port Gas

6. Usage: Process Heat

7. Complete the following table, identifying each type of fuel and the amount used. Specify the units for heat content, hourly usage, and yearly usage.

FUEL TYPE	HEAT CONTENT	% SULFUR	% ASH	MAXIMUM HOURLY USAGE	ACTUAL YEARLY USAGE
Natural Gas	1,000 Btu/cf	_____	_____	21,000 cf	15,717 mcf

8. Please list any fuel components that are hazardous air pollutants and the percentage in the fuel.

9. Operating Schedule: 24 hours/day 7 days/week 52 weeks/year

10. Stack Data:
A. Height: 60' C. Exit gas velocity: 9.5 fps
B. Inside diameter: 2.0' D. Exit gas temperature: 1,000 °F

11. UTM Coordinates:
A. Zone 16 B. North 3,469,200m C. East 280,600m

FUEL BURNING EQUIPMENT (page 2 of 2) SECTION D

12. POLLUTANT EMISSIONS:

Emission rate calculations, monitoring data, or stack test data must be attached!

EMISSION POINT NO.	POLLUTANT (note 1)	CONTROL EQUIPMENT		ACTUAL EMISSION RATE			PROPOSED ALLOWABLE EMISSION RATE		
		yes/no*	effic.	note 2	lb/hr	tn/yr	note 2	lb/hr	tn/yr
AK-001	PM	NO		0.006 lb/mmbtu	0.130	0.049	0.53 lb/mmbtu	None Requested	
	PM_{10}	NO		NA	0.158	0.059	NA	None Requested	
	SO_2	NO		0.0006 lb/mmbtu	0.013	0.005	4.8 lb/mmbtu	None Requested	
	NO_X	NO		NA	2.940	1.100	NA	None Requested	
	CO	NO		NA	0.735	0.275	NA	None Requested	
	VOC	NO		NA	0.058	0.022	NA	None Requested	
	All Other Criteria Pollutants	NO		NA	< 1	NA	NA	None Requested	
	All Other HAPs	NO		NA	< 0.1	NA	NA	None Requested	

1. All regulated air pollutants including hazardous air pollutants emitted from this source should be listed. A list of regulated air pollutants has been provided in section A.

2. Provide emission rate in units of applicable emission standard, e.g. lb/MMbtu, gr/dscf, etc. This may not apply to every emission point or every pollutant from an emission point.

* If yes, attach appropriate Air Pollution Control Data Sheet from Section L or manufacturers specifications if other.

MANUFACTURING PROCESSES (page 1 of 2) SECTION E

1. Emission Point No./ Name: AL-000 (170)/Defoamer Area

2. Process Description: see attached process description

3. Was this unit constructed or modified after August 7, 1977? ____ yes __X__ no
If yes please give date and explain. ____

4. Rated Capacity (tons/hr): see attached Appendix D, Confidential Business Information

5. Raw Material Input:

MATERIAL	QUANTITY/HR AVERAGE	QUANTITY/HR MAXIMUM	QUANTITY/YEAR (1994)
see attached Appendix D, Confidential Business Information			

6. Product Output:

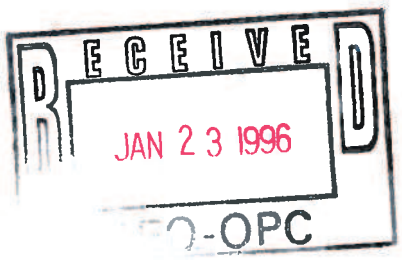
PRODUCT or BY-PRODUCT	QUANTITY/HR AVERAGE	QUANTITY/HR MAXIMUM	QUANTITY/YEAR (1994)
see attached Appendix D, Confidential Business Information			

7. Stack Data:

AL-002 (172)/Dust Collector (Silica Drier):

A. Height: 45 ft
B. Inside diameter: 0.67 ft
C. Exit gas velocity: 62 fps
D. Exit gas temperature: Ambient

8. UTM Coordinates:
A. Zone 16 B. North 3,469,400m C. East 280,700m



DEFOAMER PROCESS AREA

This section describes the Defoamer Area production operation and summarizes the assumptions and methods used to decide batch and total emission rates. A diagram of the Defoamer process area is included in Figure 3.

Several types of defoamers, including Silica defoamers, Silica/amide defoamers, Quick chilled amide defoamers and Quick chilled water-extended defoamers are manufactured in the Defoamer Area. Defoamers are specialty chemicals used primarily for defoaming and antifoaming paper and other industrial manufacturing processes. Defoamers are used as a production aid to remove entrained air in various industrial applications. They include pulp cooking, pulp washing, paper machine operation, effluent operations, paper coatings, paint manufacture, latex manufacture, and adhesive manufacture. Silica and amide defoamers are silica and amide particles dispersed in oil. Water-extended defoamers are the amide defoamers made water soluble and containing 50-65% water by weight. Silica based defoamers, silica/amide blend defoamers, and amide defoamers area flammable. Water-extended defoamers are non-flammable. All defoamers produced meet FDA and U.S. Food and Drug Administration standards for use in materials contacting food.

The facility produces defoamers in two processes. The two processes are the S2 Oil process and the quick chill process. All defoamers are produced batchwise. Dry raw materials are stored in the Paracol Warehouses. They are transferred using fork lifts and fed to the process either manually or using a screw conveyer. Liquid raw materials are stored work tanks or drums in the Paracol area. Liquid raw materials are pumped or hand carried to the defoamer process. Finished products are stored in product storage tanks and drums in the Paracol area. Drums and tote bins are relocated to shipping warehouses located throughout the plant.

The S2 Oil process includes drying and increasing the hydrophobicity of the silica in the rotary dryer. The S2 is then quenched in oil. The S2 Oil is blended with other specialty defoaming products to improve end use performance and heat treated. It is then sandmilled to achieve a uniform particle size. The product is cooled and transferred to the work tank.

The Quick chill process starts by melting the amide into a portion of carrier oil. This is known as the Hot Oil/EBS solution. The Hot Oil/EBS solution is crystallized into a cold oil solution (quick chilled). Product cooling is also achieved. The crystallized mixture is homogenized to achieve uniform particle size.

Emission associated with the Defoamer Process Area primarily included 1) Silica charging, 2) Silica drying, 3) Heat Treat Tank, 4) Hot Oil/EBS solution makeup, 5) tank losses from raw material and product storage, 6) Fugitive losses, and 7) accounting inventories and mass balances.

The Silica Transfer/Dryer Furnace scheme consists of the following: dry, powdered materials are routinely added to the silica dryer. The silica is charged using a dry chemical feeder. The chemical feeder is equipped with a dust collector. It controls the dust during silica charging. The control system is designed to achieve a removal of 99 percent. The natural gas fired silica dryer furnace is equipped with a Dust Collector to collect silica during the drying step.

Pollutants emitted from the Defoamer Process Area include PM, VOCs, and HAPs.

MANUFACTURING PROCESSES (page 2 of 2) SECTION E

13. POLLUTANT EMISSIONS:

Emission rate calculations, monitoring data, or stack test data must be attached! ***(see Calculations Section)***

EMISSION POINT NO.	POLLUTANT (note 1)	CONTROL EQUIPMENT		ACTUAL EMISSION RATE			PROPOSED ALLOWABLE EMISSION RATE		
		yes/no*	effic.	note 2	lb/hr	tn/yr	note 2	lb/hr	tn/yr
AL-000 (170)	PM	YES	99	NA	2.669	11.69	NA	None Requested	
	VOC	NO	NA	NA	< 1	NA	NA	None Requested	
	All Other Criteria Pollutants	NO	NA	NA	< 1	NA	NA	None Requested	
	All Other HAPs	NO	NA	NA	< 0.1	NA	NA	None Requested	

1. All regulated air pollutants including hazardous air pollutants emitted from this source should be listed. A list of regulated air pollutants has been provided in section A.

2. Provide emission rate in units of applicable emission standard, e.g. lb/MMbtu, gr/dscf, etc. This may not apply to every emission point or every pollutant from an emission point.

* If yes, attach appropriate Air Pollution Control Data Sheet from Section L or manufacturers specifications if other.

BAGHOUSES — SECTION L1

1. Emission Point No. / Name : AL-002

2. Manufacturers Name & Model No.: American Air Filter 4-168-400 Design M Fabri-Pulse Jet Collector

3. Date of construction for existing sources or date of anticipated start-up for new sources:
April 5, 1982

4. Baghouse Data:

a) Cloth area: 400 ft^2

b) Air to cloth ratio: 6.75:1 $acfm/ft^2$

c) Type of bag: _____ Woven _____ Felted
_____ Membrane _____ Other:

d) Bag material: Polyester

e) No. of bags: 168

f) No. of compartments: 1

g) Bag length: 4 ft

h) Bag diameter: 0.19 ft

i) Pressure drop: _____ inches H_2O

j) Pressure measurement device installed: _____ Yes X No

k) Air flow: 2,700 acfm @ Ambient °F

l) Efficiency: 99 %

m) Dirty air on: _____ inside X outside of bag

n) Time between bag cleaning: Continuous during batch operation

o) Method of bag cleaning: _____ Shaking _____ Reverse Air
___X___ Pulse Jet _____ Other:

p) Are extra bags readily available: ____ Yes__X__ NoHow Many? _____

q) How is the collected dust stored, handled, disposed of? Collected in bin and reused.

5. Which process(es) does the baghouse control emissions from? Silica Drier Furnace

FUEL BURNING EQUIPMENT (page 1 of 2) SECTION D

1. Emission Point No. / Name: AL-001 (171)/Silica Furnace

2. Equipment Description: Silica Furnace

3. Was this unit constructed or modified after August 7, 1977? _____ Yes __X__ No
If yes please give date and explain. _____

4. Rated Capacity: 0.2 MMBTU/hr 5. Type of burner: Multiple Port Gas

6. Usage: Process Heat

7. Complete the following table, identifying each type of fuel and the amount used. Specify the units for heat content, hourly usage, and yearly usage.

FUEL TYPE	HEAT CONTENT	% SULFUR	% ASH	MAXIMUM HOURLY USAGE	ACTUAL YEARLY USAGE
Natural Gas	1,000 Btu/cf	_____	_____	200 cf	0

8. Please list any fuel components that are hazardous air pollutants and the percentage in the fuel.

9. Operating Schedule: 24 hours/day 7 days/week 52 weeks/year

10. Stack Data:
A. Height: 45' C. Exit gas velocity: 7.0 fps
B. Inside diameter: 0.67' D. Exit gas temperature: 1,000 °F

11. UTM Coordinates:
A. Zone 16 B. North 3,469,400m C. East 280,700m

FUEL BURNING EQUIPMENT (page 2 of 2) SECTION D

12. POLLUTANT EMISSIONS:

Emission rate calculations, monitoring data, or stack test data must be attached!

EMISSION POINT NO.	POLLUTANT (note 1)	CONTROL EQUIPMENT		ACTUAL EMISSION RATE			PROPOSED ALLOWABLE EMISSION RATE		
		yes/no*	effic.	note 2	lb/hr	tn/yr	note 2	lb/hr	tn/yr
AL-001	PM	NO		0.0 lb/mmbtu	0	0	0.6 lb/mmbtu	None Requested	
	PM_{10}	NO		NA	0	0	NA	None Requested	
	SO_2	NO		0.0 lb/mmbtu	0	0	NA	None Requested	
	NO_X	NO		NA	0	0	NA	None Requested	
	CO	NO		NA	0	0	NA	None Requested	
	VOC	NO		NA	0	0	NA	None Requested	
	All Other Criteria Pollutants	NO		NA	< 1	NA	NA	None Requested	
	All Other HAPs	NO		NA	< 0.1	NA	NA	None Requested	

1. All regulated air pollutants including hazardous air pollutants emitted from this source should be listed. A list of regulated air pollutants has been provided in section A.

2. Provide emission rate in units of applicable emission standard, e.g. lb/MMbtu, gr/dscf, etc. This may not apply to every emission point or every pollutant from an emission point.

* If yes, attach appropriate Air Pollution Control Data Sheet from Section L or manufacturers specifications if other.

POWER HOUSE AREA

This section describes the facility's Power House operations and summarizes the assumptions and methods used to determine emission rates. A diagram of the Power House area is included in Figure 13.

The Power House routinely produces steam, service water, air, and nitrogen for the entire facility's usage. Steam is generated in two natural gas fired boilers. Service water is from two water wells. Air is generated from three air compressors. Nitrogen is generated from a nitrogen generation process which is located in the Rosin Amine area instead of the immediate Power House area. Water spray ponds are used for cooling purposes. Plant-wide fire water protection is also a function of the Power House. Electricity is purchased from Mississippi Power Company.

Pollutants emitted from the Power House Area include PM, SO_2, NO_X, CO, VOCs, and HAPs.

FUEL BURNING EQUIPMENT (page 1 of 2) SECTION D

1. Emission Point No. / Name: AM-001 (050)/Package Boiler No. 5

2. Equipment Description: Package Boiler No. 5

3. Was this unit constructed or modified after August 7, 1977? _____ Yes ___X___ No
If yes please give date and explain. _____

4. Rated Capacity: 156 MMBTU/hr 5. Type of burner: Multiple Port Gas

6. Usage: Process Heat

7. Complete the following table, identifying each type of fuel and the amount used. Specify the units for heat content, hourly usage, and yearly usage.

FUEL TYPE	HEAT CONTENT	% SULFUR	% ASH	MAXIMUM HOURLY USAGE	ACTUAL YEARLY USAGE
Natural Gas	1,000 Btu/cf	———	———	156,000 cf	567,673 mcf
Fuel Oil No. 2	141 Mbtu/gal	0.5	———	1,106 gal	0
Fuel Oil No. 6	150 Mbtu/gal	2.0	———	1,040 gal	0

8. Please list any fuel components that are hazardous air pollutants and the percentage in the fuel.
Per 12/93 joint API/EPA and Radian refinery study, No. 6 fuel oil has the following weight percentages of HAPs: Benzene 1.65%, Biphenyl 0.04%, Cresols 0.02%, Cumene 0.16%, Ethylbenzene 0.78%, Hexane 1.83%, Naphthalene 2.43%, Toluene 2.97%, and Xylene 0.45%. Per 12/93 joint API/EPA and Radian refinery study, No. 2 fuel oil has the following weight percentages of HAPs: Trimethylpentane 0.01%, Benzene 0.33%, Biphenyl 0.03%, Cresols 0.05%, Cumene 0.21%, Ethylbenzene 0.23%, Hexane 0.41%, Naphthalene 0.75%, Phenol 0.06%, Styrene 0.03%, Toluene 0.38%, and Xylene 0.77%.

9. Operating Schedule: 24 hours/day 7 days/week 52 weeks/year

10. Stack Data:
A. Height: 71' C. Exit gas velocity: 56 fps
B. Inside diameter: 3.0' D. Exit gas temperature: 250 °F

11. UTM Coordinates:
A. Zone 16 B. North 3,469,300m C. East 280,500m

FUEL BURNING EQUIPMENT (page 2 of 2) SECTION D

12. POLLUTANT EMISSIONS:

Emission rate calculations, monitoring data, or stack test data must be attached!

EMISSION POINT NO.	POLLUTANT (note 1)	CONTROL EQUIPMENT		ACTUAL EMISSION RATE			PROPOSED ALLOWABLE EMISSION RATE		
		yes/no*	effic.	note 2	lb/hr	tn/yr	note 2	lb/hr	tn/yr
AM-001	PM	NO		0.005 lb/mmbtu	0.8	1.42	0.38 lb/mmbtu	59.2	None Requested
	PM_{10}	NO		NA	0.8	1.42	NA	None Requested	
	SO_2	NO		0.0006 lb/mmbtu	0.1	0.17	4.8 lb/mmbtu	None Requested	
	NO_X	NO		NA	85.8	156.11	NA	None Requested	
	CO	NO		NA	6.2	11.35	NA	None Requested	
	VOC	NO		NA	0.2	0.40	NA	None Requested	
	All Other Criteria Pollutants	NO		NA	< 1	NA	NA	None Requested	
	All Other HAPs	NO		NA	< 0.1	NA	NA	None Requested	

1. All regulated air pollutants including hazardous air pollutants emitted from this source should be listed. A list of regulated air pollutants has been provided in section A.

2. Provide emission rate in units of applicable emission standard, e.g. lb/MMbtu, gr/dscf, etc. This may not apply to every emission point or every pollutant from an emission point.

* If yes, attach appropriate Air Pollution Control Data Sheet from Section L or manufacturers specifications if other.

FUEL BURNING EQUIPMENT (page 1 of 2) SECTION D

1. Emission Point No. / Name: AM-002 (240)/ Package Boiler No. 6

2. Equipment Description: Murray MCF 3 Series 59 Boiler

3. Was this unit constructed or modified after August 7, 1977? X Yes _____ No
If yes please give date and explain. Installed in 1986 to replace the two woodwaste boilers (reference emission points 9 and 10)

4. Rated Capacity: 65 MMBTU/hr 5. Type of burner: Multiple Port Gas

6. Usage: Process Heat

7. Complete the following table, identifying each type of fuel and the amount used. Specify the units for heat content, hourly usage, and yearly usage.

FUEL TYPE	HEAT CONTENT	% SULFUR	% ASH	MAXIMUM HOURLY USAGE	ACTUAL YEARLY USAGE
Natural Gas	1,000 Btu/cf	_____	_____	65,000 cf	31,973 mcf
Fuel Oil No. 2	141 MBtu/gal	0.5	_____	461gal	0
Fuel Oil No. 6	150 MBtu/gal	2.0	_____	433 gal	0

8. Please list any fuel components that are hazardous air pollutants and the percentage in the fuel.
Per 12/93 joint API/EPA and Radian refinery study, No. 6 fuel oil has the following weight percentages of HAPs: Benzene 1.65%, Biphenyl 0.04%, Cresols 0.02%, Cumene 0.16%, Ethylbenzene 0.78%, Hexane 1.83%, Naphthalene 2.43%, Toluene 2.97%, and Xylene 0.45%.
Per 12/93 joint API/EPA and Radian refinery study, No. 2 fuel oil has the following weight percentages of HAPs: Trimethylpentane 0.01%, Benzene 0.33%, Biphenyl 0.03%, Cresols 0.05%, Cumene 0.21%, Ethylbenzene 0.23%, Hexane 0.41%, Naphthalene 0.75%, Phenol 0.06%, Styrene 0.03%, Toluene 0.38%, and Xylene 0.77%.

9. Operating Schedule: 24 hours/day 7 days/week 52 weeks/year

10. Stack Data:
A. Height: 64'
B. Inside diameter: 4.0'
C. Exit gas velocity: Variable
D. Exit gas temperature: 250°F *(estimated)*

11. UTM Coordinates:
A. Zone 16 B. North 3,469,300m C. East 280,500m

FUEL BURNING EQUIPMENT (page 2 of 2) SECTION D

12. POLLUTANT EMISSIONS:

Emission rate calculations, monitoring data, or stack test data must be attached!

EMISSION POINT NO.	POLLUTANT (note 1)	CONTROL EQUIPMENT		ACTUAL EMISSION RATE			PROPOSED ALLOWABLE EMISSION RATE		
		yes/no*	effic.	note 2	lb/hr	tn/yr	note 2	lb/hr	tn/yr
AM-002	PM	NO		0.005 lb/mmbtu	0.3	0.08	0.44 lb/mmbtu	None Requested	
	PM_{10}	NO		NA	0.3	0.08	NA	None Requested	
	SO_2	NO		0.0005 lb/mmbtu	0.03	0.01	4.8 lb/mmbtu	None Requested	59.3
	NO_X	NO		NA	35.8	8.79	NA	None Requested	
	CO	NO		NA	2.6	0.64	NA	None Requested	
	VOC	NO		NA	0.1	0.2	NA	None Requested	
	All Other Criteria Pollutants	NO		NA	< 1	NA	NA	None Requested	
	All Other HAPs	NO		NA	< 0.1	NA	NA	None Requested	

1. All regulated air pollutants including hazardous air pollutants emitted from this source should be listed. A list of regulated air pollutants has been provided in section A.

2. Provide emission rate in units of applicable emission standard, e.g. lb/MMbtu, gr/dscf, etc. This may not apply to every emission point or every pollutant from an emission point.

* If yes, attach appropriate Air Pollution Control Data Sheet from Section L or manufacturers specifications if other.

EFFLUENT TREATMENT AREA

This section describes the facility's effluent treatment operations and summarizes the assumptions and methods used to determine emission rates. A diagram of the Effluent Treatment Area is included in Figure 14.

The facility's effluent treatment area operates under NPDES permit number MS0001830. The facility discharges directly into the Bouie River. Effluent treatment consists of equalization, solids removal, pH adjustment to facilitate oils separation, dissolved air flotation, neutralization, and activated carbon adsorption with a thermal carbon regeneration furnace.

Emissions associated with the effluent treatment area primarily include: 1) thermal carbon regenration furnace vent emissions; 2) fugitive losses; and 3) accounting inventories and mass balances.

The regenration furnace, which includes a dewatering/dryer section and a combustion/vaporization section coupled with an incineration section, is equipped with a water scrubber in series with an induced draft fan vent.

Pollutants emitted from the Effluent Treatment Area include PM, SO_2, NO_x, CO, VOCs, and HAPs.

FUEL BURNING EQUIPMENT (page 1 of 2) SECTION D

1. Emission Point No. / Name: AN-001 (230)/Carbon Regeneration Furnace with scrubber

2. Equipment Description: Carbon Regeneration Furnace with scrubber

3. Was this unit constructed or modified after August 7, 1977? _____ Yes __X__ No
If yes please give date and explain. _____

4. Rated Capacity: 2.95 MMBTU/hr 5. Type of burner: Multiple Port Gas

6. Usage: Process Heat

7. Complete the following table, identifying each type of fuel and the amount used. Specify the units for heat content, hourly usage, and yearly usage.

FUEL TYPE	HEAT CONTENT	% SULFUR	% ASH	MAXIMUM HOURLY USAGE	ACTUAL YEARLY USAGE
Natural Gas	1,000 Btu/cf	_____	_____	2,950 cf	24,198 mcf

8. Please list any fuel components that are hazardous air pollutants and the percentage in the fuel.

9. Operating Schedule: 24 hours/day 7 days/week 52 weeks/year

10. Stack Data:
A. Height: 100' C. Exit gas velocity: 36.2 fps
B. Inside diameter: 1.0' D. Exit gas temperature: 185 °F

11. UTM Coordinates:
A. Zone 16 B. North 3,469,350m C. East 280,800m

FUEL BURNING EQUIPMENT (page 2 of 2) SECTION D

12. POLLUTANT EMISSIONS:

Emission rate calculations, monitoring data, or stack test data must be attached!

EMISSION POINT NO.	POLLUTANT (note 1)	CONTROL EQUIPMENT		ACTUAL EMISSION RATE			PROPOSED ALLOWABLE EMISSION RATE		
		yes/no*	effic.	note 2	lb/hr	tn/yr	note 2	lb/hr	tn/yr
AN-001	PM	YES	99	0.004 lb/mmbtu	0.013	0.054	0.6 lb/mmbtu	None Requested	
	PM_{10}	YES	70	NA	0.022	0.091	NA	None Requested	
	SO_2	YES	60	0.0007 lb/mmbtu	0.002	0.007	NA	None Requested	
	NO_X	NO	NA	NA	0.295	1.210	NA	None Requested	
	CO	NO	NA	NA	0.062	0.254	NA	None Requested	
	VOC	YES	75	NA	0.016	0.064	NA	None Requested	
	All Other Criteria Pollutants	NO	NA	NA	< 1	NA	NA	None Requested	
	All Other HAPs	NO	NA	NA	< 0.1	NA	NA	None Requested	

1. All regulated air pollutants including hazardous air pollutants emitted from this source should be listed. A list of regulated air pollutants has been provided in section A.

2. Provide emission rate in units of applicable emission standard, e.g. lb/MMbtu, gr/dscf, etc. This may not apply to every emission point or every pollutant from an emission point.

* If yes, attach appropriate Air Pollution Control Data Sheet from Section L or manufacturers specifications if other.

SCRUBBERS (Page 1 of 2) SECTION L5

1. Emission Point No. / Name: AN-001

2. Manufacturers Name and Model No.: W.W. Sly Manufacturing Co.

3. Date of construction for existing sources or date of anticipated start-up for new sources:

4. Scrubber Data:

a) Scrubber type:

____	Venturi	____	Orifice
____	Packed Tower	____	Gravity Tower
____	Cyclonic	____	Condenser
____	Mist Eliminator	X	Impingement Plate
X	Other: Spray Section		

b) Liquid injection rate:

Plate Water Inlet/Spray Water Inlet:

1) Design maximum: 7/6 gpm @ 20 psia
2) Expected average: 7/6 gpm @ 20 pisa

c) Pressure drop: 1.5 inches H_2O

d) Scrubbing liquid:

1) X Once - through ____ Recycled
2) If recycled: ____ gpm make - up rate
3) If water, describe settling basin: sent to Effluent Treatment Plant
4) Solution / Reactant systems:
   a) Chemical make - up: NA
   b) How is discharge handled, treated? Effluent Treatment Plant

e) Gas flow: X Counter current ____ Concurrent

1) Flow rate: ____ acfm
2) Inlet Temperature: ____ °F

f) Venturi Data: NA

1) Inlet Area: ____ ft^2
2) Throat Area: ____ ft^2
3) Throat velocity: ____ ft / sec
4) ____ Fixed throat ____ Variable throat

g) Packed or Plate Tower Data:

1) Surface Area: ____ ft^2
2) Packing depth: ____ ft
3) Type of packing: ____ Rings ____ Saddles
   ____ Other: ____
4) No. of plates: 3
5) Type of plates: ____

SCRUBBERS (Page 2 of 2) SECTION L5

h) Demisting Data: NA
1) Mist eliminator filter area: _____ ft^2
2) Type: _____ Cyclone _____ Vanes _____ Pad
_____ Other: _____

i) Efficiency: 60-99 %

j) Are extra nozzles readily available? _____ Yes ___X___ No

How many? _____

k) Pressure measurement devices installed? _____ Yes ___X___ No

5. Which process(es) does the scrubber control emissions from? Carbon Regeneration Furnace

MANUFACTURING PROCESSES (page 1 of 2) SECTION E

1. Emission Point No./ Name: AC-000 (030)/Poly-Pale Process Area

2. Process Description: see attached process description

3. Was this unit constructed or modified after August 7, 1977? ____ yes __X__ no
If yes please give date and explain. ____

4. Rated Capacity (tons/hr): see attached Appendix D, Confidential Business Information

5. Raw Material Input:

MATERIAL	QUANTITY/HR AVERAGE	QUANTITY/HR MAXIMUM	QUANTITY/YEAR (1994)
see attached Appendix D, Confidential Business Information			

6. Product Output:

PRODUCT or BY-PRODUCT	QUANTITY/HR AVERAGE	QUANTITY/HR MAXIMUM	QUANTITY/YEAR (1994)
see attached Appendix D, Confidential Business Information			

7. Stack Data:

AC-002 (033)/Water Scrubber No. 1:

A. Height: 35 ft
B. Inside diameter: 0.25 ft
C. Exit gas velocity: 1.4 scfh
D. Exit gas temperature: Ambient

AC-003 (034)/ Water Scrubber No. 2:

A. Height: 35 ft
B. Inside diameter: 0.25 ft
C. Exit gas velocity: 404 scfh
D. Exit gas temperature: Ambient

8. UTM Coordinates:
A. Zone 16 B. North 3,469,400m C. East 280,400m

POLY-PALE PROCESS AREA

This section describes the facility's Poly-Pale area production operations and summarizes the assumptions and methods used to determine emission rates. A diagram of the Poly-Pale process area is included in Figure 4.

Poly-Pale is manufactured by the continuous acid-catalyzed dimerization of blended resins in solvent solution. Other co-products of by-products are Melhi, Pexoil, and weak acid. The process consists of several separate units for rosin dedrumming and melting; rosin-solvent mixing; polymerization; separation; hydrolysis; decomposition; washing; solvent evaporation; resin heat treatment; and storage. Raw materials are stored in tanks, tank cars, and drums. Products are stored in tanks, tank cars, and drums. In general the process is divided into two common vent systems with a few tanks venting directly to the atmosphere. Each vent system is equipped with a water scrubber.

Emissions associated with the Poly-Pale process area primarily include: (1) losses resulting from displacement, thermal expansion, etc., (2) tank losses from raw materials and product storage; (3) fugitive losses; and (4) accounting inventories and mass balances.

Pollutants emitted from the Poly-Pale Process Area include PM, SO_2, VOCs, and HAPs. HAPs include toluene.

MANUFACTURING PROCESSES (page 2 of 2) SECTION E

13. POLLUTANT EMISSIONS:

Emission rate calculations, monitoring data, or stack test data must be attached! ***(see Calculations Section)***

EMISSION POINT NO.	POLLUTANT (note 1)	CONTROL EQUIPMENT		ACTUAL EMISSION RATE			PROPOSED ALLOWABLE EMISSION RATE		
		yes/no*	effic.	note 2	lb/hr	tn/yr	note 2	lb/hr	tn/yr
AC-000 (030)	PM	YES	99	NA	1.57	6.89	NA	None Requested	
	SO_2	YES	60	NA	0.904	3.96	NA	None Requested	
	VOC	YES	50	NA	19.56	85.67	NA	None Requested	
	HAP	YES	50	NA	17.81	78.01	NA	None Requested	
	SO_2 (fugitive)	NO	NA	NA	1.10	4.81	NA	None Requested	
	VOC (fugitive)	NO	NA	NA	19.57	85.72	NA	None Requested	
	HAP (fugitive)	NO	NA	NA	19.57	85.72	NA	None Requested	
	All Other Criteria Pollutants	NO	NA	NA	< 1	NA	NA	None Requested	
	All Other HAPs	NO	NA	NA	< 0.1	NA	NA	None Requested	

1. All regulated air pollutants including hazardous air pollutants emitted from this source should be listed. A list of regulated air pollutants has been provided in section A.

2. Provide emission rate in units of applicable emission standard, e.g. lb/MMbtu, gr/dscf, etc. This may not apply to every emission point or every pollutant from an emission point.

* If yes, attach appropriate Air Pollution Control Data Sheet from Section L or manufacturers specifications if other.

MANUFACTURING PROCESSES (page 2 of 2) SECTION E

13. POLLUTANT EMISSIONS:

Emission rate calculations, monitoring data, or stack test data must be attached! ***(see Calculations Section)***

EMISSION POINT NO.	POLLUTANT (note 1)	CONTROL EQUIPMENT		ACTUAL EMISSION RATE			PROPOSED ALLOWABLE EMISSION RATE		
		yes/no*	effic.	note 2	lb/hr	tn/yr	note 2	lb/hr	tn/yr
AC-000 (030)	PM	YES	99	NA	1.57	6.89	NA	None Requested	
	SO_2	YES	60	NA	0.904	3.96	NA	None Requested	
	VOC	YES	50	NA	19.56	85.67	NA	None Requested	
	HAP	YES	50	NA	17.81	78.01	NA	None Requested	
	SO_2 (fugitive)	NO	NA	NA	10.81	47.33	NA	None Requested	
	VOC (fugitive)	NO	NA	NA	19.57	85.72	NA	None Requested	
	HAP (fugitive)	NO	NA	NA	19.57	85.72	NA	None Requested	
	All Other Criteria Pollutants	NO	NA	NA	< 1	NA	NA	None Requested	
	All Other HAPs	NO	NA	NA	< 0.1	NA	NA	None Requested	

1. All regulated air pollutants including hazardous air pollutants emitted from this source should be listed. A list of regulated air pollutants has been provided in section A.

2. Provide emission rate in units of applicable emission standard, e.g. lb/MMbtu, gr/dscf, etc. This may not apply to every emission point or every pollutant from an emission point.

* If yes, attach appropriate Air Pollution Control Data Sheet from Section L or manufacturers specifications if other.

SCRUBBERS (Page 2 of 2) SECTION L5

h) Demisting Data: NA

1) Mist eliminator filter area: _____ ft^2

2) Type: _____ Cyclone _____ Vanes _____ Pad

_____ Other: _____

i) Efficiency: 50 % *(estimated)*

j) Are extra nozzles readily available? _____ Yes X No

How many? _____

k) Pressure measurement devices installed? _____ Yes X No

5. Which process(es) does the scrubber control emissions from? Poly-Pale Process, approximately one-half of the common vent system is controlled by this scrubber.

SCRUBBERS (Page 1 of 2) SECTION L5

1. Emission Point No. / Name: AC-002

2. Manufacturers Name and Model No.: Hercules, Incorporated

3. Date of construction for existing sources or date of anticipated start-up for new sources:
pre-1977

4. Scrubber Data:

a) Scrubber type:

____	Venturi	____	Orifice
____	Packed Tower	X	Gravity Tower
____	Cyclonic	____	Condenser
____	Mist Eliminator	____	Impingement Plate
____	Other:		

b) Liquid injection rate: *(estimated)*

1) Design maximum: 6.1 gpm @ 40 psia
2) Expected average: 6.1 gpm @ 40 psia

c) Pressure drop: 6 inches H_2O *(estimated)*

d) Scrubbing liquid:

1) X Once - through ____ Recycled
2) If recycled: NA gpm make - up rate
3) If water, describe settling basin: NA
4) Solution / Reactant systems:
   a) Chemical make - up: NA
   b) How is discharge handled, treated? Effluent Treatment Plant

e) Gas flow: X Counter current ____ Concurrent

1) Flow rate: Variable acfm
2) Inlet Temperature: Ambient °F

f) Venturi Data: NA

1) Inlet Area: ____ ft^2
2) Throat Area: ____ ft^2
3) Throat velocity: ____ ft / sec
4) ____ Fixed throat ____ Variable throat

g) Packed or Plate Tower Data: NA

1) Surface Area: ____ ft^2
2) Packing depth: ____ ft
3) Type of packing: ____ Rings ____ Saddles
   ____ Other: ____
4) No. of plates: ____
5) Type of plates: ____

SCRUBBERS (Page 1 of 2) SECTION L5

1. Emission Point No. / Name: AC-003

2. Manufacturers Name and Model No.: Hercules, Incorporated

3. Date of construction for existing sources or date of anticipated start-up for new sources: pre-1977

4. Scrubber Data:

a) Scrubber type:

____	Venturi	____	Orifice
____	Packed Tower	X	Gravity Tower
____	Cyclonic	____	Condenser
____	Mist Eliminator	____	Impingement Plate
____	Other:		

b) Liquid injection rate: *(estimated)*

1) Design maximum: 6.1 gpm @ 40 psia
2) Expected average: 6.1 gpm @ 40 pisa

c) Pressure drop: 6 inches H_2O *(estimated)*

d) Scrubbing liquid:

1) X Once - through ____ Recycled
2) If recycled: NA gpm make - up rate
3) If water, describe settling basin: NA
4) Solution / Reactant systems:
   a) Chemical make - up: NA
   b) How is discharge handled, treated? Effluent Treatment Plant

e) Gas flow: X Counter current ____ Concurrent

1) Flow rate: Variable acfm
2) Inlet Temperature: Ambient °F

f) Venturi Data: NA

1) Inlet Area: ____ ft^2
2) Throat Area: ____ ft^2
3) Throat velocity: ____ ft / sec
4) ____ Fixed throat ____ Variable throat

g) Packed or Plate Tower Data: NA

1) Surface Area: ____ ft^2
2) Packing depth: ____ ft
3) Type of packing: ____ Rings ____ Saddles
   ____ Other: ____
4) No. of plates: ____
5) Type of plates: ____

SCRUBBERS (Page 2 of 2) SECTION L5

h) Demisting Data: NA

1) Mist eliminator filter area: _____ ft^2

2) Type: _____ Cyclone _____ Vanes _____Pad

_____ Other: _____

i) Efficiency: 50 % *(estimated)*

j) Are extra nozzles readily available?_____ Yes __X__ No

How many? _____

k) Pressure measurement devices installed? _____ Yes __X__ No

5. Which process(es) does the scrubber control emissions from? Poly-Pale Process, approximately one-half of the common vent system is controlled by this scrubber.

FUEL BURNING EQUIPMENT (page 1 of 2) SECTION D

1. Emission Point No. / Name: AC-001(037)/Dowtherm Boiler

2. Equipment Description: First Thermal Sytems. Inc., Model 200-3-HTF-PF-G-FM

3. Was this unit constructed or modified after August 7, 1977? X Yes _____ No
If yes please give date and explain. The two McKee Boilers (Emission points 031 and 032) were replaced with one 3.2 MMBTU/hr Boiler, formerly emission point 037 in 1989.

4. Rated Capacity: 3.2 MMBTU/hr 5. Type of burner: Forced Draft Gas

6. Usage: Process Heat

7. Complete the following table, identifying each type of fuel and the amount used. Specify the units for heat content, hourly usage, and yearly usage.

FUEL TYPE	HEAT CONTENT	% SULFUR	% ASH	MAXIMUM HOURLY USAGE	ACTUAL YEARLY USAGE
Natural Gas	1,000 Btu/cf	———	———	3,200 cf	18,405 mcf
Fuel Oil No. 2	141 Mbtu/gal	0.5	———	22.7 gal	0

8. Please list any fuel components that are hazardous air pollutants and the percentage in the fuel.
Per 12/93 joint API/EPA and Radian refinery study, No. 2 fuel oil has the following weight percentages of HAPs: Trimethylpentane 0.01%, Benzene 0.33%, Biphenyl 0.03%, Cresols 0.05%, Cumene 0.21%, Ethylbenzene 0.23%, Hexane 0.41%, Naphthalene 0.75%, Phenol 0.06%, Styrene 0.03%, Toluene 0.38%, and Xylene 0.77%.

9. Operating Schedule: 24 hours/day 7 days/week 52 weeks/year

10. Stack Data:
A. Height: 31' C. Exit gas velocity: 15.5 fps
B. Inside diameter: 1.5' D. Exit gas temperature: 840 °F

11. UTM Coordinates:
A. Zone 16 B. North 3,469,400m C. East 280,400m

FUEL BURNING EQUIPMENT (page 2 of 2) SECTION D

12. POLLUTANT EMISSIONS:

Emission rate calculations. monitoring data. or stack test data must be attached!

EMISSION POINT NO.	POLLUTANT (note 1)	CONTROL EQUIPMENT		ACTUAL EMISSION RATE			PROPOSED ALLOWABLE EMISSION RATE		
		yes/no*	effic.	note 2	lb/hr	tn/yr	note 2	lb/hr	tn/yr
AC-001	PM	NO		0.004 lb/mmbtu	0.014	0.041	0.6 lb/mmbtu	None Requested	
	PM_{10}	NO		NA	0.024	0.069	NA	None Requested	
	SO_2	NO		0.0006 lb/mmbtu	0.002	0.006	4.8 lb/mmbtu	None Requested	
	NO_X	NO		NA	0.320	0.920	NA	None Requested	
	CO	NO		NA	0.067	0.193	NA	None Requested	
	VOC	NO		NA	0.017	0.049	NA	None Requested	
	All Other Criteria Pollutants	NO		NA	< 1	NA	NA	None Requested	
	All Other HAPs	NO		NA	< 0.1	NA	NA	None Requested	

1. All regulated air pollutants including hazardous air pollutants emitted from this source should be listed. A list of regulated air pollutants has been provided in section A.

2. Provide emission rate in units of applicable emission standard, e.g. lb/MMbtu, gr/dscf, etc. This may not apply to every emission point or every pollutant from an emission point.

* If yes. attach appropriate Air Pollution Control Data Sheet from Section L or manufacturers specifications if other.

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TANK DATA FORM

TANK SUMMARY SECTION H

1. emission point no./name:	T-84/M1160	40% ACID STORAGE	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE LAYER/40% ACID	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		100	DEG F
a) true vapor pressure at stg temp:		1.025	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		11	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		322797	GALS/YR
f) tank capacity:		17000	GALS
g) tank diameter:		12	FT
h) tank height/length:		20	FT
i) average vapor space height:		8	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		NO	Y/N
if yes, describe:			
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		1	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1	COLOR
p) tank paint condition(good/poor):		FAIR	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)		0	FACTOR
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	12	0.6	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	19	1	FACTOR

5. emissions summary

1. breathing losses:	204 LBS/YR	0.102 TPY
2. working losses:	731 LBS/YR	0.365 TPY
3. loading losses:	0 LBS/YR	0.000 TPY
4. total emissions:	934 LBS/YR	0.467 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes:

06/19/95

TANK DATA FORM

TANK SUMMARY — SECTION H

1. emission point no./name:	T-88/M0413	POLY-PALE SOL'N HYDROLIZER	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		185	DEG F
a) true vapor pressure at stg temp:		6.6	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		7.8	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		2151978	GALS/YR
f) tank capacity:		1400	GALS
g) tank diameter:		6.25	FT
h) tank height/length:		6	FT
i) average vapor space height:		2	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		NO VENT	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.39	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0)		0	FACTOR
submerged loading of a clean tank(.5):			
sub load, dedicated normal service(.6)			
sub load, dedicated vapor balance ser(1.0)			
splash loading of a clean tank(1.45)			
spl load, dedicated normal service(1.45)			
spl load, dedicated vapor balance ser(1.0)			
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	6.25	0.32	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	1537	0.25	FACTOR

5. emissions summary		
1. breathing losses:	0 LBS/YR	0.000 TPY
2. working losses:	0 LBS/YR	0.000 TPY
3. loading losses:	0 LBS/YR	0.000 TPY
4. total emissions:	0 LBS/YR	0.000 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: NO VENT, THEREFORE % EFFIC. = 100 = 0 FACTOR

06/19/95

TANK DATA FORM

TANK SUMMARY SECTION H

1. emission point no./name:	T-93/M0247	SLUDGE DECOMPOSER	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ ROSIN/ACID	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		100	DEG F
a) true vapor pressure at stg temp:		1.025	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		9.8	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		537995	GALS/YR
f) tank capacity:		1700	GALS
g) tank diameter:	6	7.8	FT
h) tank height/length:	8	8	FT
i) average vapor space height:		3	FT
j) tank orientation(vertical/horizontal):		HOR	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		TO SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.517	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.4	COLOR
p) tank paint condition(good/poor):		POOR	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)		0	FACTOR
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	7.8	0.4	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	316	0.26	FACTOR

5. emissions summary		
1. breathing losses:	28 LBS/YR	0.014 TPY
2. working losses:	164 LBS/YR	0.082 TPY
3. loading losses:	0 LBS/YR	0.000 TPY
4. total emissions:	192 LBS/YR	0.096 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: % EFF = 48.3%, = 0.517 FACTOR

06/19/95

TANK DATA FORM

TANK SUMMARY SECTION H

1. emission point no./name:	T-99/M1321		TOLUENE/WATER SEPARATOR
2. constructed/modified after 8/7/77(yes/no):			YES Y/N
if yes give date and explain:			REPLACED 1/94
3. product stored:			TOLUENE/WATER
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:			100 DEG F
a) true vapor pressure at stg temp:			1.025 PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:			7.8 LBS/GAL
d) molecular weight of product vapor:			92 LBS/MOLE
e) throughput for most recent calender year:			2271533 GALS/YR
f) tank capacity:			2065 GALS
g) tank diameter:	5		9.4 FT
h) tank height/length:	14		14 FT
i) average vapor space height:			2.5 FT
j) tank orientation(vertical/horizontal):			HOR VER/HOR
k) type roof(dome/cone):			DOME D/C
l) does tank have vapor recovery system(yes/no):			YES Y/N
if yes, describe:			WATER SCRUBBER
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):			0.517 FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)			FR TYPE
n) check the closest city:			JACKSON MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):			1.4 COLOR
p) tank paint condition(good/poor):			GOOD G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0)			0 FACTOR
submerged loading of a clean tank(.5):			
sub load, dedicated normal service(.6)			
sub load, dedicated vapor balance ser(1.0)			
splash loading of a clean tank(1.45)			
spl load, dedicated normal service(1.45)			
spl load, dedicated vapor balance ser(1.0)			
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)		9.4	0.47 FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)		1100	0.25 FACTOR
5. emissions summary			
1. breathing losses:		42 LBS/YR	0.021 TPY
2. working losses:		664 LBS/YR	0.332 TPY
3. loading losses:		0 LBS/YR	0.000 TPY
4. total emissions:		706 LBS/YR	0.353 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: % EFF = 48.3%, = 0.517 FACTOR

06/19/95

TANK DATA FORM

TANK SUMMARY SECTION H

1. emission point no./name:	T-105/M0507	TOLUENE FEED TANK	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		RECOVERED TOLUEN	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		100	DEG F
a) true vapor pressure at stg temp:		1.025	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		7.4	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		2271533	GALS/YR
f) tank capacity:		2065	GALS
g) tank diameter:	5	9.4	FT
h) tank height/length:	14	14	FT
i) average vapor space height:		2.5	FT
j) tank orientation(vertical/horizontal):		HOR	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.517	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.4	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0)		0	FACTOR
submerged loading of a clean tank(.5):			
sub load, dedicated normal service(.6)			
sub load, dedicated vapor balance ser(1.0)			
splash loading of a clean tank(1.45)			
spl load, dedicated normal service(1.45)			
spl load, dedicated vapor balance ser(1.0)			
estimate small tank diameter factor for d=	9.4		
5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)		0.47	FACTOR
estimate number of turnovers factor for n=	1100		
<35(1.0),50(.8),100(.6),200(.3),400(.25)		0.25	FACTOR
5. emissions summary			
1. breathing losses:	42	LBS/YR	0.021 TPY
2. working losses:	664	LBS/YR	0.332 TPY
3. loading losses:	0	LBS/YR	0.000 TPY
4. total emissions:	706	LBS/YR	0.353 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: % EFF = 48.3%, = 0.517 FACTOR

06/19/95

TANK DATA FORM

TANK SUMMARY SECTION H

1. emission point no./name:	T-108/M0500	MELHI BLEND TANK	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		ROSIN (TOLUENE)	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		222	DEG F
a) true vapor pressure at stg temp:		14.695	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		7.4	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		107599	GALS/YR
f) tank capacity:		1070	GALS
g) tank diameter:		6	FT
h) tank height/length:		5	FT
i) average vapor space height:		2	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		NO	Y/N
if yes, describe:			
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		1	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.39	COLOR
p) tank paint condition(good/poor):		FAIR	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)		0	FACTOR
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	6	0.3	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	101	0.7	FACTOR
5. emissions summary			
1. breathing losses:	27967 LBS/YR	13.984	TPY
2. working losses:	2444 LBS/YR	1.222	TPY
3. loading losses:	0 LBS/YR	0.000	TPY
4. total emissions:	30411 LBS/YR	15.206	TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes:

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TANK DATA FORM

TANK SUMMARY SECTION H

1. emission point no./name:	T-116/M0942	TOLUENE/WATER SEPARATOR	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/WATER	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		100	DEG F
a) true vapor pressure at stg temp:		1.025	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		7.8	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		6216827	GALS/YR
f) tank capacity:		3500	GALS
g) tank diameter:	7	10.4	FT
h) tank height/length:	12	12	FT
i) average vapor space height:		2.5	FT
j) tank orientation(vertical/horizontal):		HOR	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.517	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.4	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)		0	FACTOR
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	10.4	0.51	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	1776	0.25	FACTOR
5. emissions summary			
1. breathing losses:	54 LBS/YR	0.027	TPY
2. working losses:	1819 LBS/YR	0.909	TPY
3. loading losses:	0 LBS/YR	0.000	TPY
4. total emissions:	1873 LBS/YR	0.936	TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: % EFF = 48.3%, = 0.517 FACTOR

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TANK SUMMARY — SECTION H

1. emission point no./name:	T-117/M0547	WASHING FEED TANK	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		150	DEG F
a) true vapor pressure at stg temp:		3.32	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		7.8	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		6814598	GALS/YR
f) tank capacity:		2400	GALS
g) tank diameter:		7.5	FT
h) tank height/length:		7.2	FT
i) average vapor space height:		3	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.133	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.4	COLOR
p) tank paint condition(good/poor):		POOR	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0)		0	FACTOR
submerged loading of a clean tank(.5):			
sub load, dedicated normal service(.6)			
sub load, dedicated vapor balance ser(1.0)			
splash loading of a clean tank(1.45)			
spl load, dedicated normal service(1.45)			
spl load, dedicated vapor balance ser(1.0)			
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	7.5	0.37	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	2839	0.25	FACTOR

5. emissions summary		
1. breathing losses:	16 LBS/YR	0.008 TPY
2. working losses:	1661 LBS/YR	0.830 TPY
3. loading losses:	0 LBS/YR	0.000 TPY
4. total emissions:	1677 LBS/YR	0.838 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: % EFF = 86.7%, = 0.133

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TANK SUMMARY SECTION H

1. emission point no./name:	T-131/M1194	POLY-PALE SOL'N HYDROLIZER	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		185	DEG F
a) true vapor pressure at stg temp:		6.6	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		7.8	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		2151978	GALS/YR
f) tank capacity:		1400	GALS
g) tank diameter:		6.25	FT
h) tank height/length:		6	FT
i) average vapor space height:		2	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		NO	Y/N
if yes, describe:		NO VENT	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.39	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0)		0	FACTOR
submerged loading of a clean tank(.5):			
sub load, dedicated normal service(.6)			
sub load, dedicated vapor balance ser(1.0)			
splash loading of a clean tank(1.45)			
spl load, dedicated normal service(1.45)			
spl load, dedicated vapor balance ser(1.0)			
estimate small tank diameter factor for d=	6.25		
5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)		0.32	FACTOR
estimate number of turnovers factor for n=	1537		
<35(1.0),50(.8),100(.6),200(.3),400(.25)		0.25	FACTOR

5. emissions summary		
1. breathing losses:	0 LBS/YR	0.000 TPY
2. working losses:	0 LBS/YR	0.000 TPY
3. loading losses:	0 LBS/YR	0.000 TPY
4. total emissions:	0 LBS/YR	0.000 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: NO VENT; THEREFORE, % EFF. = 100 = 0 FACTOR

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TANK DATA FORM

TANK SUMMARY SECTION H

1. emission point no./name:	T-139/M1324	PROCESS SUMP	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/WATER	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		100	DEG F
a) true vapor pressure at stg temp:		1.025	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		8.34	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		13091202	GALS/YR
f) tank capacity:		2500	GALS
g) tank diameter:		16	FT
h) tank height/length:		6.7	FT
i) average vapor space height:		4.3	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		NO	Y/N
if yes, describe:			
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		1	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.33	COLOR
p) tank paint condition(good/poor):			G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)		0	FACTOR
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	16	0.76	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	5236	0.25	FACTOR

5. emissions summary		
1. breathing losses:	411 LBS/YR	0.206 TPY
2. working losses:	7407 LBS/YR	3.704 TPY
3. loading losses:	0 LBS/YR	0.000 TPY
4. total emissions:	7818 LBS/YR	3.909 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes:

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TANK DATA FORM

TANK SUMMARY SECTION H

1. emission point no./name:	T-201	#7 REACTOR	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		80	DEG F
a) true vapor pressure at stg temp:		0.6	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		7.8	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		4315912	GALS/YR
f) tank capacity:		1500	GALS
g) tank diameter:		6	FT
h) tank height/length:		7.5	FT
i) average vapor space height:		1	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.915	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.4	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0)		0	FACTOR
submerged loading of a clean tank(.5):			
sub load, dedicated normal service(.6)			
sub load, dedicated vapor balance ser(1.0)			
splash loading of a clean tank(1.45)			
spl load, dedicated normal service(1.45)			
spl load, dedicated vapor balance ser(1.0)			
estimate small tank diameter factor for d=	6		
5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)		0.3	FACTOR
estimate number of turnovers factor for n=	2877		
<35(1.0),50(.8),100(.6),200(.3),400(.25)		0.25	FACTOR

5. emissions summary		
1. breathing losses:	9 LBS/YR	0.005 TPY
2. working losses:	1308 LBS/YR	0.654 TPY
3. loading losses:	0 LBS/YR	0.000 TPY
4. total emissions:	1317 LBS/YR	0.659 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: % EFF = 8.5%, = 0.915 FACTOR

06/19/95

TANK DATA FORM

TANK SUMMARY SECTION H

1. emission point no./name:	T-202	#8 REACTOR	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		80	DEG F
a) true vapor pressure at stg temp:		0.6	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		7.8	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		4315912	GALS/YR
f) tank capacity:		1500	GALS
g) tank diameter:		6	FT
h) tank height/length:		7.5	FT
i) average vapor space height:		1	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.915	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.4	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)		0	FACTOR
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	6	0.3	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	2877	0.25	FACTOR

5. emissions summary

1. breathing losses:	9 LBS/YR	0.005 TPY
2. working losses:	1308 LBS/YR	0.654 TPY
3. loading losses:	0 LBS/YR	0.000 TPY
4. total emissions:	1317 LBS/YR	0.659 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: % EFF = 8.5%, = 0.915 FACTOR

06/19/95

TANK DATA FORM

TANK SUMMARY SECTION H

1. emission point no./name:	T-203	#9 REACTOR	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		80	DEG F
a) true vapor pressure at stg temp:		0.6	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		7.8	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		4315912	GALS/YR
f) tank capacity:		1500	GALS
g) tank diameter:		6	FT
h) tank height/length:		7.5	FT
i) average vapor space height:		1	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.915	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.4	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0)		0	FACTOR
submerged loading of a clean tank(.5):			
sub load, dedicated normal service(.6)			
sub load, dedicated vapor balance ser(1.0)			
splash loading of a clean tank(1.45)			
spl load, dedicated normal service(1.45)			
spl load, dedicated vapor balance ser(1.0)			
estimate small tank diameter factor for d=	6		
5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)		0.3	FACTOR
estimate number of turnovers factor for n=	2877		
<35(1.0),50(.8),100(.6),200(.3),400(.25)		0.25	FACTOR
5. emissions summary			
1. breathing losses:	9	LBS/YR	0.005 TPY
2. working losses:	1308	LBS/YR	0.654 TPY
3. loading losses:	0	LBS/YR	0.000 TPY
4. total emissions:	1317	LBS/YR	0.659 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: % EFF = 8.5%, = .915 FACTOR

TANK SUMMARY SECTION H

Poly-Pale Process Area Tanks

The tanks listed in this section have been determined to have a potential to emit above the 0.1 lb/hr HAP (toluene) limit. Part 5 of each Tank Summary form lists actual emissions from tank breathing, working, and loading losses. The potential uncontrolled emissions calculations are included with the appropriate capacity mass balance sheet in the attached Appendix D, Confidential Business Information.

01/18/96

TANK DATA FORM

TANK SUMMARY — SECTION H

1. emission point no./name:	T-83/M0222	DECOMPOSER SEPARATOR	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
If yes give date and explain:			
3. product stored:		TOLUENE/ ROSIN/40%ACID	
If more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		100	DEG F
a) true vapor pressure at stg temp:		1.025	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		9.8	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		537995	GALS/YR
f) tank capacity:		3460	GALS
g) tank diameter:		7	FT
h) tank height/length:		12	FT
i) average vapor space height:		6	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
If yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.517	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.33	COLOR
p) tank paint condition(good/poor):			G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0)			0 FACTOR
submerged loading of a clean tank(.6):			
sub load, dedicated normal service(.6)			
sub load, dedicated vapor balance ser(1.0)			
splash loading of a clean tank(1.46)			
spl load, dedicated normal service(1.45)			
spl load, dedicated vapor balance ser(1.0)			
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	7	0.36	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	156	0.36	FACTOR
5. emissions summary			
1. breathing losses:	29 LBS/YR	0.014	TPY
2. working losses:	227 LBS/YR	0.113	TPY
3. loading losses:	0 LBS/YR	0.000	TPY
4. total emissions:	255 LBS/YR	0.128	TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: % EFF = 48.3%, = 0.517 FACTOR

TANK SUMMARY — SECTION H

1. emission point no./name:	T-3/M0503	FEED SOLUTION	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		100	DEG F
a) true vapor pressure at stg temp:		1.025	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		7.8	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		4303957	GALS/YR
f) tank capacity:		2055	GALS
g) tank diameter:	5	9.4	FT
h) tank height/length:	14	14	FT
i) average vapor space height:		2.5	FT
j) tank orientation(vertical/horizontal):		HOR	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.517	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.4	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0)		0	FACTOR
submerged loading of a clean tank(.5):			
sub load, dedicated normal service(.6)			
sub load, dedicated vapor balance ser(1.0)			
splash loading of a clean tank(1.45)			
spl load, dedicated normal service(1.45)			
spl load, dedicated vapor balance ser(1.0)			
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	9.4	0.47	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	2094	0.25	FACTOR
5. emissions summary			
1. breathing losses:	42 LBS/YR	0.021	TPY
2. working losses:	1259 LBS/YR	0.629	TPY
3. loading losses:	0 LBS/YR	0.000	TPY
4. total emissions:	1301 LBS/YR	0.650	TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: % EFF = 48.3%, = 0.517 FACTOR

TANK SUMMARY SECTION H

1. emission point no./name:	T-7	#1 SEPARATOR	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN/ACID	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		70	DEG F
a) true vapor pressure at stg temp:		0.44	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		9	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		2391087	GALS/YR
f) tank capacity:		52	GALS
g) tank diameter:		1.7	FT
h) tank height/length:		3	FT
i) average vapor space height:		1	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		1	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.39	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)		0	FACTOR
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	1.7	0.08	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	45982	0.25	FACTOR

5. emissions summary

1. breathing losses:	0 LBS/YR	0.000 TPY
2. working losses:	581 LBS/YR	0.290 TPY
3. loading losses:	0 LBS/YR	0.000 TPY
4. total emissions:	581 LBS/YR	0.290 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes:

TANK SUMMARY — SECTION H

1. emission point no./name:	T-8	1# POLYMERIZER	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN/ACID	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		70	DEG F
a) true vapor pressure at stg temp:		0.44	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		9	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		2391087	GALS/YR
f) tank capacity:		130	GALS
g) tank diameter:		2.5	FT
h) tank height/length:		3.5	FT
i) average vapor space height:		1	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		1	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.39	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0)		0	FACTOR
submerged loading of a clean tank(.5):			
sub load, dedicated normal service(.6)			
sub load, dedicated vapor balance ser(1.0)			
splash loading of a clean tank(1.45)			
spl load, dedicated normal service(1.45)			
spl load, dedicated vapor balance ser(1.0)			
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	2.5	0.13	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	18393	0.25	FACTOR
5. emissions summary			
1. breathing losses:	1 LBS/YR	0.000	TPY
2. working losses:	581 LBS/YR	0.290	TPY
3. loading losses:	0 LBS/YR	0.000	TPY
4. total emissions:	582 LBS/YR	0.291	TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes:

TANK SUMMARY SECTION H

1. emission point no./name:	T-11/M0364	#3 SEPARATOR	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN/ACID	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		70	DEG F
a) true vapor pressure at stg temp:		0.44	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		9	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		2391087	GALS/YR
f) tank capacity:		52	GALS
g) tank diameter:		1.7	FT
h) tank height/length:		3	FT
i) average vapor space height:		1	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		1	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.39	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)		0	FACTOR
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	1.7	0.08	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	45982	0.25	FACTOR

5. emissions summary

1. breathing losses:	0 LBS/YR	0.000 TPY
2. working losses:	581 LBS/YR	0.290 TPY
3. loading losses:	0 LBS/YR	0.000 TPY
4. total emissions:	581 LBS/YR	0.290 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes:

TANK SUMMARY SECTION H

1. emission point no./name:	T-12/M0367	#3 POLYMERIZER	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN/ACID	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		70	DEG F
a) true vapor pressure at stg temp:		0.44	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		9	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		2391087	GALS/YR
f) tank capacity:		130	GALS
g) tank diameter:		2.5	FT
h) tank height/length:		3.5	FT
i) average vapor space height:		1	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		1	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.39	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0)		0	FACTOR
submerged loading of a clean tank(.5):			
sub load, dedicated normal service(.6)			
sub load, dedicated vapor balance ser(1.0)			
splash loading of a clean tank(1.45)			
spl load, dedicated normal service(1.45)			
spl load, dedicated vapor balance ser(1.0)			
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	2.5	0.13	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	18393	0.25	FACTOR

5. emissions summary

1. breathing losses:	1 LBS/YR	0.000 TPY
2. working losses:	581 LBS/YR	0.290 TPY
3. loading losses:	0 LBS/YR	0.000 TPY
4. total emissions:	582 LBS/YR	0.291 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes:

TANK SUMMARY SECTION H

1. emission point no./name:	T-13/M0366	#5 SEPARATOR	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN/ACID	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		70	DEG F
a) true vapor pressure at stg temp:		0.44	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		9	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		2391087	GALS/YR
f) tank capacity:		52	GALS
g) tank diameter:		1.7	FT
h) tank height/length:		3	FT
I) average vapor space height:		1	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		1	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.39	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)		0	FACTOR
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	1.7	0.08	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	45982	0.25	FACTOR

5. emissions summary

1. breathing losses:	0 LBS/YR	0.000 TPY
2. working losses:	581 LBS/YR	0.290 TPY
3. loading losses:	0 LBS/YR	0.000 TPY
4. total emissions:	581 LBS/YR	0.290 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes:

TANK SUMMARY SECTION H

1. emission point no./name:	T-14/M0367	#5 POLYMERIZER	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN/ACID	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		70	DEG F
a) true vapor pressure at stg temp:		0.44	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		9	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		2391087	GALS/YR
f) tank capacity:		130	GALS
g) tank diameter:		2.5	FT
h) tank height/length:		3.5	FT
i) average vapor space height:		1	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		1	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color;aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.39	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)		0	FACTOR
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	2.5	0.13	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	18393	0.25	FACTOR

5. emissions summary

1. breathing losses:	1 LBS/YR	0.000 TPY
2. working losses:	581 LBS/YR	0.290 TPY
3. loading losses:	0 LBS/YR	0.000 TPY
4. total emissions:	582 LBS/YR	0.291 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes:

TANK SUMMARY SECTION H

1. emission point no./name:	T-15/M0368	#6 SEPARATOR	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN/ACID	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		70	DEG F
a) true vapor pressure at stg temp:		0.44	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		9	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		2391087	GALS/YR
f) tank capacity:		52	GALS
g) tank diameter:		1.7	FT
h) tank height/length:		3	FT
i) average vapor space height:		1	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		1	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.39	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0)		0	FACTOR
submerged loading of a clean tank(.5):			
sub load, dedicated normal service(.6)			
sub load, dedicated vapor balance ser(1.0)			
splash loading of a clean tank(1.45)			
spl load, dedicated normal service(1.45)			
spl load, dedicated vapor balance ser(1.0)			
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	1.7	0.08	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	45982	0.25	FACTOR
5. emissions summary			
1. breathing losses:	0 LBS/YR	0.000	TPY
2. working losses:	581 LBS/YR	0.290	TPY
3. loading losses:	0 LBS/YR	0.000	TPY
4. total emissions:	581 LBS/YR	0.290	TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes:

TANK SUMMARY SECTION H

1. emission point no./name:	T-16/M0369	#6 POLYMERIZER	
2. constructed/modified after 8/7/77(yes/no):		NO	
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN/ACID	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		70	
a) true vapor pressure at stg temp:		0.44	
b) reid vapor pressure at stg temp:			
c) density of product at stg temp:		9	
d) molecular weight of product vapor:		92	
e) throughput for most recent calender year:		2391087	
f) tank capacity:		130	
g) tank diameter:		2.5	
h) tank height/length:		3.5	
i) average vapor space height:		1	
j) tank orientation(vertical/horizontal):		VER	
k) type roof(dome/cone):		DOME	
l) does tank have vapor recovery system(yes/no):		YES	
if yes, describe:		WATER SC	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		1	
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	
n) check the closest city:		JACKSON	
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.39	
p) tank paint condition(good/poor):		GOOD	
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)		0	
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	2.5	0.13	
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	18393	0.25	
5. emissions summary			
1. breathing losses:	1 LBS/YR	0.000	
2. working losses:	581 LBS/YR	0.290	
3. loading losses:	0 LBS/YR	0.000	
4. total emissions:	582 LBS/YR	0.291	

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes:

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TANK DATA FORM

TANK SUMMARY SECTION H

1. emission point no./name:	T-17	#4 SEPARATOR	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN/ACID	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		70	DEG F
a) true vapor pressure at stg temp:		0.44	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		9	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		2391087	GALS/YR
f) tank capacity:		52	GALS
g) tank diameter:		1.7	FT
h) tank height/length:		3	FT
i) average vapor space height:		1	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		1	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.39	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0)		0	FACTOR
submerged loading of a clean tank(.5):			
sub load, dedicated normal service(.6)			
sub load, dedicated vapor balance ser(1.0)			
splash loading of a clean tank(1.45)			
spl load, dedicated normal service(1.45)			
spl load, dedicated vapor balance ser(1.0)			
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	1.7	0.08	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	45982	0.25	FACTOR
5. emissions summary			
1. breathing losses:	0 LBS/YR	0.000	TPY
2. working losses:	581 LBS/YR	0.290	TPY
3. loading losses:	0 LBS/YR	0.000	TPY
4. total emissions:	581 LBS/YR	0.290	TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes:

06/15/95

TANK DATA FORM

TANK SUMMARY SECTION H

1. emission point no./name:	T-18	#4 POLYMERIZER	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN/ACID	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		70	DEG F
a) true vapor pressure at stg temp:		0.44	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		9	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		2391087	GALS/YR
f) tank capacity:		130	GALS
g) tank diameter:		2.5	FT
h) tank height/length:		3.5	FT
i) average vapor space height:		1	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		1	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.39	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)		0	FACTOR
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	2.5	0.13	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	18393	0.25	FACTOR

5. emissions summary

1. breathing losses:	1 LBS/YR	0.000 TPY
2. working losses:	581 LBS/YR	0.290 TPY
3. loading losses:	0 LBS/YR	0.000 TPY
4. total emissions:	582 LBS/YR	0.291 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes:

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TANK DATA FORM

TANK SUMMARY SECTION H

1. emission point no./name:	T-21/M0374	POLYMERIZED SOLUTION	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN/ACID	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		80	DEG F
a) true vapor pressure at stg temp:		0.6	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		9	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		4543066	GALS/YR
f) tank capacity:		1200	GALS
g) tank diameter:	5	7.1	FT
h) tank height/length:	8	8	FT
i) average vapor space height:		2.5	FT
j) tank orientation(vertical/horizontal):		HOR	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.915	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.4	COLOR
p) tank paint condition(good/poor):		POOR	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0)		0	FACTOR
submerged loading of a clean tank(.5):			
sub load, dedicated normal service(.6)			
sub load, dedicated vapor balance ser(1.0)			
splash loading of a clean tank(1.45)			
spl load, dedicated normal service(1.45)			
spl load, dedicated vapor balance ser(1.0)			
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	7.1	0.35	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	3786	0.25	FACTOR
5. emissions summary			
1. breathing losses:	23 LBS/YR	0.012	TPY
2. working losses:	1377 LBS/YR	0.688	TPY
3. loading losses:	0 LBS/YR	0.000	TPY
4. total emissions:	1400 LBS/YR	0.700	TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: % EFF = 8.5%, = 0.915

TANK SUMMARY SECTION H

1. emission point no./name:	T-23/M1106	POLYMERIZER SURGE TANK	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN/ACID	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		80	DEG F
a) true vapor pressure at stg temp:		0.6	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		7.8	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		4315912	GALS/YR
f) tank capacity:		700	GALS
g) tank diameter:	4.7	5.8	FT
h) tank height/length:	5.4	5.4	FT
i) average vapor space height:		2.4	FT
j) tank orientation(vertical/horizontal):		HOR	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.915	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		OTH	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.4	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0)		0	FACTOR
submerged loading of a clean tank(.5):			
sub load, dedicated normal service(.6)			
sub load, dedicated vapor balance ser(1.0)			
splash loading of a clean tank(1.45)			
spl load, dedicated normal service(1.45)			
spl load, dedicated vapor balance ser(1.0)			
estimate small tank diameter factor for d=	5.8		
5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)		0.28	FACTOR
estimate number of turnovers factor for n=	6166		
<35(1.0),50(.8),100(.6),200(.3),400(.25)		0.25	FACTOR
5. emissions summary			
1. breathing losses:	13	LBS/YR	0.006 TPY
2. working losses:	1308	LBS/YR	0.654 TPY
3. loading losses:	0	LBS/YR	0.000 TPY
4. total emissions:	1321	LBS/YR	0.660 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: % EFF = 8.5%, = 0.915 FACTOR

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TANK SUMMARY — SECTION H

1. emission point no./name:	T-24/M0377	HYDROLIZED SOL'N SEPARATOR
2. constructed/modified after 8/7/77(yes/no):		NO Y/N
if yes give date and explain:		
3. product stored:		TOLUENE/ROSIN/ACID
if more than one product stored complete 4 a-e:		
4. tank data:		
) storage temperature:		150 DEG F
a) true vapor pressure at stg temp:		3.32 PSIA
b) reid vapor pressure at stg temp:		PSIA
c) density of product at stg temp:		7.8 LBS/GAL
d) molecular weight of product vapor:		92 LBS/MOLE
e) throughput for most recent calender year:		6814598 GALS/YR
f) tank capacity:		1175 GALS
g) tank diameter:		5 FT
h) tank height/length:		8 FT
i) average vapor space height:		4 FT
j) tank orientation(vertical/horizontal):		VER VER/HOR
k) type roof(dome/cone):		DOME D/C
l) does tank have vapor recovery system(yes/no):		YES Y/N
if yes, describe:		WATER SCRUBBER
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.133 FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR TYPE
n) check the closest city:		JACKSON MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.4 COLOR
p) tank paint condition(good/poor):		GOOD G/P
q) type of tank loading		
1. trucks and railcars(otherwise factor= 0)		0 FACTOR
submerged loading of a clean tank(.5):		
sub load, dedicated normal service(.6)		
sub load, dedicated vapor balance ser(1.0)		
splash loading of a clean tank(1.45)		
spl load, dedicated normal service(1.45)		
spl load, dedicated vapor balance ser(1.0)		
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	5	0.25 FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	5800	0.25 FACTOR
5. emissions summary		
1. breathing losses:	6 LBS/YR	0.003 TPY
2. working losses:	1661 LBS/YR	0.830 TPY
3. loading losses:	0 LBS/YR	0.000 TPY
4. total emissions:	1667 LBS/YR	0.834 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: % EFF = 86.7%, = 0.133 FACTOR

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TANK SUMMARY SECTION H

1. emission point no./name:	T-25/M0871	SOLUTION WASH TANK	
2. constructed/modified after 8/7/77(yes/no):		YES	Y/N
if yes give date and explain:		REPLACED 10/26/92	
3. product stored:		TOLUENE/ROSIN/WATER	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		115	DEG F
a) true vapor pressure at stg temp:		1.42	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		7.8	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		8488359	GALS/YR
f) tank capacity:		4170	GALS
g) tank diameter:	8.5	9.2	FT
h) tank height/length:	7.8	7.8	FT
i) average vapor space height:		0.5	FT
j) tank orientation(vertical/horizontal):		HOR	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.342	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.4	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0)		0	FACTOR
submerged loading of a clean tank(.5):			
sub load, dedicated normal service(.6)			
sub load, dedicated vapor balance ser(1.0)			
splash loading of a clean tank(1.45)			
spl load, dedicated normal service(1.45)			
spl load, dedicated vapor balance ser(1.0)			
estimate small tank diameter factor for d=	9.2		
5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)		0.47	FACTOR
estimate number of turnovers factor for n=	2036		
<35(1.0),50(.8),100(.6),200(.3),400(.25)		0.25	FACTOR
5. emissions summary			
1. breathing losses:	15	LBS/YR	0.007 TPY
2. working losses:	2276	LBS/YR	1.138 TPY
3. loading losses:	0	LBS/YR	0.000 TPY
4. total emissions:	2290	LBS/YR	1.145 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: % EF = 65.8%, = 0.342 FACTOR

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TANK DATA FORM

TANK SUMMARY SECTION H

1. emission point no./name:	T-26/M505	WASHED SOLUTION	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		100	DEG F
a) true vapor pressure at stg temp:		1.025	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		7.8	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		6814598	GALS/YR
f) tank capacity:		2060	GALS
g) tank diameter:	5	9.4	FT
h) tank height/length:	14	14	FT
i) average vapor space height:		2.5	FT
j) tank orientation(vertical/horizontal):		HOR	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.517	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.4	COLOR
p) tank paint condition(good/poor):		POOR	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)		0	FACTOR
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	9.4	0.47	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	3308	0.25	FACTOR

5. emissions summary

1. breathing losses:	42 LBS/YR	0.021 TPY
2. working losses:	1993 LBS/YR	0.997 TPY
3. loading losses:	0 LBS/YR	0.000 TPY
4. total emissions:	2035 LBS/YR	1.018 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: % EFF = 48.3%, = 0.517 FACTOR

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TANK DATA FORM

TANK SUMMARY SECTION H

1. emission point no./name:	T-27/M0506		WASHED SOL'N EVAP. FEED	
2. constructed/modified after 8/7/77(yes/no):			NO	Y/N
if yes give date and explain:				
3. product stored:			TOLUENE/ROSIN	
if more than one product stored complete 4 a-e:				
4. tank data:				
) storage temperature:			100	DEG F
a) true vapor pressure at stg temp:			1.025	PSIA
b) reid vapor pressure at stg temp:				PSIA
c) density of product at stg temp:			7.8	LBS/GAL
d) molecular weight of product vapor:			92	LBS/MOLE
e) throughput for most recent calender year:			6814598	GALS/YR
f) tank capacity:			2060	GALS
g) tank diameter:	5		9.4	FT
h) tank height/length:	14		14	FT
i) average vapor space height:			2.5	FT
j) tank orientation(vertical/horizontal):			HOR	VER/HOR
k) type roof(dome/cone):			DOME	D/C
l) does tank have vapor recovery system(yes/no):			YES	Y/N
if yes, describe:			WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):			0.517	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)			FR	TYPE
n) check the closest city:			JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):			1.4	COLOR
p) tank paint condition(good/poor):			POOR	G/P
q) type of tank loading				
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)			0	FACTOR
estimate small tank diameter factor for d=		9.4		
5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)			0.47	FACTOR
estimate number of turnovers factor for n=		3308		
<35(1.0),50(.8),100(.6),200(.3),400(.25)			0.25	FACTOR
5. emissions summary				
1. breathing losses:		42 LBS/YR	0.021	TPY
2. working losses:		1993 LBS/YR	0.997	TPY
3. loading losses:		0 LBS/YR	0.000	TPY
4. total emissions:		2035 LBS/YR	1.018	TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: % EFF = 48.3%, = 0.517 FACTOR

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TANK DATA FORM

TANK SUMMARY SECTION H

1. emission point no./name:	T-30/M0381	1ST SET POLY-PALE EVAP.	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		100	DEG F
a) true vapor pressure at stg temp:		1.025	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		7.8	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		6814598	GALS/YR
f) tank capacity:		420	GALS
g) tank diameter:		3.6	FT
h) tank height/length:		5.5	FT
i) average vapor space height:		2	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.517	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.4	COLOR
p) tank paint condition(good/poor):		POOR	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0)		0	FACTOR
submerged loading of a clean tank(.5):			
sub load, dedicated normal service(.6)			
sub load, dedicated vapor balance ser(1.0)			
splash loading of a clean tank(1.45)			
spl load, dedicated normal service(1.45)			
spl load, dedicated vapor balance ser(1.0)			
estimate small tank diameter factor for d=	3.6		
5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)		0.16	FACTOR
estimate number of turnovers factor for n=	16225		
<35(1.0),50(.8),100(.6),200(.3),400(.25)		0.25	FACTOR

5. emissions summary			
1. breathing losses:	2 LBS/YR	0.001	TPY
2. working losses:	1993 LBS/YR	0.997	TPY
3. loading losses:	0 LBS/YR	0.000	TPY
4. total emissions:	1996 LBS/YR	0.998	TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: % EFF = 48.3%, = 0.517 FACTOR

06/16/95

TANK DATA FORM

TANK SUMMARY SECTION H

1. emission point no./name:	T-31/M0382	2nd SET POLY-PALE EVAP.	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE/ROSIN	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		100	DEG F
a) true vapor pressure at stg temp:		1.025	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		7.8	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		2510642	GALS/YR
f) tank capacity:		420	GALS
g) tank diameter:		3.6	FT
h) tank height/length:		5.5	FT
i) average vapor space height:		2	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.517	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.4	COLOR
p) tank paint condition(good/poor):		POOR	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)			0 FACTOR
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	3.6		0.16 FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	5978		0.25 FACTOR
5. emissions summary			
1. breathing losses:	2 LBS/YR		0.001 TPY
2. working losses:	734 LBS/YR		0.367 TPY
3. loading losses:	0 LBS/YR		0.000 TPY
4. total emissions:	737 LBS/YR		0.368 TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: % EFF = 48.3%, = 0.517 FACTOR

06/16/95

TANK DATA FORM

TANK SUMMARY SECTION H

1. emission point no./name:	T-40/M1202	PEXOIL STORAGE TANK	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		PEXOIL (TOLUENE)	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		222	DEG F
a) true vapor pressure at stg temp:		14.697	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		7.4	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		27737	GALS/YR
f) tank capacity:		9050	GALS
g) tank diameter:		8	FT
h) tank height/length:		24	FT
i) average vapor space height:		10	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:		WATER SCRUBBER	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.006	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.33	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)		0	FACTOR
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	8	0.4	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	3	1	FACTOR

5. emissions summary			
1. breathing losses:	1133 LBS/YR	0.566	TPY
2. working losses:	5 LBS/YR	0.003	TPY
3. loading losses:	0 LBS/YR	0.000	TPY
4. total emissions:	1138 LBS/YR	0.569	TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes: % EFF = 99.4%, = 0.006 FACTOR

06/19/95

TANK SUMMARY SECTION H

1. emission point no./name:	T-80/M1217	40% ACID STORAGE	
2. constructed/modified after 8/7/77(yes/no):		YES	Y/N
if yes give date and explain:		REPLACED '93	
3. product stored:		TOLUENE LAYER/40% ACID	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		100	DEG F
a) true vapor pressure at stg temp:		1.025	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		11	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		161398	GALS/YR
f) tank capacity:		20000	GALS
g) tank diameter:		12	FT
h) tank height/length:		23.7	FT
i) average vapor space height:		10	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		NO	Y/N
if yes, describe:			
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		1	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)		0	FACTOR
estimate small tank diameter factor for d=	12		
5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)		0.6	FACTOR
estimate number of turnovers factor for n=	8		
<35(1.0),50(.8),100(.6),200(.3),400(.25)		1	FACTOR

5. emissions summary			
1. breathing losses:	228 LBS/YR	0.114	TPY
2. working losses:	365 LBS/YR	0.183	TPY
3. loading losses:	0 LBS/YR	0.000	TPY
4. total emissions:	594 LBS/YR	0.297	TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes:

06/19/95

TANK DATA FORM

TANK SUMMARY SECTION H

1. emission point no./name:	T-81/M1218	40% ACID STORAGE	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE LAYER/40% ACID	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		100	DEG F
a) true vapor pressure at stg temp:		1.025	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		11	LBS/GAL
d) molecular weight of product vapor:		92	LBS/MOLE
e) throughput for most recent calender year:		161398	GALS/YR
f) tank capacity:		20000	GALS
g) tank diameter:		12	FT
h) tank height/length:		23.7	FT
i) average vapor space height:		10	FT
j) tank orientation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		NO	Y/N
if yes, describe:			
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		1	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)		0	FACTOR
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	12	0.6	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	8	1	FACTOR
5. emissions summary			
1. breathing losses:	228 LBS/YR	0.114	TPY
2. working losses:	365 LBS/YR	0.183	TPY
3. loading losses:	0 LBS/YR	0.000	TPY
4. total emissions:	594 LBS/YR	0.297	TPY

6. umt coordinates:

zone	north	east
16RBK	6923	8039

notes:

MANUFACTURING PROCESSES (page 1 of 2) SECTION E

1. Emission Point No./ Name: AD-000 (038)/Neuphor Process Area

2. Process Description: see attached process description

3. Was this unit constructed or modified after August 7, 1977? X yes _____ no
If yes please give date and explain. The Neuphor Process was initiated in 1987, the Dresinol Process was initiated in 1991; Tanks used were installed prior to 1977.

4. Rated Capacity (tons/hr): see attached Appendix D, Confidential Business Information

5. Raw Material Input:

MATERIAL	QUANTITY/HR AVERAGE	QUANTITY/HR MAXIMUM	QUANTITY/YEAR (1994)
see attached Appendix D, Confidential Business Information			

6. Product Output:

PRODUCT or BY-PRODUCT	QUANTITY/HR AVERAGE	QUANTITY/HR MAXIMUM	QUANTITY/YEAR (1994)
see attached Appendix D, Confidential Business Information			

7. Stack Data:

AD-001 (038)/Activated Carbon Adsorption with Scrubber:

A. Height: 25 ft
B. Inside diameter: 0.5 ft
C. Exit gas velocity: 0.39 fps
D. Exit gas temperature: Ambient

AD-002 (038)/Water Eductor Scrubber with Sulfuric Acid Tank (Dresinol Process):

A. Height: 20 ft
B. Inside diameter: 0.167 ft
C. Exit gas velocity: 0.25 fps
D. Exit gas temperature: Ambient

AD-003/Tank NT-180 Vent with Water Scrubber:

A. Height: 30 ft
B. Inside diameter: 0.5 ft
C. Exit gas velocity: Variable
D. Exit gas temperature: Ambient

8. UTM Coordinates:
A. Zone 16 B. North 3,469,500m C. East 280,000m

NEUPHOR PROCESS AREA

This section describes the facility's Neuphor Area production operation and summarizes the assumptions and methods used to determine emission rates. A diagram of the Neuphor process area is included in Figure 5.

Several resin dispersions; including Neuphor, Hi pHase, and Dresinol; are manufactured in the Neuphor area. Some of the dispersions are specialty chemicals used primarily as internal sizing agents in the manufacture of paper. They are used in bleached, unbleached and recycled boxboard grades and printing and writing paper. They are resin dispersions in water containing between 50-65 percent water by weight. They are considered nonflammable, nonhazardous liquids. They meet FDA and U.S. Food and Drug Administration standards for use in materials contacting food. Other resin dispersions are specialty chemicals used as adhesives, coatings, and binders in diverse and varied industry applications. They are resin dispersions in water containing 55-60 percent water by weight. They are considered nonflammable, nonhazardous liquids. Dresinol resin dispersions meet FDA and U.S. Food and Drug Administration standards for use in materials contacting food.

The facility routinely products several types of resin dispersions. Some resin dispersions are produced continuously in the ACH process. Other resin dispersions are produced continuously in the HTP process. Dry raw materials are stored in the Neuphor area and Kymene area warehouses. They are transferred using fork lifts and fed to the process either manually or by using a screw conveyor. Liquid raw materials are stored in work tanks or tote bins in the Neuphor area. Liquid raw materials are pumped to the ACH or HTP process. Finished products are stored in product storage tanks and tote bins in the Neuphor area. Tote bins are relocated to shipping warehouses located throughout the plant. The manufacturing scheme for resin dispersions is the same for both the ACH and HTP. The Water phase, including chemicals that are soluble, is produced in water. Organic phase is adducted in the reactor and held at elevated temperatures above the resin melting point. The organic phase and water phase are brought together under controlled flow rates, temperature, and pressure. Mechanical energy (work) is performed on the crude dispersion producing a resin emulsion. The resin emulsion is cooled to produce the resin dispersion and transferred to work tanks. Finally, the resin dispersion in the work tank is treated with biocide and stabilizing chemical and corrected to final solids. The on-grade resin dispersion is either packaged or stored in bulk for later bulk shipment packaging. During transfer from either the work tank or bulk storage tanks, the final product is filtered.

Emissions associated with the Neuphor Process Area primarily include: 1) ACH water phase makeup; 2) Adduct Reactor; 3) tank losses from raw material and product storage; 4) Fugitive losses; and 5) accounting inventories and mass balances.

ACH Process Losses

Two water phase tanks are equipped with a water scrubber. The water scrubber is typically used to control the exhaust from the water phase makeup tanks. The control system is designed to achieve a removal of 99 percent.

Adduct Reactor

The Adduct reactor is equipped with a water scrubber. The unit is typically used to control the exhaust from the Adduct Reactor. The control system is designed to achieve a removal of 99 percent. Dry, powdered materials are routinely added to the Adduct reactor. The Adduct reactor is fitted with a dry chemical feeder. The reactor is equipped with a rupture disk assembly for over-pressurization protection.

Pollutants emitted from the Neuphor Process Area include PM, VOCs, and HAPs.

MANUFACTURING PROCESSES (page 2 of 2) SECTION E

13. POLLUTANT EMISSIONS:

Emission rate calculations, monitoring data, or stack test data must be attached! ***(see Calculations Section)***

EMISSION POINT NO.	POLLUTANT (note 1)	CONTROL EQUIPMENT		ACTUAL EMISSION RATE			PROPOSED ALLOWABLE EMISSION RATE		
		yes/no*	effic.	note 2	lb/hr	tn/yr	note 2	lb/hr	tn/yr
AD-000 (038)	PM	YES	99	NA	< 1	NA	NA	None Requested	
	VOC	YES	50	NA	< 1	NA	NA	None Requested	
	All Other Criteria Pollutants	NO	NA	NA	< 1	NA	NA	None Requested	
	All Other HAPs	NO	NA	NA	< 0.1	NA	NA	None Requested	

1. All regulated air pollutants including hazardous air pollutants emitted from this source should be listed. A list of regulated air pollutants has been provided in section A.

2. Provide emission rate in units of applicable emission standard, e.g. lb/MMbtu, gr/dscf, etc. This may not apply to every emission point or every pollutant from an emission point.

* If yes, attach appropriate Air Pollution Control Data Sheet from Section L or manufacturers specifications if other.

SCRUBBERS (Page 1 of 2) SECTION L5

1. Emission Point No. / Name: AD-001

2. Manufacturers Name and Model No.: Schutte and Kuerting Venturi Gas Scrubber

3. Date of construction for existing sources or date of anticipated start-up for new sources:
1987

4. Scrubber Data:

a) Scrubber type:
- X Venturi
- _____ Orifice
- _____ Packed Tower
- _____ Gravity Tower
- _____ Cyclonic
- _____ Condenser
- _____ Mist Eliminator
- _____ Impingement Plate
- X Other: Tray Carbon Filter

b) Liquid injection rate: *(estimated)*
1) Design maximum: 15 gpm @ 50 psia
2) Expected average: 10-15 gpm @ 50 pisa

c) Pressure drop: 6 inches H_2O *(estimated)*

d) Scrubbing liquid:
1) X Once - through _____ Recycled
2) If recycled: NA gpm make - up rate
3) If water, describe settling basin: NA
4) Solution / Reactant systems:
a) Chemical make - up: NA
b) How is discharge handled, treated? Effluent Treatment Plant

e) Gas flow: _____ Counter current X Concurrent
1) Flow rate: 600 acfm (venturi capacity)
2) Inlet Temperature: Ambient - 150 °F *(estimated)*

f) Venturi Data: NA
1) Inlet Area: _____ ft^2
2) Throat Area: _____ ft^2
3) Throat velocity: _____ ft / sec
4) _____ Fixed throat _____ Variable throat

g) Packed or Plate Tower Data:
1) Surface Area: 3.2 ft^2 cross-sectional area
2) Packing depth: NA ft
3) Type of packing: NA Rings NA Saddles
NA Other: _____
4) No. of plates: 2
5) Type of plates: Activated Carbon (20" width x 23" length x 6" depth)

SCRUBBERS (Page 2 of 2) SECTION L5

h) Demisting Data: NA

1) Mist eliminator filter area: _____ ft^2

2) Type: _____ Cyclone _____ Vanes _____ Pad

_____ Other: _____

i) Efficiency: 75 % *(estimated)*

j) Are extra nozzles readily available? _____ Yes X No

How many? _____

k) Pressure measurement devices installed? _____ Yes X No

5. Which process(es) does the scrubber control emissions from? Rosin Adduct Reactor

SCRUBBERS (Page 1 of 2) SECTION L5

1. Emission Point No. / Name: AD-002

2. Manufacturers Name and Model No.: Unknown

3. Date of construction for existing sources or date of anticipated start-up for new sources:
Unknown

4. Scrubber Data:

a) Scrubber type:
- X Venturi
- _____ Packed Tower
- _____ Cyclonic
- _____ Mist Eliminator
- _____ Other:
- _____ Orifice
- _____ Gravity Tower
- _____ Condenser
- _____ Impingement Plate

b) Liquid injection rate: *(estimated)*
1) Design maximum: 2 gpm @ 20 psia
2) Expected average: 2 gpm @ 20 psia

c) Pressure drop: 6 inches H_2O *(estimated)*

d) Scrubbing liquid:
1) _____ Once - through X Recycled (closed loop)
2) If recycled: Variable gpm make - up rate
3) If water, describe settling basin: NA
4) Solution / Reactant systems:
a) Chemical make - up: Sulfuric Acid
b) How is discharge handled, treated? Effluent Treatment Plant

e) Gas flow: _____ Counter current X Concurrent
1) Flow rate: 7-8 acfm
2) Inlet Temperature: Ambient °F

f) Venturi Data: 2 inch eductor
1) Inlet Area: _____ ft^2
2) Throat Area: _____ ft^2
3) Throat velocity: _____ ft / sec
4) X Fixed throat _____ Variable throat

g) Packed or Plate Tower Data: NA
1) Surface Area: _____ ft^2
2) Packing depth: _____ ft
3) Type of packing: _____ Rings _____ Saddles
_____ Other: _____
4) No. of plates: _____
5) Type of plates: _____

SCRUBBERS (Page 2 of 2) SECTION L5

h) Demisting Data: NA

1) Mist eliminator filter area: _____ ft^2

2) Type: _____ Cyclone _____ Vanes _____Pad

_____ Other: _____

i) Efficiency: 99 % *(estimated ammonia neutralization efficiency)*

j) Are extra nozzles readily available?_____ Yes X No

How many? _____

k) Pressure measurement devices installed? _____ Yes X No

5. Which process(es) does the scrubber control emissions from? Dresinol Process, Ammonia Vapor Neutralization

SCRUBBERS (Page 1 of 2) SECTION L5

1. Emission Point No. / Name: AD-003

2. Manufacturers Name and Model No.: Unknown

3. Date of construction for existing sources or date of anticipated start-up for new sources:
Unknown

4. Scrubber Data:

a) Scrubber type:

____	Venturi	____	Orifice
____	Packed Tower	X	Gravity Tower
____	Cyclonic	____	Condenser
____	Mist Eliminator	____	Impingement Plate
____	Other:		

b) Liquid injection rate: *(estimated)*

1) Design maximum: 15 gpm @ 20 psia
2) Expected average: 10-15 gpm @ 20 pisa

c) Pressure drop: 6 inches H_2O *(estimated)*

d) Scrubbing liquid:

1) X Once - through ____ Recycled
2) If recycled: NA gpm make - up rate
3) If water, describe settling basin: NA
4) Solution / Reactant systems:
   a) Chemical make - up: NA
   b) How is discharge handled, treated? Effluent Treatment Plant

e) Gas flow: X Counter current ____ Concurrent

1) Flow rate: Variable acfm
2) Inlet Temperature: Ambient °F

f) Venturi Data: NA

1) Inlet Area: ____ ft^2
2) Throat Area: ____ ft^2
3) Throat velocity: ____ ft / sec
4) ____ Fixed throat ____ Variable throat

g) Packed or Plate Tower Data: NA

1) Surface Area: ____ ft^2
2) Packing depth: ____ ft
3) Type of packing: ____ Rings ____ Saddles
   ____ Other: ____
4) No. of plates: ____
5) Type of plates: ____

SCRUBBERS (Page 2 of 2) SECTION L5

h) Demisting Data: NA

1) Mist eliminator filter area: _____ ft^2

2) Type: _____ Cyclone _____ Vanes _____ Pad

_____ Other: _____

i) Efficiency: 75 % *(estimated)*

j) Are extra nozzles readily available? _____ Yes NA No

How many? _____

k) Pressure measurement devices installed? _____ Yes NA No

5. Which process(es) does the scrubber control emissions from? NT-180 Tank (Rosin and Oil)

MANUFACTURING PROCESSES (page 1 of 2) SECTION E

1. Emission Point No./ Name: AE-000 (280)/Metal Resinates Process Area

2. Process Description: see attached process description

3. Was this unit constructed or modified after August 7, 1977? X yes _____ no
If yes please give date and explain. Metal Resinates Process initiated in 1985; Tanks were installed prior to 1977.

4. Rated Capacity (tons/hr): see attached Appendix D, Confidential Business Information

5. Raw Material Input:

MATERIAL	QUANTITY/HR AVERAGE	QUANTITY/HR MAXIMUM	QUANTITY/YEAR (1994)
see attached Appendix D, Confidential Business Information			

6. Product Output:

PRODUCT or BY-PRODUCT	QUANTITY/HR AVERAGE	QUANTITY/HR MAXIMUM	QUANTITY/YEAR (1994)
see attached Appendix D, Confidential Business Information			

7. Stack Data:

AE-001 (280)/Total Condenser:

A. Height: 10 ft
B. Inside diameter: 0.16 ft
C. Exit gas velocity: 0-1 fps
D. Exit gas temperature: Ambient

8. UTM Coordinates:
A. Zone 16 B. North 3,469,200m C. East 280,700m

METAL RESINATES PROCESS AREA

This section describes the facility's Metal Resinate production operations and summarizes the assumptions and methods used to determine batch and total emission rates. A diagram of the Metal Resinates Process Area is included in Figure 6.

Metal Resinates are specialty chemicals used in making Publication Gravure Printing Inks. Publication Gravure is a high quality printing process that is used to print sale ads, catalogs, inserts, and quality magazines like National Geographic. Metal Resinates are metal salts of adducted rosin at approximately 60% total solids in solvents. Metal Resinates are considered Flammable due to the solvent.

The facility produces several types of Metal Resinates in two batch reactors and associated tankage. Solvent and adduct are brought into the Metal Resinates Area via 20,000 gallon tank cars and unloaded into storage tanks. There are two solvent storage tanks and one adduct tank located in the Metal Resinates Process Area. After the Metal Resinate is produced, the product is stored in product storage tanks in the Metal Resinate Process Area or pumped directly into tank cars. Metal Resinates are primarily shipped in 20,000 gallon tank cars to the customers.

Adduct and solvent are charged to the reactors by scale readings. Slurries of the metals are made up in slurry tanks and added to the reactors under controlled conditions. Once the metal slurries are added to the reactor and allowed to react, the water of reaction is stripped from the reaction mixture and the batch adjusted to on-grade properties.

All the tanks, tank cars, and process equipment are tied together by a common vent system. A nitrogen blanket is maintained on all tanks and equipment. The vent system lets down from header to header, finally going thru a total condenser before releasing any nitrogen being displaced.

Pollutants emitted from the Metal Resinates Process Area include PM, VOCs, and HAPs.

MANUFACTURING PROCESSES (page 2 of 2) SECTION E

13. POLLUTANT EMISSIONS:

Emission rate calculations, monitoring data, or stack test data must be attached! ***(see Calculations Section)***

EMISSION POINT NO.	POLLUTANT (note 1)	CONTROL EQUIPMENT		ACTUAL EMISSION RATE			PROPOSED ALLOWABLE EMISSION RATE		
		yes/no*	effic.	note 2	lb/hr	tn/yr	note 2	lb/hr	tn/yr
AE-000 (280)	PM	YES	99	NA	< 1	NA	NA	None Requested	
	VOC	YES	50-90	NA	4.40	19.29	NA	None Requested	
	HAP	YES	50-90	NA	4.40	19.29	NA	None Requested	
	VOC (fugitive)	NO	NA	NA	11.25	49.26	NA	None Requested	
	HAP (fugitive)	NO	NA	NA	11.25	49.26	NA	None Requested	
	All Other Criteria Pollutants	NO	NA	NA	< 1	NA	NA	None Requested	
	All Other HAPs	NO	NA	NA	< 0.1	NA	NA	None Requested	

1. All regulated air pollutants including hazardous air pollutants emitted from this source should be listed. A list of regulated air pollutants has been provided in section A.

2. Provide emission rate in units of applicable emission standard, e.g. lb/MMbtu, gr/dscf, etc. This may not apply to every emission point or every pollutant from an emission point.

* If yes, attach appropriate Air Pollution Control Data Sheet from Section L or manufacturers specifications if other.

OTHER AIR POLLUTION CONTROL EQUIPMENT / DEVICES

SECTION L7

If air pollution control equipment/device(s) are different from the previous sections descriptions or new technology, then explain below and attach manufacturers specifications including efficiency.

AE-001/Total Condenser

The condenser (AE-001) for the common vent system of the Metal Resinates process cools hot vapors with an estimated efficiency of 50 - 90% at a temperature range of 95 - 158°F. Manufacturer's data and other pertinent information is not available.

TANK SUMMARY SECTION H

Metal Resinates Process Area Tanks

The tanks listed in this section have been determined to have a potential to emit above the 0.1 lb/hr HAP (toluene) limit. Part 5 of each Tank Summary form lists actual emissions from tank breathing, working, and loading losses. The potential uncontrolled emissions calculations are included with the appropriate capacity mass balance sheet in the attached Appendix D, Confidential Business Information.

06/07/95

TANK DATA FORM

1. emission point no./name:	S-63 LB-69/M528	RECOVERED SOLVENT		
2. constructed/modified after 8/7/77(yes/no):			NO	Y/N
if yes give date and explain:				
3. product stored:		RECOVERED SOLVENT TOLUENE		
if more than one product stored complete 4 a-e:				
4. tank data:				
) storage temperature:			100	DEG F
a) true vapor pressure at stg temp:			1.025	PSIA
b) reid vapor pressure at stg temp:				PSIA
c) density of product at stg temp:			7.4	LBS/GAL
d) molecular weight of product vapor:			92.5	LBS/MOLE
e) throughput for most recent calender year:			759620	GALS/YR
f) tank capacity:			14838	GALS
g) tank diameter:	9.5		18.4	FT
h) tank height/length:	28		28	FT
i) average vapor space height:			4.75	FT
j) tank orentation(vertical/horizontal):			HOR	VER/HOR
k) type roof(dome/cone):			DOME	D/C
l) does tank have vapor recovery system(yes/no):			YES	Y/N
if yes, describe:	CONSERV	VENT		
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):			0.484	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)			FR	TYPE
n) check the closest city:			JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):			1	COLOR
p) tank paint condition(good/poor):			GOOD	G/P
q) type of tank loading				
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)			0	FACTOR
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)		18.4	0.86	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)		51	0.76	FACTOR
5. emissions summary				
1. breathing losses:		228 LBS/YR	0.114	TPY
2. working losses:		636 LBS/YR	0.318	TPY
3. loading losses:		0 LBS/YR	0.000	TPY
4. total emissions:		864 LBS/YR	0.432	TPY

6. umt coordinates:

zone	north	east
16RBK	6915	8067

notes:

06/06/95

TANK DATA FORM

1. emission point no./name:	S-90/M0870	REACTOR		
2. constructed/modified after 8/7/77(yes/no):			NO	Y/N
if yes give date and explain:				
3. product stored:			METAL RESINATES	
if more than one product stored complete 4 a-e:				
4. tank data:				
) storage temperature:			95	DEG F
a) true vapor pressure at stg temp:			0.9	PSIA
b) reid vapor pressure at stg temp:				PSIA
c) density of product at stg temp:			8.4	LBS/GAL
d) molecular weight of product vapor:			92.5	LBS/MOLE
e) throughput for most recent calender year:			1446317	GALS/YR
f) tank capacity:			4033	GALS
g) tank diameter:			8.6	FT
h) tank height/length:			9.6	FT
i) average vapor space height:			4.8	FT
j) tank orentation(vertical/horizontal):			VER	VER/HOR
k) type roof(dome/cone):			DOME	D/C
l) does tank have vapor recovery system(yes/no):			NO	Y/N
if yes, describe:				
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):			0.558	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)			FR	TYPE
n) check the closest city:			JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):			1.39	COLOR
p) tank paint condition(good/poor):			GOOD	G/P
q) type of tank loading				
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)			0	FACTOR
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	8.6		0.43	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	359		0.26	FACTOR
5. emissions summary				
1. breathing losses:		45 LBS/YR	0.022	TPY
2. working losses:		419 LBS/YR	0.210	TPY
3. loading losses:		0 LBS/YR	0.000	TPY
4. total emissions:		464 LBS/YR	0.232	TPY

6. umt coordinates:

zone	north	east
16RBK	6915	8067

notes:

06/08/95

TANK DATA FORM

1. emission point no./name:	S-109/M1090	REACTOR	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		METAL RESINATES	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		95	DEG F
a) true vapor pressure at stg temp:		0.9	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		8.4	LBS/GAL
d) molecular weight of product vapor:		92.5	LBS/MOLE
e) throughput for most recent calender year:		2892634	GALS/YR
f) tank capacity:		8715	GALS
g) tank diameter:		10	FT
h) tank height/length:		14.8	FT
i) average vapor space height:		7.45	FT
j) tank orentation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:	CONDENS		
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.558	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.39	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0)		0	FACTOR
submerged loading of a clean tank(.5):			
sub load, dedicated normal service(.6)			
sub load, dedicated vapor balance ser(1.0)			
splash loading of a clean tank(1.45)			
spl load, dedicated normal service(1.45)			
spl load, dedicated vapor balance ser(1.0)			
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	10	0.5	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	332	0.27	FACTOR
5. emissions summary			
1. breathing losses:	85 LBS/YR	0.042	TPY
2. working losses:	871 LBS/YR	0.435	TPY
3. loading losses:	0 LBS/YR	0.000	TPY
4. total emissions:	955 LBS/YR	0.478	TPY

6. umt coordinates:

zone	north	east
16RBK	6915	8067

notes:

06/07/95

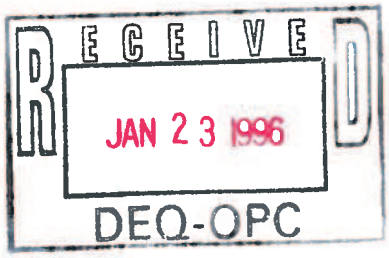
TANK DATA FORM

1. emission point no./name:	S-125/M1291	FRESH TOLUENE	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		TOLUENE	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		100	DEG F
a) true vapor pressure at stg temp:		1.025	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		7.2	LBS/GAL
d) molecular weight of product vapor:		92.5	LBS/MOLE
e) throughput for most recent calender year:		1329639	GALS/YR
f) tank capacity:		16075	GALS
g) tank diameter:		12	FT
h) tank height/length:		19	FT
i) average vapor space height:		9.5	FT
j) tank orentation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:	CONDENS		
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		1	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0)		0	FACTOR
submerged loading of a clean tank(.5):			
sub load, dedicated normal service(.6)			
sub load, dedicated vapor balance ser(1.0)			
splash loading of a clean tank(1.45)			
spl load, dedicated normal service(1.45)			
spl load, dedicated vapor balance ser(1.0)			
estimate small tank diameter factor for d=	12		
5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)		0.6	FACTOR
estimate number of turnovers factor for n=	83		
<35(1.0),50(.8),100(.6),200(.3),400(.25)		0.53	FACTOR
5. emissions summary			
1. breathing losses:	224	LBS/YR	0.112 TPY
2. working losses:	1604	LBS/YR	0.802 TPY
3. loading losses:	0	LBS/YR	0.000 TPY
4. total emissions:	1827	LBS/YR	0.914 TPY

6. umt coordinates:

zone	north	east
16RBK	6915	8067

notes:



06/07/95

TANK DATA FORM

1. emission point no./name:	S-126/M1296	METAL RESINATE STORAGE (SO	
2. constructed/modified after 8/7/77(yes/no):		NO	Y/N
if yes give date and explain:			
3. product stored:		METAL RESINATE	
if more than one product stored complete 4 a-e:			
4. tank data:			
) storage temperature:		158	DEG F
a) true vapor pressure at stg temp:		3.92	PSIA
b) reid vapor pressure at stg temp:			PSIA
c) density of product at stg temp:		8.4	LBS/GAL
d) molecular weight of product vapor:		92.5	LBS/MOLE
e) throughput for most recent calender year:		104524	GALS/YR
f) tank capacity:		19000	GALS
g) tank diameter:		13	FT
h) tank height/length:		20	FT
i) average vapor space height:		10	FT
j) tank orentation(vertical/horizontal):		VER	VER/HOR
k) type roof(dome/cone):		DOME	D/C
l) does tank have vapor recovery system(yes/no):		YES	Y/N
if yes, describe:	CONDENS		
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.1	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR	TYPE
n) check the closest city:		JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.39	COLOR
p) tank paint condition(good/poor):		GOOD	G/P
q) type of tank loading			
1. trucks and railcars(otherwise factor= 0)		0	FACTOR
submerged loading of a clean tank(.5):			
sub load, dedicated normal service(.6)			
sub load, dedicated vapor balance ser(1.0)			
splash loading of a clean tank(1.45)			
spl load, dedicated normal service(1.45)			
spl load, dedicated vapor balance ser(1.0)			
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)	13	0.66	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)	6	1	FACTOR
5. emissions summary			
1. breathing losses:	118 LBS/YR	0.059	TPY
2. working losses:	91 LBS/YR	0.045	TPY
3. loading losses:	0 LBS/YR	0.000	TPY
4. total emissions:	209 LBS/YR	0.104	TPY

6. umt coordinates:

zone	north	east
16RBK	6915	8067

notes:

06/07/95

TANK DATA FORM

1. emission point no./name:	S-127/M1297	METAL RESINATE STORAGE (NO		
2. constructed/modified after 8/7/77(yes/no):			YES	Y/N
if yes give date and explain:	INSTALLE	1986		
3. product stored:			METAL RESINATE	
if more than one product stored complete 4 a-e:				
4. tank data:				
) storage temperature:			158	DEG F
a) true vapor pressure at stg temp:			3.92	PSIA
b) reid vapor pressure at stg temp:				PSIA
c) density of product at stg temp:			8.4	LBS/GAL
d) molecular weight of product vapor:			92.5	LBS/MOLE
e) throughput for most recent calender year:			104524	GALS/YR
f) tank capacity:			19000	GALS
g) tank diameter:			13	FT
h) tank height/length:			20	FT
i) average vapor space height:			10	FT
j) tank orentation(vertical/horizontal):			VER	VER/HOR
k) type roof(dome/cone):			DOME	D/C
l) does tank have vapor recovery system(yes/no):			YES	Y/N
if yes, describe:	CONDENS			
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):			0.1	FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)			FR	TYPE
n) check the closest city:			JACKSON	MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):			1.39	COLOR
p) tank paint condition(good/poor):			GOOD	G/P
q) type of tank loading				
1. trucks and railcars(otherwise factor= 0) submerged loading of a clean tank(.5): sub load, dedicated normal service(.6) sub load, dedicated vapor balance ser(1.0) splash loading of a clean tank(1.45) spl load, dedicated normal service(1.45) spl load, dedicated vapor balance ser(1.0)			0	FACTOR
estimate small tank diameter factor for d= 5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)		13	0.66	FACTOR
estimate number of turnovers factor for n= <35(1.0),50(.8),100(.6),200(.3),400(.25)		6	1	FACTOR
5. emissions summary				
1. breathing losses:		118 LBS/YR	0.059	TPY
2. working losses:		91 LBS/YR	0.045	TPY
3. loading losses:		0 LBS/YR	0.000	TPY
4. total emissions:		209 LBS/YR	0.104	TPY

6. umt coordinates:

zone	north	east
16RBK	6915	8067

notes:

06/07/95

TANK DATA FORM

1. emission point no./name:	S-214	TOLUENE/WATER
2. constructed/modified after 8/7/77(yes/no):		NO Y/N
if yes give date and explain:		
3. product stored:		TOLUENE/WATER
if more than one product stored complete 4 a-e:		
4. tank data:		
) storage temperature:		95 DEG F
a) true vapor pressure at stg temp:		0.9 PSIA
b) reid vapor pressure at stg temp:		PSIA
c) density of product at stg temp:		7.4 LBS/GAL
d) molecular weight of product vapor:		92.5 LBS/MOLE
e) throughput for most recent calender year:		1574541 GALS/YR
f) tank capacity:		80 GALS
g) tank diameter:		2 FT
h) tank height/length:		3 FT
i) average vapor space height:		1.5 FT
j) tank orentation(vertical/horizontal):		VER VER/HOR
k) type roof(dome/cone):		DOME D/C
l) does tank have vapor recovery system(yes/no):		YES Y/N
if yes, describe:	CONDENS	
% efficiency: 0%(1.0),50%(.5),75%(.25),90%(.1), 99%(.01),100%(0):		0.558 FACTOR
m) type of tank: fixed roof(FR),pressure(P), variable vapor space(VVS),other(OTH)		FR TYPE
n) check the closest city:		JACKSON MS.
o) tank paint color:aluminum specular(1.20), aluminum diffuse(1.39),gray light(1.33), gray medium(1.40),white(1.00):		1.39 COLOR
p) tank paint condition(good/poor):		GOOD G/P
q) type of tank loading		
1. trucks and railcars(otherwise factor= 0)		0 FACTOR
submerged loading of a clean tank(.5):		
sub load, dedicated normal service(.6)		
sub load, dedicated vapor balance ser(1.0)		
splash loading of a clean tank(1.45)		
spl load, dedicated normal service(1.45)		
spl load, dedicated vapor balance ser(1.0)		
estimate small tank diameter factor for d=	2	
5ft(.25),10ft(.5),15ft(.75),20ft(.9),30ft(1.0)		0.1 FACTOR
estimate number of turnovers factor for n=	19682	
<35(1.0),50(.8),100(.6),200(.3),400(.25)		0.25 FACTOR
5. emissions summary		
1. breathing losses:	0 LBS/YR	0.000 TPY
2. working losses:	439 LBS/YR	0.219 TPY
3. loading losses:	0 LBS/YR	0.000 TPY
4. total emissions:	439 LBS/YR	0.220 TPY

6. umt coordinates:

zone	north	east
16RBK	6915	8067

notes:

MANUFACTURING PROCESSES (page 1 of 2) SECTION E

1. Emission Point No./ Name: AF-000 (180 & 190)/Rosin Amine Derivatives Process Area

2. Process Description: see attached process description

3. Was this unit constructed or modified after August 7, 1977? ____ yes __X__ no
If yes please give date and explain. ____

4. Rated Capacity (tons/hr): see attached Appendix D, Confidential Business Information

5. Raw Material Input:

MATERIAL	QUANTITY/HR AVERAGE	QUANTITY/HR MAXIMUM	QUANTITY/YEAR (1994)
see attached Appendix D, Confidential Business Information			

6. Product Output:

PRODUCT or BY-PRODUCT	QUANTITY/HR AVERAGE	QUANTITY/HR MAXIMUM	QUANTITY/YEAR (1994)
see attached Appendix D, Confidential Business Information			

7. Stack Data:

AF-002 (182)/Ammoniation Vent:

A. Height: 1 ft
B. Inside diameter: 2 ft
C. Exit gas velocity: 0-1 fps
D. Exit gas temperature: Ambient

AF-003 (183)/Amine Reactor Vent:

A. Height: 1 ft
B. Inside diameter: 2 ft
C. Exit gas velocity: 0-1 fps
D. Exit gas temperature: Ambient

AF-004 (190)/Packed Bed Scrubber with Sulfuric Acid (Ethylene Oxide):

A. Height: 1 ft
B. Inside diameter: 2 ft
C. Exit gas velocity: 0-1 fps
D. Exit gas temperature: Ambient

8. UTM Coordinates:
A. Zone 16 B. North 3,469,600m C. East 280,700m

ROSIN AMINE DERIVATIVES PROCESS AREA

This section describes the facility's Rosin Amine Derivatives and Ethylene Oxide Derivatives production operations and summarizes the assumptions and methods used to determine emission rates. A diagram of the Rosin Amine Derivatives process area is included in Figure 7.

Rosin Amine Derivatives (RAD), including Amines and Amine Acetates, are manufactured in the RAD area. Ethylene Oxide Derivatives (EOD), including Polyrads and Surfactants, are also manufactured in the RAD area. The major use of Amine Acetates is a collector for silica and silicate minerals. Amine Acetate is used primarily in the benefication of non-metallic ores. The Polyrads are corrosion inhibitors that are used for hydrochloric acid and for petroleum refining equipment. Their detergent properties aid in loosening and dispersing scale.

The facility routinely produces RAD and/or EOD finished products. Some raw materials are stored in bulk storage tanks which are not in the immediate process area. Some resin feed is stored in tanks in the Synthetic Resins area which is dormant. Ammonia is stored in tanks in the Metal Resinates area. Ethylene Oxide is stored in an isolated storage tank away from the immediate process area. Finished products are either packaged or stored in product storage tanks in the RAD area.

The manufacturing scheme for EOD is: 1) Rosin ammoniation is the presence of a metal catalyst to produce crude Nitrile; 2) batch distillation of crude Nitrile to produce distilled Nitrile; 3) hydrogenation of distilled Nitrile in the presence of a metal catalyst to produce Amine; and 4) various blending operations to produce Amine Acetates.

The manufacturing scheme for EOD is: 1) reacting Ethylene Oxide with various feed resins; and 2) various blending operations.

Emissions associated with the RAD process area primarily include: 1) reactor losses; 2) tank losses from raw materials and product storage; 3) fugitive losses; and 4) accounting inventories and mass balances.

The RAD ammoniation reactor vent is equipped with a water scrubber/absorber drum. The Nitrile still operates under vacuum and is equipped with a barometric condenser/hot well. The hydrogenation reactors vent is equipped with a water scrubber bucket. The blending operations are associated with tank losses.

The EOD reactor vent is equipped with a weak Sulfuric Acid circulating media to connect Ethylene Oxide to Ethylene Glycol controlled blowdown.

Pollutants emitted from the RAD Process Area include PM, VOCs, and HAPs.

MANUFACTURING PROCESSES (page 2 of 2) SECTION E

13. POLLUTANT EMISSIONS:

Emission rate calculations, monitoring data, or stack test data must be attached! ***(see Calculations Section)***

EMISSION POINT NO.	POLLUTANT (note 1)	CONTROL EQUIPMENT		ACTUAL EMISSION RATE			PROPOSED ALLOWABLE EMISSION RATE		
		yes/no*	effic.	note 2	lb/hr	tn/yr	note 2	lb/hr	tn/yr
AF-000 (180 & 190)	PM	YES	99	NA	< 1	NA	NA	None Requested	
	VOC	YES	99	NA	0.02	0.07	NA	None Requested	
	HAP	YES	99	NA	0.02	0.07	NA	None Requested	
	VOC (fugitive)	NO	NA	NA	0.29	1.28	NA	None Requested	
	HAP (fugitive)	NO	NA	NA	0.29	1.28	NA	None Requested	
	All Other Criteria Pollutants	NO	NA	NA	< 1	NA	NA	None Requested	
	All Other HAPs	NO	NA	NA	< 0.1	NA	NA	None Requested	

1. All regulated air pollutants including hazardous air pollutants emitted from this source should be listed. A list of regulated air pollutants has been provided in section A.

2. Provide emission rate in units of applicable emission standard, e.g. lb/MMbtu, gr/dscf, etc. This may not apply to every emission point or every pollutant from an emission point.

* If yes, attach appropriate Air Pollution Control Data Sheet from Section L or manufacturers specifications if other.

SCRUBBERS (Page 1 of 2) SECTION L5

1. Emission Point No. / Name: AF-004

2. Manufacturers Name and Model No.: Andersen 2000 Inc. Serial No. S-4733-832

3. Date of construction for existing sources or date of anticipated start-up for new sources:
1988

4. Scrubber Data: *

a) Scrubber type:
_____ Venturi _____ Orifice
_____ Packed Tower _____ Gravity Tower
_____ Cyclonic _____ Condenser
_____ Mist Eliminator _____ Impingement Plate
_____ Other:

b) Liquid injection rate: *
1) Design maximum: _____ gpm @ _____psia
2) Expected average: _____ gpm @ _____pisa

c) Pressure drop: * _____ inches H_2O

d) Scrubbing liquid: *
1) _____ Once - through _____ Recycled
2) If recycled: _____ gpm make - up rate
3) If water, describe settling basin: _____
4) Solution / Reactant systems:
a) Chemical make - up: _____
b) How is discharge handled, treated?_____

e) Gas flow: * _____ Counter current _____ Concurrent
1) Flow rate: _____ acfm
2) Inlet Temperature: 200 °F

f) Venturi Data: *
1) Inlet Area: _____ ft^2
2) Throat Area: _____ ft^2
3) Throat velocity: _____ ft / sec
4) _____ Fixed throat _____ Variable throat

g) Packed or Plate Tower Data: *
1) Surface Area: _____ ft^2
2) Packing depth: _____ ft
3) Type of packing: _____ Rings _____ Saddles
_____ Other: _____
4) No. of plates: _____
5) Type of plates: _____

* - As of the time that this application was submitted, the complete manufacturer's data had not been received. At such time, the data will be submitted along with a completed Section L5 form.

SCRUBBERS (Page 2 of 2) SECTION L5

h) Demisting Data: *

1) Mist eliminator filter area: _____ ft^2

2) Type: _____ Cyclone _____ Vanes _____ Pad

_____ Other: _____

i) Efficiency: 99 %

j) Are extra nozzles readily available? _____ Yes X No

How many? _____

k) Pressure measurement devices installed? _____ Yes X No

5. Which process(es) does the scrubber control emissions from? Rosin Amine Derivatives Process (Ethylene Oxide)

* - As of the time that this application was submitted, the complete manufacturer's data had not been received. At such time, the data will be submitted along with a completed Section L5 form.

FUEL BURNING EQUIPMENT (page 1 of 2) SECTION D

1. Emission Point No. / Name: AF-001 (181)/Dowtherm Boiler

2. Equipment Description: Struthers Wells (Dowtherm) Boiler

3. Was this unit constructed or modified after August 7, 1977? _____ Yes __X__ No
If yes please give date and explain. _____

4. Rated Capacity: 8.3 MMBTU/hr 5. Type of burner: Multiple Port Gas

6. Usage: Process Heat

7. Complete the following table, identifying each type of fuel and the amount used. Specify the units for heat content, hourly usage, and yearly usage.

FUEL TYPE	HEAT CONTENT	% SULFUR	% ASH	MAXIMUM HOURLY USAGE	ACTUAL YEARLY USAGE
Natural Gas	1,000 Btu/cf	_____	_____	8,300 cf	18,737 mcf

8. Please list any fuel components that are hazardous air pollutants and the percentage in the fuel.

9. Operating Schedule: 24 hours/day 7 days/week 52 weeks/year

10. Stack Data:
A. Height: 55' C. Exit gas velocity: 14.3 fps
B. Inside diameter: 1.5' D. Exit gas temperature: 1,000 °F

11. UTM Coordinates:
A. Zone 16 B. North 3,469,600m C. East 280,700m

FUEL BURNING EQUIPMENT (page 2 of 2) SECTION D

12. POLLUTANT EMISSIONS:

Emission rate calculations, monitoring data, or stack test data must be attached!

EMISSION POINT NO.	POLLUTANT (note 1)	CONTROL EQUIPMENT		ACTUAL EMISSION RATE			PROPOSED ALLOWABLE EMISSION RATE		
		yes/no*	effic.	note 2	lb/hr	tn/yr	note 2	lb/hr	tn/yr
AF-001	PM	NO		0.004 lb/mmbtu	0.037	0.042	0.6 lb/mmbtu	None Requested	
	PM_{10}	NO		NA	0.062	0.070	NA	None Requested	
	SO_2	NO		0.0006 lb/mmbtu	0.005	0.006	4.8 lb/mmbtu	None Requested	
	NO_X	NO		NA	0.830	0.937	NA	None Requested	
	CO	NO		NA	0.174	0.197	NA	None Requested	
	VOC	NO		NA	0.044	0.049	NA	None Requested	
	All Other Criteria Pollutants	NO		NA	< 1	NA	NA	None Requested	
	All Other HAPs	NO		NA	< 0.1	NA	NA	None Requested	

1. All regulated air pollutants including hazardous air pollutants emitted from this source should be listed. A list of regulated air pollutants has been provided in section A.

2. Provide emission rate in units of applicable emission standard, e.g. lb/MMbtu, gr/dscf, etc. This may not apply to every emission point or every pollutant from an emission point.

* If yes, attach appropriate Air Pollution Control Data Sheet from Section L or manufacturers specifications if other.

MANUFACTURING PROCESSES (page 1 of 2) SECTION E

1. Emission Point No./ Name: AG-000 (080, 090, & 100)/Hard Resins Process Area

2. Process Description: see attached process description

3. Was this unit constructed or modified after August 7, 1977? _____yes __X__no
If yes please give date and explain. _____

4. Rated Capacity (tons/hr): see attached Appendix D, Confidential Business Information

5. Raw Material Input:

MATERIAL	QUANTITY/HR AVERAGE	QUANTITY/HR MAXIMUM	QUANTITY/YEAR (1994)
see attached Appendix D, Confidential Business Information			

6. Product Output:

PRODUCT or BY-PRODUCT	QUANTITY/HR AVERAGE	QUANTITY/HR MAXIMUM	QUANTITY/YEAR (1994)
see attached Appendix D, Confidential Business Information			

7. Stack Data:

AG-003 (082 and 102)/Water Scrubber (Kettle Vent):

A. Height: 35 ft
B. Inside diameter: 4 ft
C. Exit gas velocity: 2 fps
D. Exit gas temperature: Ambient

AG-004 (092)/Continuous Esterification Vent:

A. Height: 65 ft
B. Inside diameter: 0.25 ft
C. Exit gas velocity: 0-1 fps
D. Exit gas temperature: 212°F

AG-005 (101)/Buell Norblo Dust Collector (Flaking Belt, Cold End):

A. Height: 12 ft
B. Inside diameter: 2.4 ft
C. Exit gas velocity: 28.73 fps
D. Exit gas temperature: Ambient

8. UTM Coordinates:
A. Zone 16 B. North 3,469,200m C. East 280,700m

HARD RESINS PROCESS AREA

This section describes the facility's Hard Resins Area (HRA) production operations and summarizes the assumptions and methods used to determine emission rates. A diagram of the Hard Resins process area is included in Figure 8.

Several Resin derivatives, including primarily simple esters, are produced in the HRA production facilities. Also, Rosin Adduct which is produced in the Neuphor Process Area can also be produced in the Hard Resins Area. The esterification reaction is enhanced by the use of a catalyst and usually requires the addition of antioxidants as well. The final products are used in many diverse and varied industry applications such as chewing gum and adhesives. Many of them meet FDA and U.S. Food and Drug Administration requirements for use in food.

The facility routinely produces products in several batch kettles with a continuous esterification unit (CEU) also available. The kettles allow feed resins and essential materials to react under specified and controlled conditions to produce desired products. The vent system/vacuum system is used to remove water of reaction and the light ends. Feed resins and other raw materials are normally stored at HRA in storage tanks, drums, or bags. Finished products are either flaked and bagged, drummed, or shipped in bulk. Storage tanks and warehouses are used to inventory both essential materials and finished products.

Emissions associated with the HRA process primarily include: 1) kettle losses resulting from displacement, thermal expansion, etc.; 2) tank losses from raw materials and product storage; 3) flaking and packaging; 4) fugitive losses; and 5) accounting inventories and mass balances.

The kettle vent system/vacuum system ties into a common water spray scrubber. The kettle atmospheric vent goes to a vent tank for collecting the light ends. The vent tank goes to a packed water scrubber followed by an induced draft fan/water box spray which discharges into the common water spray scrubber. The vacuum system removes the light ends to a catch tank. The vacuum pump discharge also ties into the packed water scrubber.

The hot end of the flaking belt goes to an induced draft fan/water box spray which also discharges into the common water spray scrubber.

The cold end of the flaking belt or packaging goes to a bag house dust collector/induced draft fan to remove particulate emissions.

Pollutants emitted from the Hard Resins Process Area include PM, VOCs, and HAPs. HAPs emitted include Acrolein, Formaldehyde, Maleic Anhydride, Phthalic Anhydride, and Ethylene Glycol.

BAGHOUSES

SECTION L1

1. Emission Point No. / Name : AG-005

2. Manufacturers Name & Model No.: Buell "Norblo" Mechanical Shaker Type Dust Collector Model No. 396-14-20

3. Date of construction for existing sources or date of anticipated start-up for new sources:
1979

4. Baghouse Data:

a) Cloth area: 7,344 ft^2

b) Air to cloth ratio: 3.06:1 $acfm/ft^2$

c) Type of bag: _____ Woven _____ Felted _____ Membrane _____ Other:

d) Bag material: Polyester

e) No. of bags: 396

f) No. of compartments: 4

g) Bag length: 14.17 ft

h) Bag diameter: 0.42 ft

i) Pressure drop: 4 - 6 inches H_2O

j) Pressure measurement device installed: _____ Yes X No

k) Air flow: 22,500 acfm @ 72 °F

l) Efficiency: 99 %

m) Dirty air on: X inside _____ outside of bag

n) Time between bag cleaning: 8 min.

o) Method of bag cleaning: ___X___ Shaking _____ Reverse Air
_____ Pulse Jet _____ Other:

p) Are extra bags readily available: ___ Yes_X___ No How Many? _____

q) How is the collected dust stored, handled, disposed of? Dust is collected in a hopper

5. Which process(es) does the baghouse control emissions from? Hard Resins Process, Flaking Belt (Cold End)

MANUFACTURING PROCESSES (page 2 of 2) SECTION E

13. POLLUTANT EMISSIONS:

Emission rate calculations, monitoring data, or stack test data must be attached! ***(see Calculations Section)***

EMISSION POINT NO.	POLLUTANT (note 1)	CONTROL EQUIPMENT		ACTUAL EMISSION RATE			PROPOSED ALLOWABLE EMISSION RATE		
		yes/no*	effic.	note 2	lb/hr	tn/yr	note 2	lb/hr	tn/yr
AG-000 (080, 090, & 100)	PM	YES	50-90	NA	< 1	NA	NA	None Requested	
	VOC	YES	50-90	NA	17.82	78.05	NA	None Requested	
	All Other Criteria Pollutants	NO	NA	NA	< 1	NA	NA	None Requested	
	All Other HAPs	NO	NA	NA	< 0.1	NA	NA	None Requested	

1. All regulated air pollutants including hazardous air pollutants emitted from this source should be listed. A list of regulated air pollutants has been provided in section A.

2. Provide emission rate in units of applicable emission standard, e.g. lb/MMbtu, gr/dscf, etc. This may not apply to every emission point or every pollutant from an emission point.

* If yes, attach appropriate Air Pollution Control Data Sheet from Section L or manufacturers specifications if other.

SCRUBBERS (Page 1 of 2) SECTION L5

1. Emission Point No. / Name: AG-003

2. Manufacturers Name and Model No.: Hercules, Incorporated

3. Date of construction for existing sources or date of anticipated start-up for new sources:

4. Scrubber Data:

a) Scrubber type:

____	Venturi	____	Orifice
____	Packed Tower	__X__	Gravity Tower
____	Cyclonic	____	Condenser
____	Mist Eliminator	____	Impingement Plate
____	Other:		

b) Liquid injection rate: *(estimated)*

1) Design maximum: __6__ gpm @ __40__ psia
2) Expected average: __6__ gpm @ __20__ pisa

c) Pressure drop: __6__ inches H_2O *(estimated)*

d) Scrubbing liquid:

1) __X__ Once - through ____ Recycled
2) If recycled: __NA__ gpm make - up rate
3) If water, describe settling basin: sent to Effluent Treatment Plant
4) Solution / Reactant systems:
   a) Chemical make - up: NA
   b) How is discharge handled, treated? Effluent Treatment Plant

e) Gas flow: __X__ Counter current ____ Concurrent

1) Flow rate: 8,405 acfm
2) Inlet Temperature: Ambient - 150 °F

f) Venturi Data: NA

1) Inlet Area: ____ ft^2
2) Throat Area: ____ ft^2
3) Throat velocity: ____ ft / sec
4) ____ Fixed throat ____ Variable throat

g) Packed or Plate Tower Data: NA

1) Surface Area: ____ ft^2
2) Packing depth: ____ ft
3) Type of packing: ____ Rings ____ Saddles
   ____ Other: ____
4) No. of plates: ____
5) Type of plates: ____

SCRUBBERS (Page 2 of 2) SECTION L5

h) Demisting Data: NA

1) Mist eliminator filter area: _____ ft^2

2) Type: _____ Cyclone _____ Vanes _____ Pad

_____ Other: _____

i) Efficiency: 80 % *(estimated)*

j) Are extra nozzles readily available? _____ Yes X No

How many? _____

k) Pressure measurement devices installed? X Yes _____ No

5. Which process(es) does the scrubber control emissions from? Hard Resins Process, Kettle Vent System and Flaking Belt

FUEL BURNING EQUIPMENT (page 1 of 2) SECTION D

1. Emission Point No. / Name: AG-001 (081)/Kettle Boiler

2. Equipment Description: Struthers Wells (Dowtherm) Boiler

3. Was this unit constructed or modified after August 7, 1977? _____ Yes __X__ No
If yes please give date and explain. _____

4. Rated Capacity: 8.3 MMBTU/hr 5. Type of burner: Multiple Port Gas

6. Usage: Process Heat

7. Complete the following table, identifying each type of fuel and the amount used. Specify the units for heat content, hourly usage, and yearly usage.

FUEL TYPE	HEAT CONTENT	% SULFUR	% ASH	MAXIMUM HOURLY USAGE	ACTUAL YEARLY USAGE
Natural Gas	1,000 Btu/cf	_____	_____	8,300 cf	21,408 mcf

8. Please list any fuel components that are hazardous air pollutants and the percentage in the fuel.

9. Operating Schedule: 24 hours/day 7 days/week 52 weeks/year

10. Stack Data:
A. Height: 60'
B. Inside diameter: 2.0'
C. Exit gas velocity: 10 fps
D. Exit gas temperature: 1,000 °F

11. UTM Coordinates:
A. Zone 16 B. North 3,469,200m C. East 280,700m

FUEL BURNING EQUIPMENT (page 2 of 2) SECTION D

12. POLLUTANT EMISSIONS:

Emission rate calculations, monitoring data, or stack test data must be attached!

EMISSION POINT NO.	POLLUTANT (note 1)	CONTROL EQUIPMENT		ACTUAL EMISSION RATE			PROPOSED ALLOWABLE EMISSION RATE		
		yes/no*	effic.	note 2	lb/hr	tn/yr	note 2	lb/hr	tn/yr
AG-001	PM	NO		0.004 lb/mmbtu	0.037	0.048	0.6 lb/mmbtu	None Requested	
	PM_{10}	NO		NA	0.062	0.080	NA	None Requested	
	SO_2	NO		0.0006 lb/mmbtu	0.005	0.006	4.8 lb/mmbtu	None Requested	
	NO_X	NO		NA	0.830	1.070	NA	None Requested	
	CO	NO		NA	0.174	0.225	NA	None Requested	
	VOC	NO		NA	0.044	0.057	NA	None Requested	
	All Other Criteria Pollutants	NO		NA	< 1	NA	NA	None Requested	
	All Other HAPs	NO		NA	< 0.1	NA	NA	None Requested	

1. All regulated air pollutants including hazardous air pollutants emitted from this source should be listed. A list of regulated air pollutants has been provided in section A.

2. Provide emission rate in units of applicable emission standard, e.g. lb/MMbtu, gr/dscf, etc. This may not apply to every emission point or every pollutant from an emission point.

* If yes, attach appropriate Air Pollution Control Data Sheet from Section L or manufacturers specifications if other.

FUEL BURNING EQUIPMENT (page 1 of 2) SECTION D

1. Emission Point No. / Name: AG-002 (091)/Dowtherm Boiler

2. Equipment Description: Struthers Wells (Dowtherm) Boiler

3. Was this unit constructed or modified after August 7, 1977? _____ Yes __X__ No
If yes please give date and explain. _____

4. Rated Capacity: 3.3 MMBTU/hr 5. Type of burner: Multiple Port Gas

6. Usage: Process Heat

7. Complete the following table, identifying each type of fuel and the amount used. Specify the units for heat content, hourly usage, and yearly usage.

FUEL TYPE	HEAT CONTENT	% SULFUR	% ASH	MAXIMUM HOURLY USAGE	ACTUAL YEARLY USAGE
Natural Gas	1,000 Btu/cf	_____	_____	3,300 cf	0

8. Please list any fuel components that are hazardous air pollutants and the percentage in the fuel.

9. Operating Schedule: 24 hours/day 7 days/week 52 weeks/year

10. Stack Data:
A. Height: 40' C. Exit gas velocity: 2.0 fps
B. Inside diameter: 1.5' D. Exit gas temperature: 1,000 °F

11. UTM Coordinates:
A. Zone 16 B. North 3,469,200m C. East 280,700m

FUEL BURNING EQUIPMENT (page 2 of 2) SECTION D

12. POLLUTANT EMISSIONS:

Emission rate calculations, monitoring data, or stack test data must be attached!

EMISSION POINT NO.	POLLUTANT (note 1)	CONTROL EQUIPMENT		ACTUAL EMISSION RATE			PROPOSED ALLOWABLE EMISSION RATE		
		yes/no*	effic.	note 2	lb/hr	tn/yr	note 2	lb/hr	tn/yr
AG-002	PM	NO		0.0 lb/mmbtu	0	0	0.6 lb/mmbtu	None Requested	
	PM_{10}	NO		NA	0	NA	NA	None Requested	
	SO_2	NO		0.0 lb/mmbtu	0	0	4.8 lb/mmbtu	None Requested	
	NO_X	NO		NA	0	NA	NA	None Requested	
	CO	NO		NA	0	NA	NA	None Requested	
	VOC	NO		NA	0	NA	NA	None Requested	
	All Other Criteria Pollutants	NO		NA	< 1	NA	NA	None Requested	
	All Other HAPs	NO		NA	< 0.1	NA	NA	None Requested	

1. All regulated air pollutants including hazardous air pollutants emitted from this source should be listed. A list of regulated air pollutants has been provided in section A.

2. Provide emission rate in units of applicable emission standard, e.g. lb/MMbtu, gr/dscf, etc. This may not apply to every emission point or every pollutant from an emission point.

* If yes, attach appropriate Air Pollution Control Data Sheet from Section L or manufacturers specifications if other.

COMPLIANCE DEMONSTRATION (page 1 of 2) SECTION M

Section M reflects the current understanding of what might be required by the Enhanced Monitoring and/or the Periodic Monitoring Regulations that EPA is to promulgate around November, 1994. Upon promulgation of those regulations, this section will be revised to reflect the actual requirements. Until then, the information in this section should be utilized for planning purposes.

Choose the type of monitoring that is suggested for your source in the "Enhanced Monitoring Guideline". Fill out the appropriate form and attach to the corresponding emission point description pages.

A. Compliance Demonstration by Continuous Emissions Monitoring (CEM).

Sulfur Dioxide(SO_2)	Nitrogen Oxides (NO_x)	Oxygen (O_2)
Carbon Dioxide (CO_2)	Total Reduced Sulfur (TRS)	Opacity
Hydrogen Chloride (HCl)	Carbon Monoxide (CO)	Flow
Hydrogen Sulfide (H_2S)	Volatile Organic Compound (VOC)	

B. Compliance Demonstration by Periodic Emission Monitoring using Portable Monitors.

SO_2 NO_x O_2 CO_2 CO HCl H_2S VOC Flow Moisture
Combustibles Combustion Efficiency

C. Compliance Demonstration by Monitoring Control System Parameters or Operating Parameters of a Process.

Baghouse	Pressure drop across baghouse, Broken bag detector, Opacity.
Mechanical Collectors	Pressure drop across collector, Hopper full detector, Opacity.
Electrostatic Precipitators	Primary and secondary voltage, Primary and secondary currents, Spark Rate, Broken wire detector, Rap cycle frequency, Resistivity measurement, Inlet water flow, Total solids, Opacity.
Thermal Incinerator	Firebox temperature.
Catalytic Incinerator	Catalyst bed temperature.
Flare	Pilot light detector, Temperature after flame zone.
Particulate Scrubber	Pressure drop across scrubber and demister, Scrubber fluid recirculation rate, Pump discharge pressure, Pump motor current.
Absorber for Gases	pH of fluid, Fluid recirculation rate, Air flow, Pressure drop across absorber and demister, Fluid temperature.
Carbon Absorber	Steam mass flow rate per regeneration cycle, Carbon bed temperature.
Condenser	Condenser exit temperature, Amount of solvent recovered daily.Charging rate, Production rate, Hours of operation, Secondary chamber temperature, Kiln or dryer exit temperature, Burner combustion efficiency, Power consumption, Static pressure, Fuel usage rate, Water injection rate.

D. Compliance Demonstration by Monitoring Maintenance Procedures.

Water quality testing	Reid vapor pressure testing	VOC leak testing
Sludge solids testing	Sludge mercury testing	Soot blowing frequency

Electrostatic precipitator cleaning frequency Fugitive dust control measures
Blacklight inspection of baghouses
Control equipment inspection frequency
Periodic inspection of process operating parameters

E. Compliance Demonstration by Stack Testing.

EPA Method 1 & 2 : Flow (S-type pilot tubes, Hot-wire anemometer)
EPA Method 3 : CO_2, O_2, CO (Orsat, Fyrite)
EPA Method 3A : CO_2, O_2, (Analyzers)
EPA Method 4 : Moisture (Wet bulb-Dry bulb, Impingers)
EPA Method 5 : PM
EPA Method 6 : SO_2 (Impingers)
EPA Method 6B : SO_2 (24 hour average)
EPA Method 6C : SO_2 (Analyzer)
EPA Method 7E : NO_x (Analyzer)
EPA Method 9 : Opacity (Visible emissions reader)
EPA Method 10 : CO (Analyzer)
EPA Method 16 : TRS (Gas Chromatograph)
EPA Method 16A : TRS (Impingers)
EPA Method 16B: TRS (Gas Chromatograph)
EPA Method 18 : VOC (Gas Chromatograph)
EPA Method 21 : VOC Leaks (Analyzer)
EPA Method 25A: VOC (Analyzer with FID)
EPA Method 25B : VOC (NDIR Analyzer)

F. Compliance Demonstration by Fuel Sampling and Analysis (FSA).

Coal Sampling	Coke sampling	Tire derived fuel sampling
Waste oil sampling	Sewage sludge sampling	Paper sludge sampling
Refuse derived fuel sampling	Landfill gas sampling	

G. Compliance Demonstration by Recordkeeping.

Testing and monitoring records	Records of malfunction
Compliance schedule records	As-applied coating & ink records,
Process hours of operation records	Transfer efficiency records
Fuel usage records	Production records

As-applied coating & ink composition records

COMPLIANCE DEMONSTRATION BY RECORDKEEPING

SECTION M7

1. Emission Point No./Name : AM-001/Package Boiler No. 5

2. Pollutant: Fuel usage and run times

3. Material or parameter being monitored or recorded: No. 6 fuel oil usage

4. Method of monitoring and recordkeeping: Records of the operation of the facility must be kept and must show the duration of operation (time and dates) and amount of material processed. These records shall be made available to the Mississippi Office of Pollution Control upon request. (See Appendix C, State of Mississippi Air Operating Permit Part III (1)).

5. List any EPA methods used: NA

6. Compliance shall be demonstrated:

By Recordkeeping of the time and dates of fuel usage.

_____ Daily _____ Weekly _____ Monthly _____ Quarterly

COMPLIANCE DEMONSTRATION BY RECORDKEEPING

SECTION M7

1. Emission Point No./Name : AM-002/Package Boiler No. 6

2. Pollutant: SO_2 and Fuel usage and run times

3. Material or parameter being monitored or recorded: No. 6 fuel oil usage and sulfur content

4. Method of monitoring and recordkeeping: Records of the operation of the facility must be kept and must show the duration of operation (time and dates) and amount of material processed. These records shall be made available to the Mississippi Office of Pollution Control upon request. (See Appendix C, State of Mississippi Air Operating Permit Part III (1)).

   The permittee is limited to a usage of 260,925 gallons/calendar year of No. 6 fuel oil with sulfur content not to exceed 2.9%. A quarterly report shall be submitted detailing the amount of fuel oil and the fuel oil characteristics. The report shall be postmarked by the 30th day of the month following the end of the calendar quarter. (See Appendix C, State of Mississippi Air Operating Permit Part III (4)).

5. List any EPA methods used: NA

6. Compliance shall be demonstrated:

   for fuel usage and run times and SO_2 by:

Recordkeeping of the time and dates of fuel usage and reporting to the MDEQ on a quarterly basis of the amount and characteristics of the fuel oil used. This report will be submitted at such time as the facility initiates the use of fuel oil, but only the facility's recordkeeping will be used for compliance demonstration purposes during the calendar quarters in which no fuel oil is used.

COMPLIANCE CERTIFICATION SECTION O

1. Emission Point No./Name : AA-000 (160)/Kymene Process Area

2. Indicate the source compliance status:

A. ___X___ Where this source is currently in compliance, we will continue to operate and maintain this source to assure compliance for the duration of the permit.

B. ___X___ The Current Emissions Requirements and Status form (previous page) includes new requirements that apply or will apply to this source during the term of the permit. We will meet such requirements on a timely basis.

C. _____ This source is not in compliance. The following statement of corrective action is submitted to describe action which we will take to achieve compliance.

1. _____ Attached is a brief description of the problem and the proposed solution.

2. _____ We will achieve compliance according to the following schedule.

Progress reports will be submitted:
Starting date: _____ and every six (6) months thereafter

Problem	Action	Deadline

COMPLIANCE CERTIFICATION — SECTION O

1. Emission Point No./Name : AB-000 (270)/Paracol Process Area

2. Indicate the source compliance status:

A. ___X___ Where this source is currently in compliance, we will continue to operate and maintain this source to assure compliance for the duration of the permit.

B. _____ The Current Emissions Requirements and Status form (previous page) includes new requirements that apply or will apply to this source during the term of the permit. We will meet such requirements on a timely basis.

C. _____ This source is not in compliance. The following statement of corrective action is submitted to describe action which we will take to achieve compliance.

1. _____ Attached is a brief description of the problem and the proposed solution.

2. _____ We will achieve compliance according to the following schedule.

Progress reports will be submitted:
Starting date: _____ and every six (6) months thereafter

Problem	Action	Deadline

COMPLIANCE CERTIFICATION SECTION O

1. Emission Point No./Name : AC-000 (030)/Poly-Pale Process Area

2. Indicate the source compliance status:

   A. ___X___ Where this source is currently in compliance, we will continue to operate and maintain this source to assure compliance for the duration of the permit.

   B. _____ The Current Emissions Requirements and Status form (previous page) includes new requirements that apply or will apply to this source during the term of the permit. We will meet such requirements on a timely basis.

   C. _____ This source is not in compliance. The following statement of corrective action is submitted to describe action which we will take to achieve compliance.

      1. _____ Attached is a brief description of the problem and the proposed solution.

      2. _____ We will achieve compliance according to the following schedule.

Progress reports will be submitted:
Starting date: _____ and every six (6) months thereafter

Problem	Action	Deadline

COMPLIANCE CERTIFICATION SECTION O

1. Emission Point No./Name : AD-000 (038)/Neuphor Process Area

2. Indicate the source compliance status:

   A. ___X___ Where this source is currently in compliance, we will continue to operate and maintain this source to assure compliance for the duration of the permit.

   B. _____ The Current Emissions Requirements and Status form (previous page) includes new requirements that apply or will apply to this source during the term of the permit. We will meet such requirements on a timely basis.

   C. _____ This source is not in compliance. The following statement of corrective action is submitted to describe action which we will take to achieve compliance.

      1. _____ Attached is a brief description of the problem and the proposed solution.

      2. _____ We will achieve compliance according to the following schedule.

Progress reports will be submitted:
Starting date: _____ and every six (6) months thereafter

Problem	Action	Deadline

COMPLIANCE CERTIFICATION SECTION O

1. Emission Point No./Name : AE-000 (280)/Metal Resinates Process Area

2. Indicate the source compliance status:

A. ___X___ Where this source is currently in compliance, we will continue to operate and maintain this source to assure compliance for the duration of the permit.

B. _____ The Current Emissions Requirements and Status form (previous page) includes new requirements that apply or will apply to this source during the term of the permit. We will meet such requirements on a timely basis.

C. _____ This source is not in compliance. The following statement of corrective action is submitted to describe action which we will take to achieve compliance.

1. _____ Attached is a brief description of the problem and the proposed solution.

2. _____ We will achieve compliance according to the following schedule.

Progress reports will be submitted:
Starting date: _____ and every six (6) months thereafter

Problem	Action	Deadline

COMPLIANCE CERTIFICATION — SECTION O

1. Emission Point No./Name : AF-000 (180 & 190)/Rosin Amine Derivatives Process Area

2. Indicate the source compliance status:

   A. ___X___ Where this source is currently in compliance, we will continue to operate and maintain this source to assure compliance for the duration of the permit.

   B. _____ The Current Emissions Requirements and Status form (previous page) includes new requirements that apply or will apply to this source during the term of the permit. We will meet such requirements on a timely basis.

   C. _____ This source is not in compliance. The following statement of corrective action is submitted to describe action which we will take to achieve compliance.

      1. _____ Attached is a brief description of the problem and the proposed solution.

      2. _____ We will achieve compliance according to the following schedule.

Progress reports will be submitted:
Starting date: _____ and every six (6) months thereafter

Problem	Action	Deadline

COMPLIANCE CERTIFICATION SECTION O

1. Emission Point No./Name : AG-000 (080, 090, & 100)/Hard Resins Process Area

2. Indicate the source compliance status:

A. ___X___ Where this source is currently in compliance, we will continue to operate and maintain this source to assure compliance for the duration of the permit.

B. _____ The Current Emissions Requirements and Status form (previous page) includes new requirements that apply or will apply to this source during the term of the permit. We will meet such requirements on a timely basis.

C. _____ This source is not in compliance. The following statement of corrective action is submitted to describe action which we will take to achieve compliance.

1. _____ Attached is a brief description of the problem and the proposed solution.

2. _____ We will achieve compliance according to the following schedule.

Progress reports will be submitted:
Starting date: _____ and every six (6) months thereafter

Problem	Action	Deadline

COMPLIANCE CERTIFICATION SECTION O

1. Emission Point No./Name : AH-000 (040)/Rosin Shed Area

2. Indicate the source compliance status:

A. ___X___ Where this source is currently in compliance, we will continue to operate and maintain this source to assure compliance for the duration of the permit.

B. _____ The Current Emissions Requirements and Status form (previous page) includes new requirements that apply or will apply to this source during the term of the permit. We will meet such requirements on a timely basis.

C. _____ This source is not in compliance. The following statement of corrective action is submitted to describe action which we will take to achieve compliance.

1. _____ Attached is a brief description of the problem and the proposed solution.

2. _____ We will achieve compliance according to the following schedule.

Progress reports will be submitted:
Starting date: _____ and every six (6) months thereafter

Problem	Action	Deadline

COMPLIANCE CERTIFICATION SECTION O

1. Emission Point No./Name : AI-000 (110)/Staybelite Process Area

2. Indicate the source compliance status:

A. ___X___ Where this source is currently in compliance, we will continue to operate and maintain this source to assure compliance for the duration of the permit.

B. _____ The Current Emissions Requirements and Status form (previous page) includes new requirements that apply or will apply to this source during the term of the permit. We will meet such requirements on a timely basis.

C. _____ This source is not in compliance. The following statement of corrective action is submitted to describe action which we will take to achieve compliance.

1. _____ Attached is a brief description of the problem and the proposed solution.

2. _____ We will achieve compliance according to the following schedule.

Progress reports will be submitted:
Starting date: _____ and every six (6) months thereafter

Problem	Action	Deadline

COMPLIANCE CERTIFICATION — SECTION O

1. Emission Point No./Name : AJ-000 (150)/Rosin Distillation Process Area

2. Indicate the source compliance status:

A. ___X___ Where this source is currently in compliance, we will continue to operate and maintain this source to assure compliance for the duration of the permit.

B. _____ The Current Emissions Requirements and Status form (previous page) includes new requirements that apply or will apply to this source during the term of the permit. We will meet such requirements on a timely basis.

C. _____ This source is not in compliance. The following statement of corrective action is submitted to describe action which we will take to achieve compliance.

1. _____ Attached is a brief description of the problem and the proposed solution.

2. _____ We will achieve compliance according to the following schedule.

Progress reports will be submitted:
Starting date: _____ and every six (6) months thereafter

Problem	Action	Deadline

COMPLIANCE CERTIFICATION SECTION O

1. Emission Point No./Name : AK-000 (120)/Hydrogen Generation Process Area

2. Indicate the source compliance status:

A. ___X___ Where this source is currently in compliance, we will continue to operate and maintain this source to assure compliance for the duration of the permit.

B. _____ The Current Emissions Requirements and Status form (previous page) includes new requirements that apply or will apply to this source during the term of the permit. We will meet such requirements on a timely basis.

C. _____ This source is not in compliance. The following statement of corrective action is submitted to describe action which we will take to achieve compliance.

1. _____ Attached is a brief description of the problem and the proposed solution.

2. _____ We will achieve compliance according to the following schedule.

Progress reports will be submitted:
Starting date: _____ and every six (6) months thereafter

Problem	Action	Deadline

COMPLIANCE CERTIFICATION SECTION O

1. Emission Point No./Name : AL-000 (170)/Defoamer Area

2. Indicate the source compliance status:

A. ___X___ Where this source is currently in compliance, we will continue to operate and maintain this source to assure compliance for the duration of the permit.

B. _____ The Current Emissions Requirements and Status form (previous page) includes new requirements that apply or will apply to this source during the term of the permit. We will meet such requirements on a timely basis.

C. _____ This source is not in compliance. The following statement of corrective action is submitted to describe action which we will take to achieve compliance.

1. _____ Attached is a brief description of the problem and the proposed solution.

2. _____ We will achieve compliance according to the following schedule.

Progress reports will be submitted:
Starting date: _____ and every six (6) months thereafter

Problem	Action	Deadline

COMPLIANCE CERTIFICATION — SECTION O

1. Emission Point No./Name : AM-000 (050 & 240)/Powerhouse Area

2. Indicate the source compliance status:

   A. ___X___ Where this source is currently in compliance, we will continue to operate and maintain this source to assure compliance for the duration of the permit.

   B. _____ The Current Emissions Requirements and Status form (previous page) includes new requirements that apply or will apply to this source during the term of the permit. We will meet such requirements on a timely basis.

   C. _____ This source is not in compliance. The following statement of corrective action is submitted to describe action which we will take to achieve compliance.

      1. _____ Attached is a brief description of the problem and the proposed solution.

      2. _____ We will achieve compliance according to the following schedule.

Progress reports will be submitted:
Starting date: _____ and every six (6) months thereafter

Problem	Action	Deadline

COMPLIANCE CERTIFICATION SECTION O

1. Emission Point No./Name : AN-000/Effluent Treatment Area

2. Indicate the source compliance status:

A. __X__ Where this source is currently in compliance, we will continue to operate and maintain this source to assure compliance for the duration of the permit.

B. _____ The Current Emissions Requirements and Status form (previous page) includes new requirements that apply or will apply to this source during the term of the permit. We will meet such requirements on a timely basis.

C. _____ This source is not in compliance. The following statement of corrective action is submitted to describe action which we will take to achieve compliance.

1. _____ Attached is a brief description of the problem and the proposed solution.

2. _____ We will achieve compliance according to the following schedule.

Progress reports will be submitted:
Starting date: _____ and every six (6) months thereafter

Problem	Action	Deadline

Current Applicable Requirements and Status (page 1 of 2) SECTION N

List applicable state and federal regulations and applicable test methods for determining compliance with each applicable requirement. Clearly identify federal regulations from state requirements. Provide the compliance status as of the day the application is signed.

Emission Point No.	Applicable Requirement	Pollutant	Test Method	Limits	Compliance Status	
					IN / OUT	Agency use
AC-000 (EP-030)	+APC-S-1 Sect. 3.1	Smoke - general	N/A	≤ 40 % opacity	IN	
	+APC-S-1 Sect. 3.1	Smoke - startup	N/A	≤ 40 % opacity, ≤ 15 min / startup, 3 startups / 24 hrs,	IN	
	+APC-S-1 Sect. 3.2	Opacity	N/A	≤ 40 % opacity	IN	
	+APC-S-1 Sect. 3.3	Gen. nuisance	N/A	As specified in the regulations	IN	
	+APC-S-1 Sect. 3.6(a)	Particulate matter	N/A	As determined by using equation shown in 3.6(a)	IN	
	+APC-S-1 Sect. 3.9(a)	Sampling ports	N/A	None	IN	
	+APC-S-1 Sect. 4.2(a)	SO_2	N/A	≤ 500 ppm	IN	
	+APC-S-1 Sect. 4.2(b)	H_2S	N/A	≤ 1 grain / 100 scf	IN	
	+APC-S-1 Sect. 9.2	Stack heights	N/A	As specified in the regulations	IN	
	+Operating Permit # 0800-00001 (04/26/94)	NA	N/A	Such equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaiminants.	IN	
AD-000 (EP-038)	+APC-S-1 Sect. 3.1	Smoke - general	N/A	≤ 40 % opacity	IN	
	+APC-S-1 Sect. 3.1	Smoke - startup	N/A	≤ 40 % opacity, ≤ 15 min / startup, 3 startups / 24 hrs,	IN	
	+APC-S-1 Sect. 3.2	Opacity	N/A	≤ 40 % opacity	IN	
	+APC-S-1 Sect. 3.3	Gen. nuisance	N/A	As specified in the regulations	IN	
	+APC-S-1 Sect. 3.6(a)	Particulate matter	N/A	As determined by using equation shown in 3.6(a)	IN	
	+APC-S-1 Sect. 3.9(a)	Sampling ports	N/A	None	IN	
	+APC-S-1 Sect. 4.2(a)	SO_2	N/A	≤ 500 ppm	IN	
	+APC-S-1 Sect. 4.2(b)	H_2S	N/A	≤ 1 grain / 100 scf	IN	
	+APC-S-1 Sect. 9.2	Stack heights	N/A	As specified in the regulations	IN	

\+ ***State Requirements;***

++ ***Federally Enforceable Requirements.***

55/hr

Current Applicable Requirements and Status (page 1 of 2) SECTION N

List applicable state and federal regulations and applicable test methods for determining compliance with each applicable requirement. Clearly identify federal regulations from state requirements. Provide the compliance status as of the day the application is signed.

Emission Point No.	Applicable Requirement	Pollutant	Test Method	Limits	Compliance Status	
					IN / OUT	Agency use
	+Operating Permit # 0800-00001 (04/26/94)	NA	N/A	Such equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaiminants.	IN	
	++Construction Permit # 0800-00001 (01/13/87) and (05/28/91)	N/A	N/A	Such equipment shall be constructed in accordance with design criteria in the application, plans, and other technical documents submitted with the application to construct.	IN	
AH-000 (EP-040)	+APC-S-1 Sect. 3.1	Smoke - general	N/A	≤ 40 % opacity	IN	
	+APC-S-1 Sect. 3.1	Smoke - startup	N/A	≥ 40 % opacity, ≤ 15 min / startup, 3 startups / 24 hrs,	IN	
	+APC-S-1 Sect. 3.2	Opacity	N/A	≤ 40 % opacity	IN	
	+APC-S-1 Sect. 3.3	Gen. nuisance	N/A	As specified in the regulations	IN	
	+APC-S-1 Sect. 3.6(a)	Particulate matter	N/A	As determined by using equation shown in 3.6(a)	IN	
	+APC-S-1 Sect. 4.2(a)	SO_2	N/A	≤ 500 ppm	IN	
	+APC-S-1 Sect. 4.2(b)	H_2S	N/A	≤ 1 grain / 100 scf	IN	
	+APC-S-1 Sect. 9.2	Stack heights	N/A	As specified in the regulations	IN	
	+Operating Permit # 0800-00001 (04/26/94)	NA	N/A	Such equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaiminants.	IN	
AM-001 (EP-050)	+APC-S-1 Sect. 3.1	Smoke - general	N/A	≤ 40 % opacity	IN	
	+APC-S-1 Sect. 3.1	Smoke - startup	N/A	≥ 40 % opacity, ≤ 15 min / startup, 3 startups / 24 hrs,	IN	
	+APC-S-1 Sect. 3.2	Opacity	N/A	≤ 40 % opacity	IN	

\+ ***State Requirements;***

++ ***Federally Enforceable Requirements.***

Current Applicable Requirements and Status (page 1 of 2) SECTION N

List applicable state and federal regulations and applicable test methods for determining compliance with each applicable requirement. Clearly identify federal regulations from state requirements. Provide the compliance status as of the day the application is signed.

Emission Point No.	Applicable Requirement	Pollutant	Test Method	Limits	Compliance Status	
					IN / OUT	Agency use
	+APC-S-1 Sect. 3.3	Gen. nuisance	N/A	As specified in the regulations	IN	
	+APC-S-1 Sect. 3.4(a)(2)	Particulate matter	N/A	As determined by using equation shown in 3.4(a)(2)	IN	
	+APC-S-1 Sect. 3.6(a)	Particulate matter	N/A	As determined by using equation shown in 3.6(a)	IN	
	+APC-S-1 Sect. 4.1(a)	SO_2	N/A	$\leq$ 4.8 lb/MMBtu	IN	
	+APC-S-1 Sect. 4.2(a)	SO_2	N/A	$\leq$ 500 ppm	IN	
	+APC-S-1 Sect. 4.2(b)	H_2S	N/A	$\leq$ 1 grain / 100 scf	IN	
	+APC-S-1 Sect. 9.2	Stack heights	N/A	As specified in the regulations	IN	
	+Oper.Per # 0800-00001 (04/26/94)	Particulate matter	RM 1-5*	$\leq$ 59.2 lb/hr	IN	
	+Oper.Per # 0800-00001 (04/26/94)	Sulfur Dioxide	RM 6*	$\leq$ 4.8 lb/MMBtu	IN	
	+Oper.Per # 0800-00001 (04/26/94)	Opacity	RM 9*	$\leq$ 40 % or except as provided by APC-S-1	IN	
	+Operating Permit # 0800-00001 (04/26/94)	SO_2	NA	Records of operation of the facility showing duration of operation (times and date) and amount of material processed must be kept. These records shall be made available to the Ms. OPC upon request.	IN	
AG-000	+APC-S-1 Sect. 3.1	Smoke - general	N/A	$\leq$ 40 % opacity	IN	
(EP-080)	+APC-S-1 Sect. 3.1	Smoke - startup	N/A	$\geq$ 40 % opacity, $\leq$ 15 min / startup, 3 startups / 24 hrs,	IN	
	+APC-S-1 Sect. 3.2	Opacity	N/A	$\leq$ 40 % opacity	IN	

* ***RM = reference methods from 40 CFR 60, Appendix A. These methods are specified but not required to be performed.***

\+ ***State Requirements;***

++ ***Federally Enforceable Requirements.***

Current Applicable Requirements and Status (page 1 of 2) SECTION N

List applicable state and federal regulations and applicable test methods for determining compliance with each applicable requirement. Clearly identify federal regulations from state requirements. Provide the compliance status as of the day the application is signed.

Emission Point No.	Applicable Requirement	Pollutant	Test Method	Limits	Compliance Status	
					IN / OUT	Agency use
	+APC-S-1 Sect. 3.3	Gen. nuisance	N/A	As specified in the regulations	IN	
	+APC-S-1 Sect. 3.4(a)(1)	Ash and/or PM	N/A	$\leq$ 0.6 lb/MMBtu	IN	
	+APC-S-1 Sect. 3.6(a)	Particulate matter	N/A	As determined by using equation shown in 3.6(a)	IN	
	+APC-S-1 Sect. 3.9(a)	Sampling ports	N/A	None	IN	
	+APC-S-1 Sect. 4.1(a)	SO_2	N/A	$\leq$ 4.8 lb/MMBtu	IN	
	+APC-S-1 Sect. 4.2(a)	SO_2	N/A	$\leq$ 500 ppm	IN	
	+APC-S-1 Sect. 4.2(b)	H_2S	N/A	$\leq$ 1 grain / 100 scf	IN	
	+APC-S-1 Sect. 9.2	Stack heights	N/A	As specified in the regulations	IN	
	+Operating Permit # 0800-00001 (04/26/94)	NA	N/A	Such equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaiminants.	IN	
AG-000	+APC-S-1 Sect. 3.1	Smoke - general	N/A	$\leq$ 40 % opacity	IN	
(EP-090)	+APC-S-1 Sect. 3.1	Smoke - startup	N/A	$\geq$ 40 % opacity, $\leq$ 15 min / startup, 3 startups / 24 hrs,	IN	
	+APC-S-1 Sect. 3.2	Opacity	N/A	$\leq$ 40 % opacity	IN	
	+APC-S-1 Sect. 3.3	Gen. nuisance	N/A	As specified in the regulations	IN	
	+APC-S-1 Sect. 3.4(a)(1)	Ash and/or PM	N/A	$\leq$ 0.6 lb/MMBtu	IN	
	+APC-S-1 Sect. 3.6(a)	Particulate matter	N/A	As determined by using equation shown in 3.6(a)	IN	
	+APC-S-1 Sect. 4.1(a)	SO_2	N/A	$\leq$ 4.8 lb/MMBtu	IN	
	+APC-S-1 Sect. 4.2(a)	SO_2	N/A	$\leq$ 500 ppm	IN	
	+APC-S-1 Sect. 4.2(b)	H_2S	N/A	$\leq$ 1 grain / 100 scf	IN	
	+APC-S-1 Sect. 9.2	Stack heights	N/A	As specified in the regulations	IN	

\+ ***State Requirements;***

++ ***Federally Enforceable Requirements.***

Current Applicable Requirements and Status (page 1 of 2) SECTION N

List applicable state and federal regulations and applicable test methods for determining compliance with each applicable requirement. Clearly identify federal regulations from state requirements. Provide the compliance status as of the day the application is signed.

Emission Point No.	Applicable Requirement	Pollutant	Test Method	Limits	Compliance Status	
					IN / OUT	Agency use
	+Operating Permit # 0800-00001 (04/26/94)	NA	N/A	Such equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaiminants.	IN	
AG-000	+APC-S-1 Sect. 3.1	Smoke - general	N/A	≤ 40 % opacity	IN	
(EP-100)	+APC-S-1 Sect. 3.1	Smoke - startup	N/A	≥ 40 % opacity, ≤ 15 min / startup, 3 startups / 24 hrs,	IN	
	+APC-S-1 Sect. 3.2	Opacity	N/A	≤ 40 % opacity	IN	
	+APC-S-1 Sect. 3.3	Gen. nuisance	N/A	As specified in the regulations	IN	
	+APC-S-1 Sect. 3.6(a)	Particulate matter	N/A	As determined by using equation shown in 3.6(a)	IN	
	+APC-S-1 Sect. 3.9(a)	Sampling ports	N/A	None	IN	
	+APC-S-1 Sect. 4.2(a)	SO_2	N/A	≤ 500 ppm	IN	
	+APC-S-1 Sect. 4.2(b)	H_2S	N/A	≤ 1 grain / 100 scf	IN	
	+APC-S-1 Sect. 9.2	Stack heights	N/A	As specified in the regulations	IN	
	+Operating Permit # 0800-00001 (04/26/94)	NA	N/A	Such equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaiminants.	IN	
AI-000	+APC-S-1 Sect. 3.1	Smoke - general	N/A	≤ 40 % opacity	IN	
(EP-110)	+APC-S-1 Sect. 3.1	Smoke - startup	N/A	≥ 40 % opacity, ≤ 15 min / startup, 3 startups / 24 hrs,	IN	
	+APC-S-1 Sect. 3.2	Opacity	N/A	≤ 40 % opacity	IN	
	+APC-S-1 Sect. 3.3	Gen. nuisance	N/A	As specified in the regulations	IN	
	+APC-S-1 Sect. 3.4(a)(1)	Ash and/or PM	N/A	≤ 0.6 lb/MMBtu	IN	

\+ ***State Requirements;***

++ ***Federally Enforceable Requirements.***

Current Applicable Requirements and Status (page 1 of 2) SECTION N

List applicable state and federal regulations and applicable test methods for determining compliance with each applicable requirement. Clearly identify federal regulations from state requirements. Provide the compliance status as of the day the application is signed.

Emission Point No.	Applicable Requirement	Pollutant	Test Method	Limits	Compliance Status	
					IN / OUT	Agency use
	+APC-S-1 Sect. 3.6(a)	Particulate matter	N/A	As determined by using equation shown in 3.6(a)	IN	
	+APC-S-1 Sect. 4.1(a)	SO_2	N/A	$\leq$ 4.8 lb/MMBtu	IN	
	+APC-S-1 Sect. 4.2(a)	SO_2	N/A	$\leq$ 500 ppm	IN	
	+APC-S-1 Sect. 4.2(b)	H_2S	N/A	$\leq$ 1 grain / 100 scf	IN	
	+APC-S-1 Sect. 9.2	Stack heights	N/A	As specified in the regulations	IN	
	+Operating Permit # 0800-00001 (04/26/94)	NA	N/A	Such equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaiminants.	IN	
AK-000 (EP-120)	+APC-S-1 Sect. 3.1	Smoke - general	N/A	$\leq$ 40 % opacity	IN	
	+APC-S-1 Sect. 3.1	Smoke - startup	N/A	$\geq$ 40 % opacity, $\leq$ 15 min / startup, 3 startups / 24 hrs,	IN	
	+APC-S-1 Sect. 3.2	Opacity	N/A	$\leq$ 40 % opacity	IN	
	+APC-S-1 Sect. 3.3	Gen. nuisance	N/A	As specified in the regulations	IN	
	+APC-S-1 Sect. 3.4(a)(2)	Ash and/or Particulate matter	N/A	As determined by using equation shown in 3.4(a)(2)	IN	
	+APC-S-1 Sect. 3.6(a)	Particulate matter	N/A	As determined by using equation shown in 3.6(a)	IN	
	+APC-S-1 Sect. 4.1(a)	SO_2	N/A	$\leq$ 4.8 lb/MMBtu	IN	
	+APC-S-1 Sect. 4.2(a)	SO_2	N/A	$\leq$ 500 ppm	IN	
	+APC-S-1 Sect. 4.2(b)	H_2S	N/A	$\leq$ 1 grain / 100 scf	IN	
	+APC-S-1 Sect. 9.2	Stack heights	N/A	As specified in the regulations	IN	
	+Operating Permit # 0800-00001 (04/26/94)	NA	N/A	Such equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaiminants.	IN	

\+ ***State Requirements;***

++ ***Federally Enforceable Requirements.***

Current Applicable Requirements and Status (page 1 of 2) SECTION N

List applicable state and federal regulations and applicable test methods for determining compliance with each applicable requirement. Clearly identify federal regulations from state requirements. Provide the compliance status as of the day the application is signed.

Emission Point No.	Applicable Requirement	Pollutant	Test Method	Limits	Compliance Status	
					IN / OUT	Agency use
(EP-130)[a]	+APC-S-1 Sect. 3.1	Smoke - general	N/A	≤ 40 % opacity	IN	
	+APC-S-1 Sect. 3.1	Smoke - startup	N/A	≥ 40 % opacity, ≤ 15 min / startup, 3 startups / 24 hrs,	IN	
	+APC-S-1 Sect. 3.2	Opacity	N/A	≤ 40 % opacity	IN	
	+APC-S-1 Sect. 3.3	Gen. nuisance	N/A	As specified in the regulations	IN	
	+APC-S-1 Sect. 3.4(a)(1)	Ash and/or PM	N/A	≤ 0.6 lb/MMBtu	IN	
	+APC-S-1 Sect. 3.6(a)	Particulate matter	N/A	As determined by using equation shown in 3.6(a)	IN	
	+APC-S-1 Sect. 4.1(a)	SO_2	N/A	≤ 4.8 lb/MMBtu	IN	
	+APC-S-1 Sect. 4.2(a)	SO_2	N/A	≤ 500 ppm	IN	
	+APC-S-1 Sect. 4.2(b)	H_2S	N/A	≤ 1 grain / 100 scf	IN	
	+APC-S-1 Sect. 9.2	Stack heights	N/A	As specified in the regulations	IN	
	+Operating. Permit # 0800-00001 (04/26/94)	NA	N/A	Such equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaiminants.	IN	
	+Operating Permit # 0800-00001 (04/26/94)	NA	N/A	Semi annual report shall be submitted to the MOPC explaining all work done including the duration of tests, types of raw material used and products produced, and an assessment of emissions caused.	IN	
EP-140[b]	+APC-S-1 Sect. 3.1	Smoke - general	N/A	≤ 40 % opacity	IN	
	+APC-S-1 Sect. 3.1	Smoke - startup	N/A	≥ 40 % opacity, ≤ 15 min / startup, 3 startups / 24 hrs,	IN	
	+APC-S-1 Sect. 3.2	Opacity	N/A	≤ 40 % opacity	IN	
	+APC-S-1 Sect. 3.3	Gen. nuisance	N/A	As specified in the regulations	IN	

\+ ***State Requirements;***

++ ***Federally Enforceable Requirements.***

a ***EP-130 (Pilot Plant will be decommissioned during calender year 1996.***

b ***EP-140 (Resin 731) is scheduled to be decommissioned during calender year 1996. Only storage tanks will remain in service. These tanks are identified in Section C of the Title V application as insignificant sources.***

Current Applicable Requirements and Status (page 1 of 2) SECTION N

List applicable state and federal regulations and applicable test methods for determining compliance with each applicable requirement. Clearly identify federal regulations from state requirements. Provide the compliance status as of the day the application is signed.

Emission Point No.	Applicable Requirement	Pollutant	Test Method	Limits	Compliance Status	
					IN / OUT	Agency use
	[+]APC-S-1 Sect. 3.6(a)	Particulate matter	N/A	As determined by using equation shown in 3.6(a)	IN	
	[+]APC-S-1 Sect. 4.2(a)	SO_2	N/A	$\leq$ 500 ppm	IN	
	[+]APC-S-1 Sect. 4.2(b)	H_2S	N/A	$\leq$ 1 grain / 100 scf	IN	
	[+]APC-S-1 Sect. 9.2	Stack heights	N/A	As specified in the regulations	IN	
	[+]Operating Permit # 0800-00001 (04/26/94)	NA	N/A	Such equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaiminants.	IN	
AJ-000 (EP-150)[a]	[+]APC-S-1 Sect. 3.1	Smoke - general	N/A	$\leq$ 40 % opacity	IN	
	[+]APC-S-1 Sect. 3.1	Smoke - startup	N/A	$\geq$ 40 % opacity, $\leq$ 15 min / startup, 3 startups / 24 hrs,	IN	
	[+]APC-S-1 Sect. 3.2	Opacity	N/A	$\leq$ 40 % opacity	IN	
	[+]APC-S-1 Sect. 3.3	Gen. nuisance	N/A	As specified in the regulations	IN	
	[+]APC-S-1 Sect. 3.4(a)(1)	Ash and/or PM	N/A	$\leq$ 0.6 lb/MMBtu	IN	
	[+]APC-S-1 Sect. 3.6(a)	Particulate matter	N/A	As determined by using equation shown in 3.6(a)	IN	
	[+]APC-S-1 Sect. 4.1(a)	SO_2	N/A	$\leq$ 4.8 lb/MMBtu	IN	
	[+]APC-S-1 Sect. 4.2(a)	SO_2	N/A	$\leq$ 500 ppm	IN	
	[+]APC-S-1 Sect. 4.2(b)	H_2S	N/A	$\leq$ 1 grain / 100 scf	IN	
	[+]APC-S-1 Sect. 9.2	Stack heights	N/A	As specified in the regulations	IN	
	[+]Operating Permit # 0800-00001 (04/26/94)	NA	N/A	There are to be no emissions to the atmosphere from the process.	IN	
	[+]Operating Permit # 0800-00001 (04/26/94)	NA	N/A	Such equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaiminants.	IN	

\+ ***State Requirements;***

++ ***Federally Enforceable Requirements.***

a ***EP-152 (Stills and Dresinate) covered under EP-150, will be decommissioned during calender year 1996.***

Current Applicable Requirements and Status (page 1 of 2) SECTION N

List applicable state and federal regulations and applicable test methods for determining compliance with each applicable requirement. Clearly identify federal regulations from state requirements. Provide the compliance status as of the day the application is signed.

Emission Point No.	Applicable Requirement	Pollutant	Test Method	Limits	Compliance Status	
					IN / OUT	Agency use
AA-000	+APC-S-1 Sect. 3.1	Smoke - general	N/A	≤ 40 % opacity	IN	
(EP-160)	+APC-S-1 Sect. 3.1	Smoke - startup	N/A	≥ 40 % opacity, ≤ 15 min / startup, 3 startups / 24 hrs,	IN	
	+APC-S-1 Sect. 3.2	Opacity	N/A	≤ 40 % opacity	IN	
	+APC-S-1 Sect. 3.3	Gen. nuisance	N/A	As specified in the regulations	IN	
	+APC-S-1 Sect. 3.6(a)	Particulate matter	N/A	As determined by using equation shown in 3.6(a)	IN	
	+APC-S-1 Sect. 3.9(a)	Sampling ports	N/A	None	IN	
	+APC-S-1 Sect. 4.2(a)	SO_2	N/A	≤ 500 ppm	IN	
	+APC-S-1 Sect. 4.2(b)	H_2S	N/A	≤ 1 grain / 100 scf	IN	
	+APC-S-1 Sect. 9.2	Stack heights	N/A	As specified in the regulations	IN	
	+Operating Permit # 0800-00001 (04/26/94)	NA	N/A	Such equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaiminants.	IN	
	++Construction Permit # 0800-00001 (05/28/91)	N/A	N/A	Such equipment shall be constructed in accordance with design criteria in the application, plans, and other technical documents submitted with the application to construct.	IN	
AL-000	+APC-S-1 Sect. 3.1	Smoke - general	N/A	≤ 40 % opacity	IN	
(EP-170)	+APC-S-1 Sect. 3.1	Smoke - startup	N/A	≥ 40 % opacity, ≤ 15 min / startup, 3 startups / 24 hrs,	IN	
	+APC-S-1 Sect. 3.2	Opacity	N/A	≤ 40 % opacity	IN	
	+APC-S-1 Sect. 3.3	Gen. nuisance	N/A	As specified in the regulations	IN	
	+APC-S-1 Sect. 3.4(a)(2)	Ash and/or Particulate matter	N/A	As determined by using equation shown in 3.4(a)(2)	IN	

\+ ***State Requirements;***
++ ***Federally Enforceable Requirements.***

Current Applicable Requirements and Status (page 1 of 2) SECTION N

List applicable state and federal regulations and applicable test methods for determining compliance with each applicable requirement. Clearly identify federal regulations from state requirements. Provide the compliance status as of the day the application is signed.

Emission Point No.	Applicable Requirement	Pollutant	Test Method	Limits	Compliance Status	
					IN / OUT	Agency use
	+APC-S-1 Sect. 3.6(a)	Particulate matter	N/A	As determined by using equation shown in 3.6(a)	IN	
	+APC-S-1 Sect. 3.9(a)	Sampling ports	N/A	None	IN	
	+APC-S-1 Sect. 4.1(a)	SO_2	N/A	$\leq$ 4.8 lb/MMBtu	IN	
	+APC-S-1 Sect. 4.2(a)	SO_2	N/A	$\leq$ 500 ppm	IN	
	+APC-S-1 Sect. 4.2(b)	H_2S	N/A	$\leq$ 1 grain / 100 scf	IN	
	+APC-S-1 Sect. 9.2	Stack heights	N/A	As specified in the regulations	IN	
	+Operating Permit # 0800-00001 (04/26/94)	NA	N/A	Such equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaiminants.	IN	
AF-000 (EP-180)	+APC-S-1 Sect. 3.1	Smoke - general	N/A	$\leq$ 40 % opacity	IN	
	+APC-S-1 Sect. 3.1	Smoke - startup	N/A	$\geq$ 40 % opacity, $\leq$ 15 min / startup, 3 startups / 24 hrs,	IN	
	+APC-S-1 Sect. 3.2	Opacity	N/A	$\leq$ 40 % opacity	IN	
	+APC-S-1 Sect. 3.3	Gen. nuisance	N/A	As specified in the regulations	IN	
	+APC-S-1 Sect. 3.4(a)(1)	Ash and/or PM	N/A	$\leq$ 0.6 lb/MMBtu	IN	
	+APC-S-1 Sect. 3.6(a)	Particulate matter	N/A	As determined by using equation shown in 3.6(a)	IN	
	+APC-S-1 Sect. 3.9(a)	Sampling ports	N/A	None	IN	
	+APC-S-1 Sect. 4.1(a)	SO_2	N/A	$\leq$ 4.8 lb/MMBtu	IN	
	+APC-S-1 Sect. 4.2(a)	SO_2	N/A	$\leq$ 500 ppm	IN	
	+APC-S-1 Sect. 4.2(b)	H_2S	N/A	$\leq$ 1 grain / 100 scf	IN	
	+APC-S-1 Sect. 9.2	Stack heights	N/A	As specified in the regulations	IN	
	+Operating Permit # 0800-00001 (04/26/94)	NA	N/A	Such equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaiminants.	IN	

\+ ***State Requirements;***

++ ***Federally Enforceable Requirements.***

Current Applicable Requirements and Status (page 1 of 2) SECTION N

List applicable state and federal regulations and applicable test methods for determining compliance with each applicable requirement. Clearly identify federal regulations from state requirements. Provide the compliance status as of the day the application is signed.

Emission Point No.	Applicable Requirement	Pollutant	Test Method	Limits	Compliance Status	
					IN / OUT	Agency use
AF-004	+APC-S-1 Sect. 3.1	Smoke - general	N/A	≤ 40 % opacity	IN	
(EP-190)	+APC-S-1 Sect. 3.1	Smoke - startup	N/A	≥ 40 % opacity, ≤ 15 min / startup, 3 startups / 24 hrs,	IN	
	+APC-S-1 Sect. 3.2	Opacity	N/A	≤ 40 % opacity	IN	
	+APC-S-1 Sect. 3.3	Gen. nuisance	N/A	As specified in the regulations	IN	
	+APC-S-1 Sect. 3.6(a)	Particulate matter	N/A	As determined by using equation shown in 3.6(a)	IN	
	+APC-S-1 Sect. 3.9(a)	Sampling ports	N/A	None	IN	
	+APC-S-1 Sect. 4.2(a)	SO_2	N/A	≤ 500 ppm	IN	
	+APC-S-1 Sect. 4.2(b)	H_2S	N/A	≤ 1 grain / 100 scf	IN	
	+APC-S-1 Sect. 9.2	Stack heights	N/A	As specified in the regulations	IN	
	+Operating Permit # 0800-00001 (04/26/94)	NA	N/A	Such equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaiminants.	IN	
EP-200[a]	+APC-S-1 Sect. 3.1	Smoke - general	N/A	≤ 40 % opacity	IN	
	+APC-S-1 Sect. 3.1	Smoke - startup	N/A	≥ 40 % opacity, ≤ 15 min / startup, 3 startups / 24 hrs,	IN	
	+APC-S-1 Sect. 3.2	Opacity	N/A	≤ 40 % opacity	IN	
	+APC-S-1 Sect. 3.3	Gen. nuisance	N/A	As specified in the regulations	IN	
	+APC-S-1 Sect. 3.6(a)	Particulate matter	N/A	As determined by using equation shown in 3.6(a)	IN	
	+APC-S-1 Sect. 4.2(a)	SO_2	N/A	≤ 500 ppm	IN	
	+APC-S-1 Sect. 4.2(b)	H_2S	N/A	≤ 1 grain / 100 scf	IN	

\+ ***State Requirements;***

++ ***Federally Enforceable Requirements.***

a ***This emission point will be decommissioned during calender year 1996.***

Current Applicable Requirements and Status (page 1 of 2) SECTION N

List applicable state and federal regulations and applicable test methods for determining compliance with each applicable requirement. Clearly identify federal regulations from state requirements. Provide the compliance status as of the day the application is signed.

Emission Point No.	Applicable Requirement	Pollutant	Test Method	Limits	Compliance Status	
					IN / OUT	Agency use
	+APC-S-1 Sect. 9.2	Stack heights	N/A	As specified in the regulations	IN	
	+Operating Permit # 0800-00001 (04/26/94)	NA	N/A	Such equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaiminants.	IN	
EP-210[a]	+APC-S-1 Sect. 3.1	Smoke - general	N/A	$\leq$ 40 % opacity	IN	
	+APC-S-1 Sect. 3.1	Smoke - startup	N/A	$\geq$ 40 % opacity, $\leq$ 15 min / startup, 3 startups / 24 hrs,	IN	
	+APC-S-1 Sect. 3.2	Opacity	N/A	$\leq$ 40 % opacity	IN	
	+APC-S-1 Sect. 3.3	Gen. nuisance	N/A	As specified in the regulations	IN	
	+APC-S-1 Sect. 3.6(a)	Particulate matter	N/A	As determined by using equation shown in 3.6(a)	IN	
	+APC-S-1 Sect. 3.9(a)	Sampling ports	N/A	None	IN	
	+APC-S-1 Sect. 4.2(a)	SO_2	N/A	$\leq$ 500 ppm	IN	
	+APC-S-1 Sect. 4.2(b)	H_2S	N/A	$\leq$ 1 grain / 100 scf	IN	
	+APC-S-1 Sect. 9.2	Stack heights	N/A	As specified in the regulations	IN	
	+Operating Permit # 0800-00001 (04/26/94)	NA	N/A	Such equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaiminants.	IN	
AN-001	+APC-S-1 Sect. 3.1	Smoke - general	N/A	$\leq$ 40 % opacity	IN	
(EP-230)	+APC-S-1 Sect. 3.1	Smoke - startup	N/A	$\geq$ 40 % opacity, $\leq$ 15 min / startup, 3 startups / 24 hrs,	IN	
	+APC-S-1 Sect. 3.2	Opacity	N/A	$\leq$ 40 % opacity	IN	
	+APC-S-1 Sect. 3.3	Gen. nuisance	N/A	As specified in the regulations	IN	
	+APC-S-1 Sect. 3.4(a)(2)	Ash and/or Particulate matter	N/A	As determined by using equation shown in 3.4(a)(2)	IN	

\+ ***State Requirements;***

++ ***Federally Enforceable Requirements.***

a ***This emission point will be decommissioned during the calender year 1996.***

Current Applicable Requirements and Status (page 1 of 2) SECTION N

List applicable state and federal regulations and applicable test methods for determining compliance with each applicable requirement. Clearly identify federal regulations from state requirements. Provide the compliance status as of the day the application is signed.

Emission Point No.	Applicable Requirement	Pollutant	Test Method	Limits	Compliance Status	
					IN / OUT	Agency use
	+APC-S-1 Sect. 3.6(a)	Particulate matter	N/A	As determined by using equation shown in 3.6(a)	IN	
	+APC-S-1 Sect. 3.9(a)	Sampling ports	N/A	None	IN	
	+APC-S-1 Sect. 4.1(a)	SO_2	N/A	$\leq$ 4.8 lb/MMBtu	IN	
	+APC-S-1 Sect. 4.2(a)	SO_2	N/A	$\leq$ 500 ppm	IN	
	+APC-S-1 Sect. 4.2(b)	H_2S	N/A	$\leq$ 1 grain / 100 scf	IN	
	+APC-S-1 Sect. 9.2	Stack heights	N/A	As specified in the regulations	IN	
	+Operating Permit # 0800-00001 (04/26/94)	NA	N/A	Such equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaiminants.	IN	
	+Operating Permit # 0800-00001 (04/26/94)	NA	N/A	If the scrubber fails or its effectiveness is reduced, the permittee shall notify the MOPC immediately by phone and follow up with a letter. The letter shall include the nature of failure, time of failure, estimated repair time, and action taken to preclude a recurrence.	IN	
AM-002	+APC-S-1 Sect. 3.1	Smoke - general	N/A	$\leq$ 40 % opacity	IN	
(EP-240)	+APC-S-1 Sect. 3.1	Smoke - startup	N/A	$\geq$ 40 % opacity, $\leq$ 15 min / startup, 3 startups / 24 hrs,	IN	
	+APC-S-1 Sect. 3.2	Opacity	N/A	$\leq$ 40 % opacity	IN	
	+APC-S-1 Sect. 3.3	Gen. nuisance	N/A	As specified in the regulations	IN	
	+APC-S-1 Sect. 3.4(a)(2)	Ash and/or Particulate matter	N/A	As determined by using equation shown in 3.4(a)(2)	IN	
	+APC-S-1 Sect. 3.6(a)	Particulate matter	N/A	As determined by using equation shown in 3.6(a)	IN	
	+APC-S-1 Sect. 4.1(a)	SO_2	N/A	$\leq$ 4.8 lb/MMBtu	IN	
	+APC-S-1 Sect. 4.2(a)	SO_2	N/A	$\leq$ 500 ppm	IN	
	+APC-S-1 Sect. 4.2(b)	H_2S	N/A	$\leq$ 1 grain / 100 scf	IN	

\+ ***State Requirements;***

++ ***Federally Enforceable Requirements.***

Current Applicable Requirements and Status (page 1 of 2) SECTION N

List applicable state and federal regulations and applicable test methods for determining compliance with each applicable requirement. Clearly identify federal regulations from state requirements. Provide the compliance status as of the day the application is signed.

Emission Point No.	Applicable Requirement	Pollutant	Test Method	Limits	Compliance Status	
					IN / OUT	Agency use
	+APC-S-1 Sect. 9.2	Stack heights	N/A	As specified in the regulations	IN	
	+Operating Permit # 0800-00001 (04/26/94)	PM	N/A	≤ 0.44 lb/MMBtu	IN	
	+Operating Permit # 0800-00001 (04/26/94)	SO_2	N/A	≤ 4.8 lb/MMBtu and 59.3 tons/yr.	IN	
	+Operating Permit # 0800-00001 (04/26/94)	Opacity	N/A	≤ 40 % opacity	IN	
	+Operating Permit # 0800-00001 (04/26/94)	NA	NA	Records of operation of the facility showing duration of operation (time and dates) and amount of material processed must be kept. These records shall be made available to the Ms. OPC upon request.	IN	
	+Operating Permit # 0800-00001 (04/26/94)	NA	NA	Limit the usage of No. 6 fuel oil to 260,925 gal/yr with sulfur content not to exceed 2.9%. A quarterly report detailing the amount and characteristics of fuel oil used shall be submitted. The report shall be postmarked by the 30th day of the month following the end of the calender quarter.	IN	
	++Construction Permit # 0800-00001 (11/26/85)	Particulate Mattter	NA	0.44 lb/mmbtu	IN	
	++Construction Permit # 0800-00001 (11/26/85)	SO_2	NA	59.3 tpy and 4.8 lb/mmbtu	IN	
	++Construction Permit # 0800-00001 (11/26/85)	Opacity	NA	40%	IN	
	++Construction Permit # 0800-00001 (11/26/85)	SO_2	Recordkeep -ing and Reporting	Limit the usage of No. 6 fuel oil to 260,925 gal/yr with sulfur content not to exceed 2.9%. A quarterly report detailing the amount and characteristics of fuel oil used shall be submitted. The report shall be postmarked by the 30th day of the month following the end of the calender quarter.	IN	
AE-000	+APC-S-1 Sect. 3.1	Smoke - general	N/A	≤ 40 % opacity	IN	
(EP-280)	+APC-S-1 Sect. 3.1	Smoke - startup	N/A	≥ 40 % opacity, ≤ 15 min / startup, 3 startups / 24 hrs,	IN	

\+ ***State Requirements;***

++ ***Federally Enforceable Requirements.***

Current Applicable Requirements and Status (page 1 of 2) SECTION N

List applicable state and federal regulations and applicable test methods for determining compliance with each applicable requirement. Clearly identify federal regulations from state requirements. Provide the compliance status as of the day the application is signed.

Emission Point No.	Applicable Requirement	Pollutant	Test Method	Limits	Compliance Status	
					IN / OUT	Agency use
	+APC-S-1 Sect. 3.2	Opacity	N/A	≤ 40 % opacity	IN	
	+APC-S-1 Sect. 3.3	Gen. nuisance	N/A	As specified in the regulations	IN	
	+APC-S-1 Sect. 3.6(a)	Particulate matter	N/A	As determined by using equation shown in 3.6(a)	IN	
	+APC-S-1 Sect. 3.9(a)	Sampling ports	N/A	None	IN	
	+APC-S-1 Sect. 4.2(a)	SO_2	N/A	≤ 500 ppm	IN	
	+APC-S-1 Sect. 4.2(b)	H_2S	N/A	≤ 1 grain / 100 scf	IN	
	+APC-S-1 Sect. 9.2	Stack heights	N/A	As specified in the regulations	IN	
	+Operating Permit # 0800-00001 (04/26/94)	N/A	N/A	The permittee must provide in writing the date of production and the date maximum production rates are reached with the new slurry tank S96B and Tank car loading station. Each date must be provided no later than ten days after the actual date.	IN	
	+Operating Permit # 0800-00001 (04/26/94)	Toluene	RM* 18	13.34 lbs/hr and 58.4 tons/yr (EP 280, 281 and 282 combined)	IN	
	++Construction permit # 0800-00001 (04/26/94)	Toluene	RM* 18	13.34 lbs/hr and 58.4 tons/yr (EP 280, 281 and 282 combined)	IN	
	++Construction Permit # 0800-00001 (05/14/85 referenced as emission point 015)	N/A	N/A	Such equipment shall be constructed in accordance with design criteria in the application, plans, and other technical documents submitted with the application to construct.	IN	
EP-281	+APC-S-1 Sect. 3.1	Smoke - general	N/A	≤ 40 % opacity	IN	
	+APC-S-1 Sect. 3.1	Smoke - startup	N/A	≥ 40 % opacity, ≤ 15 min / startup, 3 startups / 24 hrs,	IN	

* ***RM = reference methods from 40 CFR 60, Appendix A. These methods are specified but not required to be performed.***

\+ ***State Requirements;***

++ ***Federally Enforceable Requirements.***

Current Applicable Requirements and Status (page 1 of 2) SECTION N

List applicable state and federal regulations and applicable test methods for determining compliance with each applicable requirement. Clearly identify federal regulations from state requirements. Provide the compliance status as of the day the application is signed.

Emission Point No.	Applicable Requirement	Pollutant	Test Method	Limits	Compliance Status	
					IN / OUT	Agency use
	+APC-S-1 Sect. 3.2	Opacity	N/A	≤ 40 % opacity	IN	
	+APC-S-1 Sect. 3.3	Gen. nuisance	N/A	As specified in the regulations	IN	
	+APC-S-1 Sect. 3.6(a)	Particulate matter	N/A	As determined by using equation shown in 3.6(a)	IN	
	+APC-S-1 Sect. 4.2(a)	SO_2	N/A	≤ 500 ppm	IN	
	+APC-S-1 Sect. 4.2(b)	H_2S	N/A	≤ 1 grain / 100 scf	IN	
	+APC-S-1 Sect. 9.2	Stack heights	N/A	As specified in the regulations	IN	
	+Operating Permit # 0800-00001 (04/26/94)	N/A	N/A	The permittee must provide in writing the date of production and the date maximum production rates are reached with the new slurry tank S96B and Tank car loading station. Each date must be provided no later than ten days after the actual date.	IN	
	+Operating Permit # 0800-00001 (04/26/94)	Toluene	RM* 18	13.34 lbs/hr and 58.4 tons/yr (EP 280, 281 and 282 combined)	IN	
	++Construction Permit # 0800-00001 (04/26/94)	Toluene	RM* 18	13.34 lbs/hr and 58.4 tons/yr (EP 280, 281 and 282 combined)	IN	
EP-282	+APC-S-1 Sect. 3.1	Smoke - general	N/A	≤ 40 % opacity	IN	
	+APC-S-1 Sect. 3.1	Smoke - startup	N/A	≥ 40 % opacity, ≤ 15 min / startup, 3 startups / 24 hrs,	IN	
	+APC-S-1 Sect. 3.2	Opacity	N/A	≤ 40 % opacity	IN	
	+APC-S-1 Sect. 3.3	Gen. nuisance	N/A	As specified in the regulations	IN	
	+APC-S-1 Sect. 3.6(a)	Particulate matter	N/A	As determined by using equation shown in 3.6(a)	IN	
	+APC-S-1 Sect. 4.2(a)	SO_2	N/A	≤ 500 ppm	IN	
	+APC-S-1 Sect. 4.2(b)	H_2S	N/A	≤ 1 grain / 100 scf	IN	

* ***RM = reference methods from 40 CFR 60, Appendix A. These methods are specified but not required to be performed.***

\+ ***State Requirements;***

++ ***Federally Enforceable Requirements.***

Current Applicable Requirements and Status (page 1 of 2) SECTION N

List applicable state and federal regulations and applicable test methods for determining compliance with each applicable requirement. Clearly identify federal regulations from state requirements. Provide the compliance status as of the day the application is signed.

Emission Point No.	Applicable Requirement	Pollutant	Test Method	Limits	Compliance Status	
					IN / OUT	Agency use
	+Operating Permit # 0800-00001 (04/26/94)	N/A	N/A	The permittee must provide in writing the date of production and the date maximum production rates are reached with the new slurry tank S96B and Tank car loading station. Each date must be provided no later than ten days after the actual date.	IN	
	+Operating Permit # 0800-00001 (04/26/94)	Toluene	RM* 18	13.34 lbs/hr and 58.4 tons/yr (EP 280, 281 and 282 combined)	IN	
	++Construction Permit # 0800-00001 (04/26/94)	Toluene	RM* 18	13.34 lbs/hr and 58.4 tons/yr (EP 280, 281 and 282 combined)	IN	
EP-152[a]	+Operating Permit # 0800-00001 (04/26/94)	N/A	N/A	This process is assigned an emission point designation for record keeping purposes only. It is a closed process and there should be no emissions from this emission point.	IN	
AB-000 (EP-270)	+Operating Permit # 0800-00001 (04/26/94)	N/A	N/A	This process is assigned an emission point designation for record keeping purposes only. It is a closed process and there should be no emissions from this emission point.	IN	
Entire Facility	***PLEASE SEE TABLE II FOR FACILITY WIDE REQUIREMENTS***				IN	

\+ ***State Requirements;***

++ ***Federally Enforceable Requirements.***

a ***This emission point will be decommissioned during calender year 1996. The date given for the operating permit (04/26/94) represents the date of the latest issued comprehensive state operating permit for the facility.***

Future Applicable Requirements and Status (page 2 of 2) SECTION N

List applicable state and federal regulations and applicable test methods for determining compliance with each applicable requirement. Clearly identify federal regulations from state requirements. Provide the compliance status as of the day the application is signed.

Emission Point No.	Applicable Requirement	Pollutant	Test Method	Limits	Compliance Status	
					IN / OUT	Agency use
Option (a)						
AA-000 (160)/ Kymene Process Area	40 CFR 63.524, Subpart W	Epichlorohydrin	NA	10 lb/MM lb product	NA	
Option (b)						
AA-000 (160)/ Kymene Process Area	40 CFR 63.524, Subpart W	Epichlorohydrin	NA	40 CFR 63, Subpart H	NA	

HERCULES INCORPORATED

TABLE II: FACILITY - WIDE APPLICABLE REGULATIONS

Regulations	Description	Requirements	Applicable	Notes
STATE REQUIREMENTS				
Mississippi APC-S-1 (Emission Regulations for Air Contaminants)				
(Section 1)	General		Y	
(Section 2)	Definitions	None	Y	Provides Information only.
(section 3.1)(a)	Smoke	≤ 40% opacity	Y	Applicable to each emission unit.
(b)		> 40% opacity allowed for ≤ 15 minutes per startup in any one hour, not to exceed 3 startups per stack within a 24 hour period	Y	
(c)		≤60% opacity allowed during soot blowing operations. Duration of soot blowing operations during any 24 hour period not to exceed 10 minutes per billion Btu gross heating value of fuel in any 1 hour.	Y	
(section 3.2)	Equivalent Opacity	≤ 40% opacity, equivalent to that provided in section 3.1(a).	Y	Does not apply to opacity caused by uncombined water droplets.
(section 3.3)	General Nuisance	No emission of particles or any contaminants in sufficient amounts or of such duration as to be injurious to humans, animals, plants, or property, or to be a public nuisance, or create air pollution condition.	Y	
(a)		No handling or transporting or storage of material in a manner that causes unnecessary amounts of particulate matter to become airborne.	Y	
(b)		If emissions create a nuisance, MDEQ may order for situation to be corrected or controlled.	Y	
(section 3.4)	Fuel Burning	Determine ash and/or particulate matter emission limit using equation shown in Section 3.4 (a) (1), (2) and (3) which ever is applicable.	Y	Applicable to each fuel burning emission point.

HERCULES INCORPORATED
TABLE II: FACILITY - WIDE APPLICABLE REGULATIONS

Regulations	Description	Requirements	Applicable	Notes
(Section 3.6 (a))	Manufacturing Process	No emission of particulate matter from any manufacturing process in quantities greater than the amount determined by the equation stated in Section 3.6(a) is allowed.	Y	Limits PM emissions from manufacturing process. Applicable to the facility as a whole.
(section 3.7)	Open Burning	Open burning of industrial solid waste is prohibited.	Y	
(b)		No use of starter or auxiliary fuel causing excessive smoke. Open burning prohibited in high fire danger alert and Air pollution episode alert and must meet the buffer zone requirements specified in Section 3.7 (b) (1), (2) and (3).	Y	
(section 3.9 (a))	Sampling Ports	Provide sampling port and ease of accessibility for pollution control equipment installed after May 8, 1970.	Y	
(Section 3.10)	More Restrictive Emission Limits.	More stringent emission limits may be imposed by MDEQ as it deems necessary in problem areas.	Y	Applicable when and if, triggered by the facility or agency activity.
(Section 4.1(a))	Sulfur Dioxide	Sulfur oxide emissions from any fuel burning equipment (where fuel is burned to produce heat or power by indirect heat transfer) shall not exceed 4.8 lb/mmBtu heat input.	Y	Limits sulfur oxide emissions from each indirect heat transfer fuel burning equipment.
(Section 4.2 (a))	Sulfur Dioxide	Sulfur oxide emissions from any existing process equipment shall not exceed 2000 ppm (volume), and shall not exceed 500 ppm (volume) for all new process equipment.	Y	
(b)	Hydrogen Sulfide	Hydrogen Sulfide emissions shall not exceed one (1) grain per 100 scf for any gas stream. Control equipment is required for gas streams which exceed this limit.	Y	Applicable when and if, triggered by the facility or agency activity.
(Section 5.1)	Fluorides	Emission of fluorides into ambient air shall not exceed 0.4 lbs per ton of P_2O_5 or equivalent.	Y	

HERCULES INCORPORATED
TABLE II: FACILITY - WIDE APPLICABLE REGULATIONS

Regulations	Description	Requirements	Applicable	Notes
(section 5.2)	Miscellaneous Chemical Emissions	No emissions of toxic, noxious, or deleterious substances into ambient air in concentrations sufficient to affect human health and well-being, interfere with enjoyment of property, or unreasonably and adversely affect plant or animal life.	Y	
(Section 7)	Exceptions	MDEQ may require further reduction of emissions if primary or secondary NAAQS is exceeded.	Y	Applicable when and if, triggered by agency activity.
(Section 9.1)	Definitions		Y	Provides information only.
(section 9.2)	Stack Height Requirements	This section lists the stack height requirements which generally require good engineering practice standards.	Y	
(section 10)	Upsets, Startups and Shutdowns	As specified in this section.	Y	Applicable to each emission unit.
(Section 10.1 (a))	Upsets	Enforcement action brought for noncompliance with emission standards or any other requirements can be defended by the source if the non compliance episode can be demonstrated as an upset. This section lists the various information to be provided in order to document an upset (as listed below).	Y	MDEQ to be notified with in 5 days of occurrence. Specifications of this Section constitute a defense for period of noncompliance due to upsets.

HERCULES INCORPORATED
TABLE II: FACILITY - WIDE APPLICABLE REGULATIONS

Regulations	Description	Requirements	Applicable	Notes
(a)(1)		Demonstrate that an upset occurred and identify the cause.		
(a)(2)		Demonstrate that at the time of the upset the source was being properly operated.	Y	
(a)(3)		Demonstrate that at the time of the upset all reasonable steps were taken to minimize levels of emissions.	Y	
(a)(4)		Evidence that notice of the upset was submitted to MDEQ with in five (5) working days of the time the upset began.	Y	
(a)(5)		Submitted notice should contain description of upset , steps taken to minimize emissions and corrective actions taken.	Y	
(Section 10.1 (b))	Upsets	The source is responsible for the proof to establish the occurrence of an upset.	Y	
(Section 10.1 (c))	Upsets	This provision is in addition to any other provision contained in any applicable requirement.	Y	
(Section 10.2)	Startups and Shutdowns		Y	
(section 10.2 (a))	Startups and Shutdowns	All emissions limitations applicable to normal operation apply during startups and shutdowns except as specified in Section 10.2(a).	Y	Specifications of Section 10.2 (a) constitute a defense for period of noncompliance due to unavoidable maintenance, provided MDEQ is notified of excess
(a)(1)		Sudden unavoidable breakdowns during startup or shutdown may be classified as an upset subject to the requirements of Section 10.1	Y	

HERCULES INCORPORATED
TABLE II: FACILITY - WIDE APPLICABLE REGULATIONS

Regulations	Description	Requirements	Applicable	Notes
(a)(2)		Excess emissions for a brief period may be allowed if the startup and shutdown is infrequent and the design of the process is such that excess emissions cannot be avoided without causing damage to equipment or persons.	Y	
(a)(3)		If separate startup and shutdown emission standards are defined by other requirements or any applicable permit.	Y	Applicable when and if, triggered by the facility or agency activity.
(Section 10.2 (b))		If the source seeks to establish any exceptions during a startup or shutdown, it is responsible for the proof to establish the applicable exception.	Y	
(Section 10.2 (c)		If the startup and shutdown provisions in section 10.2 conflicts with another applicable requirement, the more stringent shall be applicable.	Y	
(Section 10.3)	Maintenance		Y	
(section 10.3 (a))	Maintenance	Maintenance should be performed during planned shutdown such that excess emissions are avoided. For unavoidable maintenance resulting in brief period of excess emissions, the source should demonstrate the requirements specified in Section 10.3 (a) (1 through 5).	Y	MDEQ is notified of excess emissions within 5 days of occurrence.
(a)(1)		Identify the need for maintenance.	Y	
(a)(2)		At that time, the source was being properly operated.	Y	
(a)(3)		During the maintenance all reasonable steps were taken to minimize levels of emissions.	Y	
(a)(4)		Submit notice of the maintenance to the DEQ within five working days of the time the maintenance began.	Y	
(a)(5)		Notice must contain a description of the maintenance, steps taken to minimize the emissions and corrective actions taken.	Y	

HERCULES INCORPORATED
TABLE II: FACILITY - WIDE APPLICABLE REGULATIONS

Regulations	Description	Requirements	Applicable	Notes
(Section 10.3 (b))		In any enforcement proceeding, the source has the burden of proof to establish the applicability of the section.	Y	
(Section 10.3 (c))		In case of conflict between this provision and another applicable requirement the more stringent shall apply.	Y	
MISSISSIPPI APC-S-2 (Construction and/or Operation of Air Emissions Equipment)				
(Section I)	General Requirements		Y	
(Section I (A))	Definitions			
			Y	Provides Information only.
(section I.B.)	General Permit Requirements	Any new, reconstructed, or modified facility must have a permit to construct before beginning construction, reconstruction, or modification and a State Permit to Operate before beginning operations.	Y	Application must be on forms provided by MDEQ. Both Construction and Operating permits can be applied for simultaneously.
(Section II)	General Standards Applicable to all Permits		Y	
(Section II.A)	General Standards	Except as provided in APC-S-6, no permit shall be issued unless the applicant has complied with the applicable requirements of APC-S-1, APC-S-2, APC-S-3, APC-S-4 (except as provided in section VI.E), APC-S-5, any amendments to these rules and regulations and additional rules and regulations promulgated.	Y	

HERCULES INCORPORATED
TABLE II: FACILITY - WIDE APPLICABLE REGULATIONS

Regulations	Description	Requirements	Applicable	Notes
(Section II.B)	General Provisions		Y	
(Section II.B.(1))		A facility holding a valid Title V permit is deemed to be in compliance with requirements regarding a state operating permit as specified in APC-S-2 and state law.	Y	Title V permit is a comprehensive permit, compliance with it implies compliance with all the applicable requirements.
(Section II.B.(2))	General Provisions Responsibility to apply for and obtain a State Permit to Operate	Any facility required to obtain a Title V permit shall apply for and obtain a State Permit to Operate. Permit will be valid for 12 months from the startup of the new facility or until the facility obtains its Title V permit, whichever is earlier.	Y	For a major source as defined by Title V in MS APC-S-6
(Section II.B.(4), (5) and (6))	General Provisions	Permit Board may require applicant to submit information on applicant's financial resources and may require the applicant to provide compliance history to assure compliance with issued permit.	Y	Permit Board will void issued permit if failure to comply or false information is submitted.
(Section II.B.(9))	General Provision Emission Rates	All permit applications must contain the emission rates for all regulated air pollutants that can be expected from the facility.	Y	
(Section II.B.(10))	General Provision Applicant Sign.	This section defines who may sign the applications.	Y	
(Section II.B.(11))	Applicable Limitations	This section states that if in any permit limitations are not established, then the rate of emissions and other operating conditions and parameters specified in the application are the applicable limitations and requirements.	Y	

HERCULES INCORPORATED
TABLE II: FACILITY - WIDE APPLICABLE REGULATIONS

Regulations	Description	Requirements	Applicable	Notes
(Section II.B.(12))	General Provision	This section lists the factors for establishing compliance testing.	Y	Applicable when and if, triggered by the facility or agency activity.
(Section II.B.(14))	General Provision Environmental Monitoring	Permit Board may require the permittee to perform special environmental monitoring to determine impact of emissions on the surrounding environment.	Y	Applicable when and if, required by the agency action.
(Section II.B.(15))	General Provisions Buffer Zone	This section lists the buffer zone requirements for construction or relocation of any air emissions equipment	Y	
(15)(a)	General Provision Buffer Zone	All sources of air emissions must be at least 150 feet from the nearest residential or recreational area. Buffer zone = 150 feet unless Permit Board allows variance or establishes more stringent buffer zones as stated in Section II.B.(15)(f)and(g).	Y	Residential and recreational areas are defined in MS APC-S-2 I.A (20) and (21).
(Section II.B.(16))	General Provision Permit Conditions to be in each issued permit.	This section lists the general permit conditions required to be a part of an issued permit.	Y	
(Section II. C.)	Permit Suspension and Revocation	This section states the authority of the permit board to modify, suspend or revoke in whole or in part any permit issued within the regulations for sufficiently good cause shown. Good cause includes but, not restricted to, persistent violation of terms and conditions, obtain permit by misrepresentation, changes in federal state or local laws.	Y	Applicable when and if, triggered by the facility or agency activity.
(Section II.D.)	Permit modification due to modification in facility	Facility previously holding an operating permit that wishes to make modifications, the requirements for 'modification of the state permit to operate' shall be the same as for a 'state permit to operate new equipment' for the new/expanded air emissions.	Y	Applicable when and if, triggered by the facility or agency activity.

HERCULES INCORPORATED
TABLE II: FACILITY - WIDE APPLICABLE REGULATIONS

Regulations	Description	Requirements	Applicable	Notes
(Section II.E.)	Modification of permit without modification to the facility	The terms and conditions of a previously issued permit may be modified if those terms and conditions are no longer necessary to insure compliance with all applicable rules and regulations.	Y	Applicable if triggered by the facility or agency activity and requested by the facility.
(Section IV.A.)	Engineering Plans	All engineering plans and specifications required by the MDEQ must bear the signature, registration #, and seal of a Miss. registered professional engineer.	Y	Applicable when and if, triggered by the facility.
(Section IV.B.)	Failure to Apply	Failure to apply for a permit or premature construction shall constitute a violation.	Y	Applicable when and if, triggered by the facility.
(Section IV.C)	Information Required in Construction Permit.	1) Two complete sets of site drawings, construction drawings, design calculations, and specifications are required with submittal of applications. 2) Other information as required by Permit Board. 3) May require dispersion modeling as specified in APC-S-2 VI.B.	Y	General information to be provided when proposing any modifications, or new air emissions equipment. Applicable when and if triggered by the facility.
(Section V)	Public Participation and Public Availability of Information		Y	
(Section V.(B))	Public Participation Title V	As specified in MS APC-S-6	Y	

HERCULES INCORPORATED
TABLE II: FACILITY - WIDE APPLICABLE REGULATIONS

Regulations	Description	Requirements	Applicable	Notes
(Section V.(G) and (H))	Public Participation	Permit Board may provide notice to the public and public comment on any construction or state operating permit.	Y	Applicable when and if, triggered by the facility or agency activity.
(Section VI)	Application Review		Y	
(Section VI (A))	Standards for Approving Construction and Operation Permit for a new facility.	This section lists the various standards for approving an application for construction and operation of a new facility.	Y	There are six standards as listed below. These regulations are applicable when and if, triggered by the facility.
(A)(1)		New facility should be designed and constructed so as to operate without causing a violation of any rules and regulations.	Y	
(A)(2)	Application Review NAAQS standards	New facility should be designed and constructed so as to operate without interfering with the attainment and maintenance of NAAQS.	Y	
(A)(3))	Application Review Air Toxics	Permit Board may require the applicant to evaluate the impacts of air toxics on chronic and acute human health risks and effects and where applicable, plant and animal life. If risk less than $1x10^{-6}$ no further analysis required. If greater than $1x10^{-6}$ but less than $1x10^{-4}$ then further evaluation is necessary and/or the establishment of permit limits to prohibit air toxics. If greater than $1x10^{-4}$ then demonstration that public health is not threatened must be performed.	Y	
(A)(4)	Fugitive Dust	Fugitive dust emissions from construction activities are to be minimized.	Y	
(A)(5)	Operating Permit Activation	Upon certification of construction, the state permit to operate becomes effective. Any requirements such as test data or reports listed in the operating permit become effective for compliance demonstration purposes.	Y	

HERCULES INCORPORATED
TABLE II: FACILITY - WIDE APPLICABLE REGULATIONS

Regulations	Description	Requirements	Applicable	Notes
(A)(6)	Modify or Reconstruction of a facility	Application for a permit to modify or reconstruct a facility is to be treated as an application to construct a new facility and must comply with all applicable standards.	Y	
(Section VI.(B))	Air Quality Models	Must use approved dispersion models, data bases, and other requirements or obtain approval of MDEQ and EPA for variances.	Y	Applicable when and if, triggered by the facility or agency activity.
(Section VI.(C))	Cancellation of Permit to Construct	Permit to Construct will expire after 18 months if no construction is initiated or if project is delayed for 18 months.	Y	Permit Board may extend PTC if appropriate.
(Section VI.(D)	Certification of Construction	Upon completion of construction, the applicant must notify MDEQ that construction was completed in accordance with the approved plans and specs. Permit to Operate becomes effective upon this notification.	Y	Usually required to be submitted within 10 days of the date that construction was completed.
(Section VII)	Compliance Testing	This section lists the various requirements for performing compliance testing. (where required).	Y	Applicable if triggered by any modifications.
(Section VII.(B) and (C))	Compliance Testing	Must use EPA test methods unless otherwise allowed by the Permit Board. Testing performed at owner's expense. Submittal of test results report. Compliance testing is required of all NSPS and NESHAPS sources as specified in 40 CFR 60, 61, and 63.	Y	Applicable if testing is required at any time.
(Section XI.)	Reporting and Recordkeeping	Permit Board may require installation of sampling ports and monitoring of emissions equipment. Permit Board may require the maintenance of records and submittal of reports to the Permit Board upon request.	Y	Applicable if triggered by agency requirement.

HERCULES INCORPORATED
TABLE II: FACILITY - WIDE APPLICABLE REGULATIONS

Regulations	Description	Requirements	Applicable	Notes
(Section XII)	Emission Reduction Schedule	Sources with total actual emissions in excess of 0.25 tons/ day must have a Commission on Environmental Quality approved emissions reduction schedule.	Y	Applicable when and if, triggered by agency action.
(Section XIII)	Exclusions, Variances and General Permits.	No specific requirements.	Y	
(Section XIV)	Permit Transfer	Any change in more than 50% of the equity shall constitute a change in ownership. Permit Board must approve Permit transfer. Permit Board may require certain financial and compliance history information on new owner.	Y	Applicable if change in ownership takes place.
MISSISSIPPI APC-S-3 (Emergency Episodes)				
(section 3)	episode criteria		Y	This section specifies the criteria used to classify emergency episodes.
(section 4)	emission control action program	Prepare emission control action programs for reducing emission of contaminants during emergency episodes in accordance with objectives set in APC-S-3, Tables 1-5.	Y	
MISSISSIPPI APC-S-4 (Ambient Air Quality Standards)				
		All standards of 40 CFR 50 (NAAQS) apply.	Y	Refer to 40 CFR 50.
		No odorous substances in concentrations that adversely and unreasonably affect human health and well-being, enjoyment of property, or plant or animal life.	Y	

HERCULES INCORPORATED
TABLE II: FACILITY - WIDE APPLICABLE REGULATIONS

Regulations	Description	Requirements	Applicable	Notes
	Mississippi Ambient air Q.S.	≤ 150 ug/m3 of TSP (maximum 24-hour concentration not to be exceeded more than once per year)	Y	Applicable to the entire facility.
MISSISSIPPI APC-S-5 (Prevention of Significant Deterioration of Air Quality)				
		As required by 40 CFR 51.166 and 52.21.	Y	These federal regulations were adopted by reference and amended on December 9, 1993.
FEDERAL REQUIREMENTS				
MISSISSIPPI APC-S-6 (Title V)				
(Section I)	General Requirements		Y	
(Section I.A.)	Definitions	No specific requirements	Y	Provides Information.
(Section I.B)	General Title V Permit Requirements	All Title V sources should comply with provisions stated in APC-S-6	Y	
B.(1)	Application and permit requirement	All sources subject to Title V must complete an application and obtain a Title V permit.	Y	
B.(6)	Emission Units and applicable requirements	Major sources should include in their Title V permit all applicable requirements for all emission sources.	Y	
B.(7)	Fugitive Emissions	All fugitive emissions from Title V source should be included in the application and the Title V permit.	Y	
(Section II)	Permit Applications		Y	
(Section II.A)	Duty to Apply	The owner or operator is responsible for submission of a timely and complete permit application in accordance with APC-S-6.	Y	

HERCULES INCORPORATED
TABLE II: FACILITY - WIDE APPLICABLE REGULATIONS

Regulations	Description	Requirements	Applicable	Notes
(Section II.A (1)(a))	Permit Applications Timely Applications	A Title V application must be submitted within 12 months of beginning operations or becoming a Title V source.	Y	Mississippi Title V Permit Program was approved by EPA on January 27, 1995. The first 40% of the Title V sources were required to submit applications by July 1, 1995 and the remaining 60% are due Jan. 27, 1996.
(1)(b)		A Title V source required to have preconstruction review and construction permit as stated in APC-S-2 must file a complete application to obtain Title V permit with in 12 months after commencing operation.	Y	Proposed modifications can be approved through preconstruction review and constructed, however with in 12 months of commencing operation Title V permit application must be filed.
(1)(c)	Title V Permit Renewals	A timely renewal application is one submitted at least 6 months prior to the expiration date of the Title V permit.	Y	
(Section II.A.(2))	Complete Application	MDEQ has 60 days to determine whether the submitted application is complete.	Y	After 60 days, the application is deemed complete, if no response of incompleteness is provided to the facility by the MDEQ.
(Section II.B.)	Supplement or Correct Application	As required by permit board.	Y	Applicable if requested by the permit board.
(Section II.C.)	Title V Permit Application Content	Application forms supplied by the Permit Board must be used. Requirements of this section must be included.	Y	
(Section II.C.(9))	Annual Certifications	Compliance Certification by a responsible official must be submitted no less frequently than once per year.	Y	
(Section II.E.)	Certification	Any form, report or compliance certifications submitted to the DEQ should contain a certification of truth accuracy and completeness signed by a responsible officer.	Y	Applicable for any form, report or certification submitted to the MDEQ.

HERCULES INCORPORATED
TABLE II: FACILITY - WIDE APPLICABLE REGULATIONS

Regulations	Description	Requirements	Applicable	Notes
(Section III)	Permit Content	As specified in this section	Y	
(Section III.B.)	Federally Enforceable Requirements	All terms, conditions and limits specified to restrict the source's potential to emit in the Title V permit are federally enforceable.	Y	Applicable if triggered by the facility or agency activity.
(Section III.C.)	Compliance requirements	This section lists the various elements that should be included in the Title V permit with respect to compliance demonstration. Among other things this includes testing, monitoring, reporting and recordkeeping requirements to assure compliance. Entry and inspection requirements, compliance schedule, progress reports and compliance certifications.	Y	
(Section III.D.)	General Permits	As specified	Y	
(Section III.E.)	Temporary Sources	This section provides that a single permit may be issued to authorize emissions from similar operations of the same source at multiple temporary locations. The operation must be temporary and involve at least one change of location during the permit term.	Y	
(Section III.F.)	Permit Shield	This section specifies that the Title V permit must state that compliance with the permit conditions implies compliance with any applicable requirements.	Y	
(Section III.G.)	Emergency provisions	This section provides defense for non compliance caused due to a situation arising from sudden and reasonably unforseeable events beyond the control of the source. It lists the information to be submitted to establish that emergency had occurred.	Y	Emergency includes acts of God but does not include improper design, lack of preventive maintenance, improper operations or operator errors.

HERCULES INCORPORATED
TABLE II: FACILITY - WIDE APPLICABLE REGULATIONS

Regulations	Description	Requirements	Applicable	Notes
(Section III.H.)	Risk Management Plans	If the source is required to develop and register a risk management according to section 112(r), the permit will specify that the source will comply with the requirement.	Y	The contents of the plan are not required to be incorporated as a permit term.
(Section IV)	Permit Issuance, Renewal, Reopening and Revision.	As specified.	Y	
(Section IV.E.)	Permit Modification		Y	This section details the requirements for any modifications. Minor and Significant modifications are defined and steps for each type of modification are specified. Applicable if triggered.
(Section IV.F.)	Operational Flexibility		Y	This section allows the source to make changes to the facility without requiring a permit revision, if the changes are not modifications and the changes do not exceed the emissions allowable under the permit.
(Section IV.G.)	Reopening for Cause		Y	This section lists the various causes for which the issued permit can be reopened prior to the expiration of the permit.

HERCULES INCORPORATED
TABLE II: FACILITY - WIDE APPLICABLE REGULATIONS

Regulations	Description	Requirements	Applicable	Notes
(Section VI)	Permit Fees	Permit fees are reviewed and adjusted each year by the Commission. Maximum fee shall be $250,000 per facility per year. Minimum fee shall be $250.00 per facility per year. Maximum emission rate of each pollutant shall be 4000 tons per year per facility. Facility may pay annual fee based on actual emissions from previous calendar year or may pay fee based on permitted allowable emissions rate. No fee is charged for CO or CFC/HCFC.	Y	Applicable every year. Fees to be paid by September 1st. If paying on basis of actual emissions for the previous year, then actual emissions data should be submitted to the MDEQ by July 1st.
(Section VII (A) and (B))	Insignificant Activities and Emission Levels	Section VII (A) contains a list of activities that do not have to be included in the application. Section VII (B) contains a list of activities that must be included in the Title V application.	Y	
(Section VII (C)	Applicable Requirements	If activity is subject to NSPS, NESHAP, or MACT standard then it can not be an insignificant activity.	Y	
(Section VII (D))	Potential to Emit	Notwithstanding sections VII(A) and (B) all sources with a potential to emit greater than 1 lb per hour of any non-HAP pollutant or greater than 0.1 lb per hour of any HAP must be included in the Title V application.	Y	
(Section VII (E))	Insignificant Activity Addition under Section VII (A)	The addition of section VII (A)activity does not constitute a modification unless the activity is a Title I modification or requires a permit to construct.	Y	
(Section VII (F))	Insignificant Activity Addition under Section VII (B)	The addition of a section VII (B) activity will be handled as an administrative amendment unless the activity is a Title I modification or requires a permit to construct.	Y	
40 CFR 50	NAAQS	As specified in regulations.	Y	
40 CFR 61.145 and 40 CFR 61.150	Asbestos Regulations and Partial Consent Decree	As specified in regulations and as further stipulated in the Partial Consent Decree effective January 19, 1996.	Y	
40 CFR 70	Title V	As specified in regulations.	Y	

HERCULES, INCORPORATED
HATTIESBURG, MISSISSIPPI
SUMMARY OF ACTUAL EMISSIONS

Pollutant	Actual Uncontrolled Emissions	
	TOTAL Emissions	
	Lb/Hour	Tons/Year
Particulate Matter (PM/PM_{10})	6.01	26.31
Sulfur Dioxide (SO_2)	11.76	51.50
Nitrous Oxides (NO_X)	38.91	170.41
Carbon Monoxide (CO)	3.01	13.19
Volatile Organic Compounds (VOC)	86.75	379.97
Total Hazardous Air Pollutants (HAP)	57.14	250.28
Epichlorohydrin	1.45	6.37
Toluene	54.62	239.24
Xylene	0.10	0.44
Ethylbenzene	0.03	0.12
Ethylene Oxide	0.31	1.35
Biphenyl	0.63	2.76

HERCULES, INCORPORATED
HATTIESBURG, MISSISSIPPI
SUMMARY OF POTENTIAL UNCONTROLLED EMISSIONS

Pollutant	Potential Uncontrolled Emissions	
	TOTAL Emissions	
	Lb/Hour	Tons/Year
Particulate Matter (PM/PM_{10})	358.08	1,568.39
Sulfur Dioxide (SO_2)	479.21	2,098.93
Nitrous Oxides (NO_X)	127.58	558.79
Carbon Monoxide (CO)	10.25	44.88
Volatile Organic Compounds (VOC)	252.09	1,104.16
Total Hazardous Air Pollutants (HAP)	82.62	361.88
Epichlorohydrin	1.70	7.46
Toluene	78.49	343.80
Xylene	0.12	0.51
Ethylbenzene	0.03	0.14
Ethylene Oxide	1.65	7.22
Biphenyl	0.63	2.76

HERCULES, INCCRPORATED
HATTIESBURG, MISSISSIPPI
SUMMARY OF ACTUAL EMISSIONS FROM MANUFACTURING PROCESSES

Emission Point/Process Area	Pollutant	Stack Test Data	1994 Actual Emissions			
		1988 Emissions	Fugitive Emissions	Point Source Emissions		TOTAL Emissions
		Lb/Hour (1)	Lb/Year (2)	Lb/Hour	Lb/Year (2)	Tons/Year
AA-000 (160)/Kymene Process Area						
AA-001 (161)/Kettle Vent Water Scrubber	Epichlorohydrin (Fugitive)		10,193			5.10
AA-002 (162)/Adipic Acid Baghouse	Epichlorohydrin				2,551	1.28
	Particulate Matter (PM/PM_{10})	0.212		0.212		0.93
AB-000 (270)/Paracol Process Area						
AB-001/Water Scrubber						
AC-000 (030)/Poly-Pale Process Area						
	Toluene (Fugitive)		171,438			85.72
AC-002 (033) and AC-003 (034)/Water Scrubbers No. 1 and 2	Sulfur Dioxide (SO_2) (Fugitive)		94,660			47.33
	Non-HAP Volatile Organic Compounds (VOC)	1.390		1.390	12,178	6.089
	Toluene	0.940			156,026	78.01
AC-004/Rosin Melter	Sulfur Dioxide (SO_2)	0.904		0.904	7,918	3.96
	Particulate Matter (PM/PM_{10})		13,787			6.89
	Non-HAP Volatile Organic Compounds (VOC)				3,139	1.57
AD-000 (038)/Neuphor Process Area						
AD-001 (038)/Activated Carbon Adsorption with Scrubber						
AD-002 (038)/Water Eductor Scrubber with Sulfuric Acid						
AD-003/Tank NT-180 Vent with Water Scrubber						
AE-000 (280)/Metal Resinates Process Area						
	Toluene (Fugitive)		97,762			48.88
	Xylene (Fugitive)		595			0.30
AE-001 (280)/Total Condenser	Ethylbenzene (Fugitive)		164			0.08
	Toluene				38,283	19.14
	Xylene				233	0.12
	Ethylbenzene				64	0.03
AF-000 (180 & 190)/Rosin Amine Derivatives Process Area						
AF-004 (190)/Water Scrubber with Sulfuric Acid	Ethylene Oxide (Fugitive)		2,552			1.28
	Ethylene Oxide				138	0.07
AG-000 (080, 090, & 100)/Hard Resins Process Area						
AG-003 (082)/Water Scrubber (Flaking)	Non-HAP Volatile Organic Compounds (VOC)	11.27		11.27	98,725	49.36
AG-006 (102)/Water Scrubber (Kettles)	Non-HAP Volatile Organic Compounds (VOC)	6.55		6.55	57,378	28.69
AG-005 (101)/Buell Norblo Dust Collector	Particulate Matter (PM/PM_{10})	0.722		0.722	6,325	3.16
AH-000 (040)/Rosin Shed Area						
AI-000 (110)/Staybelite Process Area						
AI-001 (112)/Separator Vent (Hydrogenation Process)	Non-HAP Volatile Organic Compounds (VOC)	0.328		0.328	2,873	1.44
AJ-000 (150)/Rosin Distillation Process Area						
AK-000/Hydrogen Generation Process Area						
AL-000 (170)/Defoamer Process Area						
AL-002 (182)/Dust Collector	Particulate Matter (PM/PM_{10})	2.669		2.669	23,380	11.69

(1) Data taken from the attached 1988 stack test data.

(2) Data taken from the attached 1994 mass balance sheets developed by C. Jordan except for emission point AC-004/Rosin Melter which was calculated by the Process Weight Equation for a capacity of 5,000 lb/hr (7.575 lb/hr) and actual operation time of 1,820 hours (9,099,606 lbs of gum rosin).

HERCULES, INCORPORATED
HATTIESBURG, MISSISSIPPI
SUMMARY OF ACTUAL EMISSIONS FROM MANUFACTURING PROCESSES

Emission Point/Process Area	Pollutant	Stack Test Data	1994 Actual Emissions			
		1988 Emissions	Fugitive Emissions	Point Source Emissions		TOTAL Emissions
		Lb/Hour (1)	Lb/Year (2)	Lb/Hour	Lb/Year (2)	Tons/Year
AN-000/Effluent Treatment Area	Toluene (Fugitive)		14,970			7.49
	Xylene (Fugitive)		50			0.03
	Ethylbenzene (Fugitive)		14			0.01
AN-001 (230)/Carbon Regeneration Furnace Scrubber	Non-HAP Volatile Organic Compounds (VOC)	7.34		7.34		32.15
Plant-wide Fugitive Emissions (AA-000 through AN-000)	Non-HAP VOC (Rosin Vapor) (Fugitive)		4,520			2.26
	Non-HAP VOC (Biphenyl Oxide) (Fugitive)		14,922			7.46
	Biphenyl (Fugitive)		5,519			2.76
TOTAL	**Particulate Matter (PM/PM_{10})**					**22.67**
	Volatile Organic Compounds (VOC)					**379.29**
	Epichlorohydrin					**6.37**
	Toluene					**239.24**
	Xylene					**0.44**
	Ethylbenzene					**0.12**
	Ethylene Oxide					**1.35**
	Biphenyl					**2.76**
	Sulfur Dioxide (SO_2)					**51.29**

(1) Data taken from the attached 1988 stack test data.

(2) Data taken from the attached 1994 mass balance sheets developed by C. Jordan except for emission point AC-004/Rosin Melter which was calculated by the Process Weight Equation for 9,099,606 lbs/yr of gum rosin.

HERCULES, INCORPORATED
HATTIESBURG, MISSISSIPPI
SUMMARY OF POTENTIAL UNCONTROLLED EMISSIONS FROM MANUFACTURING PROCESSES

Emission Point/Process Area	Pollutant	Stack Test Data	1994 Potential Uncontrolled Emissions			
		1988 Emissions	Fugitive Emissions	Point Source Emissions		TOTAL Emissions
		Lb/Hour (1)	Lb/Year (2)	Lb/Hour	Lb/Year (2)	Tons/Year
AA-000 (160)/Kymene Process Area						
AA-001 (161)/Kettle Vent Water Scrubber	Epichlorohydrin (Fugitive)		10,193			5.10
AA-002 (162)/Adipic Acid Baghouse	Epichlorohydrin				4,722	2.36
	Particulate Matter (PM/PM_{10})	0.212		21.20	185,712.00	92.86
AB-000 (270)/Paracol Process Area						
AB-001/Water Scrubber						
AC-000 (030)/Poly-Pale Process Area						
	Toluene (Fugitive)		171,438			85.72
	Sulfur Dioxide (SO_2) (Fugitive)		358,712			47.33
AC-002 (033) and AC-003 (034)/Water Scrubbers No. 1 and 2	Non-HAP Volatile Organic Compounds (VOC)	1.390		139.022	1,217,834	608.92
	Toluene	0.940			346,749	173.37
AC-004/Rosin Melter	Sulfur Dioxide (SO_2)	0.904			36,234	18.12
	Particulate Matter (PM/PM_{10})		66,360			33.18
	Non-HAP Volatile Organic Compounds (VOC)				3,139	1.57
AD-000 (038)/Neuphor Process Area						
AD-001 (038)/Activated Carbon Adsorption with Scrubber						
AD-002 (038)/Water Eductor Scrubber with Sulfuric Acid						
AD-003/Tank NT-180 Vent with Water Scrubber						
AE-000 (280)/Metal Resinates Process Area						
	Toluene (Fugitive)		92,933			46.47
	Xylene (Fugitive)		587			0.29
AE-001 (280)/Total Condenser	Ethylbenzene (Fugitive)		156			0.08
	Toluene				61,518	30.76
	Xylene				375	0.19
	Ethylbenzene				104	0.05
AF-000 (180 & 190)/Rosin Amine Derivatives Process Area						
AF-004 (190)/Water Scrubber with Sulfuric Acid	Ethylene Oxide (Fugitive)		13,700			6.85
	Ethylene Oxide				740	0.37
AG-000 (080, 090, & 100)/Hard Resins Process Area						
AG-003 (082)/Water Scrubber (Flaking)	Non-HAP Volatile Organic Compounds (VOC)	11.27		11.27	98,725	49.36
AG-006 (102)/Water Scrubber (Kettles)	Non-HAP Volatile Organic Compounds (VOC)	6.55		6.55	57,378	28.69
AG-005 (101)/Buell Norblo Dust Collector	Particulate Matter (PM/PM_{10})	0.722		7.22	63,247	31.62
AH-000 (040)/Rosin Shed Area						
AI-000 (110)/Staybelite Process Area						
AI-001 (112)/Separator Vent (Hydrogenation Process)	Non-HAP Volatile Organic Compounds (VOC)	0.328		0.328	2,873	1.44
AJ-000 (150)/Rosin Distillation Process Area						
AK-000/Hydrogen Generation Process Area						
AL-000 (170)/Defoamer Process Area						
AL-002 (182)/Dust Collector	Particulate Matter (PM/PM_{10})	2.669		266.900	2,338,044	1,169.02

(1) Data taken from the attached 1988 stack test data. To calculate potential uncontrolled emissions, efficiencies of scrubbers assumed to be 75% for SO2 and 0% for VOCs, and efficiencies of dust collectors assumed to be 99% for particulate matter.

(2) Data taken from the attached 1994 mass balance sheets developed by C. Jordan except for emission point AC-004/Rosin Melter which was calculated by the Process Weight Equation for a maximum of 5000 lbs/hr of gum rosin (7.575 lb/hr).

HERCULES, INCORPORATED
HATTIESBURG, MISSISSIPPI
SUMMARY OF POTENTIAL UNCONTROLLED EMISSIONS FROM MANUFACTURING PROCESSES

Emission Point/Process Area	Pollutant	Stack Test Data	1994 Potential Uncontrolled Emissions			
		1988 Emissions	Fugitive Emissions	Point Source Emissions		TOTAL Emissions
		Lb/Hour (1)	Lb/Year (2)	Lb/Hour	Lb/Year (2)	Tons/Year
AN-000/Effluent Treatment Area	Toluene (Fugitive)		14,970			7.49
	Xylene (Fugitive)		50			0.03
AN-001 (230)/Carbon Regeneration Furnace Scrubber	Ethylbenzene (Fugitive)		14			0.01
	Non-HAP Volatile Organic Compounds (VOC)	7.34		7.34		32.15
Plant-wide Fugitive Emissions (AA-000 through AN-000)	Non-HAP VOC (Rosin Vapor) (Fugitive)		13,700			6.85
	Non-HAP VOC (Biphenyl Oxide) (Fugitive)		14,922			7.46
	Biphenyl (Fugitive)		5,519			2.76
TOTAL	**Particulate Matter (PM/PM_{10})**					**1326.68**
	Volatile Organic Compounds (VOC)					**1098.32**
	Epichlorohydrin					**7.46**
	Toluene					**343.80**
	Xylene					**0.51**
	Ethylbenzene					**0.14**
	Ethylene Oxide					**7.22**
	Biphenyl					**2.76**
	Sulfur Dioxide (SO_2)					**65.45**

(1) Data taken from the attached 1988 stack test data. To calculate potential uncontrolled emissions, efficiencies of scrubbers assumed to be 75% for SO2 and 0% for VOCs, and efficiencies of dust collectors assumed to be 99% for particulate matter.

(2) Data taken from the attached 1994 mass balance sheets developed by C. Jordan except for emission point AC-004/Rosin Melter which was calculated by the Process Weight Equation for a maximum of 5000 lbs/hr of gum rosin.

HERCULES, Inc.
Actual Emissions for Fuel Burning Equipment

Emission Point			Pollutant	Actual Emissions											
				(a) APC-S-1				(d) UNCONT. AP-42							
				Applicable Standard		Lb/Hr	Tons/Yr	Natural Gas		Fuel Oil #2		Fuel Oil #6		Ton/Yr
Poly-Pale Plant														
Emission Pt 037 (AC-001) - Dowtherm Boiler														
Rated Capacity	3.2	MMBtu/hr	PM	0.6	lb/MMBtu	1.9	8.4	4.5	lb/MMft^3	2	lb/10^3 gal	n/a		0.04
Natural Gas Fired - 1994 Actual Usage	18,405,000	ft^3/yr of Nat. gas	PM10					7.5	lb/MMft^3	1	lb/10^3 gal	n/a		0.07
Fuel Oil #2 Fired	0.0	gal/yr of Fuel Oil #2	SO2	4.8	lb/MMBtu	15.4	67.3	0.6	lb/MMft^3	71	lb/10^3 gal	n/a		0.01
Sulfur Content	0.5	%	NOx					100	lb/MMft^3	20	lb/10^3 gal	n/a		0.92
			CO					21	lb/MMft^3	5	lb/10^3 gal	n/a		0.19
			VOC					5.28	lb/MMft^3	0.2	lb/10^3 gal	n/a		0.05
			Formaldehyde					n/a		405	lb/10^{12} Btu	n/a		n/a
			Antimony					n/a		n/d	lb/10^{12} Btu	n/a		n/a
			Arsenic					n/a		4.2	lb/10^{12} Btu	n/a		n/a
			Berylium					n/a		2.5	lb/10^{12} Btu	n/a		n/a
			Cadmium					n/a		11	lb/10^{12} Btu	n/a		n/a
			Cromium					n/a		67	lb/10^{12} Btu	n/a		n/a
			Cobalt					n/a		n/d	lb/10^{12} Btu	n/a		n/a
			Lead					n/a		8.9	lb/10^{12} Btu	n/a		n/a
			Manganese					n/a		14	lb/10^{12} Btu	n/a		n/a
			Mercury					n/a		3	lb/10^{12} Btu	n/a		n/a
			Nickel					n/a		170	lb/10^{12} Btu	n/a		n/a
			Selenium					n/a		n/d	lb/10^{12} Btu	n/a		n/a
Power House														
Emission Pt 050 (AM-001) - Steam Boiler														
Rated Capacity	156	MMBtu/hr	PM	0.3796	lb/MMBtu	59.2	259.3	5	lb/MMft^3	2	lb/10^3 gal	21.6	lb/10^3 gal	1.42
Natural Gas Fired - 1994 Actual Usage	567,673,000	ft^3/yr of Nat. gas	PM10					5	lb/MMft^3	1	lb/10^3 gal	15.4	lb/10^3 gal	1.42
Fuel Oil #2 Fired	0.0	gal/yr of Fuel Oil #2	SO2	4.8	lb/MMbtu	748.8	3279.7	0.6	lb/MMft^3	71	lb/10^3 gal	314	lb/10^3 gal	0.17
Sulfur Content	0.5	%	NOx					550	lb/MMft^3	20	lb/10^3 gal	67	lb/10^3 gal	156.11
Fuel Oil #6 Fired	0.0	gal/yr of Fuel Oil #6	CO					40	lb/MMft^3	5	lb/10^3 gal	5	lb/10^3 gal	11.35
Sulfur Content	2.0	%	VOC					1.41	lb/MMft^3	0.2	lb/10^3 gal	0.76	lb/10^3 gal	0.40
			Formaldehyde					n/a		405	lb/10^{12} Btu	405	lb/10^{12} Btu	n/a
			Antimony					n/a		46	lb/10^{12} Btu		lb/10^{12} Btu	n/a
			Arsenic					n/a		114	lb/10^{12} Btu	4.2	lb/10^{12} Btu	n/a
			Berylium					n/a		4.2	lb/10^{12} Btu	2.5	lb/10^{12} Btu	n/a
			Cadmium					n/a		211	lb/10^{12} Btu	11	lb/10^{12} Btu	n/a
			Cromium					n/a		128	lb/10^{12} Btu	67	lb/10^{12} Btu	n/a
			Cobalt					n/a		121	lb/10^{12} Btu		lb/10^{12} Btu	n/a
			Lead					n/a		194	lb/10^{12} Btu	8.9	lb/10^{12} Btu	n/a
			Manganese					n/a		74	lb/10^{12} Btu	14	lb/10^{12} Btu	n/a
			Mercury					n/a		32	lb/10^{12} Btu	3	lb/10^{12} Btu	n/a
			Nickel					n/a		2330	lb/10^{12} Btu	170	lb/10^{12} Btu	n/a
			Selenium					n/a		38	lb/10^{12} Btu		lb/10^{12} Btu	n/a
Hard Resins Area (Kettle)														
Emission Pt 081 (AG-001) - Dowtherm Boiler														
Rated Capacity	8.3	MMBtu/hr	PM	0.6	lb/MMBtu	5.0	21.8	4.5	lb/MMft^3					0.05
Natural Gas Fired - 1994 Actual Usage	21,408,000	ft^3/yr of Nat. gas	PM10					7.5	lb/MMft^3					0.08
			SO2	4.8	lb/MMBtu	39.8	174.5	0.6	lb/MMft^3					0.01
			NOx					100	lb/MMft^3					1.07
			CO					21	lb/MMft^3					0.22
			VOC					5.28	lb/MMft^3					0.06

HERCULES, Inc.
Actual Emissions for Fuel Burning Equipment

Emission Point		Pollutant	Potential Uncontrolled Emissions								
			(a) APC-S-1				(d) UNCONT. AP-42				
			Applicable Standard		Lb/Hr	Tons/Yr	Natural Gas		Fuel Oil #2	Fuel Oil #6	Ton/Yr
Rosin Distillation											
Emission Pt 111 (AJ-001) - Dowtherm Boiler		PM	0.6	lb/MMBtu	2.0	8.7	4.5	lb/MMft^3			0.01
Rated Capacity	3.3 MMBtu/hr	PM10					7.5	lb/MMft^3			0.02
Natural Gas Fired - 1994 Actual Usage	5,314,000 ft^3/yr of Nat. gas	SO2	4.8	lb/MMBtu	15.8	69.4	0.6	lb/MMft^3			0.00
		NOx					100	lb/MMft^3			0.27
		CO					21	lb/MMft^3			0.06
		VOC					5.28	lb/MMft^3			0.01
Hydrogenation											
Emission Pt 120 (AK-001) - Hydrogen Furnace		PM	0.5302	lb/MMBtu	11.1	48.8	6.2	lb/MMft^3			0.05
Rated Capacity	21.0 MMBtu/hr	PM10					7.5	lb/MMft^3			0.06
Natural Gas Fired - 1994 Actual Usage	15,717,000 ft^3/yr of Nat. gas	SO2	4.8	lb/MMBtu	100.8	441.5	0.6	lb/MMft^3			0.00
		NOx					140	lb/MMft^3			1.10
		CO					35	lb/MMft^3			0.28
		VOC					2.78	lb/MMft^3			0.02
Hard Resins Area											
Emission Pt 091 (AG-002) - Dowtherm Boiler		PM	0.6	lb/MMBtu	2.0	8.7	4.5	lb/MMft^3			0.00
Rated Capacity	3.3 MMBtu/hr	PM10					7.5	lb/MMft^3			0.00
Natural Gas Fired - 1994 Actual Usage	0 ft^3/yr of Nat. gas	SO2	4.8	lb/MMBtu	15.8	69.4	0.6	lb/MMft^3			0.00
		NOx					100	lb/MMft^3			0.00
		CO					21	lb/MMft^3			0.00
		VOC					5.28	lb/MMft^3			0.00
Defoamer Plant											
Emission Pt 171 (AL-001) - Silica Furnace		PM	0.6	lb/MMBtu	0.1	0.5	0.18	lb/MMft^3			0.00
Rated Capacity	0.2 MMBtu/hr	PM10					11	lb/MMft^3			0.00
Natural Gas Fired - 1994 Actual Usage	0 ft^3/yr of Nat. gas	SO2	4.8	lb/MMBtu	1.0	4.2	0.6	lb/MMft^3			0.00
		NOx					94	lb/MMft^3			0.00
		CO					40	lb/MMft^3			0.00
		VOC					7.26	lb/MMft^3			0.00
Rosin Amine Plant											
Emission Pt 181 (AF-001) - Dowtherm Boiler		PM	0.6	lb/MMBtu	5.0	21.8	4.5	lb/MMft^3			0.04
Rated Capacity	8.3 MMBtu/hr	PM10					7.5	lb/MMft^3			0.07
Natural Gas Fired - 1994 Actual Usage	18,737,000 ft^3/yr of Nat. gas	SO2	4.8	lb/MMBtu	39.8	174.5	0.6	lb/MMft^3			0.01
		NOx					100	lb/MMft^3			0.94
		CO					21	lb/MMft^3			0.20
		VOC					5.28	lb/MMft^3			0.05

HERCULES, Inc.
Actual Emissions for Fuel Burning Equipment

Emission Point			Pollutant	Potential Uncontrolled Emissions												
				(a) APC-S-1				(d) UNCONT. AP-42								
				Applicable Standard		Lb/Hr	Tons/Yr	Natural Gas		Fuel Oil #2		Fuel Oil #6		Ton/Yr
Effluent Treatment																
Emission Pt 230 (AN-001) - Carbon Regeneration																
Rated Capacity			PM	0.6	lb/MMBtu	1.8	7.8	4.5	lb/MMft^3							
Natural Gas Fired - 1994 Actual Usage	2.95	MMBtu/hr	PM10					7.5	lb/MMft^3					0.05		
	24,198,000	ft^3/yr of Nat. gas	SO2	4.8	lb/MMBtu	14.2	62.0	0.6	lb/MMft^3					0.09		
			NOx					100	lb/MMft^3					0.01		
			CO					21	lb/MMft^3					1.21		
			VOC					5.28	lb/MMft^3					0.25		
														0.06		
Power House																
Emission Pt 240 (AM-002) - Steam Boiler																
Rated Capacity	65	MMBtu/hr	PM	0.4392	lb/MMBtu	28.5	125.0	5	lb/MMft^3	2	lb/10^3 gal	21.6	lb/10^3 gal	0.08		
Natural Gas Fired - 1994 Actual Usage	31,973,000	ft^3/yr of Nat. gas	PM10					5	lb/MMft^3	1	lb/10^3 gal	15.4	lb/10^3 gal	0.08		
Fuel Oil #2 Fired	0.0	gal/yr of Fuel Oil #2	SO2	4.8	lb/MMbtu	312.0	1366.6	0.6	lb/MMft^3	71	lb/10^3 gal	314	lb/10^3 gal	0.01		
Sulfur Content	0.5	%	NOx					550	lb/MMft^3	20	lb/10^3 gal	67	lb/10^3 gal	8.79		
Fuel Oil #6 Fired	0.0	gal/yr of Fuel Oil #6	CO					40	lb/MMft^3	5	lb/10^3 gal	5	lb/10^3 gal	0.64		
Sulfur Content	2.0	%	VOC					1.41	lb/MMft^3	0.2	lb/10^3 gal	0.76	lb/10^3 gal	0.02		
			Formaldehyde													
			Antimony					n/a		405	lb/10^{12} Btu	405	lb/10^{12} Btu	n/a		
			Arsenic					n/a		46	lb/10^{12} Btu	46	lb/10^{12} Btu	n/a		
			Berylium					n/a		114	lb/10^{12} Btu	114	lb/10^{12} Btu	n/a		
			Cadmium					n/a		4.2	lb/10^{12} Btu	4.2	lb/10^{12} Btu	n/a		
			Cromium					n/a		211	lb/10^{12} Btu	211	lb/10^{12} Btu	n/a		
			Cobalt					n/a		128	lb/10^{12} Btu	128	lb/10^{12} Btu	n/a		
			Lead					n/a		121	lb/10^{12} Btu	121	lb/10^{12} Btu	n/a		
			Manganese					n/a		194	lb/10^{12} Btu	194	lb/10^{12} Btu	n/a		
			Mercury					n/a		74	lb/10^{12} Btu	74	lb/10^{12} Btu	n/a		
			Nickel					n/a		32	lb/10^{12} Btu	32	lb/10^{12} Btu	n/a		
			Selenium					n/a		2330	lb/10^{12} Btu	2330	lb/10^{12} Btu	n/a		
								n/a		38	lb/10^{12} Btu	38	lb/10^{12} Btu	n/a		
TOTAL		***Tons/Yr***														
PM		***1.7***														
PM10		***1.9***														
SO2		***0.2***														
NOx		***170.4***														
CO		***13.2***														
VOC		***0.7***														

HERCULES, Inc.
Potential Uncontrolled Emissions for Fuel Burning Equipment

Emission Point			Pollutant	Potential Uncontrolled Emissions															
				(a) APC-S-1				(d) UNCONT. AP-42						Highest Factor		MOST STRINGENT	
				Applicable Standard		Lb/Hr	Tons/Yr	Natural Gas		Fuel Oil #2		Fuel Oil #6		Lb/Hr	Ton/Yr	Lb/Hr	Ton/Yr
Poly-Pale Plant																	
Emission Pt 037 (AC-001) - Dowtherm Boiler			PM	0.6	lb/MMBtu	1.9	8.4	4.5	lb/MMft^3	2	lb/10^3 gal	n/a		0.045	0.199	0.045	0.199
Rated Capacity	3.2	MMBtu/hr	PM10					7.5	lb/MMft^3	1	lb/10^3 gal	n/a		0.024	0.105	0.024	0.105
Natural Gas Fired	3,200	ft^3/hr of Nat. gas	SO2	4.8	lb/MMBtu	15.4	67.3	0.6	lb/MMft^3	71	lb/10^3 gal	n/a		1.611	7.058	1.611	7.058
Fuel Oil #2 Fired	23	gal/hr of Fuel Oil #2	NOx					100	lb/MMft^3	20	lb/10^3 gal	n/a		0.454	1.988	0.454	1.988
Sulfur Content	0.5	%	CO					21	lb/MMft^3	5	lb/10^3 gal	n/a		0.113	0.497	0.113	0.497
			VOC					5.28	lb/MMft^3	0.2	lb/10^3 gal	n/a		0.017	0.074	0.017	0.074
			Formaldehyde					n/a		405	lb/10^{12} Btu	n/a				0.063	0.277
			Antimony					n/a		n/d	lb/10^{12} Btu	n/a				n/d	n/d
			Arsenic					n/a		4.2	lb/10^{12} Btu	n/a				0.001	0.003
			Berylium					n/a		2.5	lb/10^{12} Btu	n/a				0.000	0.002
			Cadmium					n/a		11	lb/10^{12} Btu	n/a				0.002	0.008
			Cromium					n/a		67	lb/10^{12} Btu	n/a				0.010	0.046
			Cobalt					n/a		n/d	lb/10^{12} Btu	n/a				n/d	n/d
			Lead					n/a		8.9	lb/10^{12} Btu	n/a				0.001	0.006
			Manganese					n/a		14	lb/10^{12} Btu	n/a				0.002	0.010
			Mercury					n/a		3	lb/10^{12} Btu	n/a				0.000	0.002
			Nickel					n/a		170	lb/10^{12} Btu	n/a				0.027	0.116
			Selenium					n/a		n/d	lb/10^{12} Btu	n/a				n/d	n/d
Power House																	
Emission Pt 050 (AM-001) - Steam Boiler			PM	0.3796	lb/MMBtu	59.2	259.3	5	lb/MMft^3	2	lb/10^3 gal	21.6	lb/10^3 gal	22.5	98.4	22.5	98.4
Rated Capacity	156	MMBtu/hr	PM10					5	lb/MMft^3	1	lb/10^3 gal	15.4	lb/10^3 gal	16.0	70.1	16.0	70.1
Natural Gas Fired	156,000	ft^3/hr of Nat. gas	SO2	4.8	lb/MMbtu	748.8	3279.7	0.6	lb/MMft^3	71	lb/10^3 gal	314	lb/10^3 gal	326.6	1430.3	326.6	1430.3
Fuel Oil #2 Fired	1,106	gal/hr of Fuel Oil #2	NOx					550	lb/MMft^3	20	lb/10^3 gal	67	lb/10^3 gal	85.8	375.8	85.8	375.8
Sulfur Content	0.5	%	CO					40	lb/MMft^3	5	lb/10^3 gal	5	lb/10^3 gal	6.2	27.3	6.2	27.3
Fuel Oil #6 Fired	1,040	gal/hr of Fuel Oil #6	VOC					1.41	lb/MMft^3	0.2	lb/10^3 gal	0.76	lb/10^3 gal	0.8	3.5	0.8	3.5
Sulfur Content	2.0	%															
			Formaldehyde					n/a		405	lb/10^{12} Btu	405	lb/10^{12} Btu			0.063	0.277
			Antimony					n/a		46	lb/10^{12} Btu		lb/10^{12} Btu			0.000	0.000
			Arsenic					n/a		114	lb/10^{12} Btu	4.2	lb/10^{12} Btu			0.001	0.003
			Berylium					n/a		4.2	lb/10^{12} Btu	2.5	lb/10^{12} Btu			0.000	0.002
			Cadmium					n/a		211	lb/10^{12} Btu	11	lb/10^{12} Btu			0.002	0.008
			Cromium					n/a		128	lb/10^{12} Btu	67	lb/10^{12} Btu			0.010	0.046
			Cobalt					n/a		121	lb/10^{12} Btu		lb/10^{12} Btu			0.000	0.000
			Lead					n/a		194	lb/10^{12} Btu	8.9	lb/10^{12} Btu			0.001	0.006
			Manganese					n/a		74	lb/10^{12} Btu	14	lb/10^{12} Btu			0.002	0.010
			Mercury					n/a		32	lb/10^{12} Btu	3	lb/10^{12} Btu			0.000	0.002
			Nickel					n/a		2330	lb/10^{12} Btu	170	lb/10^{12} Btu			0.027	0.116
			Selenium					n/a		38	lb/10^{12} Btu		lb/10^{12} Btu			0.000	0.000
Hard Resins Area (Kettle)																	
Emission Pt 081 (AG-001) - Dowtherm Boiler			PM	0.6	lb/MMBtu	5.0	21.8	4.5	lb/MMft^3							0.037	0.164
Rated Capacity	8.3	MMBtu/hr	PM10					7.5	lb/MMft^3							0.062	0.273
Natural Gas Fired Only	8,300	ft^3/hr of Nat. gas	SO2	4.8	lb/MMBtu	39.8	174.5	0.6	lb/MMft^3							0.005	0.022
			NOx					100	lb/MMft^3							0.830	3.635
			CO					21	lb/MMft^3							0.174	0.763
			VOC					5.28	lb/MMft^3							0.044	0.192

HERCULES, Inc.
Potential Uncontrolled Emissions for Fuel Burning Equipment

Emission Point			Pollutant	Potential Uncontrolled Emissions													
				(a) APC-S-1				(d) UNCONT. AP-42						Highest Factor		MOST STRINGENT	
				Applicable Standard		Lb/Hr	Tons/Yr	Natural Gas		Fuel Oil #2		Fuel Oil #6		Lb/Hr	Ton/Yr	Lb/Hr	Ton/Yr
Rosin Distillation																	
Emission Pt 111 (AJ-001) - Dowtherm Boiler			PM	0.6	lb/MMBtu	2.0	8.7	4.5	lb/MMft³							0.015	0.065
Rated Capacity	3.3	MMBtu/hr	PM10					7.5	lb/MMft³							0.025	0.108
Natural Gas Fired Only	3,300	ft³/hr of Nat. gas	SO2	4.8	lb/MMBtu	15.8	69.4	0.6	lb/MMft³							0.002	0.009
			NOx					100	lb/MMft³							0.330	1.445
			CO					21	lb/MMft³							0.069	0.304
			VOC					5.28	lb/MMft³							0.017	0.076
Hydrogenation																	
Emission Pt 120 (AK-001) - Hydrogen Furnace			PM	0.5302	lb/MMBtu	11.1	48.8	6.2	lb/MMft³							0.130	0.570
Rated Capacity	21.0	MMBtu/hr	PM10					7.5	lb/MMft³							0.158	0.690
Natural Gas Fired Only	21,000	ft³/hr of Nat. gas	SO2	4.8	lb/MMBtu	100.8	441.5	0.6	lb/MMft³							0.013	0.055
			NOx					140	lb/MMft³							2.940	12.877
			CO					35	lb/MMft³							0.735	3.219
			VOC					2.78	lb/MMft³							0.058	0.256
Hard Resins Area																	
Emission Pt 091 (AG-002) - Dowtherm Boiler			PM	0.6	lb/MMBtu	2.0	8.7	4.5	lb/MMft³							0.015	0.065
Rated Capacity	3.3	MMBtu/hr	PM10					7.5	lb/MMft³							0.025	0.108
Natural Gas Fired Only	3,300	ft³/hr of Nat. gas	SO2	4.8	lb/MMBtu	15.8	69.4	0.6	lb/MMft³							0.002	0.009
			NOx					100	lb/MMft³							0.330	1.445
			CO					21	lb/MMft³							0.069	0.304
			VOC					5.28	lb/MMft³							0.017	0.076
Defoamer Plant																	
Emission Pt 171 (AL-001) - Silica Furnace			PM	0.6	lb/MMBtu	0.1	0.5	0.18	lb/MMft³							0.000	0.000
Rated Capacity	0.2	MMBtu/hr	PM10					11	lb/MMft³							0.002	0.010
Natural Gas Fired Only	200	ft³/hr of Nat. gas	SO2	4.8	lb/MMBtu	1.0	4.2	0.6	lb/MMft³							0.000	0.001
			NOx					94	lb/MMft³							0.019	0.082
			CO					40	lb/MMft³							0.008	0.035
			VOC					7.26	lb/MMft³							0.001	0.006
Rosin Amine Plant																	
Emission Pt 181 (AF-001) - Dowtherm Boiler			PM	0.6	lb/MMBtu	5.0	21.8	4.5	lb/MMft³							0.037	0.164
Rated Capacity	8.3	MMBtu/hr	PM10					7.5	lb/MMft³							0.062	0.273
Natural Gas Fired Only	8,300	ft³/hr of Nat. gas	SO2	4.8	lb/MMBtu	39.8	174.5	0.6	lb/MMft³							0.005	0.022
			NOx					100	lb/MMft³							0.830	3.635
			CO					21	lb/MMft³							0.174	0.763
			VOC					5.28	lb/MMft³							0.044	0.192

HERCULES, Inc.
Potential Uncontrolled Emissions for Fuel Burning Equipment

Emission Point			Pollutant	Potential Uncontrolled Emissions															
				(a) APC-S-1				(d) UNCONT. AP-42								Highest Factor		MOST STRINGENT	
				Applicable Standard		Lb/Hr	Tons/Yr	Natural Gas		Fuel Oil #2		Fuel Oil #6		Lb/Hr	Ton/Yr	Lb/Hr	Ton/Yr		
Effluent Treatment																			
Emission Pt 230 (AN-001) - Carbon Regeneration																			
Rated Capacity			PM	0.6	lb/MMBtu	1.8	7.8	4.5	lb/MMft³									0.013	0.058
Natural Gas Fired Only	2.95	MMBtu/hr	PM10					7.5	lb/MMft³									0.022	0.097
	2,950	ft³/hr of Nat. gas	SO2	4.8	lb/MMBtu	14.2	62.0	0.6	lb/MMft³									0.002	0.008
			NOx					100	lb/MMft³									0.295	1.292
			CO					21	lb/MMft³									0.062	0.271
			VOC					5.28	lb/MMft³									0.016	0.068
Power House																			
Emission Pt 240 (AM-002) - Steam Boiler																			
Rated Capacity			PM	0.4392	lb/MMBtu	28.5	125.0	5	lb/MMft³	2	lb/10³ gal	21.6	lb/10³ gal	9.4	41.0	9.4	41.0		
Natural Gas Fired	65	MMBtu/hr	PM10					5	lb/MMft³	1	lb/10³ gal	15.4	lb/10³ gal	6.7	29.2	6.7	29.2		
Fuel Oil #2 Fired	65,000	ft³/hr of Nat. gas	SO2	4.8	lb/MMbtu	312.0	1366.6	0.6	lb/MMft³	71	lb/10³ gal	314	lb/10³ gal	136.1	596.0	136.1	596.0		
Sulfur Content	461	gal/hr of Fuel Oil #2	NOx					550	lb/MMft³	20	lb/10³ gal	67	lb/10³ gal	35.8	156.6	35.8	156.6		
Fuel Oil #6 Fired	0.5	%	CO					40	lb/MMft³	5	lb/10³ gal	5	lb/10³ gal	2.6	11.4	2.6	11.4		
Sulfur Content	433	gal/hr of Fuel Oil #6	VOC					1.41	lb/MMft³	0.2	lb/10³ gal	0.76	lb/10³ gal	0.3	1.4	0.3	1.4		
	2.0	%																	
			Formaldehyde					n/a		405	lb/10¹² Btu	405	lb/10¹² Btu			0.026	0.115		
			Antimony					n/a		46	lb/10¹² Btu	46	lb/10¹² Btu			0.003	0.013		
			Arsenic					n/a		114	lb/10¹² Btu	114	lb/10¹² Btu			0.007	0.032		
			Berylium					n/a		4.2	lb/10¹² Btu	4.2	lb/10¹² Btu			0.000	0.001		
			Cadmium					n/a		211	lb/10¹² Btu	211	lb/10¹² Btu			0.014	0.060		
			Cromium					n/a		128	lb/10¹² Btu	128	lb/10¹² Btu			0.008	0.036		
			Cobalt					n/a		121	lb/10¹² Btu	121	lb/10¹² Btu			0.008	0.034		
			Lead					n/a		194	lb/10¹² Btu	194	lb/10¹² Btu			0.013	0.055		
			Manganese					n/a		74	lb/10¹² Btu	74	lb/10¹² Btu			0.005	0.021		
			Mercury					n/a		32	lb/10¹² Btu	32	lb/10¹² Btu			0.002	0.009		
			Nickel					n/a		2330	lb/10¹² Btu	2330	lb/10¹² Btu			0.151	0.663		
			Selenium					n/a		38	lb/10¹² Btu	38	lb/10¹² Btu			0.002	0.011		

TOTAL	*Lb/Hr*	*Tons/Yr*
PM	*32.1*	*140.7*
PM10	*23.1*	*101.0*
SO2	*464.3*	*2033.5*
NOx	*127.6*	*558.8*
CO	*10.2*	*44.9*
VOC	*1.3*	*5.8*

HERCULES

Interoffice Memo

cc: E. P. Trotter
D. W. Linde
G. Shelley
W. Langhans
D. Flanner

Hattiesburg, MS
July 25, 1989

To: P. W. Kirkendall

From: C. S. Jordan

AIR SAMPLING SUMMARY

The attachment is a summary of air sampling results for emission points as required in our permit to operate air emission equipment.

Test results are shown as the average of three-one hour samplings. The flowrates are in SCFH and the VOC in lbs/hr unless indicated otherwise. Analyses other than VOC are also indicated. The lbs/yr does not take into account actual operating hours.

Rather than going through a lengthy discussion of each sampling results please let me know if you have specific questions about any of the results.

CSJ:ml

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ml0011/1

SAMPLING PLAN

Emission Point	Definition	Sampling	RESULTS								
			FLOW SCFH				V.O.C. (lbs/hr)				
			#1	#2	#3	AVG	#1	#2	#3	AVG	LBS/YR
010	Rosin Process Area	Storage tank data forms	(Tanks E,L,P,R,W,Y,TX)								
011	Mill Room Area	Area down.	(Down)								
012	Extractor, Refinery, and Still House Combination Water and Oil Scrubber	Area down.	(Down)								
013	Pexite Plant Oil Scrubber	EPA Method 25 for VOC.	123	160	149	144	0.468	0.885	0.873	0.742	6,500
020	Delnav Plant	Area permanently shut down by year's end.	(Down)								
021	Flare Tower	Calculation for sulfur dioxide for banking.	124,288 lbs. H_2S ⟶ 233,954 lbs. SO_2 (CY-1987)								
022	Limestone Tank No. 1	See Emission Point 020.	(Down)								
023	Limestone Tank No. 2	See Emission Point 020.	(Down)								
024	Digestion Sump Vent	EPA Method 25 for VOC for banking.	(Down)								
030	Poly-Pale Plant	Storage tank data forms	(Tanks T)								
031	McKee Boiler	By calculation for natural gas	2,475 MCF/Yr. of Natural Gas								
032	McKee Boiler	By calculation for natural gas	2,475 MCF/Yr. of Natural Gas								
033	Water Scrubber (2 vents)	EPA Method 25 for VOC, plus sulfur dioxide impinger trap, plus toluene by G.C. for East and West vents.	4.14	0.009	0.01	1.39	6.48^{-4} 2.4^{-3} 6.84^{-4}	1.12^{-5} 1.56^{-5} 5.29^{-5}	4.21^{-6} 6.18^{-5} 4.31^{-6}	2.21^{-4} 8.25^{-4} 2.47^{-4}	1.9 (EAST) 7.2 (SO_2) 2.2 (Tolu

ml0011/2

SAMPLING PLAN

Emission Point	Definition	Sampling	RESULTS FLOW SCFH #1	#2	#3	AVG	V.O.C. (lbs/hr) #1	#2	#3	AVG	LBS/YR
033	(Continued)		554	288	370	404	0.836 1.093 0.834	1.254 0.691 0.766	2.07 0.924 1.220	1.39 0.903 0.94	12,147 (We 7,907 (SO_2 8,234 (Tol
034	Heat Treatment	No vent									
040	Rosin Shed	Storage tank data forms	(Tanks B)								
041	Drumming Operation	Per our discussion we propose not to sample.	(Did not sample)								
042	Flaking Belt Vapor Water Scrubber	EPA Method 25 for VOC	0	0	0	0	1,346 ppm	1,418 ppm	4,518 ppm	2,427 ppm	No flow
043	Flaking Belt Dust Water Scrubber	EPA Method 5 for particulate	23,108	21,981	23,998	23,029	0.374	0.40	0.470	0.415	3,634
050	Package Boiler No. 5	By calculation for natural gas	842,277 MCF/yr. of Natural Gas								
060	Vinsol Resin Process	Storage tank data forms	(Tanks VN)								
061	Sealas Furnace No. 1	By calculation for natural gas	121 MCF/Yr. of Natural Gas								
062	Sealas Furnace No. 2	Identical to Emission Point 061	(Spare)								
063	Water Scrubber Kettle No. 1	EPA Method 25 for VOC	219	240	212	224	0.217	0.416	0.294	0.309	2,707
064	Water Scrubber Kettle No. 2	Identical to Emission Point 063	(Only one scrubber - See 063)								

ml0011/3

SAMPLING PLAN

Emission Point	Definition	Sampling
070	Truline Flaking and Packaging Area	Storage tank data forms
071	Flaking Belt Vapor Water Scrubber	EPA Method 25 for VOC
072	Dracco Baghouse Model 20-S	EPA Method 5 for particulates
073	Pangborn Baghouse Modal 600	EPA Method 5 for particulates
080	Hard Resins Area	Storage tank data forms
081	Struthers-Wells Boiler	By calculation for natural gas
082	Water Scrubber	EPA Method 25 for VOC, plus Maleic Anhydride by G.C.
090	Continuous Esterification Area	Storage tank data forms
091	Foster Wheeler Boiler	By calculation for natural gas
092	Continuous Esterification Unit	EPA Method 25 for VOC
100	Hard Resins Flaking House	Storage tank data forms

RESULTS

FLOW SCFH				V.O.C. (lbs/hr)				
#1	#2	#3	AVG	#1	#2	#3	AVG	LBS/
(Tanks VN)								
143	142	138	141	1.65^{-3}	6.71^{-3}	4.19^{-3}	4.18^{-3}	3
85,224	92,547	92,082	89,951	0.154	0.184	0.127	0.155	1,35
(Removed)								
(Tanks S)								
35,146 MCF/Yr. of Natural Gas								
86,258	86,258	82,059	84,858	9.14	8.12	16.54	11.27	98,69
(Tanks S)								
11,715 MCF/Yr. of Natural Gas								
(Awaiting Data)								
(Tanks S)								

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SAMPLING PLAN

Emission Point	Definition	Sampling	FLOW SCFH #1	FLOW SCFH #2	FLOW SCFH #3	FLOW SCFH AVG	RESULTS V.O.C. (lbs/hr) #1	#2	#3	AVG	LBS/YR
101	Bvell Norbo Dust Collector	EPA Method 5 for particulates	487,959	50,510	465,287	467,918	0.651	0.673	0.842	0.722	6,325
102	Flaking Belt Vapor Water Scrubber	EPA Method 25 for VOC	406,603	425,254	426,495	419,450	10.14	3.40	6.11	6.55	57,378
110	Foral and Staybelita Plant	Storage tank data forms	(Tanks FL,H)								
111	Struthers-Wells Boiler	By calculation for natural gas	10,462 MCF/Yr. of Natural Gas								
112	Hydrogen Process	EPA Method 25 for VOC									
120	Hydrogen Furnace	Storage tank data forms	1,677	1,859	2,006	1,847	0.147	0.484	0.352	0.328	2,870
130	Pilot Plant Area	Storage tank data forms	(Tanks S)								
131	Struthers-Wells Boiler	By calculation for natural gas	(Tanks LB)								
			232 MCF/Yr. of Natural Gas								
132	Vent No. 1	Area down.									
133	Vent No. 2	Area down.	(Down)								
140	Resin 731 Area	Storage tank data forms	(Down)								
150	Stills and Dresinate Area	Storage tank data forms	(Tanks D)								
			(Tanks D, RS)								
151	Foster-Wheeler Boiler	By calculation for natural gas	8,160 MCF/Yr. of Natural Gas								

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SAMPLING PLAN

Emission Point	Definition	Sampling	RESULTS FLOW SCFH #1	#2	#3	AVG	V.O.C. (lbs/hr) #1	#2	#3	AVG	LBS/YR
160	Kymene Plant	Storage tank data forms	(Tanks K)								
161	Kettle Water Aspirator	EPA Method 25 for VOC, plus Epichlorohydrin by G.C.	0	0	0	0	18,595ppm 0	8,320 ppm 137 ppm	3,134ppm 16 ppm	10,016 ppm 51 ppm	0 0 (EP
162	Dust Collector	EPA Method 5 for particulates	36,251	35,071	33,635	34,985	0.307	0.266	0.0635	0.212	1,858
170	Defoamer Plant	Storage tank data forms	(Tanks DP)								
171	Silica Drier Furnace	By calculation for natural gas	1,918 MCF/Yr. of Natural Gas								
172	Dust Collector	EPA Method 5 for particulates	81,235	78,154	77,215	78,868	6.246	0.782	0.961	2.669	23,380
180	Rosin Amine D Plant	Storage tank data forms	(Tanks RA)								
181	Struthers-Wells Boiler	By calculation for natural gas	24,515 MCF/Yr. of Natural Gas								
182	Ammoniation Water Scrubber	EPA Method 25 for VOC plus ammonia impinger trap	0	0	0	0	36.6% 2,534 ppm	41.7% 2,422 ppm	34.7% 2,489 ppm	37.7% 2,482 ppm	0 (NH_3)
183	Amine Reactor Water Scrubber	EPA Method 25 for VOC	0	0	0	0	2.53%	1.96%	1.63%	2.04%	0
190	Polyrad and Polyol Area	Storage tank data forms, plus EPA Method 25 for VOC, plus ethylene oxide by G.C.	(Tanks RA) 0	0	0	0	2.23% 6,056 ppm	2.96% 8,457 ppm	2.32% 5,666 ppm	2.50% 6,726 ppm	0 0(E.O
200	Para-menthane Unit	Area down.	(Down)								
210	Para-menthane Hydro-peroxide Unit	Area down.	(Down)								

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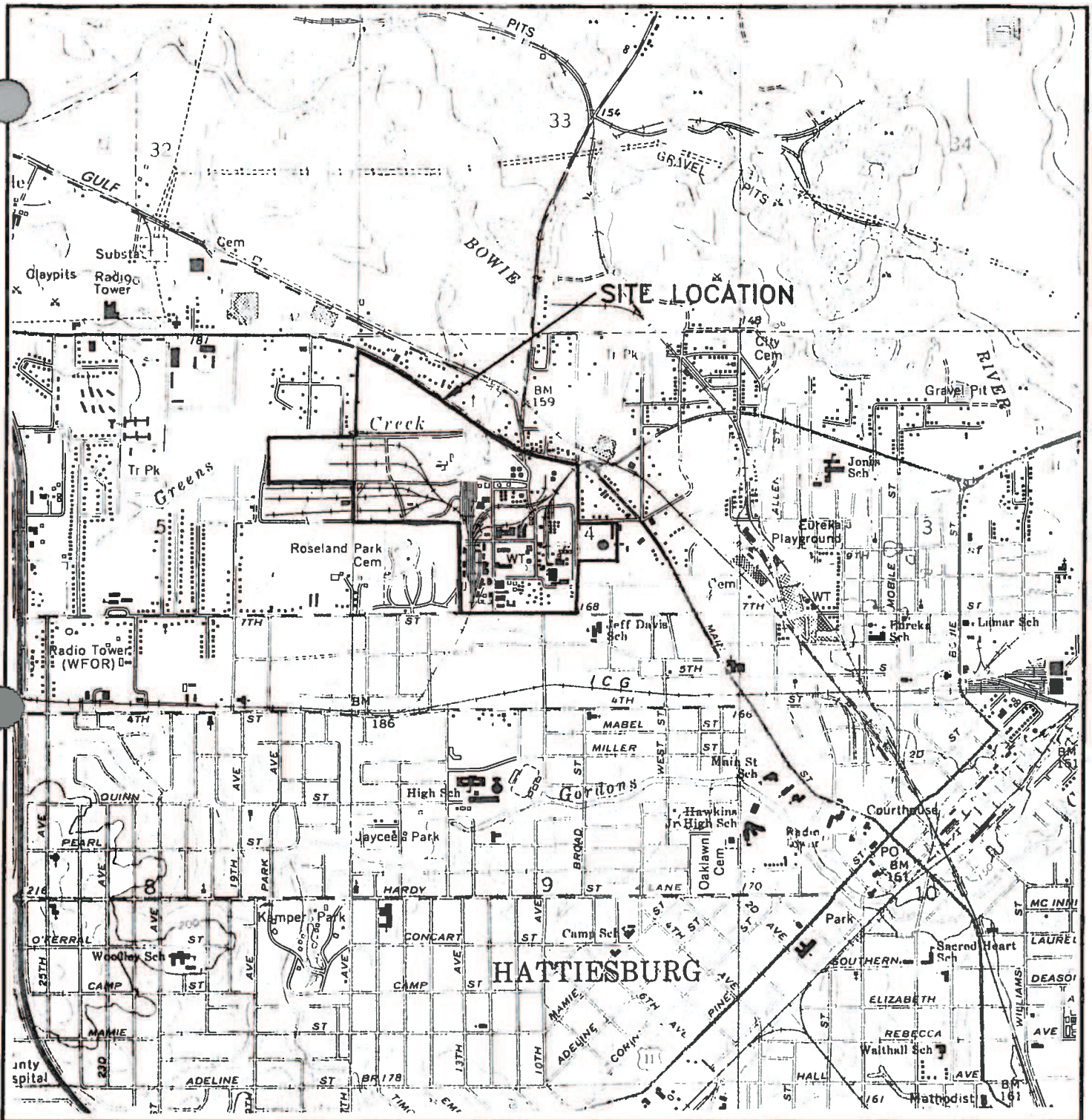
SAMPLING PLAN

Emission Point	Definition	Sampling
220	Sulfate Turpentine Refining Unit	Area down.
230	Carbon Regeneration Furnace Scrubber	EPA Method 25 for VOC
240	Murry Boiler	By calculation for natural gas
152	Stills and Dresinate Area	Storage tank data forms
250	Para-cymene Unit	Storage tank data forms
260	Synthetic Pine Oil Facility	Storage tank data forms
270	Paracol Plant	Storage tank data forms
038	Neuphor Plant	Storage tank data forms, plus VOC

RESULTS

FLOW SCFH				V.O.C. (lbs/hr)				
#1	#2	#3	AVG	#1	#2	#3	AVG	LBS/YR
(Down)								
101,962	101,499	103,826	102,429	13.62	3.24	5.15	7.34	64,269
267,443 MCF/Yr. of Natural Gas								
(Tanks D,PS)								
(Tanks HP)								
(Tanks TC)								
(Tanks DP)								
(Tanks T)								
269	260	289	273	8.54^{-3}	1.7^{-2}	3.88^{-3}	0.01	86

MASS BALANCE SHEETS
see attached Appendix D, Confidential Business Information



MISS.

QUADRANGLE LOCATION

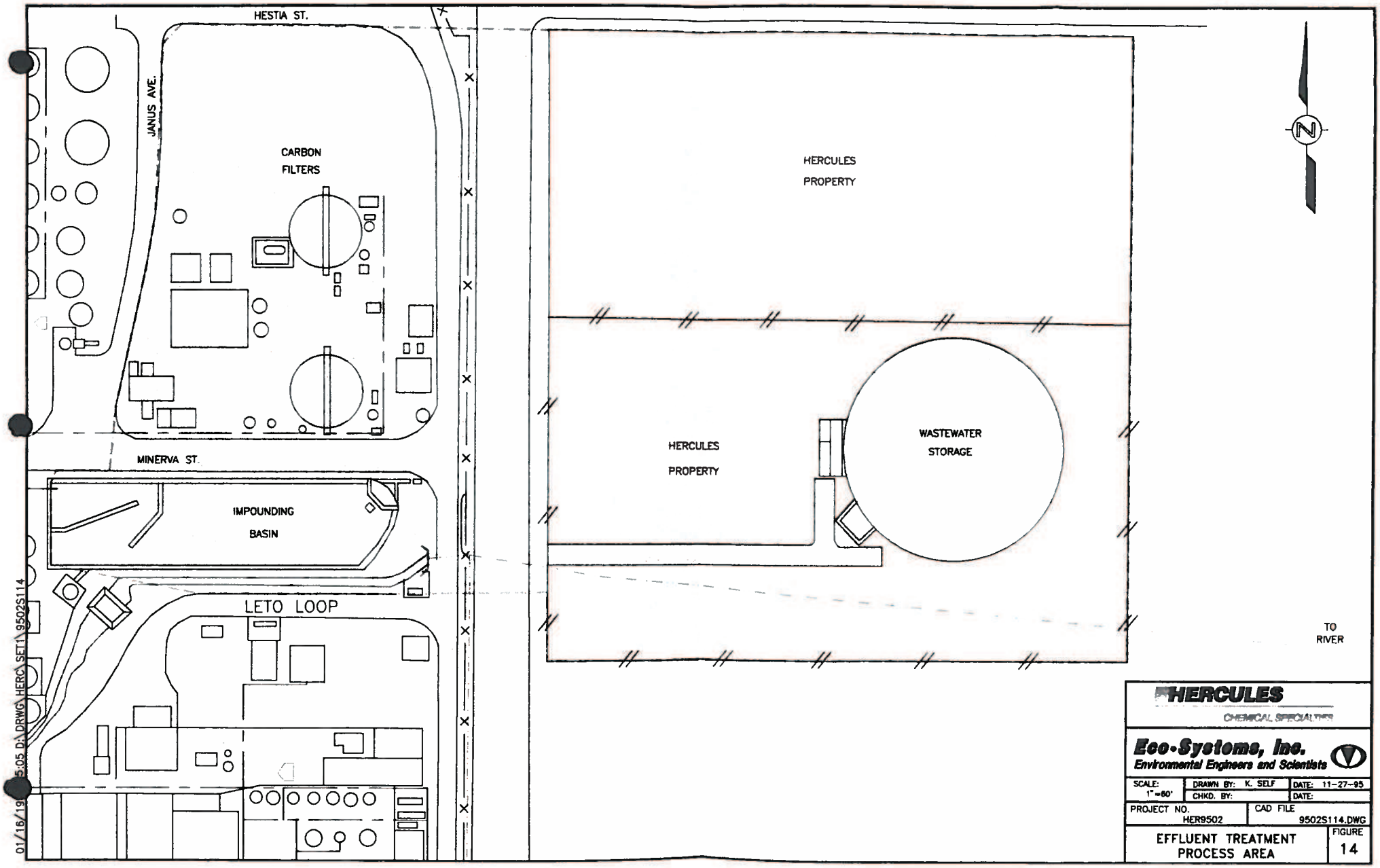
SOURCE:
U.S.G.S. 7.5 MINUTE QUADRANGLE MAP,
HATTIESBURG, MISSISSIPPI 1964

HERCULES
CHEMICAL SPECIALTIES

Eco•Systems, Inc.
Environmental Engineers and Scientists

SCALE: 1"=2000'	DRAWN BY: K. SELF	DATE: 12-29-95
	CHKD. BY:	DATE:
PROJECT NO. HER9502	CAD FILE GEOMAP.DWG	

SITE LOCATION



HERCULES
CHEMICAL SPECIALTIES

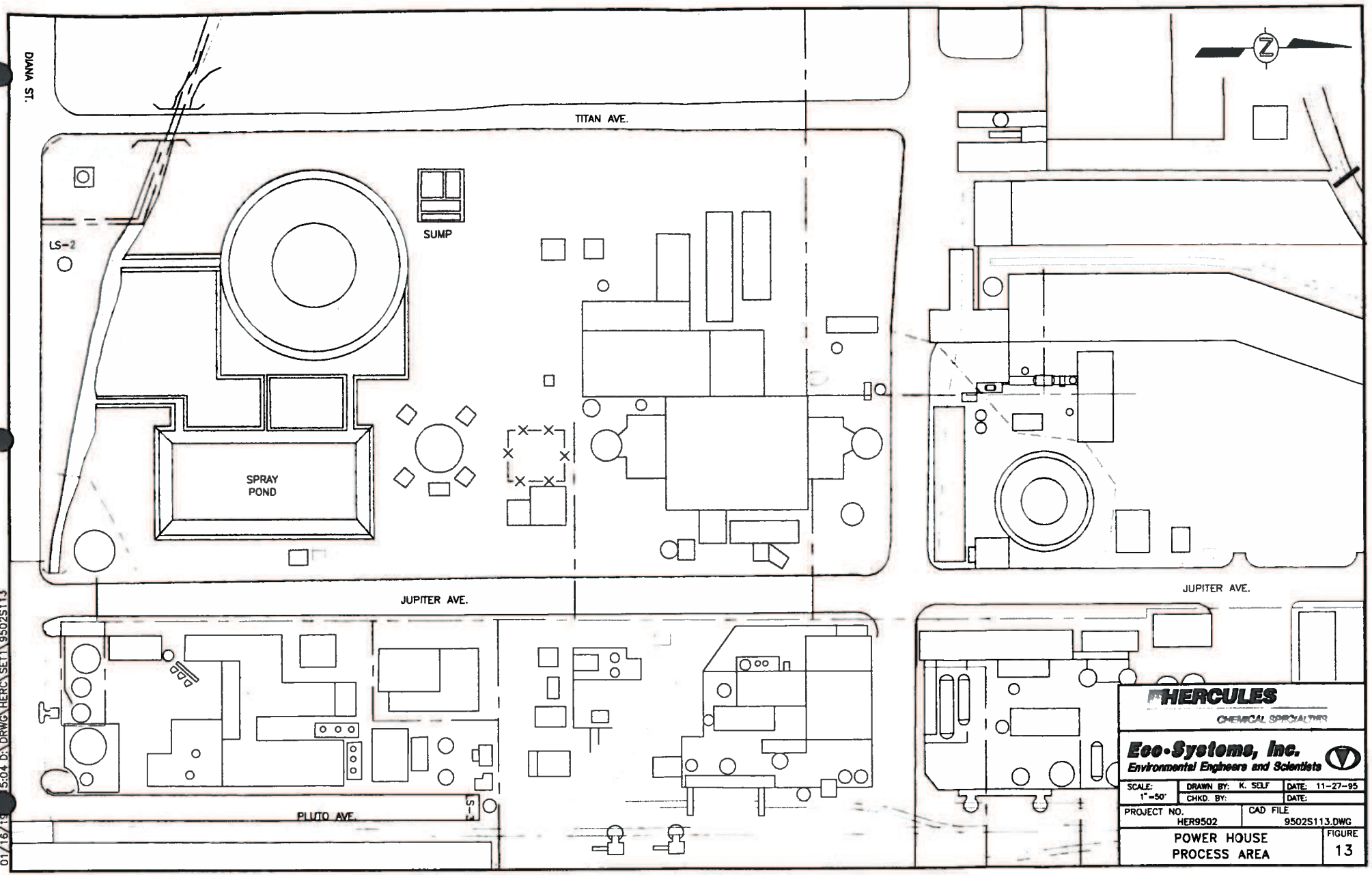
Eco-Systems, Inc.
Environmental Engineers and Scientists

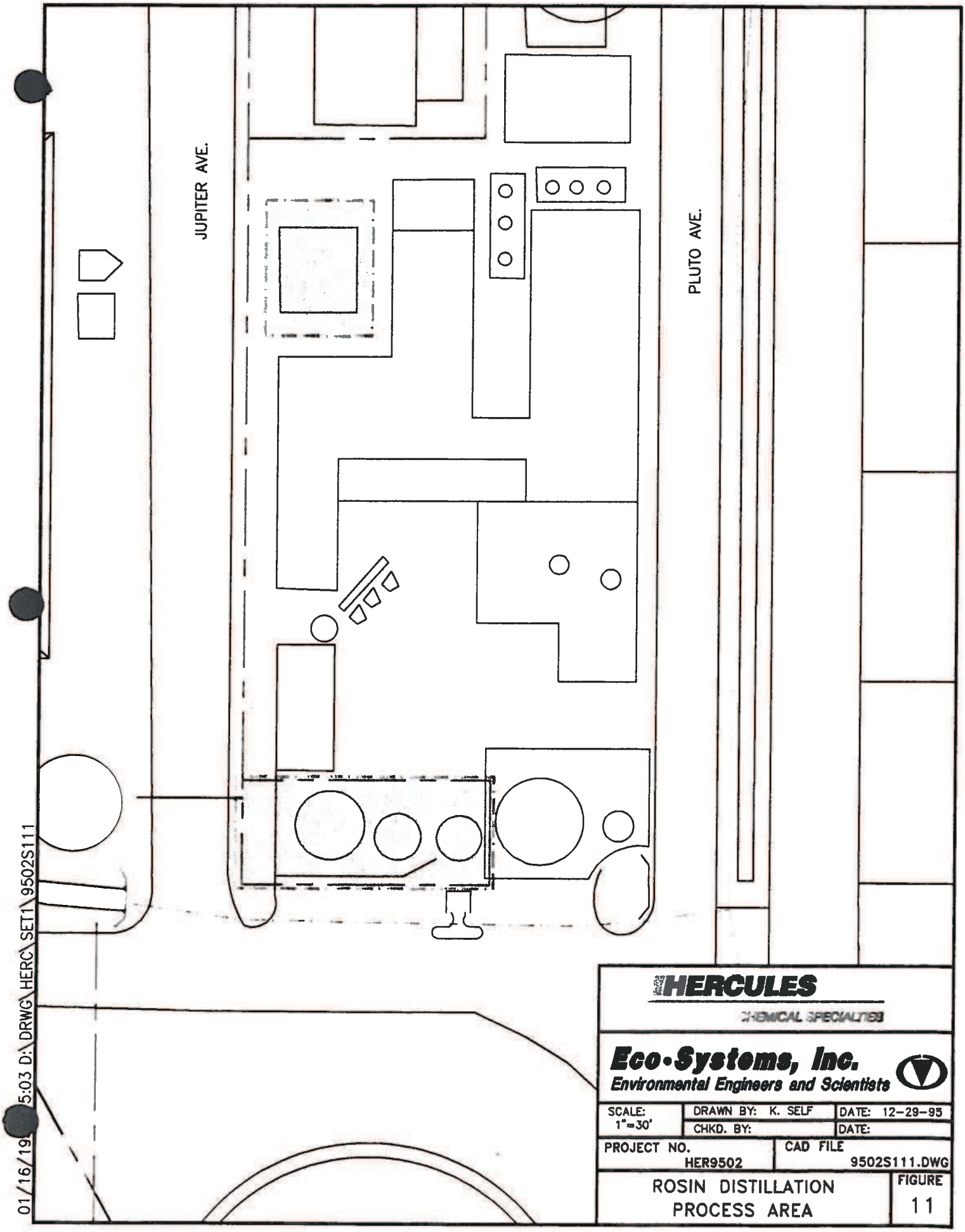
SCALE: 1"=60'	DRAWN BY: K. SELF	DATE: 11-27-95
	CHKD. BY:	DATE:
PROJECT NO. HER9502	CAD FILE 9502S114.DWG	

EFFLUENT TREATMENT PROCESS AREA

FIGURE 14

01/16/19 5:05 D:\DRWG\HERC\SET1\9502S114


DIANA ST.
TITAN AVE.
LS-2
SUMP
SPRAY
POND
JUPITER AVE.
JUPITER AVE.
PLUTO AVE.
LS-1
HERCULES
CHEMICAL SPECIALTIES
Eco-Systems, Inc.
Environmental Engineers and Scientists
SCALE: 1"=50'
DRAWN BY: K. SELF
DATE: 11-27-95
CHKD. BY:
DATE:
PROJECT NO. HER9502
CAD FILE 95025113.DWG
POWER HOUSE
PROCESS AREA
FIGURE 13
01/16/19 5:04 D:\DRWG\HERC\SET1\95025113



HERCULES
CHEMICAL SPECIALTIES

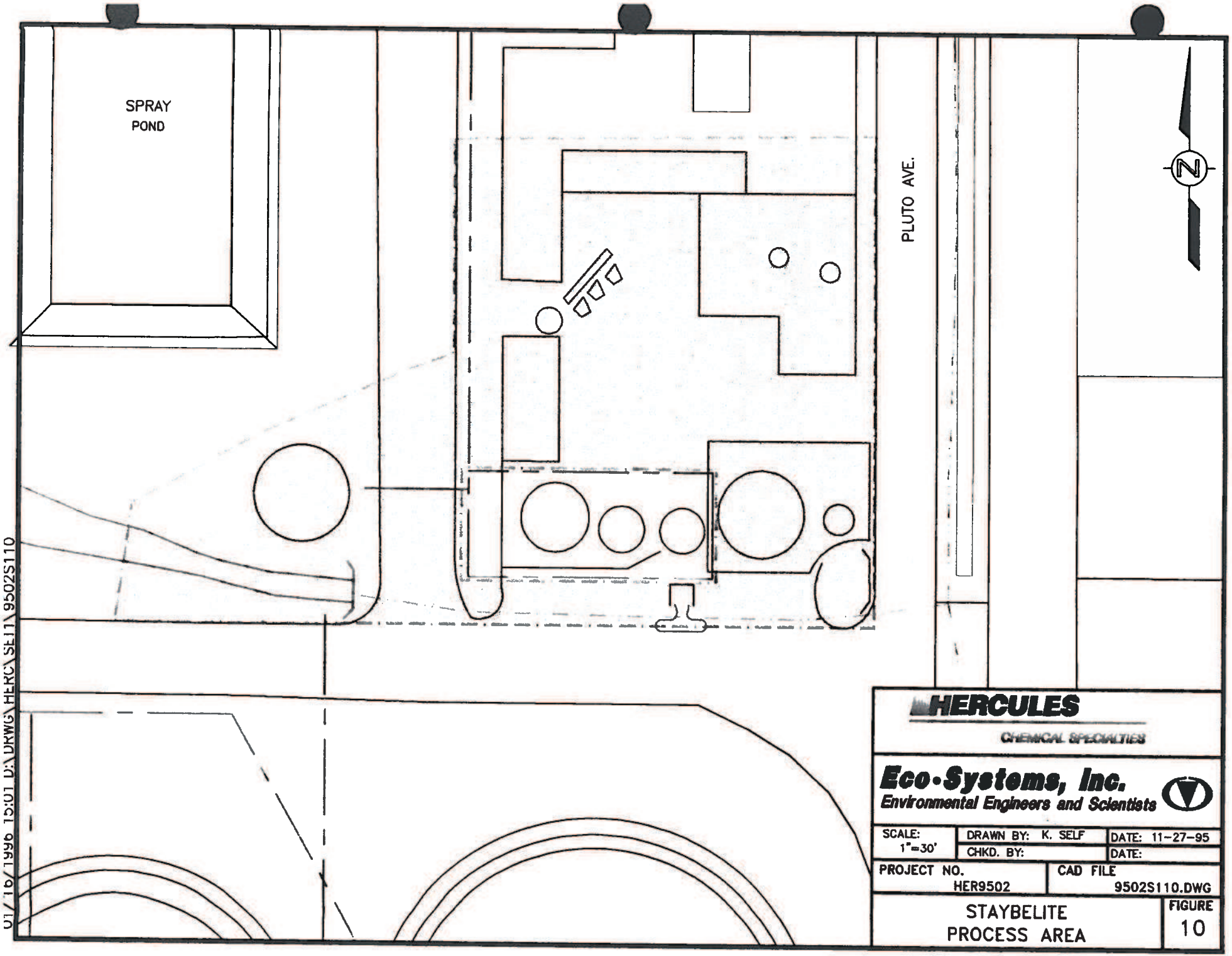
Eco-Systems, Inc.
Environmental Engineers and Scientists

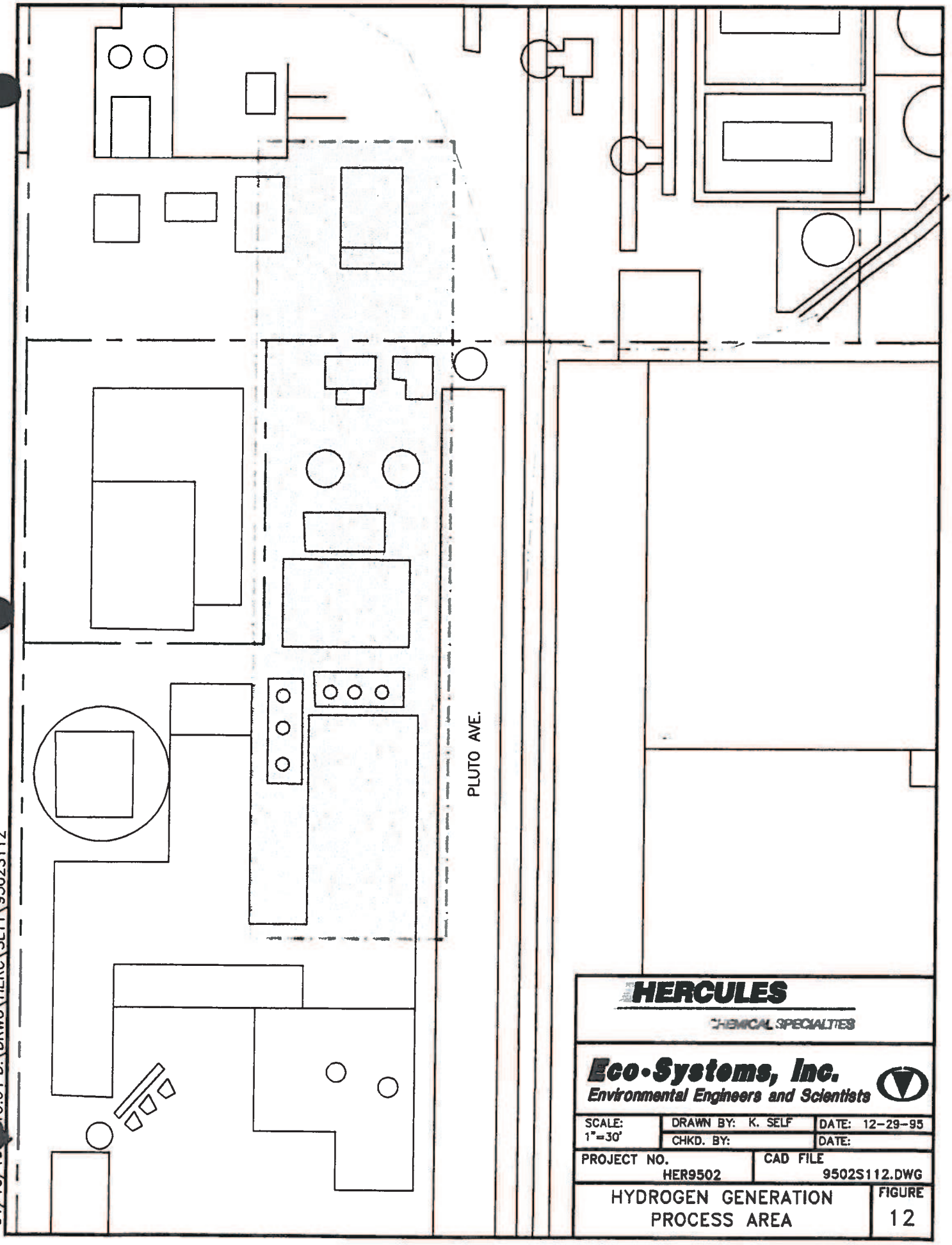
SCALE: 1"=30'	DRAWN BY: K. SELF	DATE: 12-29-95
	CHKD. BY:	DATE:
PROJECT NO. HER9502	CAD FILE 9502S111.DWG	

ROSIN DISTILLATION PROCESS AREA

FIGURE 11

01/16/19 5:03 D:\DRWG\HERC\SET1\9502S111


SPRAY
POND
PLUTO AVE.
N
HERCULES
CHEMICAL SPECIALTIES
Eco-Systems, Inc.
Environmental Engineers and Scientists
SCALE: 1"=30'
DRAWN BY: K. SELF
DATE: 11-27-95
CHKD. BY:
DATE:
PROJECT NO. HER9502
CAD FILE 9502S110.DWG
STAYBELITE
PROCESS AREA
FIGURE 10
01/16/1996 15:01 D:\DWG\HERC\SE11\9502S110



HERCULES
CHEMICAL SPECIALTIES

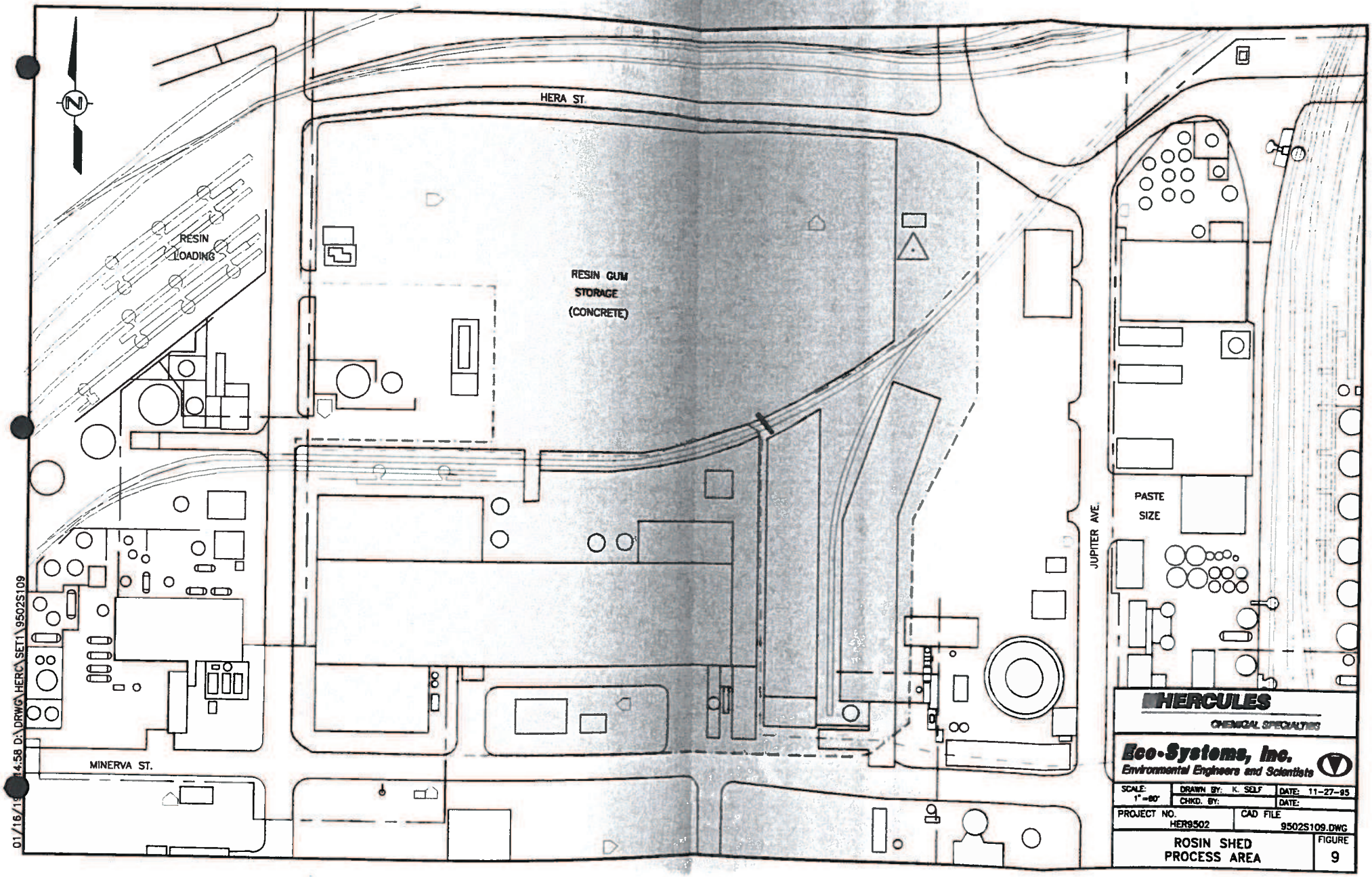
Eco·Systems, Inc.
Environmental Engineers and Scientists

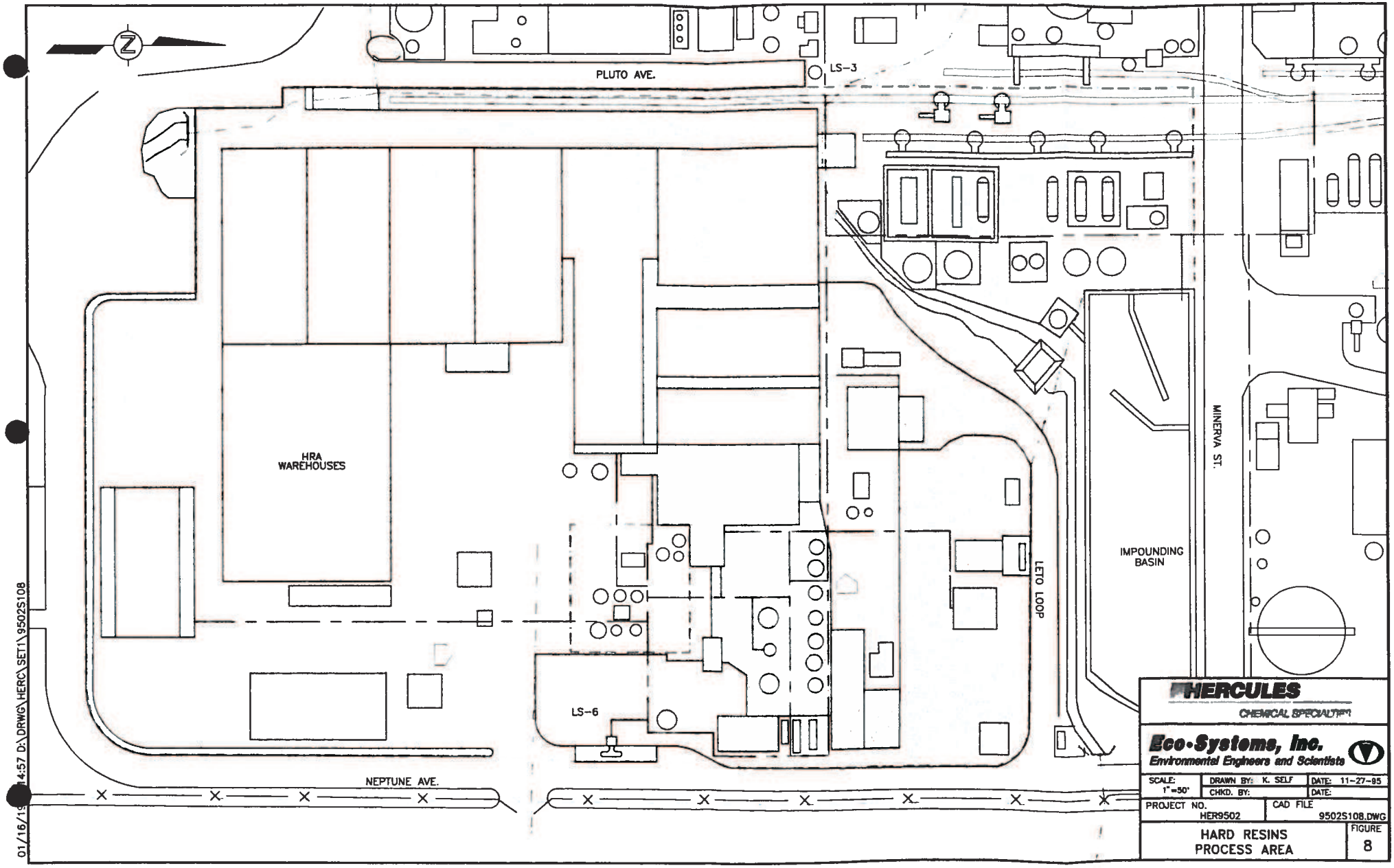
SCALE: 1"=30'	DRAWN BY: K. SELF	DATE: 12-29-95
	CHKD. BY:	DATE:
PROJECT NO. HER9502	CAD FILE 9502S112.DWG	

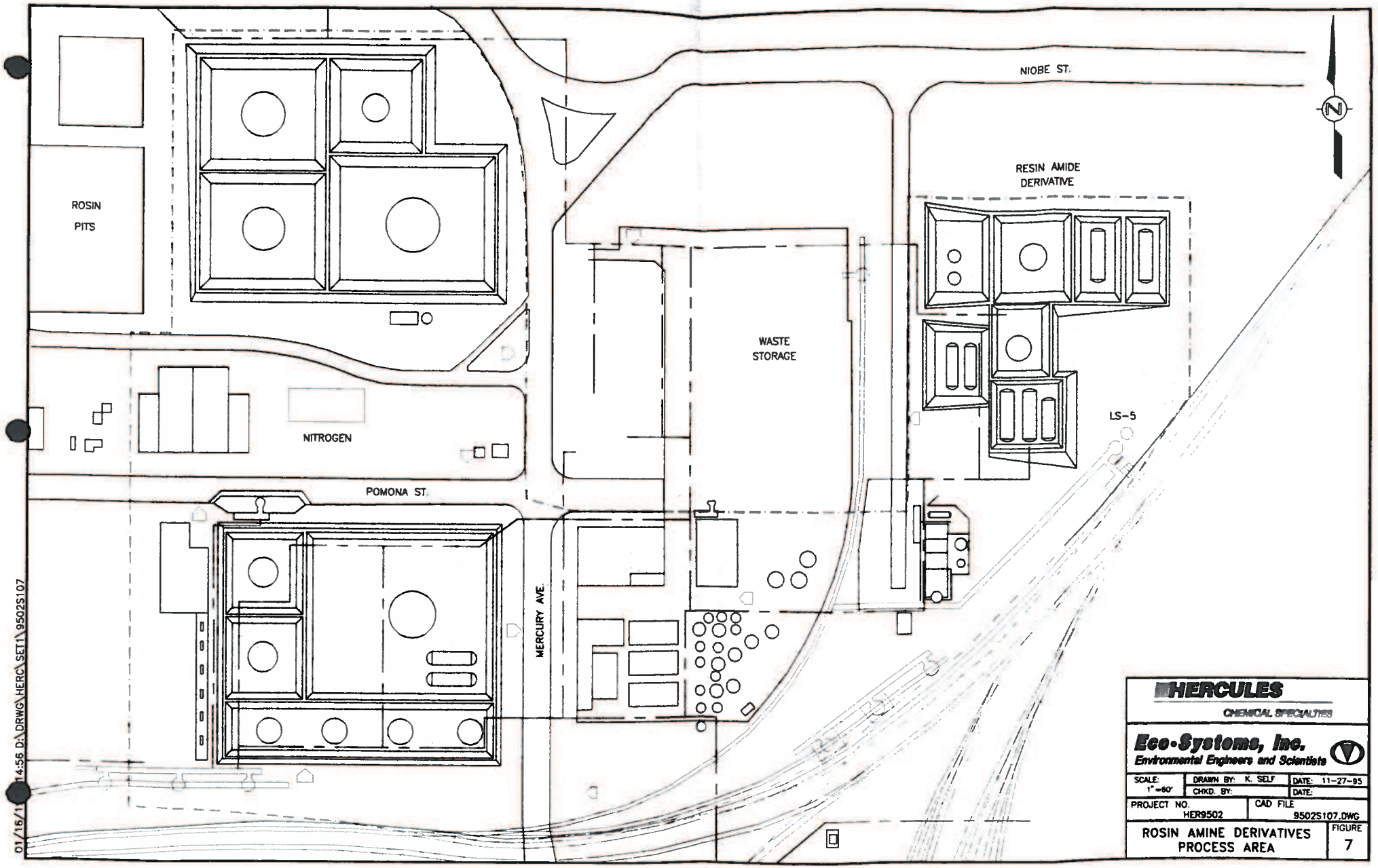
HYDROGEN GENERATION PROCESS AREA

FIGURE 12

01/16/19 15:04 D:\DRWG\HERC\SET1\9502S112


HERA ST.
RESIN LOADING
RESIN GUM STORAGE (CONCRETE)
PASTE SIZE
JUPITER AVE.
MINERVA ST.
HERCULES
CHEMICAL SPECIALTIES
Eco-Systems, Inc.
Environmental Engineers and Scientists
SCALE: 1" = 80'
DRAWN BY: K. SELF
DATE: 11-27-95
CHKD. BY:
DATE:
PROJECT NO. HER9502
CAD FILE 9502S109.DWG
ROSIN SHED PROCESS AREA
FIGURE 9
01/16/1 14:58 D:\DRWG\HERC\SET1\9502S109


PLUTO AVE.
LS-3
HRA
WAREHOUSES
MINERVA ST.
IMPOUNDING
BASIN
LETO LOOP
LS-6
NEPTUNE AVE.
HERCULES
CHEMICAL SPECIALTIES
Eco-Systems, Inc.
Environmental Engineers and Scientists
SCALE: 1" = 50'
DRAWN BY: K. SELF
DATE: 11-27-95
CHKD. BY:
DATE:
PROJECT NO. HER9502
CAD FILE 9502S108.DWG
HARD RESINS
PROCESS AREA
FIGURE 8
01/16/19 14:57 D:\DRWG\HERC\SET1\9502S108



HERCULES
CHEMICAL SPECIALTIES

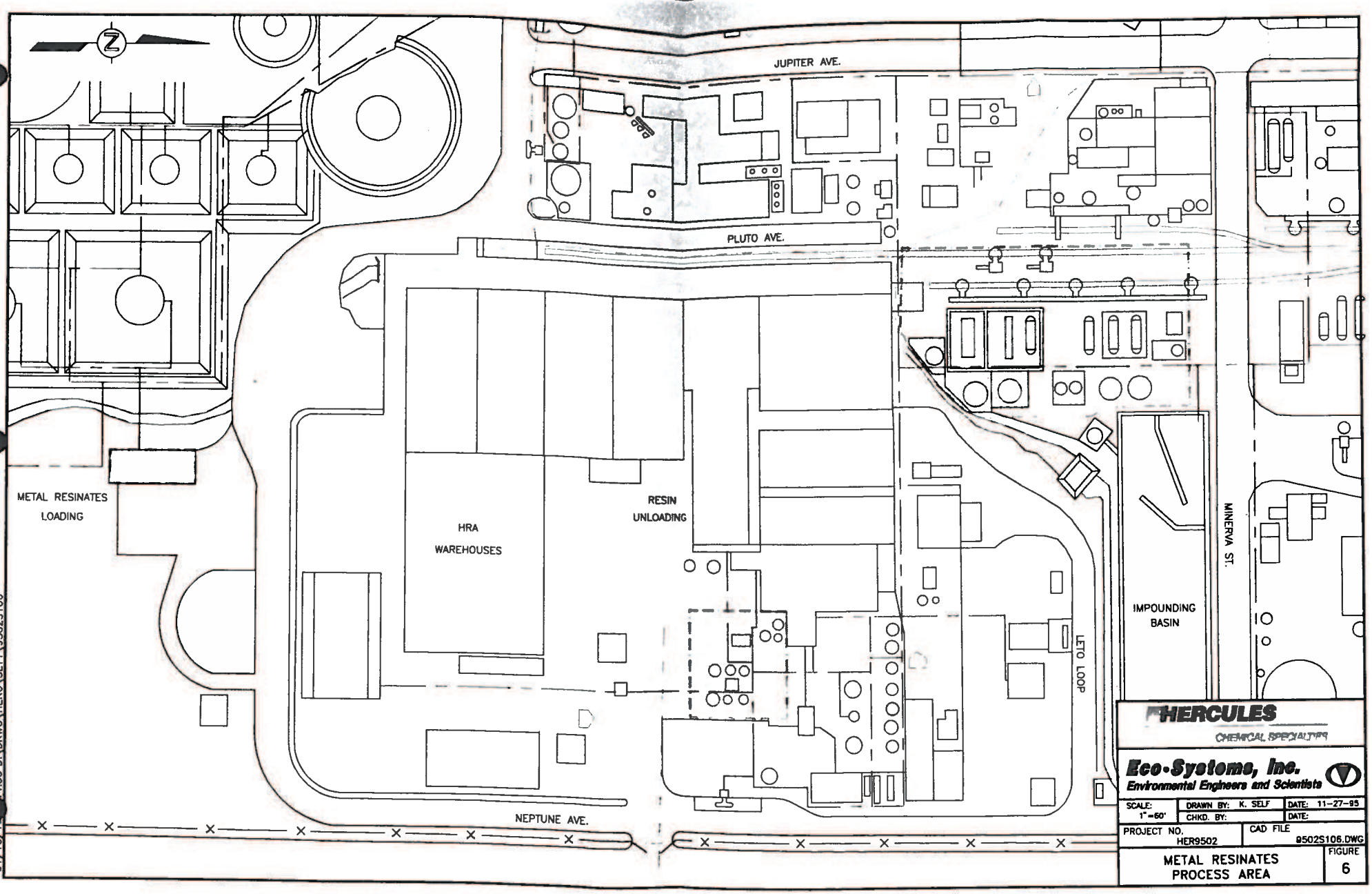
Eco-Systems, Inc.
Environmental Engineers and Scientists

SCALE: 1"=60'	DRAWN BY: K. SELF	DATE: 11-27-95
	CHKD. BY:	DATE:
PROJECT NO. HER9502	CAD FILE 9502S107.DWG	

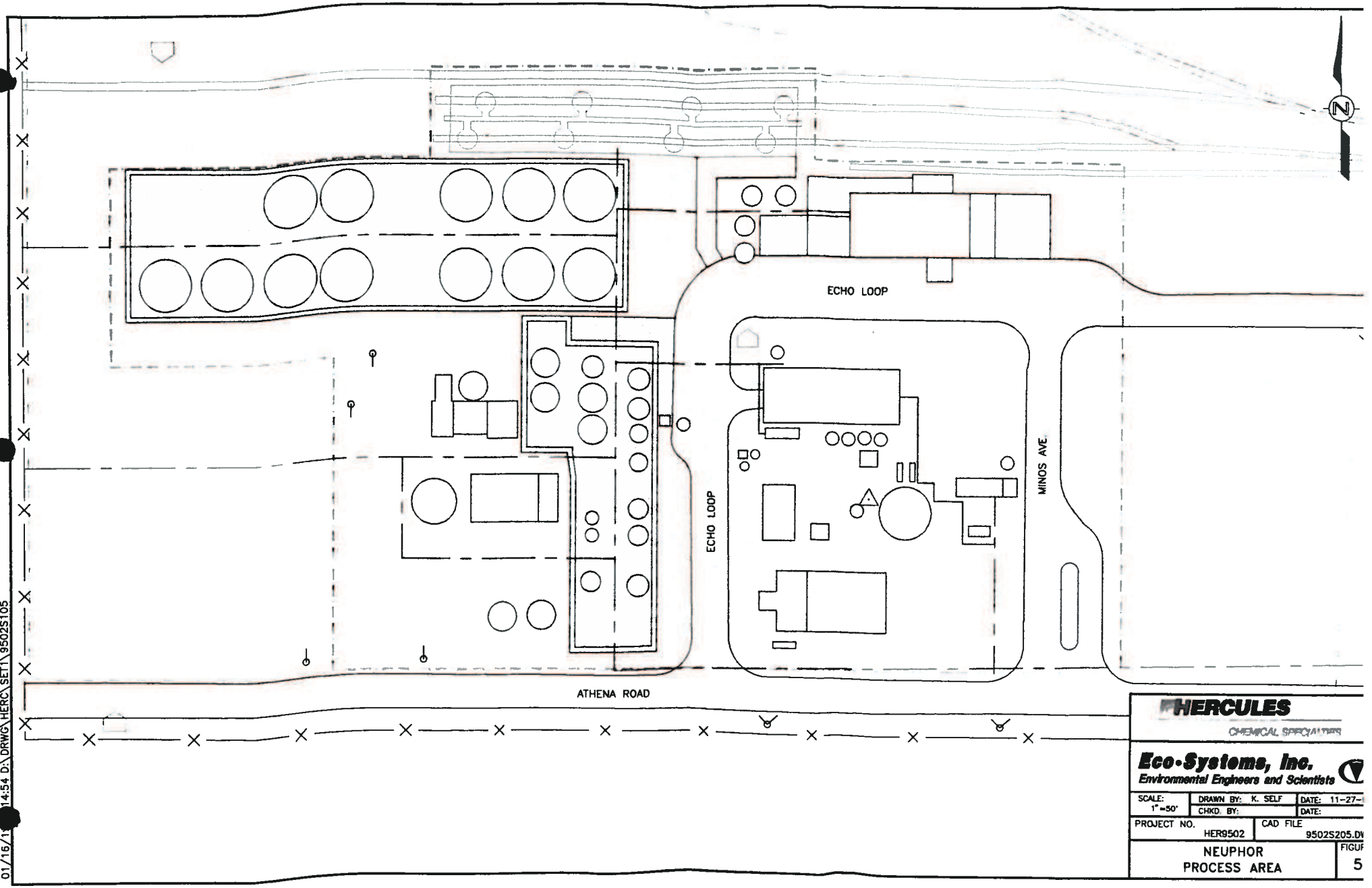
ROSIN AMINE DERIVATIVES PROCESS AREA

FIGURE 7

01/16/1 14:56 D:\DRWG\HERC\SET1\9502S107



01/16/19 14:55 D:\DRWG\HERC\SET1\9502S106



HERCULES
CHEMICAL SPECIALTIES

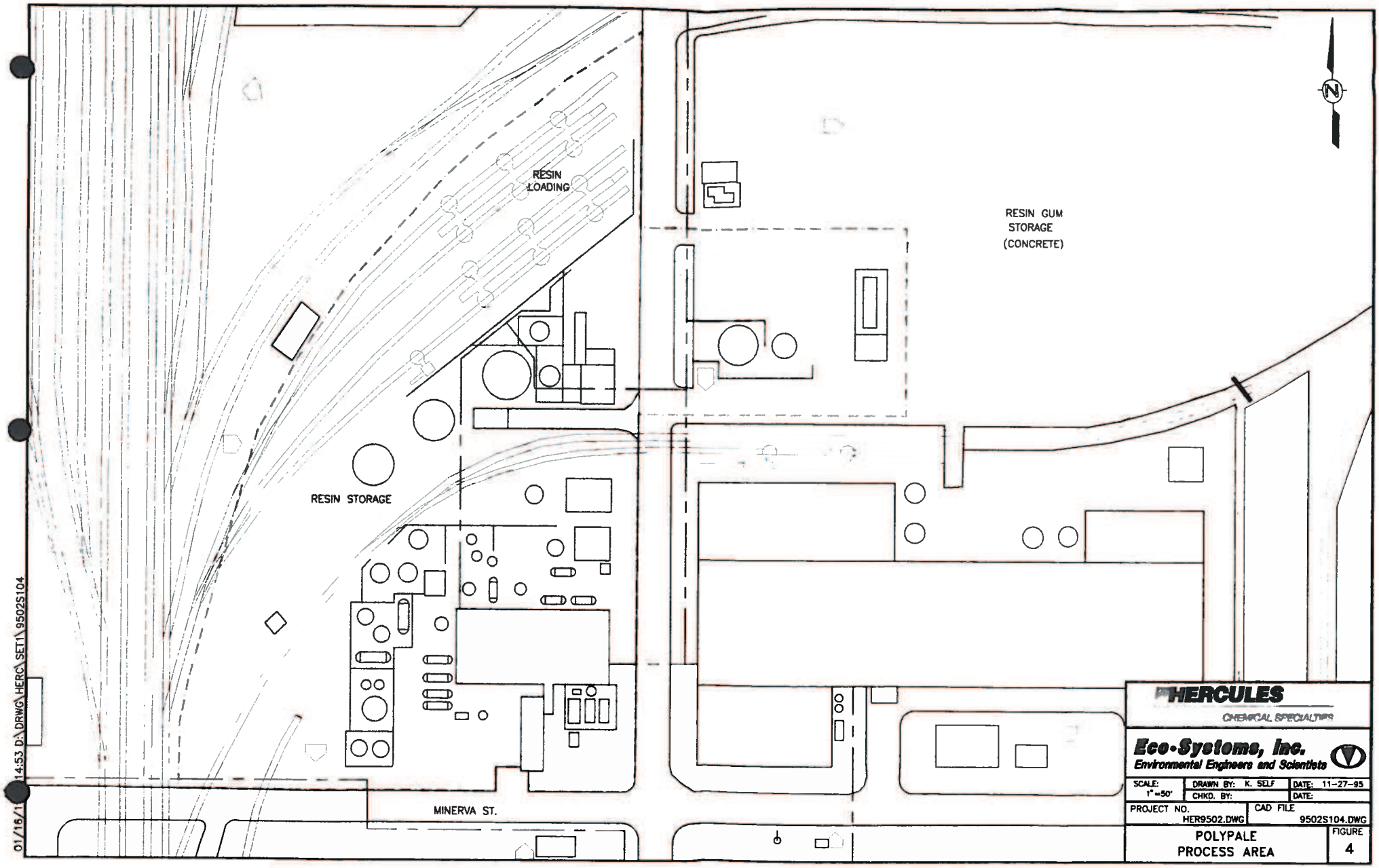
Eco-Systems, Inc.
Environmental Engineers and Scientists

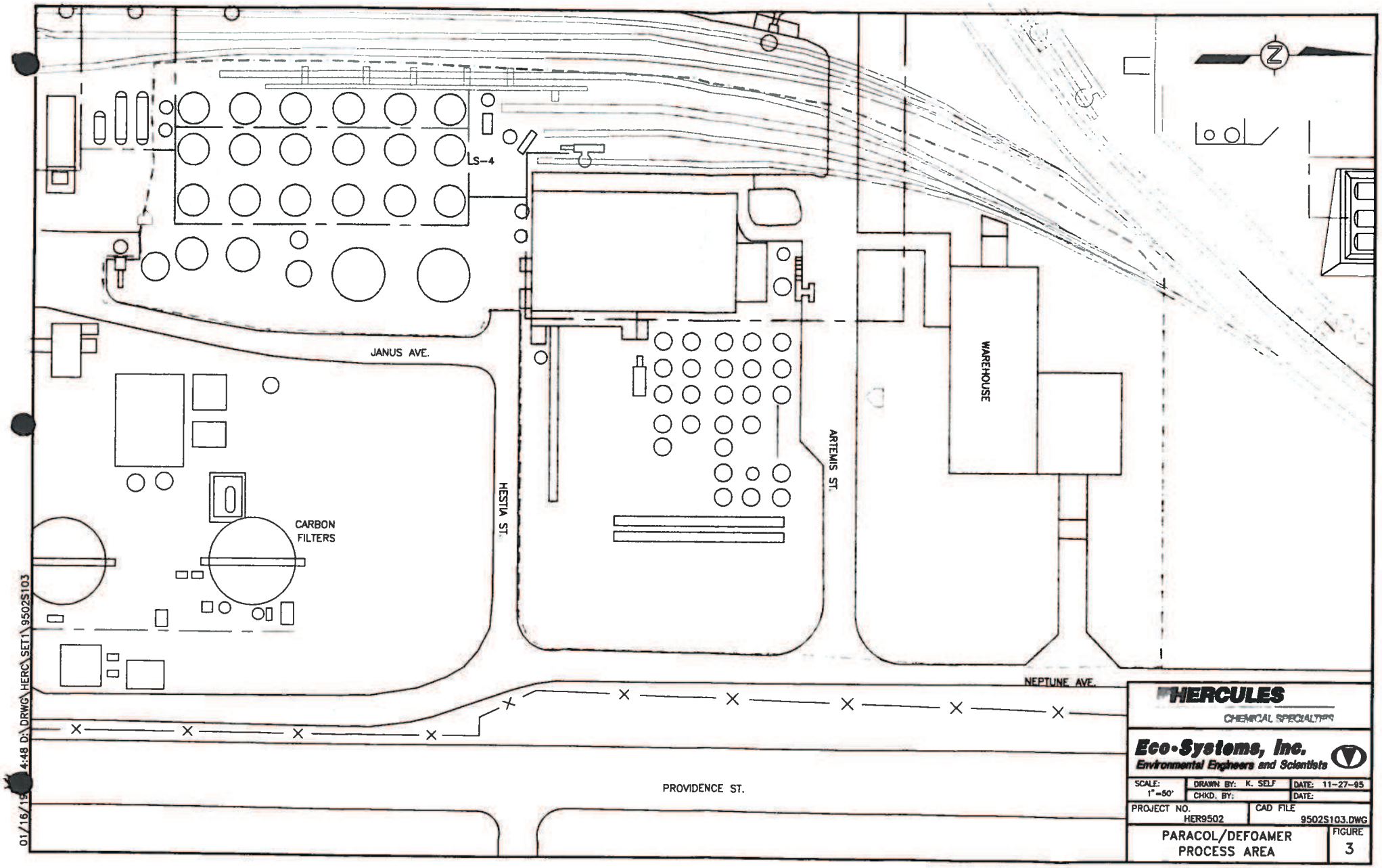
SCALE: 1"=50'	DRAWN BY: K. SELF	DATE: 11-27-
	CHKD. BY:	DATE:
PROJECT NO. HER9502	CAD FILE 9502S205.DW	

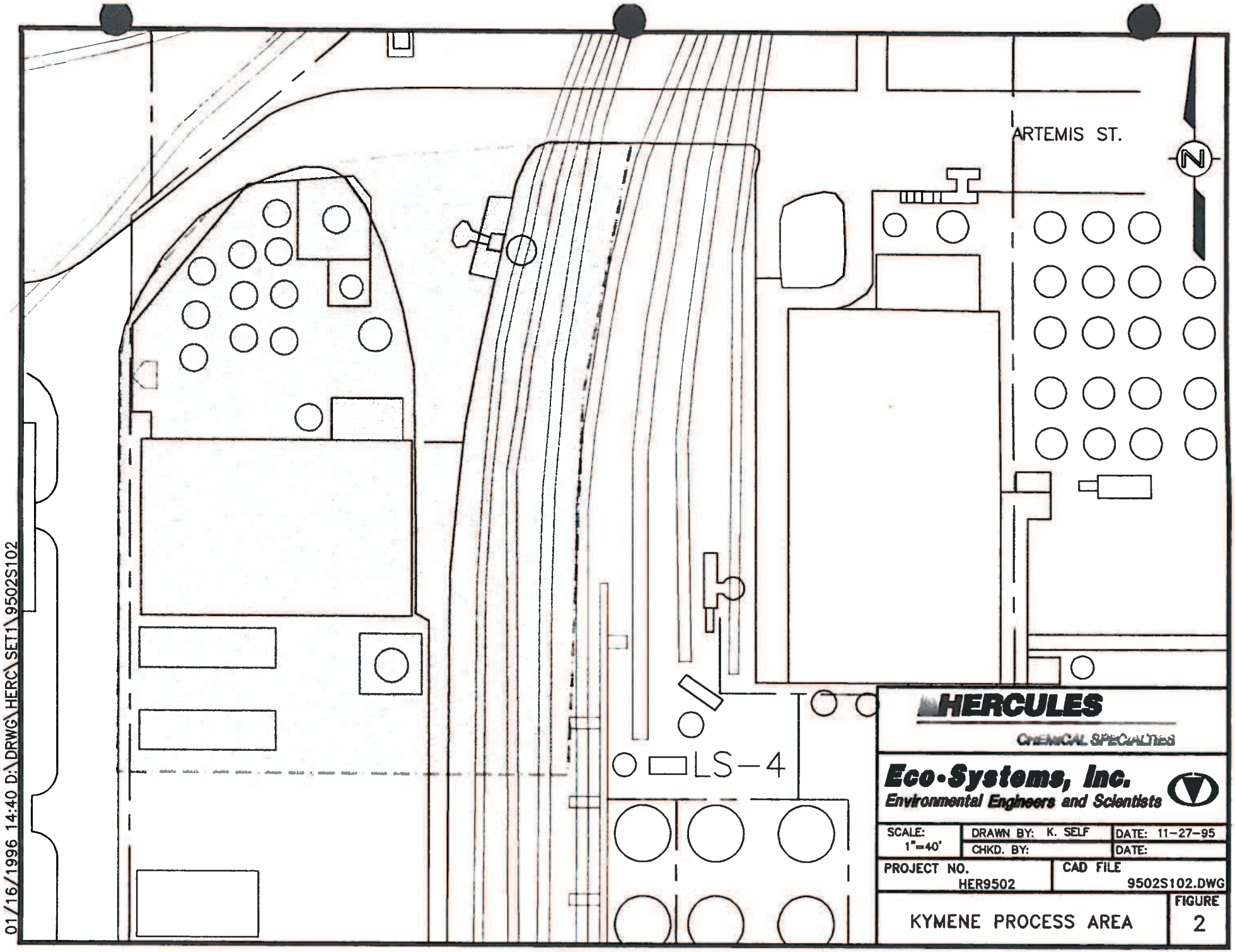
NEUPHOR
PROCESS AREA

FIGUR
5

01/16/1 14:54 D:\DRWG\HERC\SET1\9502S105


RESIN LOADING
RESIN GUM STORAGE (CONCRETE)
RESIN STORAGE
MINERVA ST.
N
HERCULES
CHEMICAL SPECIALTIES
Eco-Systems, Inc.
Environmental Engineers and Scientists
SCALE: 1"=50'
DRAWN BY: K. SELF
DATE: 11-27-95
CHKD. BY:
DATE:
PROJECT NO. HER9502.DWG
CAD FILE 9502S104.DWG
POLYPALE PROCESS AREA
FIGURE 4
01/16/1 14:53 D:\DRWG\HERC\SET1\9502S104


LS-4
JANUS AVE.
HESTIA ST.
ARTEMIS ST.
WAREHOUSE
CARBON FILTERS
NEPTUNE AVE.
PROVIDENCE ST.
N
HERCULES
CHEMICAL SPECIALTIES
Eco-Systems, Inc.
Environmental Engineers and Scientists
SCALE: 1"=50'
DRAWN BY: K. SELF
DATE: 11-27-95
CHKD. BY:
DATE:
PROJECT NO. HER9502
CAD FILE 9502S103.DWG
PARACOL/DEFOAMER PROCESS AREA
FIGURE 3
01/16/19 4:48 D:\DRWG\HERC\SET1\9502S103


ARTEMIS ST.
N
LS-4
HERCULES
CHEMICAL SPECIALTIES
Eco-Systems, Inc.
Environmental Engineers and Scientists
SCALE: 1"=40'
DRAWN BY: K. SELF
DATE: 11-27-95
CHKD. BY:
DATE:
PROJECT NO. HER9502
CAD FILE 9502S102.DWG
KYMENE PROCESS AREA
FIGURE 2
01/16/1996 14:40 D:\DRWG\HERC\SET1\9502S102

STATE OF MISSISSIPPI
DEPARTMENT OF ENVIRONMENTAL QUALITY
JAMES I. PALMER, JR.
EXECUTIVE DIRECTOR

June 3, 1994

Certified Mail No. P 390 336 584

Mr. Charles Jordan
Hercules, Inc.
P.O. Box 1937
Hattiesburg, MS 39401

Dear Mr. Jordan:

Re: Permit to Construct &
Permit to Operate No. 0800-00001
Hattiesburg, Mississippi

This letter is to inform you that the above referenced Permit to Construct and Permit to Operate have been modified. These modifications consist of changing the Toluene emission limits for Emission Points 280, 281, and 282 to 13.34 lbs/hr and 58.4 tons/year.

Enclosed please find the modified permits.

Any appeal of this permit action must be made within the 30 day period provided for in Section 49-17-29(4)(b) Mississippi Code of 1972.

Very truly yours,

Brad Shanks

Brad Shanks
Air Permitting Branch

BS:sr
Enclosure

PART III
OTHER REQUIREMENTS

(6) For all Emission Points, the following additional condition shall apply:

Good housekeeping shall be maintained to prevent fugitive emissions. Should fugitive emissions become excessive as determined by Office of Pollution Control inspection or by complaints, additional control measures may be required.

(7) For Emission Point 280, 281, and 282, the permittee must provide in writing the date of startup and the date maximum production rates are reached with the new Slurry Tank S96B and Tank Car Loading/Unloading Station. Each date must be provided no later than ten days after the actual date.

STATE OF MISSISSIPPI
AIR POLLUTION CONTROL PERMIT
TO CONSTRUCT AIR EMISSIONS EQUIPMENT
THIS CERTIFIES THAT

Hercules, Inc.
613 West 7th
Hattiesburg, Mississippi

has been granted permission to construct air emissions equipment to comply with the emission limitations, monitoring requirements and other conditions set forth herein. This permit is issued in accordance with the provisions of the Mississippi Air and Water Pollution Control Law (Section 49-17-1 et. seq., Mississippi Code of 1972), and the regulations and standards adopted and promulgated thereunder.

Issued this 22nd day of February, 1994

FACE SHEET ONLY

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD

HEAD, OFFICE OF POLLUTION CONTROL
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Permit No. 0800-00001

Permit Modified: April 26, 1994

STATE OF MISSISSIPPI
AIR POLLUTION CONTROL
PERMIT
TO OPERATE AIR EMISSIONS EQUIPMENT
THIS CERTIFIES THAT

Hercules, Inc.
613 West 7th
Hattiesburg, Mississippi

has been granted permission to operate air emissions equipment in accordance with emission limitations, monitoring requirements and conditions set forth herein. This permit is issued in accordance with the provisions of the Mississippi Air and Water Pollution Control Law (Section 49-17-1 et. seq., Mississippi Code of 1972), and the regulations and standards adopted and promulgated thereunder.

Issued this 11th day of June, 1991

Effective Date: As specified herein.

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD

HEAD, OFFICE OF POLLUTION CONTROL
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Expires 1st day of June, 1996

Permit No. 0800-00001

Permit Modified: February 22, 1994, & April 26, 1994

PART I
GENERAL CONDITIONS

1. All emissions authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any air pollutant identified in this permit more frequently than or at a level in excess of that authorized shall constitute a violation of the permit. Any anticipated facility expansions or modifications which will result in new, different, or increased emission of air pollutants must be reported by submission of a new application.

2. The permittee shall at all times maintain in good working order and operate as efficiently as possible all air pollution control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of this permit.

3. Solids removed in the course of control of air emissions shall be disposed of in a manner such as to prevent the solids from becoming windborne and to prevent the materials from entering state waters without the proper environmental permits.

4. Any diversion from or bypass of collection and control facilities is prohibited except (i) where unavoidable to prevent loss of life or severe property damage or (ii) when approved by the Mississippi Environmental Quality Permit Board.

5. Whenever any emergency, accidental or excessive discharge of air contaminants occurs, the Mississippi Department of Environmental Quality Office of Pollution Control shall be notified immediately of all information concerning cause of the discharge, point of discharge, volume and characteristics, and whether discharge is continuing or stopped.

6. Should the Executive Director of the Mississippi Department of Environmental Quality declare an Air Pollution Emergency Episode, the permittee will be required to operate in accordance with the permittee's previously approved Emissions Reduction Schedule.

7. The permittee shall allow the Mississippi Department of Environmental Quality Office of Pollution Control and the Mississippi Environmental Quality Permit Board and/or their authorized representatives, upon the presentation of credentials:

   a. To enter upon the permittee's premises where an air emission source is located or in which any records are required to be kept under the terms and conditions of this permit, and

   b. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to sample any air emission.

8. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to:

   a. Violation of any terms or conditions of this permit.

   b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or

   c. A change in any condition that required either a temporary or permanent reduction or elimination of authorized air emissions.

9. For renewal of this permit the applicant shall make application not less than one-hundred eighty (180) days prior to the expiration date of the permit substantiated with current emissions data, test results or reports or other data as deemed necessary by the Mississippi Environmental Quality Permit Board.

10. Except for data determined to be confidential under the Mississippi Air & Water Pollution Control Law, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Mississippi Department of Environmental Quality Office of Pollution Control.

11. The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations.

12. Nothing herein contained shall be construed as releasing the permittee from any liability for damage to persons or property by reason of the installation, maintenance, or operation of the air cleaning facility, or from compliance with the applicable statutes of the State, or with local laws, regulations, or ordinances.

13. This permit may only be transferred upon approval of the Mississippi Environmental Quality Permit Board.

14. This permit is for air pollution control purposes only.

15. This permit is not a Federally approved operating permit under Title V of the Federal Clean Air Act as amended in 1990. This permit is a transitional operating permit to satisfy the requirements of State Law only. After new State operating permit regulations are developed and adopted to satisfy the conditions of Title V of the Federal Act, the permittee will be required to submit an updated application to comply with said regulations and this permit may be modified, suspended, or revoked as necessary to comply with said regulations.

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning February 22, 1994, and lasting until June 1, 1996, the permittee is authorized to operate air emissions equipment and emit air contaminants from the Poly-Pale Plant, Emission Point 030, consisting of a Water Scrubber Vent

Such air emissions equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaminants.

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning July 12, 1991, and lasting until June 1, 1996, the permittee is authorized to operate air emissions equipment and emit air co ıtaminants from the production process used to make Neuphor or Dresinol, Emission Point 038, including a water eductor scrubber with sulfuric acid tank.

Such air emissions equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaminants.

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning February 22, 1994, and lasting until June 1, 1996, the permittee is authorized to operate air emissions equipment and emit air contaminants from the Rosin Shed, Emission Point 040, consisting of the following:

Emission Point 041, the Drumming Operation (no controls)

Such air emissions equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaminants.

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning June 11, 1991, and lasting until June 1, 1996, the permittee is authorized to operate air emissions equipment and emit air contaminants from Package Boiler No. 5, Emission Point 050.

Such emissions shall be limited and monitored by the permittee as specified below:

EMISSION LIMITATIONS

SO_2	**4.8 lb/10^6 BTU**
Particulate Matter	**59.2 lbs/hr**
Opacity	**40% or except as provided in APC-S-1.**

MONITORING REQUIREMENTS

SO_2	**See Part III, No. (1).**

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning June 11, 1991, and lasting until June 1, 1996, the permittee is authorized to operate air emissions equipment and emit air contaminants from the Hard Resins Area, Emission Point 080, consisting of the following:

a) Emission Point 081, the 8.3 MM BTU/hr Struthers-Wells Dowtherm Boiler
b) Emission Point 082, the Water Scrubber preceded by an oil scrubber

Such air emissions equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaminants.

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning June 11, 1991, and lasting until June 1, 1996, the permittee is authorized to operate air emissions equipment and emit air contaminants from the Continuous Esterification Process Area, Emission Point 090, consisting of the following:

a) Emission Point 091, the 5 MM BTU/hr Foster Wheeler Dowtherm Boiler
b) Emission Point 092, the Continuous Esterification Unit (no controls)

Such air emissions equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaminants.

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning June 11, 1991, and lasting until June 1, 1996, the permittee is authorized to operate air emissions equipment and emit air contaminants from the Hard Resins Flaking House, Emission Point 100, consisting of the following:

a) Emission Point 101, the Bvell Norblo Dust Collector Model No. 396-14-20.

b) Emission Point 102, the Vapor Hood Vent Scrubber.

Such air emissions equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaminants.

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning June 11, 1991, and lasting until June 1, 1996, the permittee is authorized to operate air emissions equipment and emit air contaminants from the Foral and Staybelite Hydrogenation Plant, Emission Point 110, consisting of the following:

a) Emission Point 111, the 3.3 MM BTU/hr Struthers Wells Dowtherm Boiler
b) Emission Point 112, the Hydrogenation Process (no controls)

Such air emissions equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaminants.

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning June 11, 1991, and lasting until June 1, 1996, the permittee is authorized to operate air emissions equipment and emit air contaminants from the Hydrogen Furnace, Emission Point 120.

Such air emissions equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaminants.

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning June 11, 1991, and lasting until June 1, 1996, the permittee is authorized to operate air emissions equipment and emit air contaminants from the Pilot Plant Area, Emission Point 130, consisting of the following:

a) Emission Point 131, the 3.3 MM BTU/hr Struthers Wells Dowtherm Boiler
b) Emission Point 132, Vent No. 1
c) Emission Point 133, Vent No. 2

Such air emissions equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaminants.

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning June 11, 1991, and lasting until June 1, 1996, the permittee is authorized to operate air emissions equipment and emit air contaminants from the Resin 731 Area, Emission Point 140, with no controls.

Such air emissions equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaminants.

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning June 11, 1991, and lasting until June 1, 1996, the permittee is authorized to operate air emissions equipment and emit air contaminants from the Stills & Dresinate Area, Emission Point 150, consisting of the following:

a) Emission Point 151, the 5 MM BTU/hr Foster Wheeler Boiler (Dowtherm)

There are to be no emissions to the atmosphere from the process.

Such air emissions equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaminants.

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning November 6, 1991, and lasting until June 1, 1996, the permittee is authorized to operate air emissions equipment and emit air contaminants from the Kymene Plant, Emission Point 160, consisting of the following:

a) Emission Point 161, the Packed Bed Water Scrubber

b) Emission Point 162, the Dust Collector

Such air emissions equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaminants.

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning June 11, 1991, and lasting until June 1, 1996, the permittee is authorized to operate air emissions equipment and emit air contaminants from the Defoamer Plant, Emission Point 170, consisting of the following:

a) Emission Point 171, the Silica Drier Furnace

b) Emission Point 172, the Dust Bag

Such air emissions equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaminants.

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning June 11, 1991, and lasting until June 1, 1996, the permittee is authorized to operate air emissions equipment and emit air contaminants from the Rosin Amine D Plant, Emission Point 180, consisting of the following:

a) **Emission Point 181, the 8.3 MM BTU/hr Struthers Wells Dowtherm Boiler**
b) **Emission Point 182, the Ammoniation Vent Scrubber**
c) **Emission Point 183, the Amine Reactor Vent (no controls)**

Such air emissions equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaminants.

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning June 11, 1991, and lasting until June 1, 1996, the permittee is authorized to operate air emissions equipment and emit air contaminants from the Polyrad and Polyol Process Area with water scrubber, Emission Point 190.

Such air emissions equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaminants.

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning June 11, 1991, and lasting until June 1, 1996, the permittee is authorized to operate air emissions equipment and emit air contaminants from the Para-Menthane Unit with no controls, Emission Point 200.

Such air emissions equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaminants.

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning June 11, 1991, and lasting until June 1, 1996, the permittee is authorized to operate air emissions equipment and emit air contaminants from the Para-Menthane Hydroperoxide Unit Oxidizer Vent, Emission Point 210.

Such air emissions equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaminants.

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning June 11, 1991, and lasting until June 1, 1996, the permittee is authorized to operate air emissions equipment and emit air contaminants from Carbon Regeneration Furnace with Scrubber, Emission Point 230.

Such air emissions equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaminants.

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning June 11, 1991, and lasting until June 1, 1996, the permittee is authorized to operate air emissions equipment and emit air contaminants from the 65 MM BTU/hr Murray MCF 3 Series 59 boiler (Package Boiler No. 6), Emission Point 240.

Such emissions shall be limited and monitored by the permittee as specified below:

EMISSION LIMITATIONS

Particulate Matter	**0.44 lb/MM BTU**
SO_2	**59.3 TPY and 4.8 lb/MM BTU**
Opacity	**40%**

MONITORING REQUIREMENTS

SO_2	**See Part III, No. (1).**

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning February 22, 1994, and lasting until receipt of certification of construction, or June 1, 1996, whichever comes first, the permittee is authorized to operate air emissions equipment and emit air contaminants from Emission Point 280, the Metal Resinates Process, with a rated capacity of 30 million lbs/year.

Such air emissions equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaminants.

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning upon receipt of certification of construction of the new Slurry Tank S96B and the Tank Car First Out Product Loading/Unloading Station which are part of Emission Point 280, and lasting June 1, 1996, the permittee is authorized to operate air emissions equipment and emit air contaminants from the Metal Resinates Process, with a rated capacity of 60 million lbs/year, consisting of Emission Points 280, 281, and 282.

Such emissions shall be limited by the permittee as specified below:

EMISSION LIMITATIONS

Toluene	**13.34 lbs/hr and 58.4 tons/year for the entire metal resinates process, Emission Points 280, 281, and 282, as determined by EPA Reference Method 18, 40 CFR 60, Appendix A.**

All test methods specified above shall be those versions, or their approved equivalents, which are in effect April 26, 1994.

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning upon receipt of certification of construction of the new Slurry Tank S96B and the Tank Car First Out Product Loading/Unloading Station which are part of Emission Point 280, and lasting June 1, 1996, the permittee is authorized to operate air emissions equipment and emit air contaminants from Emission Point 280, the following Metal Resinates Process equipment which vent through the condenser system for abatement of VOC emissions:

S90 Reactor
S190 Reactor
S96A Slurry Tank
S126 South Product Storage Tank
S127 North Product Storage Tank
S206 Toluene Separator to S90 Reactor
S214 Toluene Separator to S190 Reactor
Tank Car Station, Spur Hole Product Unloading
Tank Car Station, Spur Middle Product Loading/Unloading
Tank Truck Station, Product Loading/Unloading
S96B Slurry Tank
Tank Car Station, First Out Product Loading/Unloading

Such emissions shall be limited by the permittee as specified below:

EMISSION LIMITATIONS

Toluene	13.34 lbs/hr and 58.4 tons/year for the entire metal resinates process, Emission Points 280, 281, and 282, as determined by EPA Reference Method 18, 40 CFR 60, Appendix A.

All test methods specified above shall be those versions, or their approved equivalents, which are in effect April 26, 1994.

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning upon receipt of certification of construction of the new Slurry Tank S96B and the Tank Car First Out Product Loading/Unloading Station which are part of Emission Point 280, and lasting June 1, 1996, the permittee is authorized to operate air emissions equipment and emit air contaminants from Emission Point 281, the following Metal Resinates Process equipment which vent to the enclosed vapor loop system:

Tank Car Main North Station, Toluene Unloading to the S125 Toluene Storage Tank
Tank Car Main South Station, Adduct Unloading to the S92 Adduct Storage Tank.

Such emissions shall be limited by the permittee as specified below:

EMISSION LIMITATIONS

Toluene	**13.34 lbs/hr and 58.4 tons/year for the entire metal resinates process, Emission Points 280, 281, and 282, as determined by EPA Reference Method 18, 40 CFR 60, Appendix A.**

All test methods specified above shall be those versions, or their approved equivalents, which are in effect April 26, 1994.

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning upon receipt of certification of construction of the new Slurry Tank S96B and the Tank Car First Out Product Loading/Unloading Station which are part of Emission Point 280, and lasting June 1, 1996, the permittee is authorized to operate air emissions equipment and emit air contaminants from Emission Point 282, the following Metal Resinates Process equipment which vent direct to atmosphere:

S63 Reclaimed Toluene Storage Tank

Such emissions shall be limited by the permittee as specified below:

EMISSION LIMITATIONS

Toluene	13.34 lbs/hr and 58.4 tons/year for the entire metal resinates process, Emission Points 280, 281, and 282, as determined by EPA Reference Method 18, 40 CFR 60, Appendix A.

All test methods specified above shall be those versions, or their approved equivalents, which are in effect April 26, 1994.

PART III
OTHER REQUIREMENTS

(1) For Emission Points 050 and 240, the following additional condition will also apply:

Records of the operation of the facility must be kept and must show the duration of operation (time and dates) and amount of material processed. These records shall be made available to the Mississippi Office of Pollution Control upon request.

(2) For Emission Point 130, the following condition shall apply.

Since this unit is used for experimental purposes and emissions may change depending on the conditions of the experiments, semi-annual reports shall be made to the Mississippi Office of Pollution Control explaining all work done including, as a minimum, the duration of tests, types of raw materials used and products produced, and an assessment of emissions caused.

(3) For Emission Point 230, the following condition shall apply:

If the scrubber should fail or its effectiveness be reduced, the permittee shall notify the Mississippi Office of Pollution Control immediately by phone and follow-up with a letter. The information reported shall include the nature of the failure, time of, estimated repair time, and action taken to preclude a recurrence.

(4) For Emission Point 240, the following condition shall apply:

The permittee is limited to a usage of 260,925 gallons/calendar year of No. 6 fuel oil with sulfur content not to exceed 2.9%. A quarterly report shall be submitted detailing the amount of fuel oil used and the fuel oil characteristics. The report shall be postmarked by the 30th day of the month following the end of the calendar quarter.

(5) The following process areas are assigned Emission Point designations for record keeping purposes. However, all of the following are closed processes, and there should be no emissions from any of them.

Emission Point No.	Description
152	Stills & Dresinate Area
270	Paracol Plant

MISSISSIPPI DEPARTMENT OF NATURAL RESOURCES
Bureau of Pollution Control
P. O. Box 10385
Jackson, Mississippi 39209
(601) 961-5171

November 27, 1985

Orig: Edmund Yandle
Make copies for H. Jones
L. Polk
D. Smith
G. Yandle

Mr. G. R. Yandle
Hercules, Inc.
P. O. Box 1937
Hattiesburg, Mississippi 39401

#6-Boiler

Dear Mr. Yandle:

Re: Construction Permit No. 0800-00001
Hattiesburg, Mississippi

We have completed our review of the plans and specifications for the above referenced facility and approval is hereby indicated for air pollution control purposes only. Enclosed please find Construction Permit No. 0800-00001 for the construction of the air emissions equipment and air pollution control equipment associated with the referenced facility. This permit should be displayed prominently at the facility.

This permit expires on November 1, 1986. Should additional time be needed, it will be necessary to provide a written request to the Mississippi Pollution Control Permit Board prior to the expiration of the permit.

Prior to startup of the air emissions equipment at this facility, a performance evaluation permit must be obtained from the Permit Board. In order to obtain the performance evaluation permit, it will be necessary to submit certification by a professional engineer registered in the State of Mississippi that construction was completed in accordance with the approved plans and specifications and a written request for the permit.

If you desire that a Permit Board hearing be held regarding this permit, you should make written application to the Permit Board within thirty (30) days after receipt of this notice; otherwise, the terms, conditions and limitations in the permit shall become final.

If you have any questions or if we can be of any service, please let me know.

Very truly yours,

Don Watts

Don Watts
South Air Emissions Section

DW:els
Enclosure

State of Mississippi
Air Pollution Control

PERMIT

TO CONSTRUCT AIR EMISSIONS EQUIPMENT

THIS CERTIFIES THAT

Hercules, Inc.
West 7th Street
Hattiesburg, Mississippi

has been granted permission to construct air emissions equipment to comply with emission limitations, monitoring requirements and other conditions set forth herein. This permit is issued in accordance with the provisions of the Mississippi Air and Water Pollution Control Law (Section 49-17-1 et. seq., Mississippi Code of 1972), and the regulations and standards adopted and promulgated thereunder.

Issued this 26th day of November, 19 85

MISSISSIPPI NATURAL RESOURCES PERMIT BOARD

Charles Chisolm

DIRECTOR, BUREAU OF POLLUTION CONTROL
MISSISSIPPI DEPARTMENT OF NATURAL RESOURCES

Expires 1st day of November, 19 86.

Permit No. 0800-00001

Emission Point 037

PART I
GENERAL CONDITIONS

1. The plans, specifications, schedules, dates, and other data submitted to the Permit Board are filed with and considered as a part of this permit.

2. All air pollution control facilities shall be designed and constructed such as to allow proper operation and maintenance of the facilities.

3. The necessary facilities shall be constructed so that solids removed in the course of control of air emissions may be disposed of in a manner such as to prevent the solids from becoming windborne and to prevent the materials from entering State waters.

4. The air pollution control facilities shall be constructed such that diversion from or bypass of collection and control facilities is not needed except (i) where unavoidable to prevent loss of life or severe property damage or (ii) when approved by the Mississippi Department of Natural Resources Bureau of Pollution Control Permit Board.

5. The construction of the facilities shall be performed in such a manner as to reduce both point source and fugitive dust emissions to a minimum.

6. The permittee shall allow the Mississippi Department of Natural Resources Bureau of Pollution Control and the Mississippi Department of Natural Resources Bureau of Pollution Control Permit Board and/or their authorized representatives, upon the presentation of credentials:

   a. To enter upon the permittee's premises where an air emission source is located or in which any records are required to be kept under the terms and conditions of this permit; and

   b. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to sample any air emission.

7. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to:

   a. Violation of any terms or conditions of this permit;

   b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts, or

   c. A change in any condition that required either a temporary or permanent reduction or elimination of authorized air emissions.

8. Except for data determined to be confidential under the Mississippi Air and Water Pollution Control Law, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of Mississippi Department of Natural Resources Bureau of Pollution Control.

9. The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations.

10. Nothing herein contained shall be construed as releasing the permittee from any liability for damage to persons or property by reason of the installation, maintenance, or operation of the air cleaning facility, or from compliance with the applicable statutes of the State, or with local laws, regulations, or ordinances.

11. This permit is non-transferable.

12. This permit is for air pollution control purposes.

13. This permit shall become void upon completion of construction.

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning November 26, 1985, and lasting until November 1, 1986, the permittee is authorized to construct air emissions equipment for the emission of air contaminants from the 65 MMBTU/hr Murry MCF 3 Series 59 boiler, Emission Point 037.

The air emissions equipment shall be constructed to comply with the emission limitations and monitoring requirements specified below:

EMISSION CHARACTERISTIC	EMISSION LIMITATIONS		
	lb/hr	lbs/day	Other units (specify)
Particulate Matter			0.44 lb/MMBTU
SO_2			59.3 TPY and 4.8 lb/MMBTU
Opacity			40%

EMISSION CHARACTERISTIC	MONITORING REQUIREMENTS		
	Measurement Frequency	Sample Type	Reporting Frequency
SO_2	See Part III, Item 2		

PART III
OTHER REQUIREMENTS

(1) Operation of Emission Point 037 is to replace the operation of Emission Points 009 and 010. Emission Points 009 and 010 may not be operated after Emission Point 037 is operational.

(2) The permittee is limited to a usage of 260,925 gallons/calender year of No. 6 fuel oil with sulfur content not to exceed 2.9%. A quarterly report shall be submitted detailing the amount of fuel oil used and the fuel oil characteristics. The report shall be postmarked by the 30th day of the month following the end of the calender quarter.

DIVESINA

STATE OF MISSISSIPPI

DEPARTMENT OF ENVIRONMENTAL QUALITY

RAY MABUS
GOVERNOR

May 30, 1991

CERTIFIED MAIL NO. P 675 195 806

Mr. Preston Kirkendall, Plant Manager
Hercules, Inc.
P. O. Box 1937
Hattiesburg, Mississippi 39401

Dear Mr. Kirkendall:

Re: Construction Permit No. 0800-00001
Hattiesburg, Mississippi

We have completed our review of the plans and specifications for the above referenced permit and approval is hereby indicated for air pollution control purposes only. Enclosed please find Construction Permit No. 0800-00001 for the construction of the air emissions equipment and air pollution control equipment.

Prior to startup of the air emissions equipment at this facility, a Performance Evaluation Permit must be obtained from the Permit Board. In order to obtain the Performance Evaluation Permit, it will be necessary to submit certification by a professional engineer registered in the State of Mississippi that construction was completed in accordance with the approved plans and specifications and a written request for the permit.

Any appeal of this permit action must be made within the 30 day period provided for in Section 49-17-29(4)(b) Mississippi Code of 1972.

If you have any questions or if we can be of any service, please let me know.

Very truly yours,

Bobby G. Hall
Air Permitting Branch

BGH:els
Enclosure

STATE OF MISSISSIPPI
AIR POLLUTION CONTROL
PERMIT
TO CONSTRUCT AIR EMISSIONS EQUIPMENT

THIS CERTIFIES THAT

Hercules, Inc.
West 7th Street
Hattiesburg, Mississippi

has been granted permission to construct air emissions equipment to comply with the emission limitations, monitoring requirements and other conditions set forth herein. This permit is issued in accordance with the provisions of the Mississippi Air and Water Pollution Control Law (Section 49-17-1 et. seq., Mississippi Code of 1972), and the regulations and standards adopted and promulgated thereunder.

Issued this 28th day of May, 1991

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD

HEAD, OFFICE OF POLLUTION CONTROL
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Permit No. 0800-00001

PART I
GENERAL CONDITIONS

1. The plans, specifications, schedules, dates and other data submitted to the Permit Board are filed with and considered as a part of this permit.

2. All air pollution control facilities shall be designed and constructed such as to allow proper operation and maintenance of the facilities.

3. The necessary facilities shall be constructed so that solids removed in the course of control of air emissions may be disposed of in a manner such as to prevent the solids from becoming windborne and to prevent the materials from entering State waters.

4. The air pollution control facilities shall be constructed such that diversion from or bypass of collection and control facilities is not needed except (i) where unavoidable to prevent loss of life or severe property damage or (ii) when approved by the Mississippi Environmental Quality Board.

5. The construction of facilities shall be performed in such a manner as to reduce both point source and fugitive dust emissions to a minimum.

6. The permittee shall allow the Mississippi Department of Environmental Quality Office of Pollution Control and the Mississippi Environmental Quality Permit Board and/or their representatives upon presentation of credentials:

   a. To enter upon the permittee's premises where an air emission source is located or in which any records are required to be kept under the terms and conditions of this permit; and

   b. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to sample any air emission.

7. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to:

   a. Violation of any terms or conditions of this permit;

   b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts, or

   c. A change in any condition that requires either a temporary or permanent reduction or elimination of authorized air emissions.

8. Except for data determined to be confidential under the Mississippi Air & Water Pollution Control Law, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Mississippi Department of Environmental Quality Office of Pollution Control.

9. The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

10. Nothing herein contained shall be construed as releasing the permittee from any liability for damage to persons or property by reason of the installation, maintenance, or operation of the air cleaning facility, or from compliance with the applicable statutes of the State, or with local laws, regulations, or ordinances.

11. This permit is non-transferable.

12. This permit is for air pollution control purposes only.

13. Approval to construct will expire should construction not begin within one (1) year of the issuance of this permit, or should construction be suspended for one (1) year or more.

14. Prior to startup of air emissions equipment at this source, a Performance Evaluation Permit must be obtained. The permittee shall submit certification by a professional engineer registered in the State of Mississippi that construction was completed in accordance with the approved plans and specifications and a written request for the permit.

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning May 28, 1991, the permittee is authorized to construct air emissions equipment for the emission of air contaminants from the Kymene Plant, Emission Point 160, including Emission Point 161, the Packed Bed Water Scrubber.

Such air emissions equipment shall be constructed in accordance with design criteria in the application, plans, and other technical documents submitted with the application to construct.

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning May 28, 1991, the permittee is authorized to construct air emissions equipment for the emission of air contaminants from the production process used to make Neuphor or Dresinol, Emission Point 038, including a water eductor scrubber with sulfuric acid tank.

Such air emissions equipment shall be constructed in accordance with design criteria in the application, plans, and other technical documents submitted with the application to construct.

PART III
OTHER REQUIREMENTS

None.

METAL RESINATES

STATE OF MISSISSIPPI
DEPARTMENT OF ENVIRONMENTAL QUALITY
JAMES I. PALMER, JR.
EXECUTIVE DIRECTOR

June 3, 1994

Certified Mail No. P 390 336 584

Mr. Charles Jordan
Hercules, Inc.
P.O. Box 1937
Hattiesburg, MS 39401

Dear Mr. Jordan:

Re: Permit to Construct &
Permit to Operate No. 0800-00001
Hattiesburg, Mississippi

This letter is to inform you that the above referenced Permit to Construct and Permit to Operate have been modified. These modifications consist of changing the Toluene emission limits for Emission Points 280, 281, and 282 to 13.34 lbs/hr and 58.4 tons/year.

Enclosed please find the modified permits.

Any appeal of this permit action must be made within the 30 day period provided for in Section 49-17-29(4)(b) Mississippi Code of 1972.

Very truly yours,

Brad Shanks

Brad Shanks
Air Permitting Branch

BS:sr
Enclosure

04-26-PL.4

STATE OF MISSISSIPPI
AIR POLLUTION CONTROL
PERMIT
TO CONSTRUCT AIR EMISSIONS EQUIPMENT
THIS CERTIFIES THAT

Hercules, Inc.
613 West 7th
Hattiesburg, Mississippi

has been granted permission to construct air emissions equipment to comply with the emission limitations, monitoring requirements and other conditions set forth herein. This permit is issued in accordance with the provisions of the Mississippi Air and Water Pollution Control Law (Section 49-17-1 et. seq., Mississippi Code of 1972), and the regulations and standards adopted and promulgated thereunder.

Issued this 22nd day of February, 1994

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD

HEAD, OFFICE OF POLLUTION CONTROL
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Permit No. 0800-00001

Permit Modified: April 26, 1994

PART I
GENERAL CONDITIONS

1. The plans, specifications, schedules, dates and other data submitted to the Permit Board are filed with and considered as a part of this permit.

2. All air pollution control facilities shall be designed and constructed such as to allow proper operation and maintenance of the facilities.

3. The necessary facilities shall be constructed so that solids removed in the course of control of air emissions may be disposed of in a manner such as to prevent the solids from becoming windborne and to prevent the materials from entering State waters without the proper environmental permits.

4. The air pollution control facilities shall be constructed such that diversion from or bypass of collection and control facilities is not needed except (i) where unavoidable to prevent loss of life or severe property damage or (ii) when approved by the Mississippi Environmental Quality Permit Board.

5. The construction of facilities shall be performed in such a manner as to reduce both point source and fugitive dust emissions to a minimum.

6. The permittee shall allow the Mississippi Department of Environmental Quality Office of Pollution Control and the Mississippi Environmental Quality Permit Board and/or their representatives upon presentation of credentials:

   a. To enter upon the permittee's premises where an air emission source is located or in which any records are required to be kept under the terms and conditions of this permit; and

   b. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to sample any air emissions.

7. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to:

   a. Violation of any terms or conditions of this permit.

   b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts, or

   c. A change in any condition that requires either a temporary or permanent reduction or elimination of authorized air emissions.

8. Except for data determined to be confidential under the Mississippi Air & Water Pollution Control Law, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Mississippi Department of Environmental Quality Office of Pollution Control.

9. The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

10. Nothing herein contained shall be construed as releasing the permittee from any liability for damage to persons or property by reason of the installation, maintenance, or operation of the air cleaning facility, or from compliance with the applicable statutes of the State, or with local laws, regulations, or ordinances.

11. This permit may only be transferred upon approval of the Mississippi Environmental Quality Permit Board.

12. This permit is for air pollution control purposes only.

13. Approval to construct will expire should construction not begin within eighteen (18) months of the issuance of this permit, or should construction be suspended for eighteen (18) months.

14. Prior to startup of air emissions equipment at this source, the permittee must obtain a Permit to Operate and submit certification that construction was completed in accordance with the approved plans and specifications.

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning April 26, 1994, the permittee is authorized to construct air emissions equipment for the emission of air contaminants from Emission Point 280, the new Slurry Tank S96B and the Tank Car First Out Product Loading/Unloading Station which are part of Emission Point 280 and vent through the existing condenser system. Emission Point 280 is part of the Metal Resinates Process.

The air emissions equipment shall be constructed to comply with the emission limitations and monitoring requirements specified below.

EMISSION LIMITATIONS

Toluene	13.34 lbs/hr and 58.4 tons/year for the entire metal resinates process, Emission Points 280, 281, and 282, as determined by EPA Reference Method 18, 40 CFR 60, Appendix A.

All test methods specified above shall be those versions, or their approved equivalents, which are in effect April 26, 1994.

PART III
OTHER REQUIREMENTS

None.

METAL RESINATES

STATE OF MISSISSIPPI
DEPARTMENT OF ENVIRONMENTAL QUALITY
JAMES I. PALMER, JR.
EXECUTIVE DIRECTOR

April 5, 1994

Certified Mail No. P 300 839 291

Mr. Charles Jordan
Hercules, Inc.
P.O. Box 1937
Hattiesburg, Mississippi 39401

Dear Mr. Jordan:

Re: Facility No. 0800-00001
Hattiesburg, Mississippi

Enclosed please find Construction Permit No. 0800-00001 for the construction of the air emissions equipment and air pollution control equipment.

Also enclosed is Operating Permit No. 0800-00001, which has been modified to include the new air emissions equipment. Operation of the air emissions equipment at the facility shall be in accordance with the terms, conditions, and limitations of the permit. This permit expires on June 1, 1996. A new permit application must be submitted one hundred and eighty (180) days prior to this date in order to renew this permit.

Any significant modification to this process or facility which will alter the rate or composition of air pollutant emissions will cause this permit to become invalid. Should you wish to make such a modification, it will be necessary to submit a new application for a construction permit.

Prior to startup of the new air emissions equipment at this facility, it will be necessary to submit certification that construction was completed in accordance with the approved plans and specifications. Upon receipt of the certification of construction, the applicable Emission Points in the referenced Operating Permit will become effective.

Any appeal of this permit action must be made within the 30 day period provided for in Section 49-17-29(4)(b) Mississippi Code of 1972.

If you have any questions or if we can be of any service, please let me know.

Very truly yours,

Brad Shanks — 5106

Brad Shanks
Air Permitting Branch

BS:sr
Enclosure

OFFICE OF POLLUTION CONTROL, P. O. BOX 10385, JACKSON, MS 39289-0385, (601) 961-5171

STATE OF MISSISSIPPI
AIR POLLUTION CONTROL
PERMIT
TO CONSTRUCT AIR EMISSIONS EQUIPMENT
THIS CERTIFIES THAT

Hercules, Inc.
613 West 7th
Hattiesburg, Mississippi

has been granted permission to construct air emissions equipment to comply with the emission limitations, monitoring requirements and other conditions set forth herein. This permit is issued in accordance with the provisions of the Mississippi Air and Water Pollution Control Law (Section 49-17-1 et. seq., Mississippi Code of 1972), and the regulations and standards adopted and promulgated thereunder.

Issued this 22nd day of February, 1994

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD

Charles Chisolm

HEAD, OFFICE OF POLLUTION CONTROL
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Permit No. 0800-00001

PART I
GENERAL CONDITIONS

1. The plans, specifications, schedules, dates and other data submitted to the Permit Board are filed with and considered as a part of this permit.

2. All air pollution control facilities shall be designed and constructed such as to allow proper operation and maintenance of the facilities.

3. The necessary facilities shall be constructed so that solids removed in the course of control of air emissions may be disposed of in a manner such as to prevent the solids from becoming windborne and to prevent the materials from entering State waters without the proper environmental permits.

4. The air pollution control facilities shall be constructed such that diversion from or bypass of collection and control facilities is not needed except (i) where unavoidable to prevent loss of life or severe property damage or (ii) when approved by the Mississippi Environmental Quality Permit Board.

5. The construction of facilities shall be performed in such a manner as to reduce both point source and fugitive dust emissions to a minimum.

6. The permittee shall allow the Mississippi Department of Environmental Quality Office of Pollution Control and the Mississippi Environmental Quality Permit Board and/or their representatives upon presentation of credentials:

   a. To enter upon the permittee's premises where an air emission source is located or in which any records are required to be kept under the terms and conditions of this permit; and

   b. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to sample any air emissions.

7. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to:

   a. Violation of any terms or conditions of this permit.

   b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts, or

   c. A change in any condition that requires either a temporary or permanent reduction or elimination of authorized air emissions.

8. Except for data determined to be confidential under the Mississippi Air & Water Pollution Control Law, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Mississippi Department of Environmental Quality Office of Pollution Control.

9. The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

10. Nothing herein contained shall be construed as releasing the permittee from any liability for damage to persons or property by reason of the installation, maintenance, or operation of the air cleaning facility, or from compliance with the applicable statutes of the State, or with local laws, regulations, or ordinances.

11. This permit may only be transferred upon approval of the Mississippi Environmental Quality Permit Board.

12. This permit is for air pollution control purposes only.

13. Approval to construct will expire should construction not begin within eighteen (18) months of the issuance of this permit, or should construction be suspended for eighteen (18) months.

14. Prior to startup of air emissions equipment at this source, the permittee must obtain a Permit to Operate and submit certification that construction was completed in accordance with the approved plans and specifications.

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning February 22, 1994, the permittee is authorized to construct air emissions equipment for the emission of air contaminants from Emission Point 280, the new Slurry Tank S96B and the Tank Car First Out Product Loading/Unloading Station which are part of Emission Point 280 and vent through the existing condenser system. Emission Point 280 is part of the Metal Resinates Process.

The air emissions equipment shall be constructed to comply with the emission limitations and monitoring requirements specified below.

EMISSION LIMITATIONS

Toluene	~~9.1~~ 13.34 lbs/hr and ~~39.7~~ 58.43 tons/year for the entire metal resinates process, Emission Points 280, 281, and 282, as determined by EPA Reference Method 18, 40 CFR 60, Appendix A.

All test methods specified above shall be those versions, or their approved equivalents, which are in effect February 22, 1994.

PART III
OTHER REQUIREMENTS

None.

KY/MENB

STATE OF MISSISSIPPI

DEPARTMENT OF ENVIRONMENTAL QUALITY

RAY MABUS
GOVERNOR

May 30, 1991

CERTIFIED MAIL NO. P 675 195 806

Mr. Preston Kirkendall, Plant Manager
Hercules, Inc.
P. O. Box 1937
Hattiesburg, Mississippi 39401

Dear Mr. Kirkendall:

Re: Construction Permit No. 0800-00001
Hattiesburg, Mississippi

We have completed our review of the plans and specifications for the above referenced permit and approval is hereby indicated for air pollution control purposes only. Enclosed please find Construction Permit No. 0800-00001 for the construction of the air emissions equipment and air pollution control equipment.

Prior to startup of the air emissions equipment at this facility, a Performance Evaluation Permit must be obtained from the Permit Board. In order to obtain the Performance Evaluation Permit, it will be necessary to submit certification by a professional engineer registered in the State of Mississippi that construction was completed in accordance with the approved plans and specifications and a written request for the permit.

Any appeal of this permit action must be made within the 30 day period provided for in Section 49-17-29(4)(b) Mississippi Code of 1972.

If you have any questions or if we can be of any service, please let me know.

Very truly yours,

Bobby G. Hall
Air Permitting Branch

BGH:els
Enclosure

STATE OF MISSISSIPPI
AIR POLLUTION CONTROL PERMIT
TO CONSTRUCT AIR EMISSIONS EQUIPMENT

THIS CERTIFIES THAT

Hercules, Inc.
West 7th Street
Hattiesburg, Mississippi

has been granted permission to construct air emissions equipment to comply with the emission limitations, monitoring requirements and other conditions set forth herein. This permit is issued in accordance with the provisions of the Mississippi Air and Water Pollution Control Law (Section 49-17-1 et. seq., Mississippi Code of 1972), and the regulations and standards adopted and promulgated thereunder.

Issued this 28th day of May, 1991

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD

HEAD, OFFICE OF POLLUTION CONTROL
MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Permit No. 0800-00001

PART I
GENERAL CONDITIONS

1. The plans, specifications, schedules, dates and other data submitted to the Permit Board are filed with and considered as a part of this permit.

2. All air pollution control facilities shall be designed and constructed such as to allow proper operation and maintenance of the facilities.

3. The necessary facilities shall be constructed so that solids removed in the course of control of air emissions may be disposed of in a manner such as to prevent the solids from becoming windborne and to prevent the materials from entering State waters.

4. The air pollution control facilities shall be constructed such that diversion from or bypass of collection and control facilities is not needed except (i) where unavoidable to prevent loss of life or severe property damage or (ii) when approved by the Mississippi Environmental Quality Board.

5. The construction of facilities shall be performed in such a manner as to reduce both point source and fugitive dust emissions to a minimum.

6. The permittee shall allow the Mississippi Department of Environmental Quality Office of Pollution Control and the Mississippi Environmental Quality Permit Board and/or their representatives upon presentation of credentials:

   a. To enter upon the permittee's premises where an air emission source is located or in which any records are required to be kept under the terms and conditions of this permit; and

   b. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to sample any air emission.

7. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to:

   a. Violation of any terms or conditions of this permit;

   b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts, or

   c. A change in any condition that requires either a temporary or permanent reduction or elimination of authorized air emissions.

8. Except for data determined to be confidential under the Mississippi Air & Water Pollution Control Law, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Mississippi Department of Environmental Quality Office of Pollution Control.

9. The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

10. Nothing herein contained shall be construed as releasing the permittee from any liability for damage to persons or property by reason of the installation, maintenance, or operation of the air cleaning facility, or from compliance with the applicable statutes of the State, or with local laws, regulations, or ordinances.

11. This permit is non-transferable.

12. This permit is for air pollution control purposes only.

13. Approval to construct will expire should construction not begin within one (1) year of the issuance of this permit, or should construction be suspended for one (1) year or more.

14. Prior to startup of air emissions equipment at this source, a Performance Evaluation Permit must be obtained. The permittee shall submit certification by a professional engineer registered in the State of Mississippi that construction was completed in accordance with the approved plans and specifications and a written request for the permit.

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning May 28, 1991, the permittee is authorized to construct air emissions equipment for the emission of air contaminants from the Kymene Plant, Emission Point 160, including Emission Point 161, the Packed Bed Water Scrubber.

Such air emissions equipment shall be constructed in accordance with design criteria in the application, plans, and other technical documents submitted with the application to construct.

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

Beginning May 28, 1991, the permittee is authorized to construct air emissions equipment for the emission of air contaminants from the production process used to make Neuphor or Dresinol, Emission Point 038, including a water eductor scrubber with sulfuric acid tank.

Such air emissions equipment shall be constructed in accordance with design criteria in the application, plans, and other technical documents submitted with the application to construct.

PART III
OTHER REQUIREMENTS

None.

#6 Boiler

HERCULES

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

January 29, 1986

Mississippi Department of Natural Resources
Bureau of Pollution Control
P. O. Box 10385
Jackson, Mississippi 39209

Attention: Mr. Don Watts

Dear Mr. Watts:

Re: Construction Permit No. 0800-00001
Hattiesburg, Mississippi

The purpose of this letter is to (1) certify that construction was completed in accordance with the approved plans and specifications, and (2) request a performance evaluation permit.

If I can answer any questions, please call me.

Very truly yours,

Charles S. Jordan

Charles S. Jordan
Environmental Supervisor

CSJ/de
0529L

Lawrence C. Polk

Signature of Engineer
registered in Mississippi

Lawrence C. Polk, Jr., Reg. No. 5047
Typed name and Mississippi
Registration No.

Seal of Engineer registered in Mississippi:

bc: G. R. Yandle
D. T. Smith, Jr.
E. P. Trotter
C. A. McMahan

HERCULES

Hercules Incorporated
West 7th Street
P.O. Box 1937
Hattiesburg, MS 39401
(601) 545-3450

November 4, 1985

Mr. Don Watts
Bureau of Pollution Control
P. O. Box 10385
Jackson, MS 39209

Dear Mr. Watts:

Regarding your October 23 letter, please find our comments addressing the items you requested:

1. Hercules is committing to removing the woodwaste boilers from service. Although we do not intend to physically remove any boilers or equipment, we do not intend to keep the boilers operational in terms of a permit to operate. Our future work force in this area will not be adequate to operate and maintain these boilers. The only scenario we can imagine where we would expect an emergency permit or permission to fire these boilers would be the unexpected long-term loss of a package boiler. If such an event ever occurred, we would contact the Bureau prior to any changes. Therefore, we do not wish the proposed boiler to be treated as a new source and emissions evaluated as an emissions increase for the facility. We would like to bank the emission reductions as the result of this change.

2. The by-products are the same as those listed in previous permits. These by-products are mainly rosin oils and residues which do not exhibit any hazardous waste characteristics and are essentially zero sulfur content. Also included are small amounts of non-halogenated spent solvents. Although these by-products have a high BTU value of approximately 18,000 BTU/lb., our preference is to sell the by-products. They will be used as fuel only when sales are unavailable and would be introduced into the boiler the same as fuel oil.

3. We do not anticipate burning fuel oil except in the event of natural gas curtailment. We estimate the possibility of burning fuel oil three or four weeks during cold weather months. We would agree to a permit condition addressing fuel oil identical to the current permit fuel oil condition for the woodwaste boilers.

4. The sulfur content of No. 2 fuel oil is 0.5% maximum and for No. 6 fuel oil is 2.9% maximum.

Very truly yours,

Charles Jordan

Charles Jordan
Environmental Supervisor

CJ/klm
bc: D. J. Keilman/Env. Affairs/9242SW
G. R. Yandle
D. T. Smith
2108

MISSISSIPPI DEPARTMENT OF NATURAL RESOURCES
Bureau of Pollution Control
P. O. Box 10385
Jackson, Mississippi 39209
(601) 961-5171

October 23, 1985

Mr. Charles Jordan
Hercules Incorporated
P. O. Box 1937
Hattiesburg, Mississippi 39401

Dear Mr. Jordan:

Re: Facility No. 0800-00001
Hattiesburg, Mississippi

We have received your application for permission to construct a boiler at your facility. Before we can act on your request, the following items must be addressed:

1. Are you committing to remove the woodwaste boilers from service? If so, what steps will be taken to ensure that they are not operated in the future? If the woodwaste boilers are to remain operational, the proposed boiler must be treated as a new source, and emissions evaluated as an emissions increase for the facility.

2. Please explain the nature of the "by-products" listed as a fuel. How will it be introduced into the boiler?

3. Are you willing to accept a restriction on the amount of fuel oil that can be burned in a year? If so, how much will you commit to use?

4. Please provide the sulfur content for both the No. 2 and No. 6 fuel oil you plan to use.

If you have any questions, please contact us.

Very truly yours,

Don Watts

Don Watts
South Air Emissions Section

DW:cl

MISSISSIPPI DEPARTMENT OF NATURAL RESOURCES
Bureau of Pollution Control
P. O. Box 10385
Jackson, Mississippi 39209
(601) 961-5171

May 16, 1985

Mr. G. R. Yandle
Hercules Incorporated
P.O. Box 1937
Hattiesburg, Mississippi 39401

Metal Resinates

Dear Mr. Yandle:

Re: Construction Permit No. 0800-00001
Hattiesburg, MS

We have completed our review of the plans and specifications for the above referenced facility and approval is hereby indicated for air pollution control purposes only. Enclosed please find Construction Permit No. 0800-00001 for the construction of the air emissions equipment and air pollution control equipment associated with the referenced facility. This permit should be displayed prominently at the facility.

This permit expires on May 1, 1986. Should additional time be needed, it will be necessary to provide a written request to the Mississippi Pollution Control Permit Board prior to the expiration of the permit.

Prior to startup of the air emissions equipment at this facility, a performance evaluation permit must be obtained from the Permit Board. In order to obtain the performance evaluation permit, it will be necessary to submit certification by a professional engineer registered in the State of Mississippi that construction was completed in accordance with the approved plans and specifications and a written request for the permit.

If you desire that a Permit Board hearing be held regarding this permit, you should make written application to the Permit Board within thirty (30) days after receipt of this notice; otherwise, the terms, conditions and limitations in the permit shall become final.

If you have any questions or if we can be of any service, please let me know.

Very truly yours,

Don Watts

Don Watts
South Air Emissions Section

DW:ps
Enclosure

State of Mississippi
Air Pollution Control

PERMIT

TO CONSTRUCT AIR EMISSIONS EQUIPMENT

THIS CERTIFIES THAT

Hercules, Incorporated
West 7th Street
Hattiesburg, Mississippi

has been granted permission to construct air emissions equipment to comply with emission limitations, monitoring requirements and other conditions set forth herein. This permit is issued in accordance with the provisions of the Mississippi Air and Water Pollution Control Law (Section 49-17-1 et. seq., Mississippi Code of 1972), and the regulations and standards adopted and promulgated thereunder.

Issued this 14th day of May, 19 85

MISSISSIPPI DEPARTMENT OF NATURAL RESOURCES
BUREAU OF POLLUTION CONTROL PERMIT BOARD

Director

Expires 1st day of May, 19 86.

Permit No. 0800-00001

Emission Point 015

APC 3-78

PART I
GENERAL CONDITIONS

1. The plans, specifications, schedules, dates, and other data submitted to the Permit Board are filed with and considered as a part of this permit.

2. All air pollution control facilities shall be designed and constructed such as to allow proper operation and maintenance of the facilities.

3. The necessary facilities shall be constructed so that solids removed in the course of control of air emissions may be disposed of in a manner such as to prevent the solids from becoming windborne and to prevent the materials from entering State waters.

4. The air pollution control facilities shall be constructed such that diversion from or bypass of collection and control facilities is not needed except (i) where unavoidable to prevent loss of life or severe property damage or (ii) when approved by the Mississippi Department of Natural Resources Bureau of Pollution Control Permit Board.

5. The construction of the facilities shall be performed in such a manner as to reduce both point source and fugitive dust emissions to a minimum.

6. The permittee shall allow the Mississippi Department of Natural Resources Bureau of Pollution Control and the Mississippi Department of Natural Resources Bureau of Pollution Control Permit Board and/or their authorized representatives, upon the presentation of credentials:

   a. To enter upon the permittee's premises where an air emission source is located or in which any records are required to be kept under the terms and conditions of this permit; and

   b. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to sample any air emission.

7. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to:

   a. Violation of any terms or conditions of this permit;

   b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts, or

   c. A change in any condition that required either a temporary or permanent reduction or elimination of authorized air emissions.

8. Except for data determined to be confidential under the Mississippi Air and Water Pollution Control Law, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of Mississippi Department of Natural Resources Bureau of Pollution Control.

9. The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations.

10. Nothing herein contained shall be construed as releasing the permittee from any liability for damage to persons or property by reason of the installation, maintenance, or operation of the air cleaning facility, or from compliance with the applicable statutes of the State, or with local laws, regulations, or ordinances.

11. This permit is non-transferable.

12. This permit is for air pollution control purposes.

13. This permit shall become void upon completion of construction.

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning May 14, 1985, and lasting until May 1, 1986, the permittee is authorized to construct air emissions equipment for the emission of air contaminants from production of metal resinates (within the Hard Resins Area), Emission Point 015.

The air emissions equipment shall be constructed in accordance with design criteria in the application, plans, and other technical documents submitted with the application to construct.

PART III
OTHER REQUIREMENTS

None.

HRA

MISSISSIPPI DEPARTMENT OF NATURAL RESOURCES
Bureau of Pollution Control
P. O. Box 10385
Jackson, Mississippi 39209
(601) 961-5171

February 10, 1988

CERTIFIED MAIL NO. P 125 260 734

Mr. G. R. Yandle, Plant Manager
Hercules Incorporated
P. O. Box 1937
Hattiesburg, Mississippi 39401

Dear Mr. Yandle:

Re: Operating Permit No. 0800-00001
Hattiesburg, Mississippi

This letter is to inform you that the above referenced Operating Permit has been modified. This modification consists of changes to Emission Points 060 and 070 to allow the production of hard resins in those process areas.

Enclosed please find a copy of the modified pages to be inserted into the permit.

If you should have objections to this permit modification and desire that a Permit Board hearing be held, you should make written application to the Permit Board within thirty (30) days after receipt of this notice; otherwise, the terms, conditions and limitations of the modified permit shall become final.

Very truly yours,

Don Watts

Don Watts
South Air Emissions Section

DW:els
Enclosure

STATE OF MISSISSIPPI
AIR POLLUTION CONTROL PERMIT
TO OPERATE AIR EMISSIONS EQUIPMENT

THIS CERTIFIES THAT

Hercules, Incorporated
West 7th Street
Hattiesburg, Mississippi

has been granted permission to operate air emissions equipment in accordance with emission limitations, monitoring requirements and conditions set forth herein. This permit is issued in accordance with the provisions of the Mississippi Air and Water Pollution Control Law (Section 49-17-1 et. seq., Mississippi Code of 1972), and the regulations and standards adopted and promulgated thereunder.

Issued this 24th, day of March, 1987

MISSISSIPPI NATURAL RESOURCES PERMIT BOARD

DIRECTOR, BUREAU OF POLLUTION CONTROL
MISSISSIPPI DEPARTMENT OF NATURAL RESOURCES

Expires 1st day of April, 1990

Permit No. 0800-00001

Permit Modified: October 27, 1988 & February 9, 1988

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning February 9, 1988, and lasting until April 1, 1990, the permittee is authorized to operate air emissions equipment and emit air contaminants from the Vinsol Resins Process, Emission Point 060, consisting of the following:

a) Emission Point 061, the Sealas Furnace No. 1 (process heater)
b) Emission Point 062, the Sealas Furnace No. 2 (process heater)
c) Emission Point 063, the Water Scrubber serving Vinsol Kettle No. 1
d) Emission Point 064, the Water Scrubber serving Vinsol Kettle No. 2

Such air emissions equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaminants.

Beginning February 9, 1988, the permittee is authorized to also manufacture hard resins in this process area.

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning February 9, 1988, and lasting until April 1, 1990, the permittee is authorized to operate air emissions equipment and emit air contaminants from the Truline Flaking & Packaging Area, Emission Point 070, consisting of the following:

a) Emission Point 071, the Flaking Belt Vapor Hood Vent
b) Emission Point 072, the Dracco Baghouse Model 20-S
c) Emission Point 073, the Pangborn Baghouse Model 600

Such air emissions equipment shall be operated as efficiently as possible to provide the maximum reduction of air contaminants.

Beginning February 9, 1988, the permittee is authorized to also handle hard resins in this process area.

NEUPHOR

MISSISSIPPI DEPARTMENT OF NATURAL RESOURCES
Bureau of Pollution Control
P. O. Box 10385
Jackson, Mississippi 39209
(601) 961-5171

January 15, 1987

CERTIFIED MAIL NO. P-557 444 441

Mr. G. R. Yandle, Plant Manager
Hercules Incorporated
P. O. Box 1937
Hattiesburg, Mississippi 39401

Dear Mr. Yandle:

Re: Construction Permit No. 0800-00001
Hattiesburg, Mississippi

We have completed our review of the plans and specifications for the above referenced facility and approval is hereby indicated for air pollution control purposes only. Enclosed please find Construction Permit No. 0800-00001 for the construction of the air emissions equipment and air pollution control equipment associated with the referenced facility. This permit should be displayed prominently at the facility.

This permit expires on January 1, 1988. Should additional time be needed, it will be necessary to provide a written request to the Mississippi Pollution Control Permit Board prior to the expiration of the permit.

Prior to startup of the air emissions equipment at this facility, a performance evaluation permit must be obtained from the Permit Board. In order to obtain the performance evaluation permit, it will be necessary to submit certification by a professional engineer registered in the State of Mississippi that construction was completed in accordance with the approved plans and specifications and a written request for the permit.

If you desire that a Permit Board hearing be held regarding this permit, you should make written application to the Permit Board within thirty (30) days after receipt of this notice; otherwise, the terms, conditions and limitations in the permit shall become final.

If you have any questions or if we can be of any service, please let me know.

Very truly yours,

Don Watts

Don Watts
South Air Emissions Section

DW:els
Enclosure

State of Mississippi
Air Pollution Control

PERMIT

TO CONSTRUCT AIR EMISSIONS EQUIPMENT

THIS CERTIFIES THAT

Hercules, Incorporated
West 7th Street
Hattiesburg, Mississippi

has been granted permission to construct air emissions equipment to comply with emission limitations, monitoring requirements and other conditions set forth herein. This permit is issued in accordance with the provisions of the Mississippi Air and Water Pollution Control Law (Section 49-17-1 et. seq., Mississippi Code of 1972), and the regulations and standards adopted and promulgated thereunder.

Issued this 13th day of January, 1987

MISSISSIPPI NATURAL RESOURCES PERMIT BOARD

Charles Chisolm

DIRECTOR, BUREAU OF POLLUTION CONTROL
MISSISSIPPI DEPARTMENT OF NATURAL RESOURCES

Expires 1st day of January, 1988.

Permit No. 0800-00001

Emission Point 038

PART I
GENERAL CONDITIONS

1. The plans, specifications, schedules, dates, and other data submitted to the Permit Board are filed with and considered as a part of this permit.

2. All air pollution control facilities shall be designed and constructed such as to allow proper operation and maintenance of the facilities.

3. The necessary facilities shall be constructed so that solids removed in the course of control of air emissions may be disposed of in a manner such as to prevent the solids from becoming windborne and to prevent the materials from entering State waters.

4. The air pollution control facilities shall be constructed such that diversion from or bypass of collection and control facilities is not needed except (i) where unavoidable to prevent loss of life or severe property damage or (ii) when approved by the Mississippi Natural Resources Permit Board.

5. The construction of the facilities shall be performed in such a manner as to reduce both point source and fugitive dust emissions to a minimum.

6. The permittee shall allow the Mississippi Department of Natural Resources Bureau of Pollution Control and the Mississippi Natural Resources Permit Board and/or their representatives upon presentation of credentials:

   a. To enter upon the permittee's premises where an air emission source is located or in which any records are required to be kept under the terms and conditions of this permit; and

   b. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method required in this permit; and to sample any air emission.

7. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to:

   a. Violation of any terms or conditions of this permit;

   b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts, or

   c. A change in any condition that required either a temporary or permanent reduction or elimination of authorized air emissions.

8. Except for data determined to be confidential under the Mississippi Air and Water Pollution Control Law, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of Mississippi Department of Natural Resources Bureau of Pollution Control.

9. The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations.

10. Nothing herein contained shall be construed as releasing the permittee from any liability for damage to persons or property by reason of the installation, maintenance, or operation of the air cleaning facility, or from compliance with the applicable statutes of the State, or with local laws, regulations, or ordinances.

11. This permit is non-transferable.

12. This permit is for air pollution control purposes.

13. This permit shall become void upon completion of construction.

PART II
EMISSION LIMITATIONS AND MONITORING REQUIREMENTS

During the period beginning January 13, 1987, and lasting until January 1, 1988, the permittee is authorized to construct air emissions equipment for the emission of air contaminants from the Neuphor production process, including a carbon adsorption scrubber, Emission Point 038.

The air emissions equipment shall be constructed in accordance with design criteria in the application, plans, and other technical documents submitted with the application to construct.

PART III
OTHER REQUIREMENTS

During the Performance Evaluation Period and before a Permit to Operate can be issued, a stack test report must be submitted to the Bureau of Pollution Control. The report must describe both qualitatively and quantitatively the emissions from the carbon adsorption scrubber. The permittee must utilize test methods and procedures which have been approved by the Bureau. Also, the Bureau must be notified prior to the test date. At least ten (10) days notice should be given so that an observer can be scheduled to witness the test.