MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY CORRECTIVE ACTION PLAN FORMAT

General: This guidance presents the recommended content and format for the Corrective Action Plan. Please note that this guidance is comprehensive and does not segregate report content or format based on the varied media impacted. Also note that many of the content items are common for all impacted media. The primary difference is whether the contaminated media are soil, sediment, surface water or groundwater only or a combination thereof and whether contamination is on or off site. This format is designed to advise a person, prior to submitting an application, of the information necessary to achieve the adequate and cost-effective remediation of a Site. The guidance should be used and adapted as appropriate for the specific property being addressed. Strict adherence to this format and inclusion of the suggested contents will lessen the overall review time needed by the Mississippi Department of Environmental Quality (MDEQ) staff.

TITLE PAGE

A Title Page must be provided that includes, at a minimum, the following:

- 1) [SITE NAME] Corrective Action Plan
- 2) Date: [DATE]
- 3) Presented on behalf of: [PARTY]
- 4) Prepared by: [CONSULTING FIRM]
- 5) Signature and Seal of the Professional Engineer (PE), as necessary
- 6) Signature of the Project Manager

Note: Entries listed above in brackets and capitalized are specific to the Property

that is the subject of the Corrective Action Plan.

TABLE OF CONTENTS

A Table of Contents listing all required sections and their appropriate page number must be included.

SECTIONS

1.0 <u>Introduction</u>

1.1 Objectives/Rationale

Provide a general overview of the objectives and rationale for the Corrective Action Plan.

2.0 Conceptual Design

Present the conceptual design and identify the design elements (i.e., extraction flowrate, discharge limitations, radius of influence, limits of excavation, elimination of exposure routes, etc.). The conceptual flow design should be described and a schematic of the system should be presented. Include the acceptable ranges for the design elements, if applicable. Based on conclusions from Section 8.2 of the Site Characterization Report, prepare a detailed description of proposed remedial activities and describe how corrective actions will eliminate or reduce risk to human health and the environment. Remedial actions may include, where appropriate, land use restrictions and engineering controls.

3.0 System Components

Identify the system components (i.e., extraction well orientation, placement, and construction; manifold piping; vapor treatment equipment; instrumentation & controls, etc.) and design criteria.

4.0 Schedule

Prepare a detailed schedule for initiation and completion of all remedial actions.

5.0 Remedial Goals (RGs)

Describe the Remedial Goals (RGs) and how they will be met and measured.

6.0 Operation and Monitoring (O&M) Plan

Include a system operation and monitoring plan for both the system start-up phase and for long-term operations.

7.0 Performance Monitoring Plan

Include a performance monitoring plan that will be utilized to evaluate the effectiveness of the remedial action, particularly for active remedial options such as the installation of a pump and treat system. The performance monitoring program must include a list of indicators (i.e., hydraulic head monitoring for containment in a pump and treat system, etc.), and an acceptable range of values for each indicator. Include any verification sampling methodologies, procedures, frequency, number of parameters and Quality Assurance/Quality Control (QA/QC) considerations.

8.0 Compliance Monitoring Plan

Prepare a Compliance Monitoring Plan that addresses groundwater monitoring to ensure that the contamination has stabilized and/or will not migrate off-site. Typically, groundwater monitoring must begin with quarterly sampling for two years to account for seasonality and to provide enough data points to determine whether statistically significant trends are present. Proposals for a reduction in frequency of monitoring after the initial two years may be presented and approved on a site-specific basis.

9.0 Contingency Plan

Prepare a contingency plan that will be implemented should the proposed Corrective Action Plan not meet its goals. A set of performance measures should be proposed that would be utilized to "trigger" the implementation of the contingency plan. For example, Monitored Natural Attenuation is proposed, and down-gradient sentinel wells currently exhibit non-detectable concentrations of a contaminant. The "trigger" would be to activate the contingency plan should a sentinel well reach a concentration of 0.005 mg/L of the contaminant. A schedule for implementing the contingency plan must be included. A contingency plan that does not adequately address potential site contaminant exposure scenarios may require the Party to modify the CAP.

10. Quality Assurance Project Plan (QAPP)

It may be necessary to develop a Quality Assurance Project Plan (QAPP) to describe the policy, organization, functional activities, and quality control and quality assurance protocols necessary to achieve the level of data quality required during the Corrective Action process. A QAPP may have already been developed during the Site Characterization process and may only need to be amended to reflect the data quality requirements of the Corrective Action Plan.

11. Health and Safety Plan

A site-specific Health and Safety Plan (HASP) must be developed to outline the procedures and protocols necessary to ensure appropriate health and safety concerns have been addressed for on-site personnel. All Safety Protocols must be consistent with Section 4 of the EISOPQAM, unless otherwise approved by MDEQ. (See Exhibit 4.1 of EISOPQAM for HASP format)

- 11.1 Safety Plan Site Information
- 11.2 Site Investigation Team
- 11.3 Plan Preparation
- 11.4 Site Status
- 11.5 Emergency Information
- 11.6 Emergency Contacts
- 11.7 Safety and Health Risk Analysis
- 11.8 Hazard Evaluation
- 11.9 Overall Hazard
- 11.10 Site Perimeter Establishment
- 11.11 Recommended Level(s) of Protection
- 11.12 Air Monitoring (See Section 4.3.6 of EISOPQAM for the relationship between air monitoring and the appropriate levels of protection)