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MISSOURI
CORRECTIVE ACTION PLAN
October 1, 2000

By and Between
THE MISSOURI DEPARTMENT OF NATURAL RESOURCES
Jefferson City, Missouri

and

REGION VII
OF THE
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Kansas City, Kansas

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Missouri Corrective Action Plan October 1, 2000

I. Purpose and Scope

The Missouri Corrective Action Plan (MOCAP) will ensure the continued, orderly transition of the corrective action program from the federal to state level. During the interim authorization period for Missouri's corrective action program, which became effective on April 25, 1994, the state and U.S. Environmental Protection Agency, Region VII (EPA) operated within the framework of the Missouri Interim Authorization Plan for Corrective Action dated June 29, 1993. The MOCAP supersedes the referenced interim plan, but does not supersede other Memorandums of Agreement (MOAs) between the state and EPA unless specifically stated herein. This plan specifically addresses procedures for coordination of corrective action permits, orders, expedited actions and the deliverables associated therewith.

The MOCAP describes the roles of EPA and the state relative to corrective action project lead, support and oversight. It defines expectations concerning training, contractor usage and program resources. This plan generally describes procedures for issuing the corrective action portion of permits, state corrective action orders, review of corrective action deliverables and coordination of corrective action activities with the state's groundwater-related evaluations (e.g., Comprehensive Groundwater Monitoring Evaluations (CMEs) and Operation and Maintenance (O&M) Inspections) at hazardous waste facilities. This plan also outlines the framework under which the state will consider and provide oversight for expedited corrective action activities pursuant to letters of agreement with facilities.

II. Roles and Responsibilities

During development of the state's overall corrective action program capabilities, the state and EPA have cooperated by work sharing on the development, issuance and implementation of work required by corrective action permits and orders. Under the MOCAP, the roles and responsibilities of the state and EPA will differ somewhat for permits, orders and expedited corrective action. The Facility Management Plan (FMP), which is negotiated between the state and EPA, has been and will continue to be the instrument for defining the lead responsibility for permits, orders and expedited actions. The FMP will be revised periodically to reflect changes in the lead agency for corrective action and the status of corrective action projects. Corrective action activities will be coordinated with the state's preparation of CMEs, O&M Inspections, Annual Groundwater Monitoring Report reviews and other corrective action-related activities to ensure consistent application of appropriate technical guidance and compliance with applicable regulatory requirements.

Entry of corrective action data into the Resource Conservation and Recovery Information System (RCRIS)/Resource Conservation and Recovery Act Information (RCRA Info) database is a shared responsibility between the Hazardous Waste Program (HWP) and EPA. The HWP is responsible for all RCRIS/RCRA Info corrective action data entry on state- and joint-lead corrective action projects, as designated in the FMP, conducted pursuant to permits, orders and letters of agreement. EPA remains responsible for RCRIS/RCRA Info corrective action data entry on EPA-lead projects, as designated in the FMP, conducted pursuant to permits, orders or other agreements.

III. Permit Procedures

The corrective action portion of new or reissued permits for hazardous waste management (RCRA) facilities will be issued under state authority. The Missouri Department of Natural Resources' (DNR) HWP will be the lead agency in developing these permits, reviewing the corrective action deliverables submitted thereunder and coordinating all such reviews with appropriate personnel and agencies. The HWP will utilize a combination of general, standard and site-specific permit language in developing corrective action-related permit conditions.

New facilities may periodically be added to the RCRA TSD universe. The HWP will prepare, or cause such facilities to prepare, a RCRA Facility Assessment (RFA) as part of the permitting process. As necessary, the HWP's goals for RFA preparation will be incorporated into the FMP. The HWP will coordinate all activities necessary to complete each RFA. If requested by the HWP, EPA will act in a technical support role and will review and comment on RFA-related work products (e.g., site inspection and information requests, work plans, sampling plans, draft and final RFA reports) prepared by the HWP within 30 days of receipt. When EPA is serving in a technical support role for RFA preparation at the HWP's request, the HWP's Project Officer (PO) will respond to all of EPA's comments and will either accept the comments, modify the comments so as to be mutually acceptable to the HWP and EPA, or notify EPA if there is continuing disagreement.

EPA's RCRA Facility Assessment Guidance, October 1986, OSWER Directive 9502.00-5 and other appropriate guidance will be used to guide preparation of each RFA. Upon completion of each RFA, the HWP will transmit a copy of the final RFA to EPA and the facility or, in the case of a facility-prepared RFA, the HWP will ensure that a copy of the final RFA is transmitted to EPA by the facility. In either case, the HWP will prepare and transmit to EPA a final RFA approval form, which specifies the HWP's recommended corrective action management strategy for that facility.

In preparing the corrective action portion of permits, the HWP will review all pertinent information including the RFA report, permit application, facility files and correspondence. A schedule for submittal of corrective action deliverables will be established in each permit as necessary. This schedule will be based on the general nature and scope of actual/potential releases at each facility, the corresponding environmental priority and the nature and scope of previous corrective action activities, if any, already completed. The need for stabilization using interim measures will be considered. All Solid Waste Management Units (SWMUs) and Areas of Concern (AOCs) requiring further corrective action will be specified in each permit.

The HWP is responsible for drafting corrective action permit language, issuing the draft permit, facilitating public participation related to the draft permit, responding to public comments and issuing the final permit. The FMP will specify when an existing EPA permit or order is scheduled to be replaced by a state permit. The HWP is responsible for coordinating all permit-related activities with EPA to ensure that appropriate site-specific requirements from previously-issued EPA permits and orders are covered by and integrated into the replacement permit. The HWP's PO will be responsible for coordinating these tasks both internally (i.e., with other sections/programs) and externally (i.e., with EPA).

EPA retains authority for the Hazardous and Solid Waste Amendments (HSWA) regulations which the state has not yet adopted via rulemaking. EPA will continue to issue HSWA permits covering these regulatory requirements until such time as the regulations are adopted by the state. Regulations/requirements that have been adopted by the state but not yet authorized by EPA will be incorporated into the state portion of each permit and will be enforced, as appropriate, under state law. The HWP PO will be responsible for drafting and coordinating preparation of each HSWA permit covering the noted requirements. Permits previously issued by EPA, which contain corrective action provisions, will continue to be under EPA's legal authority until terminated by EPA and reissued by the state. The decision to terminate any federal corrective action permit, other than by expiration, will be specified in the FMP.

If requested by the HWP, EPA will act in a permit development support role on state-issued permits. EPA will receive permit applications and other submittals from facilities and will be provided with an opportunity to offer comments to the HWP on the permit applications, other submittals, draft Notices of Deficiency and HWP-prepared draft/final permits before they are sent out. EPA reserves the right pursuant to 40 CFR § 271.19 to review and comment on all state-lead permit applications and draft permits. EPA also reserves the right to take any necessary enforcement action related to state-issued permits pursuant to applicable federal laws and regulations.

If requested by the HWP, EPA will serve in a technical support role for corrective action performed under state-issued permits, providing review and comment on deliverables under such permits, as appropriate. When EPA is serving in a technical support role for a state-issued permit at the HWP's request, the HWP's PO will respond to all of EPA's comments and will either accept the comments, modify the comments so as to be mutually acceptable to the HWP and EPA, or notify EPA if there is continuing disagreement.

Primary technical oversight for EPA-issued permits falls into two categories. Primary technical oversight for permits, the corrective action (HSPA) portion of which was developed by EPA, will reside with EPA unless the FMP specifically redefines that responsibility. Primary technical oversight for those permits, the corrective action (HSPA) portion of which was developed by the HWP on behalf of EPA, will reside with the HWP unless otherwise defined in the FMP. When primary technical oversight is provided by the HWP, the HWP will prepare and provide to EPA draft approval, disapproval and/or permit modification documents for EPA's review, approval, modification and/or signature. If EPA believes that significant revision of the HWP's draft documents is necessary, EPA will consult with the HWP before making such revisions. Corrective action technical review and comment correspondence will be sent directly from the HWP to the facility after EPA has had an opportunity to review and comment on the HWP's draft correspondence. If no comments are received from EPA within 30 days of receipt of the HWP's draft correspondence, the HWP may finalize such correspondence and transmit it directly to the facility. If comments are received from EPA, the HWP's PO will respond to all of EPA's comments and will either accept the comments, modify the comments so as to be mutually acceptable to the HWP and EPA, or notify EPA if there is continuing disagreement.

IV. Order Procedures

Corrective action orders may be issued in Missouri under either state or federal authority. The HWP and EPA will coordinate during the FMP process and/or by conference on the choice of state or federal authority for the issuance of corrective action orders. The EPA and the HWP will attempt to specify which facilities are targeted for corrective action orders in the FMP. During FMP development, EPA and the HWP will discuss the level of coordination that is anticipated for issuance and implementation of such orders and develop mutually acceptable time lines for order development and issuance. The lead agency/order authority identified in the FMP will determine whether EPA or the HWP will coordinate the development and issuance of specific orders.

A completed RFA or information that meets the substantive requirements of an RFA shall be available at the time a final decision is made that a facility will be issued a corrective action order. Except where a release is discovered that requires an emergency response, the RFA or equivalent information shall be

available at least 30 days prior to transmitting a draft order to a facility, in the case of an order on consent, or the final order, in the case of a signed unilateral order. The RFA or equivalent information will be part of the corrective action administrative record, will be used to support issuance of the order and will be made available to the public (minus any confidential business information or enforcement sensitive portions).

The HWP will be the lead agency in developing state orders, reviewing the corrective action deliverables submitted thereunder and coordinating all such reviews with appropriate personnel and agencies. The HWP will form a team to develop and implement each state corrective action order. The team will review information and data on the technical aspects of the order and make arrangements for internal legal and technical assistance during order development. As appropriate, EPA will provide guidance and assistance to the HWP during the order development process and each agency's files will be made available to the other agency to assist in order development. EPA may provide guidance to the HWP regarding order content and format. The HWP will consider such guidance within the context of applicable state laws and regulations.

In the case of orders on consent, a transmittal letter to the facility, sent certified mail, will accompany the draft order (with a copy to EPA) stating that the facility has a specified number of calendar days (typically 30) from receipt of the draft order to enter into negotiations on the order. The transmittal letter may also specify that the negotiation process be completed within a specified number of calendar days of order receipt and/or that order time frame extension requests will be considered on a case-by-case basis. If a facility fails to respond within the specified order negotiation notification time frame, the department may, at its discretion, finalize the draft order on consent as a unilateral order. In the case of final unilateral orders, the order transmittal letter will reference the facility's right of appeal pursuant to the state's Hazardous Waste Management Law and Regulations.

Draft state corrective action orders on consent, unilateral final orders and order attachments will be provided to EPA by the HWP for review at the time they are transmitted to the facility. EPA may, at its discretion, review and comment on the HWP's draft state orders on consent and order attachments. Following any substantive revisions to draft orders on consent resulting from the negotiation process, a copy of the revised order and any order attachments will be provided to EPA for further review and comment. EPA may again, at its discretion, review and comment on the revised order on consent and order attachments. If any order-related comments are received from EPA, the HWP will respond to all of EPA's comments and will either accept the comments, modify the comments so as to be mutually acceptable to the HWP and EPA, or notify EPA if there is

continuing disagreement. Any necessary changes to draft orders on consent will be handled during the order negotiation process.

The Missouri Department of Natural Resources (DNR) and EPA expect that most state corrective action final orders will be consensual; however, the HWP reserves the right to issue orders unilaterally, if warranted. All state corrective action final orders whether consensual or unilateral are subject to appeal pursuant to Missouri's Hazardous Waste Management Law and Regulations, with certain exceptions (i.e., a party consenting to an order may not appeal that order; however, third parties are not precluded from appealing an order on consent). Once a final order on consent has been developed, Missouri's AGO will transmit a copy of the final order to the facility for signature, requesting that the signed original final order be returned for agency signature. Once signed by all parties, the HWP will provide copies of the signed order to the facility and EPA.

The HWP will coordinate any necessary state order-related meetings and teleconferences with the facility, EPA and other stakeholders. The HWP and EPA will treat order-related meetings and teleconferences as a high priority. Once a state corrective action order is issued, the HWP PO will act as the primary lead on review, comment, coordination and tracking of order deliverables, including RCRIS/RCRA Info data entry for all state-lead corrective action order activities. The HWP will also have the lead in field oversight of corrective action activities, including any necessary coordination with the DNR's Division of Geology and Land Survey (DGLS), the DNR's Environmental Services Program (ESP), Missouri Department of Health (MDOH) and other agencies, as appropriate.

If requested by the HWP and/or as resources allow, EPA will serve in a technical support role for corrective action performed under state-issued orders, providing review/comment on facility deliverables and/or agency comment letters to the facility, as appropriate. The HWP PO will notify EPA of any schedule requirements, modifications or specific issues for resolution to ensure adequate and timely reviews of such deliverables and/or comment letters. When EPA is serving in a support role at the HWP's request, the HWP's PO will respond to all of EPA's comments and will either accept the comments, modify the comments so as to be mutually acceptable to the HWP and EPA, or notify EPA if there is continuing disagreement.

Corrective action orders previously or hereafter issued by EPA will remain under EPA authority until terminated by EPA as completed and/or incorporated into a state corrective action permit or order. Primary technical oversight for EPA orders falls into two categories. Primary technical oversight for EPA orders will reside with EPA unless the FMP specifically redirects that responsibility to the HWP. When primary technical oversight is provided by the HWP, the HWP will

prepare, and provide to EPA, draft approval, disapproval and/or order amendment documents for EPA's review, approval, modification and/or signature. If EPA believes that significant revision of the HWP's draft documents is necessary, EPA will consult with the HWP before making such revisions. Corrective action technical review and comment correspondence will be sent directly from the HWP to the facility after EPA has had an opportunity to review and comment on the HWP's draft correspondence. If no comments are received from EPA within 30 days of receipt of the HWP's draft correspondence, the HWP may finalize such correspondence and transmit it directly to the facility. If comments are received from EPA, the HWP's PO will respond to all of EPA's comments and will either accept the comments, modify the comments so as to be mutually acceptable to the HWP and EPA, or notify EPA if there is continuing disagreement.

EPA and DNR reserve their respective rights to issue orders as may be necessary to respond to findings of endangerment to public health or the environment. EPA retains the authority to issue corrective action orders under federal authority, but will consult with and notify the HWP prior to the issuance of any federal corrective action orders in Missouri. EPA recognizes that the state possesses state authority to issue state corrective action orders; however, the issuance of such orders is pursuant to state laws and regulations and does not preclude EPA's issuance of corrective action orders under federal authority, including Section 3008(h) of RCRA, which is not part of the state's authorized program. Reservation of rights language, which does not preclude EPA's right to require further corrective action will be included in state corrective action orders. EPA also reserves the right to issue orders as part of facility- or company-specific enforcement actions.

V. Expedited Corrective Action Procedures

EPA recognizes that the state possesses authority to issue state corrective action Letters of Agreement (LOAs) and/or other corrective action agreements; however, the issuance of such LOAs or other agreements does not preclude EPA's issuance of corrective action orders under federal authority. Statutory language supporting implementation of expedited corrective action is found in § 260.375(14), RSMo, which states that the Missouri Department of Natural Resources (DNR) shall "Encourage voluntary cooperation by persons or affected groups to achieve the purposes of Sections 260.350 to 260.430." Expedited corrective action activities will be undertaken in accordance with the Memorandum of Understanding (MOU) between DNR and EPA, which is included as Attachment II.

The HWP expects that all expedited corrective action activities will be designed to meet the substantive corrective action requirements of RCRA including providing opportunities for meaningful public involvement. Accelerated site

investigation and final remedy selection using the HWP's Expedited Corrective Action Program is expected to occur primarily through a reduction in administrative burden rather than a reduction in technical/regulatory oversight. DNR expects technical review/evaluation and regulatory oversight for expedited corrective action projects to be comparable to that associated with traditional permits and orders. Expedited corrective action investigations and deliverables will be subject to ongoing, comprehensive agency review, oversight and approval. The level of site investigation required of facilities and any required final remedies will be protective of human health and the environment. The HWP will be the lead agency in developing LOAs or other corrective action agreements, reviewing the corrective action deliverables submitted thereunder and coordinating all such reviews with appropriate personnel and agencies. The "model" LOA included as Attachment III will be used in development of facility-specific LOAs. Reservation of rights language, which does not preclude EPA's right to require further corrective action, will be included in state corrective action LOAs and other corrective action agreements. The HWP will be responsible for drafting expedited corrective action LOAs, negotiating the LOA, transmitting the final LOA to the facility and providing primary oversight for all corrective action activities performed thereunder. The HWP PO will be responsible for coordinating these tasks both within and outside of the agency.

The LOAs will be structured such that either party may terminate the agreement at any time. If a LOA is terminated by either the facility or the state, corrective action may proceed under other mechanisms, such as a state or federal corrective action order. Satisfactory completion of expedited corrective action specified in a LOA will result in DNR issuing a Certification of Completion to the facility. The Certification of Completion may include a determination of "no further corrective action" by DNR, but will not automatically trigger termination of a facility's interim status. Site investigation, monitoring and remediation performed pursuant to LOAs will be carefully considered by EPA and the HWP in any final determinations regarding the need, or lack thereof, for further corrective action. All information and data generated pursuant to LOAs will also be considered by EPA and the HWP in the evaluation and formulation of decisions regarding termination of interim status.

If requested by the HWP and/or as resources allow, EPA will serve in a technical support role for corrective action performed under state-issued LOAs, providing review/comment on facility deliverables and/or agency comment letters to the facility, as appropriate. When EPA is acting in a technical support role, the HWP PO will ensure that EPA receives a copy of all expedited corrective action deliverables and related correspondence. In addition, when EPA is serving in a technical support role at the HWP's request, the HWP's PO will respond to all of EPA's comments and will either accept the comments, modify the comments so as to be mutually acceptable to the HWP and EPA, or notify EPA if there is continuing disagreement.

The HWP anticipates that expedited corrective action performed pursuant to LOAs will generally be sufficient to justify termination of a facility's interim status to the extent that: 1) the facility is no longer operating as a TSD; 2) the facility has completed closure and post-closure care (if required); 3) DNR and EPA have determined that no further corrective action is necessary; and 4) opportunities for meaningful public involvement were provided during the course of the LOA corrective action process.

Facility-specific LOAs will contain provisions requiring public participation, at a minimum, at the time of final remedy proposal to facilitate public review and comment on the proposed final remedy prior to agency approval and subsequent facility implementation. Additional opportunities for public participation may be necessary for significant interim measures or other administrative actions associated with corrective action (e.g., contained-in/-out determinations, treatability variances, post-closure rule determinations,). The HWP will ensure that the level of corrective action public involvement for specific actions at individual facilities is commensurate with the level of public interest in such actions/facilities and that public participation is handled in accordance with all applicable regulatory requirements.

Once DNR has determined that the four interim status termination criteria referenced above have been met, the HWP will transmit a complete copy (or portions thereof not previously provided to EPA) of the corrective action administrative record to EPA for facilities performing corrective action pursuant to LOAs. EPA will review DNR's recommendation and corrective action administrative record for the facility and, based on all relevant information and data, EPA will respond to specific requests for review of DNR's "no further corrective action" determination in accordance with the Facility Management Plan which is negotiated between DNR and EPA Region VII. The administrative record will be accompanied by the HWP's request that EPA review the corrective action administrative record within forty-five (45) days and render an independent determination concerning the need for further corrective action. EPA will attempt to expeditiously render any such determination and will transmit any "no further corrective action" determination via letter to the facility with a copy to the HWP. If EPA does not agree with DNR's "no further corrective action" determination, EPA shall notify DNR in writing, including the basis for the disagreement, and advise DNR as to what further corrective action EPA believes to be necessary. This matter will then be discussed between DNR and EPA until a mutually-agreeable resolution is reached.

Once the requested time frame for EPA's independent review has expired and EPA has issued its "no further corrective action" determination letter or has not taken action to do so, the HWP shall follow procedures for terminating interim

status as set forth in 10 CSR 25-7.270(2)(G). EPA reserves the right to comment and/or object during the comment period for terminating interim status.

For facilities that have already lost interim status through failure to comply with applicable requirements within statutory deadlines, the HWP will conduct the above "no further corrective action/termination of interim status" coordination procedures. For facilities that have lost interim status, the HWP is not required to follow the other termination of interim requirements set forth in 10 CSR 25-7.270(2)(G). At a minimum, the HWP will give public notice that these facilities, typically referred to as Loss of Interim Status or "LOIS" facilities, have completed all necessary corrective action, and the public will be given an opportunity to review and comment on the adequacy of such decision. EPA reserves the right to comment and/or object during the public comment period for such corrective action.

VI. Review of Corrective Action Deliverables

This section describes the various types of deliverables that may be required under corrective action instruments. EPA and the HWP recognize that application of these requirements is facility-specific and that all categories of the following work plans and reports will not necessarily be required at each facility.

RCRA Facility Sampling (RFS: Release Assessment) and RCRA Facility Investigation (RFI) Work Plans and Reports

The subject work plans and reports must address all elements and objectives established in the facility permit, order or expedited corrective action LOA and must be submitted according to the schedule(s) contained therein. EPA's RCRA Facility Investigation Guidance, Interim Final, May 1989, OSWER Directive 9502.00-6D; RFI Checklist; RCRA Corrective Action Plan, Final, May 1994, OSWER Directive 9902.3-2A; Subpart S Proposed Rule, July 27, 1990; and Advance Notice of Proposed Rulemaking, May 1, 1996; are available for use as guidance in reviewing RFS and RFI Work Plans and Reports. RFS and RFI Work Plan and Report comment letters, approvals and associated tracking will be handled in accordance with the Hazardous Waste Permits Section - Procedures Manual.

Oversight of RFS and RFI field activities will be the primary responsibility of the lead agency. The level of such oversight will vary and will be based on site-specific circumstances and conditions. Guidance contained in Region VII's Regional Policy on Differential Corrective Action Oversight and Corrective Action Oversight Guidance, OSWER Directive 9902.7, may be used in determining the appropriate level of oversight on specific projects.

Interim/Stabilization Measures Work Plans and Reports

The subject work plans and reports must address all elements and objectives established in the facility permit, order or expedited corrective action LOA and must be submitted according to the schedule(s) contained therein. EPA's RCRA Corrective Action Interim Measures Guidance, OSWER Directive 9902.4; RCRA Corrective Action Plan, Final, May 1994, OSWER Directive 9902.3-2A; Subpart S Proposed Rule, July 27, 1990; RCRA Stabilization Strategy: Advance Notice of Proposed Rulemaking, May 1, 1996; are available for use as guidance in reviewing Interim/Stabilization Measures Work Plans and Reports. Interim/Stabilization Measures Work Plan and Report comment letters, approvals and associated tracking will be handled in accordance with the Hazardous Waste Permits Section - Procedures Manual.

Corrective Measures Study (CMS) Work Plans

The subject work plans must address all elements and objectives established in the facility permit, order or expedited corrective action LOA and must be submitted according to the schedule(s) contained therein. EPA's CMS checklist, RCRA Corrective Action Plan, Final, May 1994, OSWER Directive 9902.3-2A; Subpart S Proposed Rule, July 27, 1990; and Advance Notice of Proposed Rulemaking, May 1, 1996; are available for use as guidance in reviewing CMS Work Plans. CMS Work Plans should be reviewed with emphasis on evaluation of a facility's conceptual approach to the more detailed evaluation of remedial alternatives to be presented in the CMS report, and the associated format/schedule for CMS completion. In a facility-specific context, the reviewer should ensure that any plausible remedial alternatives are not omitted from consideration in the CMS Work Plan. CMS Work Plan comment letters, approvals and associated tracking will be handled in accordance with the Hazardous Waste Permits Section - Procedures Manual.

Corrective Measures Study (CMS) Reports

The subject reports must address all elements and objectives established in the CMS Work Plan and facility permit, order or expedited corrective action LOA and must be submitted according to the schedule(s) contained therein. EPA's CMS checklist; RCRA Corrective Action Plan, Final, May 1994, OSWER Directive 9902.3-2A; Subpart S Proposed Rule, July 27, 1990; and Advance Notice of Proposed Rulemaking, May 1, 1996; are available for use as guidance in reviewing CMS Reports. CMS Report comment letters, approvals and associated tracking will be handled in accordance with the Hazardous Waste Permits Section - Procedures Manual.

Final Remedy Selection/Approval

The lead agency will prepare a Statement of Basis (SB), with input from the support agency, summarizing the corrective measures alternatives that were evaluated by a facility and specifying a preferred final remedy at each facility that requires a final remedy. EPA's Subpart S Proposed Rule, July 27, 1990; Statement of Basis, Final Decision and Response to Comments Guidance, February 1991, EPA/540/G-91/011; and Advance Notice of Proposed Rulemaking, May 1, 1996; are available for use as guidance in SB development.

The SB, draft permit modification (or proposed use of a draft order/order amendment for final remedy implementation) and all relevant work plans, reports and documents comprising the corrective action administrative record for a given facility will be made available for public review at a local information repository and at Missouri Department of Natural Resources' (DNR)/EPA's offices. The lead agency or the facility (in the case of LOAs) will publish a public notice in a local newspaper of general circulation announcing the proposed final remedy, the availability of the administrative record and the opportunity for public review/comment on the proposed final remedy prior to agency selection/approval. Proposed final remedies developed as part of expedited corrective action LOAs, as supported by a SB or a fact sheet containing equivalent information and a local information repository containing the corrective action administrative record, will be summarized as above and placed on public notice for review and comment prior to selection/approval of a final remedy.

The lead agency will prepare responses to any comments received during the public comment period on the proposed final remedy. If the technical lead and enforcement authority (i.e., the signatory on the current permit, order or LOA) are different agencies, a draft of the response to comments and a requested review time frame will be provided by the lead agency to the agency with the enforcement authority for review and comment prior to finalization. The lead agency will respond to all of the other agency's comments and will either accept the comments, modify the comments so as to be mutually acceptable, or notify the other agency if there is continuing disagreement.

The lead agency will issue the response to public comments, select/approve the final remedy (unless it is otherwise determined that selection/approval by the agency with the enforcement authority is required) and create/modify the regulatory mechanism used to implement the final remedy. If no comments are received during the public comment period or those that are received are successfully resolved without significantly affecting the proposed final remedy, the lead agency will select/approve the proposed final remedy set forth in the SB or equivalent fact sheet. Approval of a final remedy by the HWP and associated

tracking will be performed in accordance with the Hazardous Waste Permits Section - Procedures Manual.

Corrective Measures (Final Remedy) Implementation (CMI)

The selected/approved final remedy will be implemented in accordance with the schedule contained in the approved CMS report or equivalent and/or the schedule of compliance contained in the modified permit, order or LOA. Financial assurance for corrective action under permits will be required, typically within 120 days of permit modification to incorporate the approved final remedy. Financial assurance for corrective action under other regulatory mechanisms will be handled on a case-by-case basis pursuant to applicable federal and state laws, regulations, policies and facility-specific agreements.

The lead agency will be responsible for review and tracking of all CMI deliverables including work plans and reports. Design documents will be reviewed against accepted engineering and/or geologic practice and applicable portions of EPA's RCRA Corrective Action Plan, Final, May 1994, OSWER Directive 9902.3-2A; CMI checklist; Subpart S Proposed Rule, July 27, 1990; and Advance Notice of Proposed Rulemaking, May 1, 1996. Appropriate lead agency oversight will be provided during each CMI phase including construction, start-up and operation and will include evaluation of the final remedy in meeting performance standards and clean-up goals. Review of CMI elements and associated tracking will be performed in accordance with the Hazardous Waste Permits Section - Procedures Manual.

RCRA Stabilization and Environmental Indicator Evaluations

The HWP will prepare and/or participate in the preparation of RCRA corrective action Stabilization and Environmental Indicator (EI) Evaluations. The number and timing of these evaluations will be negotiated with EPA during the FMP process. Appropriate EPA stabilization and EI evaluation guidance will be utilized to guide the preparation of these evaluations. This guidance includes Guidance on Managing the Corrective Action Program for Environmental Results: The RCRA Facility Stabilization Effort, October 25, 1991; EPA's Interim Final Guidance for RCRA Corrective Action Environmental Indicators, February 5, 1999, all worksheets and RCRIS data element dictionary information associated with the foregoing; and any new guidance developed by EPA. Preparation of Stabilization/EI evaluations and associated tracking will be performed in accordance with the Hazardous Waste Permits Section - Procedures Manual.

VII. Compliance with Permits and Orders

Enforcement of corrective action permits and orders will be consistent with existing enforcement agreements and principles. Where EPA is the issuing authority for a permit or an order, but the HWP has lead technical oversight responsibility, the HWP will provide EPA notice of any initial determinations of non-compliance by a facility. The HWP will advise EPA as to the nature and scope of these determinations and may provide recommendations to EPA regarding enforcement action(s) based on the nature of any violation(s) to respond to such violations and to effectively return the facility to compliance. EPA will coordinate with the HWP on any final determinations of non-compliance with corrective action requirements for facilities where the HWP has the technical lead and will provide the HWP notice prior to commencement of any enforcement action related to non-compliance with such requirements.

The HWP may make determinations of compliance or non-compliance with state-issued corrective action permits and orders and communicate such determinations directly to facilities without prior notice to EPA. Where the state has found significant violations of permits that may be defined as "high priority violations," the HWP will consult with EPA regarding such violations. EPA reserves the right to comment on, determine compliance with and/or enforce state-issued permits as set forth at 40 CFR § 271.19. The HWP will ensure that all violations identified by the state are entered into and accurately reflected in EPA's RCRIS/RCRA Info database.

VIII. Training

EPA will provide training to the HWP on various aspects of corrective action and related topics, as resources allow. The HWP will also provide for non-EPA training, as appropriate, to ensure long-term success in state implementation of the Corrective Action Program. Introductory training will continue to be necessary to address the needs of new corrective action staff. Advanced training will be necessary to address the needs and enhance the skills of more experienced corrective action staff. The following general areas have been identified as those for which training will be required:

- Federal/State Regulations and Guidance (e.g., Corrective Action/Permitting Overview and related regulations training)
- Site Assessment and Investigation (e.g., RFA/RFI, groundwater)
- Risk Assessment, Management and Decision-Making
- Remedial Alternatives Evaluation and Implementation (e.g., CMS/CMI)
- Corrective Action Order Development and Negotiation
- Project Management, Communication and Leadership Skills
- Public Participation and Systematic Development of Informed Consent

IX. Use of Contractors

Contractors may be used in review and evaluation of corrective action deliverables. The HWP may use its own resources for this purpose and may, depending upon availability, be able to utilize EPA's resources on a site-specific basis for this purpose.

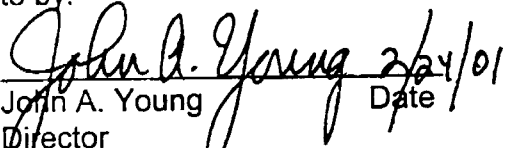
X. Resources

It is understood by the Missouri Department of Natural Resources (DNR) and EPA that adequate financial and human resources are necessary to carry out this plan, including performance of corrective activities to meet the goals established in the State-EPA Performance Partnership Agreement and associated Facility Management Plan. As necessary and appropriate, the HWP shall obtain technical, legal and/or other assistance from other state Departments, DNR Divisions and Division of Environmental Quality (DEQ) Programs in carrying out implementation of the state's Corrective Action Program. These include, but are not limited to, the Missouri Department of Health, the Missouri Attorney General's Office, the DNR's Division of Geology and Land Survey and DEQ's Environmental Services Program.

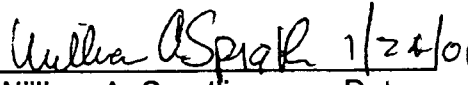
XI. Modification and Termination

The Missouri Department of Natural Resources (DNR) and EPA may periodically modify the MOCAP to simplify, clarify, and/or revise the specifications contained herein. DNR and EPA shall keep each other informed of any proposed or actual amendments to applicable state or federal statutory/regulatory authority, directives, guidance, and legal/regulatory interpretations as may impact the MOCAP. The MOCAP will be periodically reviewed by DNR and EPA to determine if revisions are necessary. Any revision of the MOCAP must be mutually agreed to in writing by DNR and EPA, and the revised MOCAP must be signed by the signatories or their designees to be effective. DNR and EPA may unilaterally terminate this MOCAP at any time. Any notice of termination must be in writing and shall be effective no sooner than 30 calendar days from the date the termination notice is received.

This Missouri Corrective Action Plan is effective upon signature of both parties. Agreed to by:



John A. Young Date
Director
Division of Environmental Quality
Missouri Department of Natural Resources



William A. Spratlin Date
Director
Air, RCRA, and Toxics Division
U. S. EPA Region VII

Attachment I



ATTORNEY GENERAL OF MISSOURI

JEFFERSON CITY

65102

JEREMIAH W. JAYNDON
ATTORNEY GENERAL

P.O. Box 899
(573) 751-3321

March 18, 1997

Jennifer MacDonald, Esq.
Office of Regional Counsel
EPA, Region VII
726 Minnesota Ave.
Kansas City, KS 66101

Re: Missouri Corrective Action Authority

Dear Ms. MacDonald

At your request, our office has reviewed the Missouri Hazardous Waste Management Law (MHWML) at §§ 260.350-.552, RSMo and its accompanying regulations and is hereby providing this statement that the laws of the state of Missouri contain adequate authority to carry out a corrective action program in Missouri which is equivalent to and consistent with the federal corrective action program under the Resource Conservation and Recovery Act (RCRA).

As you know, the RCRA corrective action provisions are found at 42 U.S.C. § 6924(u)-(v), 42 U.S.C. § 6928(h), 42 U.S.C. § 6973 and, to a limited extent, 42 U.S.C. § 6934. Each of these provisions and their Missouri equivalent will be discussed below.

A. 42 U.S.C. § 6924(u)-(v).

Section 6924(u) provides that treatment, storage and disposal (TSD) facility permits issued after 1984 shall require corrective action for all releases of hazardous waste or constituents from any solid waste management unit, regardless of the time at which the waste was placed in such unit. Where corrective action can not be completed prior to issuance of the permit, the permit shall contain a compliance schedule and assurances of financial responsibility. Section 6924(v) provides that corrective action may be taken beyond the facility boundary where necessary to protect human health and the environment unless the owner or operator of the facility can adequately demonstrate that, despite the owner or operator's best efforts, it was unable to obtain the necessary permission to undertake such action.

Under § 260.370.3(1)(b) and (d), RSMo, the Missouri Hazardous Waste Commission (the Commission) has broad authority to adopt rules and regulations governing the treatment, storage and disposal of hazardous waste and governing the issuance, modification, suspension, revocation

or denials of permits as are consistent with the purposes of the MHWML. Under § 260.375(12)-(13) and (15), RSMo, the Missouri Department of Natural Resources (MDNR) must require all hazardous waste facility owners and operators to obtain a permit. MDNR has the authority to issue, continue in effect, revoke, modify or deny such permits to hazardous waste facilities and may issue such orders necessary to fulfill the provisions of the MHWML and permit terms and conditions issued thereunder. Further, MDNR has the authority to include any term or condition in a hazardous waste permits which it determines to be necessary to protect human health and the environment. § 260.395.9-12, RSMo. See also 10 CSR 25-7.264(1), incorporating by reference 40 C.F.R. § 270.32 (allowing MDNR to establish necessary permit conditions to protect human health and the environment).

In its hazardous waste facility permit regulations, the Commission has incorporated the federal corrective action regulations at 40 C.F.R. § 264.100-.101. See 10 CSR 25-7.264(1). Additionally, the Commission has included certain requirements governing releases from solid waste management units which mirror the federal requirements noted above. 10 CSR 25-7.264(2)(F). This regulation has several noteworthy provisions:

1. MDNR has the authority, during the issuance, reissuance or modification of a permit, to place conditions on the permit if it believes there is a significant risk to human health or the environment resulting from ground or surface water contamination from operation of a hazardous waste facility or any solid waste management unit.
2. The owner/operator must document all efforts taken to monitor groundwater or take corrective action beyond the facility boundary.
3. The facility permit must include a course of action for completing corrective action.
4. The facility is required to establish a surface water monitoring program designed to protect human health and the environment, with certain minimum requirements.
5. If MDNR determines that there is a substantial threat to human health and the environment from reports submitted under a surface water monitoring program, it will direct the owner/operator to take corrective action through a permit modification.

Based upon the foregoing statutes and regulations, it is our opinion that Missouri had adequate authority to carry out corrective action under its permit program, which is at least as stringent as the federal requirements at § 6924(u) and (v).

B. 42 U.S.C. 6928(h).

This section provides that EPA may order corrective action or any other necessary response measure if it determines that there is or has been a release of a hazardous waste into the environment from an interim status facility. Failure to comply with a corrective action order under this provision may result in civil penalties up to \$25,000 for each day of noncompliance.

MDNR has been given broad statutory authority under § 260.375(29), RSMo, to "control, abate or clean up any hazardous waste placed into or on the land in a manner which endangers or is reasonably likely to endanger the health of humans or the environment" MDNR, through the Attorney General's Office or a prosecuting attorney, may seek mandatory or prohibitory injunctive relief or other appropriate relief to address hazardous waste contamination. MDNR may also take "such action as is necessary" to recover its response costs associated with the cleanup of hazardous waste from any person responsible for the waste. *Id.*

Missouri also has a specific statute, § 260.420, RSMo, which contains broad imminent hazard provisions serving the same function as § 6938(h). *See also* § 260.375(16), RSMo (granting MDNR authority to enter such orders or cause to be instituted such legal proceedings as may be necessary in a situation of imminent hazard). If MDNR determines that any hazardous waste activity may present an imminent hazard "by placing or allowing escape of any hazardous waste into the environment or exposure of people to such waste which may be cause of death, disabling person injury, serious acute or chronic disease or serious environmental harm," then MDNR or the Commission may take whatever action necessary to protect human health and the environment. MDNR and the Commission's authority under this statute includes, but is not limited to, the authority to:

1. Issue orders to the generator, transporter, facility operator or any other person having custody or control of the hazardous waste to eliminate the hazard, which may include the temporary or permanent cessation of activity at the facility.
2. Issue orders directing a permitted TSD facility to treat, store or dispose of any waste cleaned up under this statute.
3. Acquire lands if necessary to protect human health and the environment (only if cost effective and all other options exhausted).
4. Sell or lease any property that has been cleaned up so as to no longer constitute threat to human health or the environment.
5. Cause to be filed a temporary restraining order, temporary injunction or permanent injunction.

Injunctive relief and civil penalties of up to \$10,000 per day of violation are available in the event a corrective action order issued under this statute is violated. § 260.245.1, RSMo. Administrative penalties of up to \$10,000 per day are also available if an order is violated, although they may not be imposed for minor violations, and MDNR is subject to the same requirement for first trying to resolve the violation through conference, conciliation and persuasion. § 260.412, RSMo.

Missouri law also includes the Hazardous Substance Emergency provisions, which provides additional authority for Missouri to carry out a corrective action program as stringent as § 6928(h). See §§ 260.500-.550, RSMo and the accompanying regulations at 10 CSR 24-1.010 through 3.010. These statutes and regulations give MDNR the authority to order any person having control over a hazardous substance involved in a hazardous substance emergency to clean up the hazardous substance and take any actions necessary to address and prevent the recurrence of a hazardous substance emergency. § 260.510(2) and (5), RSMo. If a responsible party refuses to act or can not be found within a reasonable time, MDNR may perform the corrective action and recover response costs from the responsible party, as well as collect punitive damages if the failure to act is willful. A "hazardous substance emergency" is broadly defined and includes a release of any hazardous waste reportable under the MHWML. A "person having control over a hazardous substance" is likewise broadly defined and was recently interpreted to include facility owners, even where an owner does not directly own the hazardous substance released or through a lease agreement has relinquished possession and control of the property. See Coastal Mart, Inc. v. Missouri Dept. of Natural Resources, 933 S.W.2d 947 (Mo. App. 1996).

Based upon the foregoing statutes and regulations, it is our opinion that Missouri has adequate authority to order and enforce corrective action orders which are at least as stringent as the provisions contained in § 6928(h).

C. 42 U.S.C. § 6973.

Section § 6973(a) is RCRA's imminent hazard provision which gives EPA the authority to order any past or present generator, transporter or TSD facility owner or operator who has contributed or is contributing to the disposal of any solid or hazardous waste which may present an imminent and substantial endangerment to human health or the environment to take any action necessary to address the situation. If a party subject to an order under § 6973 fails or refuses to comply with the order, it may be fined up to \$5,000 per day of noncompliance. § 6973(b). If an imminent and substantial endangerment is determined, EPA must notify the appropriate local agency and requirement notice to be promptly posted at the site. § 6973(c). Finally, if EPA settles any claim or proposes to covenant not to sue under this statute, notice and opportunity for a public meeting and comment must be afforded to the public. § 6973(d).

Missouri's broad statutory authority under § 260.375(29), RSMo. the imminent hazard provisions at § 260.420 and the hazardous substance emergency response provisions at § 260.500

have been discussed above. These provisions provide broad statutory authority to order any hazardous waste generator, transporter, owner or operator of a TSD facility or any other person controlling a hazardous waste or hazardous substance to take whatever action necessary to address an imminent hazard. Civil penalties of up to \$10,000 are available under the latter two statutes, as well as injunctive relief. MDNR and the Commission also have broad authority under other provisions of §§ 260.370 and 260.375, RSMo to fulfill the notice and public hearing requirements of the federal statute in the event of a settlement or decision to forebear from suit.

Based upon the foregoing, we conclude that Missouri has adequate authority to carry out a corrective action program, including imminent hazard provisions, which is as stringent as the federal provisions at § 6973.

D. 42 U.S.C. § 6934.

Section § 6934(a) provides that when the presence of a hazardous waste at a facility which has been or is a TSD facility or when the release of such waste may present a substantial hazard to human health and the environment, EPA may order the owner or operator of the facility to conduct such monitoring, testing, and reporting as may be reasonable to determine the nature and extent of the hazard. If the facility is no longer in operation and the current owner could not be reasonably expected to have knowledge of the presence of the hazardous waste at the facility, EPA may order the most recent previous owner or operator of the facility who could be reasonably expected to have knowledge to perform the investigation. § 6934(b). If there is no past or present owner or operator able to conduct the investigation to the satisfaction of EPA, then EPA may conduct the investigation or authorize a state or local authority to do so, with response costs to be paid by the owner or operator. § 6934(d). Refusal to comply with an order under this statute may result in civil penalties of up to \$5,000 per day of noncompliance. § 6934(e)


In addition to the broad grants of statutory authority to MDNR discussed above, MDNR is also given the duty to not only collect and maintain, or require any person to collect and maintain, hazardous waste records, but also to install, calibrate and maintain any monitoring equipments or methods, or require any person to do the same, and make reports consistent with the purposes of the MHWML. § 260.375(7), RSMo. In Missouri's TSD permit regulations at 10 CSR 25-7 264(2)(F)4 B, a facility owner/operator, with limited exception, is required to conduct surface water monitoring program. The monitoring program includes sampling, analysis and reporting requirements designed to protect human health and the environment. MDNR has broad authority to require "additional monitoring to protect human health and the environment" 10 CSR 25-7 264(2)(F) 5

Based upon the foregoing, we conclude that Missouri has adequate authority to carry out a corrective action program, including monitoring, analysis and testing, which are at least as stringent as the federal provisions at § 6973

If you have any further questions or concerns regarding this matter, please do not hesitate to contact me .

Sincerely,

JEREMIAH W.(JAY) NIXON
Attorney General


Shelley Woods
Assistant Attorney General
(573) 526-2825

cc: Joseph P. Bindbeutel, AGO
Melissa Manda, MDNR General Counsel
~~Ed. Sadler, MDNR~~

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RECEIVED

MAR 19 1997

HAZARDOUS WASTE PROGRAM
MISSOURI DEPARTMENT OF
NATURAL RESOURCES

ATTACHMENT II

MEMORANDUM OF UNDERSTANDING FOR EXPEDITED CORRECTIVE ACTION BETWEEN THE MISSOURI DEPARTMENT OF NATURAL RESOURCES AND THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY - REGION VII

I. Purpose

The Missouri Department of Natural Resources (DNR) and Region VII of the Environmental Protection Agency (EPA) enter into this Memorandum of Understanding (MOU) for the purpose of setting out the framework for implementation of an Expedited Corrective Action Program in Missouri. This MOU includes acknowledgment of the roles and expectations of each agency with respect to the activities conducted thereunder.

II. Eligibility

The Missouri Department of Natural Resources (DNR) and EPA Region VII agree that hazardous waste Treatment, Storage, and Disposal (TSD) facilities in Missouri which require further corrective action, as based on the findings of a final RCRA Facility Assessment (RFA) or similar evaluation, and which are not subject to issuance or reissuance of a Missouri Hazardous Waste Management Facility Permit (i.e., order candidates only) are eligible for entry into DNR's Expedited Corrective Action Program. This MOU applies to all hazardous waste TSD facilities eligible for DNR's Expedited Corrective Action Program on or after the effective date of this MOU.

III. Acknowledgments and Expectations

The Missouri Department of Natural Resources (DNR) and EPA Region VII believe that timely investigation and remediation of contaminant releases at hazardous waste TSD facilities will be of significant benefit to the protection of human health and the environment in Missouri. DNR and EPA Region VII agree to the following process to allow eligible hazardous waste TSD facilities to conduct corrective action to expediently achieve the foregoing protections. DNR and EPA Region VII will work cooperatively towards successful development and implementation of DNR's Expedited Corrective Action Program and to ensure wise use of agency resources.

DNR and EPA Region VII recognize that, if properly performed by a facility, expedited corrective action can be an effective substitute for corrective action

performed pursuant to other formal regulatory mechanisms. EPA Region VII will provide, as necessary, technical guidance and support relative to implementation of this program.

DNR and EPA Region VII agree that expedited corrective action, properly performed, may be instrumental in assisting and supporting hazardous waste TSD facilities to move quickly through the corrective action process.

DNR and EPA Region VII agree that the following elements are an integral part of DNR's Expedited Corrective Action Program and are necessary to be protective of human health and the environment; responsive to concerns of the public, regulated community and EPA; and otherwise meet the substantive corrective action requirements which would be applicable pursuant to a hazardous waste permit or corrective action order:

- a. Agreements with facilities to conduct expedited corrective action, while intended to assist facilities in meeting applicable corrective action requirements, will not contain terms or conditions which eliminate, reduce, or otherwise impair DNR's or EPA's existing authority to require corrective action under applicable statutory and regulatory mechanisms. This will apply regardless of whether such agreements are prematurely terminated, or the obligations thereunder are successfully discharged. In addition, expedited corrective action agreements will not contain covenants not to sue.
- b. All expedited response actions, including stabilization and interim measures activities, will be protective of human health, welfare and the environment. These actions must comply with all applicable federal, state and local laws, regulations and ordinances.
- c. DNR will ensure that facility response actions are conducted in an appropriate and timely manner, and that both technical/legal assistance and procedural guidance are available to support and facilitate expedited corrective action activities at eligible hazardous waste TSD facilities.
- d. Technical oversight, including field observation, split-sampling, and inspection of final remedies, for approved investigation and remediation activities will be provided by DNR. The level of DNR oversight will vary depending upon facility-specific circumstances and conditions. Region VII's Regional Policy on Differential Corrective Action Oversight and Corrective Action Oversight Guidance (OSWER Directive 9902.7) will be utilized in determining the appropriate level of DNR oversight on specific projects.
- e. DNR will provide opportunities for meaningful public and community involvement, at a minimum, at the time of final remedy selection. If the interim

measures selected for a facility are likely to be a substantial component of the final remedy, DNR will consider earlier public comment. The facility-specific level of public/community involvement will vary and DNR's efforts to facilitate such involvement will be tailored to the risks posed by the site and the level of public interest in the site activities.

- f. DNR will review and provide written comments and/or approval of expedited corrective action work plans and reports submitted by facilities participating in the Expedited Corrective Action Program. Such information will be provided to EPA Region VII upon its request. Upon successful completion of all approved expedited corrective action activities, DNR will issue a Certification of Completion to the facility acknowledging completion of such activities in accordance with the approved work plan(s).
- g. Following issuance of a Certification of Completion to a facility, DNR will provide copies of all approved expedited corrective action work plans/reports and related correspondence to EPA, to the extent that EPA has not already received copies of same. DNR's recommendation concerning the need, or lack thereof, for further corrective action at the facility will accompany the supporting documents and noted correspondence. EPA will review DNR's recommendation and administrative record for the facility and, based on all relevant information and data, EPA will respond to specific requests for review of DNR's corrective action recommendations in accordance with the Facility Management Plan which is negotiated between DNR and EPA Region VII.

IV. Implementation

The Missouri Department of Natural Resources (DNR) and EPA Region VII will work cooperatively to ensure that there is minimal duplication of effort at facilities undergoing expedited corrective action and to ensure that investigation, monitoring, and remediation are conducted in an appropriate and timely manner.

DNR will notify EPA Region VII in writing when sites are being addressed under DNR's Expedited Corrective Action Program and will, at a minimum, report to EPA Region VII on a semi-annual basis, pursuant to Section VI. of this MOU, the status of activities for facilities performing expedited corrective action. EPA and DNR agree that the primary target of the Expedited Corrective Action Program is medium to lower priority facilities that are not subject to permitting. Use of formal corrective action instruments such as administrative or judicial orders will be considered, as appropriate, at higher priority facilities. DNR will notify EPA if any high priority facilities are requesting participation in the Expedited Corrective Action Program.

DNR will provide technical assistance, guidance, and procedures to facilities and perform technical review and approval of deliverables to ensure consistency with applicable corrective action requirements.

DNR will communicate with and provide technical assistance/guidance to local and state governmental agencies as necessary relative to revitalization and redevelopment of hazardous waste TSD facilities performing expedited corrective action.

When a hazardous waste TSD facility is performing expedited corrective action pursuant to an agreement with DNR, EPA Region VII will not plan or pursue any federal action under RCRA at the facility unless:

- a. DNR is unable to ensure completion of expedited corrective action due to failure of the facility to perform in accordance with the agreement with DNR, and DNR does not take its own enforcement action to address the situation in a timely manner;
- b. EPA Region VII determines that federal action is needed to protect public health, welfare, or the environment, including emergency situations;
- c. DNR specifically requests EPA Region VII to take action;
- d. Site conditions, unknown to DNR at the time of expedited corrective action approval, are discovered and such conditions indicate, as determined by DNR or EPA Region VII, that the approved action is not protective of human health or the environment (and DNR does not take its own action to address the situation in a timely manner); or
- e. The cleanup of a site is no longer protective of human health or the environment, as determined by DNR or EPA Region VII, because of a change or proposed change in the use of the site (and DNR does not take its own action to address the situation in a timely manner).

EPA Region VII will coordinate with DNR and facilities regarding federal requirements under RCRA to provide facilities an informed basis to enter into agreements with DNR to perform expedited corrective action. This coordination may involve discussions with EPA's CERCLA program to determine whether any future cleanups under CERCLA are likely, given available information for a facility. When a hazardous waste TSD facility has successfully completed expedited corrective action pursuant to an agreement with DNR, as recognized by DNR's issuance of a Certification of Completion to the facility, DNR and EPA Region VII will consider all activities conducted thereunder in any subsequent determinations related to satisfaction of corrective action requirements and/or release from interim

status. DNR and EPA Region VII agree that the record created by a facility-specific ECAP, performed pursuant to an agreement with DNR, may be utilized to support a release from interim status to the extent that the record supports a finding that no further corrective action is necessary.

The nature and scope of facility-specific expedited corrective action will be based strictly on information available at the time that an agreement is reached between an eligible hazardous waste TSD facility and DNR. If, following issuance of a Certification of Completion to a facility, EPA Region VII or DNR become aware of previously unknown conditions or information that indicates that the facility's expedited corrective action activities are not protective of human health and the environment, DNR and EPA Region VII reserve their respective rights pursuant to applicable state and federal laws/regulations to take any response actions or require additional corrective action as necessary to protect human health and the environment.

DNR will ensure that it has adequate enforcement or other authority to direct completion of corrective action at facilities where such action is not properly completed pursuant to an expedited corrective action agreement.

V. Protectiveness

The Missouri Department of Natural Resources (DNR) will ensure that expedited corrective action activities are protective of human health and the environment. The DNR will, through oversight of such activities, determine whether releases of hazardous waste and/or hazardous constituents to the environment at facilities pose a threat to human health and the environment, and whether mitigation of the actual or potential exposure of human and ecological receptors to such releases is warranted, consistent with applicable federal and state laws/regulations. Facility-specific contaminant concentrations in environmental media which are protective of human health and the environment will be determined by DNR in consultation with other appropriate state and federal agencies.

Remediation of contaminated environmental media shall be consistent with applicable EPA corrective action guidance, DNR's corrective action policies and procedures, and applicable federal and state laws/regulations. Final corrective action remedies shall be based on facility-specific conditions and will consider reasonable projections of future land use(s) at the facility. Performance standards considered in final remedy selection/approval will include: 1) protection of human health and the environment; 2) attainment of media clean-up standards set by DNR; 3) controlling the source(s) of releases so as to reduce or eliminate, to the extent practicable, further releases that may pose a threat to human health or the environment; 4) compliance with applicable standards in the management of wastes; and 5) other remediation decision factors including long-term reliability and

effectiveness; reduction in contaminant toxicity, mobility, and/or volume of wastes; short-term effectiveness; implementability; cost; and community acceptance.

As necessary, DNR will require facilities performing expedited corrective action to establish appropriate institutional and/or engineering controls to ensure protection of human health and the environment. These controls may include, but are not limited to: deed notices and restrictions, site access controls and monitoring, land use/zoning restrictions and prohibitions, contractual obligation requirements associated with property transfers and proposed land use changes, and public/governmental agency notification requirements. A Certification of Completion for approved expedited corrective action activities will not be issued to a facility by DNR until adequate documentation is provided concerning the establishment of any required institutional and/or engineering controls. DNR and EPA recognize that it may be appropriate to embody long-term institutional and/or engineering controls within an administrative or judicial order, that will allow for direct enforcement of any violations of the conditions under which the final remedy is or was implemented.

VI. Reporting

The Missouri Department of Natural Resources (DNR) will report to EPA Region VII, as part of the State/EPA Performance Partnership Agreement semi-annual report, the following information for each facility performing expedited corrective action:

- a. The facility name and the status of expedited corrective action activities;
- b. The number and names of any new facilities entering DNR's Expedited Corrective Action Program during the preceding six months;
- c. The number and names of any facilities receiving a Certification of Completion for expedited corrective action activities during the preceding six months;
- d. Notification of termination of any expedited corrective action agreements for any reason during the preceding six months; and
- e. Copies of any final Letters of Agreement and Certificates of Completion executed during the preceding six months.

VII. Modification

The Missouri Department of Natural Resources (DNR) and EPA Region VII may periodically modify this MOU to simplify, clarify, and/or revise the specifications contained herein. DNR and EPA Region VII shall keep each other informed of any

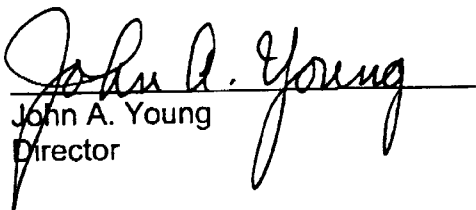
proposed or actual amendments to applicable state or federal statutory/regulatory authority, directives, guidance, and legal/regulatory interpretations as may impact this MOU. This MOU will be periodically reviewed by DNR and EPA Region VII to determine if revisions are necessary. Any revision of this MOU must be mutually agreed to in writing by DNR and EPA Region VII, and the revised MOU must be signed by the signatories or their designees to be effective. DNR and EPA Region VII may unilaterally terminate this MOU at any time. Any notice of termination must be in writing and shall be effective no sooner than 30 calendar days from the date the termination notice is received.

VIII. Reservation of Rights

The Missouri Department of Natural Resources (DNR) and EPA Region VII reserve any and all rights and authority that they respectively have, including but not limited to: legal, equitable or administrative rights and authority. This specifically includes DNR's and EPA's authority to conduct, direct, oversee, and/or require environmental response in connection with any facility which participates in DNR's Expedited Corrective Action Program. Notwithstanding any other provision of this MOU, nothing herein affects or limits DNR's or EPA's authority or ability to take any enforcement action authorized by law.

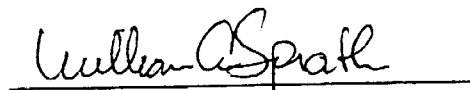
This Memorandum of Understanding has been developed by mutual cooperation and consent.

For the Missouri Department of Natural Resources,
Division of Environmental Quality:


John A. Young
Director

2/24/01
Date

For the Environmental Protection Agency - Region VII,
Air, RCRA and Toxics Division:


William A. Spratlin
Director

1/24/01
Date

ATTACHMENT III

LETTER OF AGREEMENT TO IMPLEMENT AN EXPEDITED CORRECTIVE ACTION PROGRAM BETWEEN THE MISSOURI DEPARTMENT OF NATURAL RESOURCES AND *FACILITY XYZ*

I. GENERAL PROVISIONS

A. Purpose

The Missouri Department of Natural Resources (DNR) and *Facility XYZ* are entering into this Letter of Agreement (LOA) for the purpose of implementing an Expedited Corrective Action Program (ECAP) at *Facility XYZ*. This LOA describes the roles, responsibilities and expectations of each party with respect to the activities conducted hereunder.

B. Definitions

For purposes of this LOA, the following definitions shall apply:

"Area of Concern (AOC)" means any area where an actual or potential release of hazardous waste or hazardous constituents, which is not from a solid waste management unit, is occurring and is determined by the Missouri Department of Natural Resources (DNR) to pose an actual or potential threat to human health or the environment.

"Facility" means all contiguous property under the control of the owner/operator of *Facility XYZ*.

"Hazardous constituent" means any constituent identified in Appendix VIII of 40 CFR Part 261, as incorporated in 10 CSR 25-4.261.

"Hazardous waste" means any waste, or combination of wastes, as defined by or listed in 10 CSR 25-4 or 10 CSR 25-11, which because of its quantity, concentration, physical, chemical, or infectious characteristics may cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness; or which may pose a threat to the health of humans or other living organisms.

"Release" means any spilling, leaking, pouring, emitting, emptying, discharging, injecting, pumping, escaping, leaching, dumping, or disposing of hazardous wastes

(including hazardous constituents) into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing hazardous wastes or hazardous constituents).

"Solid Waste Management Unit (SWMU)" means any discernible unit at which solid wastes have been placed at any time, irrespective of whether the unit was intended for the management of solid or hazardous waste. Such units include any area at a facility at which solid wastes have been routinely and systematically released.

"Stabilization" means actions to control or abate threats to human health and/or the environment from releases at **Facility XYZ** and/or to prevent or minimize the further spread of contamination while long-term remedies are pursued.

All other terms used herein shall have the same meaning as those in 10 CSR 25-3, 10 CSR 25-4, 10 CSR 25-5, 10 CSR 25-7 and Section 260.360, RSMo, unless this LOA specifically provides otherwise. Where terms are not defined in the law, the regulations, this LOA, or EPA guidance or publications, the meaning associated with such terms shall be defined by a standard dictionary reference or the generally accepted scientific meaning of the term.

C. Acknowledgments and Expectations

The Missouri Department of Natural Resources (DNR) is seeking to simplify and streamline the process through which **Facility XYZ** addresses corrective action requirements to ensure protection of human health and the environment. By entering into this LOA, DNR and **Facility XYZ** agree to work in a cooperative and coordinated manner to ensure successful development and implementation of an ECAP at the **Your City, Missouri**, facility and to ensure efficient use of agency and facility resources in addressing corrective action requirements.

The ECAP to be implemented pursuant to this LOA is intended to ensure protection of human health and the environment. DNR and **Facility XYZ** believe that timely investigation and/or remediation at the **Your City, Missouri**, facility will be of significant benefit in the protection of human health and the environment. DNR and **Facility XYZ** also believe that expedited corrective action may be an effective substitute for corrective action performed pursuant to other formal regulatory mechanisms and may be instrumental in assisting and supporting **Facility XYZ** in investigation, clean-up and/or revitalization of the **Your City, Missouri**, facility. DNR and **Facility XYZ** agree that the elements of this LOA are an integral part of **Facility XYZ's** ECAP and are necessary for the protection of human health and the environment; are responsive to the concerns of DNR, **Facility XYZ**, the public, EPA

and the regulated community in general; and otherwise meet the corrective action requirements which would be applicable pursuant to a hazardous waste permit or corrective action order.

D. Implementation

Facility XYZ agrees to implement an ECAP at the *Your City, Missouri*, facility as described in Section II of this LOA. The ECAP shall be designed to identify releases of hazardous waste and/or hazardous constituents to the environment, investigate the nature and extent of such releases and, if necessary, implement appropriate corrective measures to protect human health and the environment.

The Missouri Department of Natural Resources (DNR) will review, provide written comments on and approve **Facility XYZ's** ECAP deliverables including, but not limited to, investigation work plans and reports, evaluations of corrective measures alternatives and corrective measures implementation reports. DNR will utilize applicable EPA and other appropriate technical guidance within the framework of established federal/state regulations and program-specific administrative policies and procedures in reviewing, commenting on and approving **Facility XYZ's** ECAP deliverables.

Facility XYZ agrees to implement ECAP work plans as approved by DNR, generally perform work in accordance with the schedule contained in such work plans and document/report substantial deviations from the provisions of approved work plans.

DNR will ensure that **Facility XYZ's** ECAP is conducted in an appropriate and timely manner and will ensure that both technical/legal assistance and procedural guidance are available to support and facilitate ECAP activities at **Facility XYZ**. Technical oversight for approved investigation and remediation activities, including field observation, split-sampling, and inspection of final remedies will be provided by DNR, as appropriate.

The preparation/submittal of any permit application(s) and/or procurement of any permit(s) necessitated by implementation of the ECAP shall be the responsibility of **Facility XYZ**.

DNR and **Facility XYZ** will, at a minimum, provide opportunities for meaningful public/community involvement in the ECAP process at the time of final remedy selection, should a final remedy prove necessary at **Facility XYZ**. **Facility XYZ** agrees to be responsible for providing public notice and an opportunity for comment for any proposed final remedy for a minimum of 30 calendar days. Additional public/community involvement may be necessary for significant interim or stabilization measures and will be addressed on a case-by-case basis. DNR agrees to review and approve **Facility XYZ's** public notice correspondence prior to

publication and be the recipient of and respond to comments, if any, received during the public comment period.

Upon successful completion of all approved ECAP activities as verified by review of the deliverables submitted pursuant to this LOA, any necessary inspections by DNR and/or establishment of any necessary institutional and/or engineering controls, DNR will issue a Certification of Completion to ***Facility XYZ*** acknowledging completion of ECAP activities in accordance with the approved work plan(s).

Following issuance of a Certification of Completion to ***Facility XYZ***, DNR will provide to EPA Region VII copies of all approved ECAP work plans/reports and related correspondence, to the extent that EPA Region VII has not already received copies of these documents. DNR will also transmit a letter to EPA Region VII containing DNR's recommendation concerning the need, or lack thereof, for further corrective action at ***Facility XYZ***. EPA will review DNR's recommendation and administrative record for the facility and, based on all relevant information and data, EPA will respond to specific requests for review of DNR's corrective action recommendations in accordance with the Facility Management Plan which is negotiated between DNR and EPA Region VII.

Facility XYZ agrees to record the DNR's Certification of Completion as part of the chain of title for the property. In the event that contaminated environmental media containing hazardous waste and/or hazardous constituents remain at ***Facility XYZ***, a deed notation or restriction, as appropriate, acknowledging this condition shall be recorded as part of the chain of title for the property. As indicated above, this action shall be completed prior to DNR's issuance of a Certification of Completion.

Facility XYZ agrees to provide a copy of this LOA and DNR's Certification of Completion in their entirety to any potential buyer of the facility along with a notice of any on-going final remedy maintenance and monitoring requirements (e.g., cap inspection/repair, groundwater sampling and analysis, long-term financial assurance obligations, etc.), engineering controls (e.g., access restrictions, posting of signs) and/or institutional controls (e.g., deed notices/restrictions).

E. Review and Approval

Following submission of any ECAP plan or report (excluding any progress reports and uninterpreted analytical or other data), the Missouri Department of Natural Resources (DNR) will review ***Facility XYZ's*** plan or report. If the plan or report is determined to be adequate, DNR will approve the plan or report in writing. If the plan or report is determined to be inadequate, DNR will notify ***Facility XYZ*** in writing of the plan's or report's deficiencies and will contact ***Facility XYZ*** to schedule a meeting or teleconference to informally discuss/resolve the deficiencies and establish a time frame for submittal of a revised plan or report, if necessary.

If DNR determines that deficiencies or issues still exist following review of a revised plan or report, which DNR believes will preclude approval, DNR will contact **Facility XYZ** to facilitate additional discussions and/or meetings to resolve the remaining deficiencies or issues. DNR and **Facility XYZ** believe that in the majority of instances, resolution of any remaining deficiencies or issues may be accomplished in an informal manner. Inasmuch as this LOA is a voluntary agreement between DNR and **Facility XYZ**, this LOA does not contain provisions for independent, administrative dispute resolution. In the event that DNR and **Facility XYZ** are unable to reach a mutually acceptable resolution within a reasonable timeframe of any remaining deficiencies or issues in an informal manner, this LOA may be terminated by either party in accordance with Section I.H. below.

F. Protectiveness

All expedited response actions, including stabilization and interim measures activities, shall be protective of human health, welfare and the environment. These actions shall comply with all applicable federal, state and local laws, regulations and ordinances. The Missouri Department of Natural Resources (DNR) will, through oversight of **Facility XYZ's** ECAP activities, determine whether releases to the environment at the facility pose a threat to human health or the environment, and whether mitigation of the potential exposure of human and ecological receptors to such releases is warranted, consistent with applicable Federal and State laws and regulations.

If required, remediation shall be consistent with applicable EPA corrective action guidance, DNR's corrective action policies and procedures, and applicable federal and state laws and regulations. Final corrective action remedies shall be based on site-specific conditions and may consider projections of future land use(s) at **Facility XYZ**.

G. Modification

The Missouri Department of Natural Resources (DNR) and **Facility XYZ** may revise this LOA at any time to simplify, clarify and/or modify the specifications contained herein. DNR shall keep **Facility XYZ** informed of any proposed modifications of applicable state or federal statutory or regulatory authority that may impact this LOA. Any modification of this LOA shall be mutually agreed to in writing by DNR and **Facility XYZ**.

H. Termination of Agreement

Facility XYZ may terminate this LOA at any time for any reason by giving written notice, via certified mail, to the Missouri Department of Natural Resources (DNR). DNR may terminate this LOA at any time for any reason by giving written notice, via certified mail, to *Facility XYZ*. Although DNR reserves the right to terminate this agreement at any time and for any reason, DNR acknowledges that termination by DNR would generally be for cause (e.g., failure to implement approved plan(s) or otherwise comply with the terms of this LOA).

I. Site Access and Indemnification

Facility XYZ agrees to allow the Missouri Department of Natural Resources (DNR) access to *Facility XYZ* for purposes of overseeing implementation of ECAP activities including, but not limited to, sampling, conducting investigations related to the extent of contamination, performing remedial action(s), and observing or monitoring the overall progress of the work conducted pursuant to approved ECAP plans.

Facility XYZ agrees to hold DNR harmless and to indemnify the state of Missouri for any claims including, but not limited to, claims for property damage or personal injury arising from activities of *Facility XYZ* that are reviewed or overseen by DNR under this LOA.

J. Reservation of Rights

This LOA, while intended to assist *Facility XYZ* in meeting applicable corrective action requirements, does not contain terms or conditions which eliminate, reduce, or otherwise impair DNR's or EPA's existing authority to require corrective action under applicable state and federal law. This will be the case regardless of whether this LOA is prematurely terminated, or the obligations hereunder are successfully discharged.

The nature and scope of *Facility XYZ's* ECAP is based strictly on information available at the time this LOA is executed. If, prior to or following issuance of a Certification of Completion to *Facility XYZ*, DNR or EPA Region VII become aware of previously unknown conditions or information which indicates that *Facility XYZ's* ECAP activities are not protective of human health and the environment, DNR and EPA Region VII reserve the right to take response actions or require additional corrective action as necessary to protect human health and the environment.

DNR and EPA Region VII reserve any and all rights and authority at all times that they respectively have, including but not limited to, legal, equitable or administrative rights, and authority. This specifically includes DNR's authority to conduct, direct,

oversee and/or require response in connection with *Facility XYZ's* ECAP. Notwithstanding any other provision of this LOA, nothing herein affects or limits DNR's or EPA's authority or ability to take any enforcement action required or issue an order by law.

K. Corrective Action Oversight Cost Recovery (Reserved)

II. FACILITY-SPECIFIC PROVISIONS

NOTE: These provisions are to be jointly developed by *Facility XYZ* and DNR and will be facility-specific in nature. All of the following provisions may not necessarily apply and/or additional provisions may be necessary to address facility-specific conditions, issues or circumstances. The parties expect that *Facility XYZ* and DNR will mutually agree upon the content of this section prior to executing this LOA, although later LOA modification may also be necessary.

A. *Facility XYZ* Location and Legal Description

Facility XYZ is located (Street Address, City, County, State, Section, Township, Range, Latitude, Longitude). The legal description of *Facility XYZ* is as follows:..... Attachment 1 is a copy of the plat drawing based on the legal description of the *Facility XYZ* property. This property does/does not carry on-going restrictions as to its use. The chain of title for the property currently contains a notice of and land use restrictions. Describe current zoning.

B. *Facility XYZ* Regulatory Status

Facility XYZ is or was an interim status hazardous waste TSD facility pursuant to applicable federal and state laws and regulations. *Facility XYZ* is subject to corrective action but is not subject to issuance or reissuance of a Missouri Hazardous Waste Management Facility Permit. Certain wastes and the constituents thereof found at *Facility XYZ* are hazardous wastes or hazardous constituents pursuant to 40 CFR Part 261 as incorporated by reference in 10 CSR 25-4.261(1). In addition, there is or has been an actual or potential release of hazardous wastes and/or hazardous constituents into the environment at *Facility XYZ* as indicated by the results of a final RCRA Facility Assessment (RFA) or similar evaluation.

C. Ownership and use of Property

Brief discussion of current and historical ownership and use of property (from present to past). *Facility XYZ* (current facility layout and brief description) is currently owned by..... The property includes buildings, parking lots, etc. The perimeter of the property is fenced..... Historically,

D. Regulatory History and Previous Investigations/Remediation

Summarize *Facility XYZ* regulatory history (e.g., closure of hazardous waste units, tanks, etc.), previous environmental investigations (e.g., RFA, environmental audits, etc.) and remediation (e.g., during closure). Summarize findings of RFA or equivalent including any additional data or information which may bear on development of scope of work below.

E. Scope of Work

Define anticipated scope of work (i.e., which SWMUs/AOCs require further investigation), nature of investigation (e.g., release assessment, rate/extent of migration of known releases) and interim/stabilization measures based on RFA or equivalent while considering any additional data/information that is available.

F. RCRA Facility Investigation

NOTE: The Missouri Department of Natural Resources (DNR) is assuming that at least a focused RCRA Facility Investigation (RFI) (which could be as simple as a release assessment) is going to be the first step in the ECAP process, otherwise there would be no reason for the ECAP LOA in the first place.

A RFI Work Plan is required pursuant to this LOA. This RFI Work Plan shall be designed to: 1) identify any releases of hazardous waste and/or hazardous constituents from the SWMUs and AOCs defined in II.E. above; 2) characterize the nature, vertical and horizontal extent, rate of migration and any actual or potential receptors of any identified releases; and 3) collect any other pertinent data which may be utilized to substantiate future corrective action investigation and/or remediation decisions.

The content of the RFI Work Plan and resulting RFI Report shall be appropriate for facility-specific conditions and shall be consistent with and address all applicable investigation elements described in the EPA guidance document entitled Interim Final RCRA Facility Investigation Guidance; EPA 530/SW-89-031, May 1989. The RFI Work Plan shall include: 1) a description of current site conditions, 2) all proposed investigation activities and procedures to be conducted at the facility; 3) a schedule for implementing and completing the RFI and submitting a final RFI Report; 4) the qualifications of all personnel, including contractors, performing or directing the investigations and overall management of the RFI; 5) a Quality Assurance Project Plan which specifies, with respect to the RFI objectives, the sampling procedures, analytical methods, field and laboratory quality control samples, chain-of-custody procedures and data review, validation, and reporting procedures which are designed to achieve the data quality goals of the RFI; and 6) a

health and safety plan that assures the RFI activities are conducted in a manner that is protective of human health and the environment.

The RFI Work Plan will be reviewed and approved by DNR in accordance with I.E. *Facility XYZ* shall implement the RFI in accordance with the schedule contained in the approved RFI Work Plan.

Due to the complexity of defining the extent of contamination, it may become necessary for *Facility XYZ* to use a phased investigation approach which may, in turn, necessitate the submittal of a supplemental RFI Work Plan(s) for approval.

During the course of the RFI or other corrective action activities pursuant to this LOA, *Facility XYZ* may discover new SWMUs, AOCs and/or releases from previously-identified SWMUs/AOCs not currently targeted for further corrective action as part of this LOA. The necessity for investigation and/or remediation of any newly-identified SWMUs, AOCs or release(s) will be evaluated on a case-by-case basis. If any such investigation/remediation proves necessary, *Facility XYZ* is advised that DNR will not issue a Certification of Completion to *Facility XYZ* until all necessary work has been completed.

Facility XYZ shall submit a RFI Report to DNR in accordance with the schedule contained in the approved RFI Work Plan. The RFI Report shall present all information gathered under the approved RFI Work Plan in a form that is consistent with Section 5 of the EPA guidance document entitled Interim Final RCRA Facility Investigation Guidance: EPA 530/SW-89-031, May 1989. The RFI Report shall provide an interpretation of the RFI information gathered, supported with documentation, to enable DNR to determine whether further investigation, monitoring, stabilization, a Corrective Measures Study and/or a final remedy are necessary.

The RFI Report shall describe the procedures, methods, and results of all investigations of SWMUs/AOCs and associated releases including, as applicable, the following: 1) characterization of the nature, concentration(s), horizontal and vertical extent, and direction/rate of movement of releases from SWMUs/AOCs; 2) characterization of the environmental setting of the facility including hydrogeological and climatological/meteorological conditions, soil and bedrock characteristics, surface water and sediment quality, and air quality; 3) characterization of SWMUs/AOCs from which releases have been or may be occurring, including unit and waste characteristics; 4) descriptions of human and environmental receptors which are, may have been, or, based on site-specific circumstances, could be exposed to release(s) from SWMUs/AOCs; 5) information that will assist DNR in assessing risks to human health and the environment from releases from SWMUs/AOCs; 6) extrapolations of future contaminant movement;

7) laboratory, bench-scale, pilot-scale, and/or tests or studies to determine the feasibility or effectiveness of treatment technologies or other technologies that may be appropriate in implementing remedies; 8) statistical analyses to aid in the interpretation of data; and 9) results of any stabilization measures previously implemented.

The RFI Report will be reviewed and approved by DNR in accordance with I.E. If, after review of the RFI Report, DNR determines that the objectives of the RFI have not been met, additional investigation may be required. Upon approval of the RFI Report by DNR, *Facility XYZ* and DNR will meet to discuss and reach agreement concerning the next step in the ECAP process at *Facility XYZ*.

G. Interim/Stabilization Measures

If, during the course of any activities undertaken pursuant to this LOA, *Facility XYZ* or the Missouri Department of Natural Resources (DNR) determines that a release or potential release of hazardous waste, including hazardous constituents, may pose a short-term threat to human health or the environment, implementation of interim/stabilization measures may be necessary to slow or stop the further spread of contamination until a final remedy can be implemented. In certain situations, implementation of interim measures may be desirable even though stabilization does not appear to be necessary based on short-term threats posed by an actual or potential release. The necessity for and/or desirability of interim/stabilization measures and any associated technical (e.g., nature and scope of action) and administrative (e.g., reporting, public participation) requirements will be evaluated on a case-by-case basis and will be discussed by and between DNR and *Facility XYZ*.

As indicated under I.D. above, public/community involvement may be necessary for significant interim/stabilization measures. The need for any such involvement will be determined on a case-by-case basis. Any final agreements between DNR and *Facility XYZ* with respect to interim and/or stabilization measures and associated actions including, but not limited to, submittal of work plan/reports and scheduling shall be reduced to writing by *Facility XYZ*. This LOA may require modification pursuant to I.G. to incorporate any interim/stabilization measures agreed to by the parties.

H. Corrective Measures/Final Remedy

If, based on the RFI findings and/or other relevant facility-specific information, *Facility XYZ* or the Missouri Department of Natural Resources (DNR) determines that a release(s) of hazardous waste and/or hazardous constituents presents an actual or potential threat to human health or the environment, a Corrective Measures Study (CMS) may be necessary. The necessity for a CMS and any associated requirements will be evaluated on a case-by-case basis and will be

discussed by and between DNR and *Facility XYZ*. If a CMS is required, DNR will notify *Facility XYZ* in writing of this decision indicating the hazardous waste and/or hazardous constituent(s) of concern, environmental media of concern and remedial alternatives to be evaluated by *Facility XYZ* (based on previous discussions with *Facility XYZ*) including any specific alternatives which, in the DNR's judgment, may be capable of achieving applicable standards for protection of human health and the environment.

A CMS will not necessarily be required for *Facility XYZ*. *Facility XYZ* may propose, in the RFI Report or another LOA deliverable, one or more specific potential remedies for removal, containment and/or treatment of hazardous waste, including hazardous constituents in contaminated media, that are capable of achieving protection of human health and the environment.

Any proposed final remedy, whether presented in the CMS, RFI Report or another deliverable, shall be consistent with and address the specific remedy evaluation standards and general decision factors contained in Chapter IV of the EPA guidance document entitled RCRA Corrective Action Plan (Final), May 1994, OSWER Directive 9902.3-2A and EPA's Subpart S Advance Notice of Proposed Rulemaking, May 1, 1996; 61 FR 19432-19464, as summarized below.

Any proposed final remedy shall present and discuss any interim and/or stabilization measures previously implemented at *Facility XYZ*, including how these measures are consistent with the proposed final remedy and how they addressed the remedy evaluation standards outlined in the following paragraph. Any proposed final remedy shall also include a discussion of other potentially viable remedial alternatives which were considered, but were dropped from further consideration, including the rationale for elimination.

Any proposed final remedy shall include appropriate technical support and documentation and shall describe in detail, and summarize in a Statement of Basis, how the following remedy evaluation standards are addressed: 1) protection of human health and the environment; 2) attainment of media clean-up standards; 3) control of the source of releases so as to reduce or eliminate, to the extent practicable, further releases that may pose a threat to human health or the environment; 4) compliance with applicable standards in the management of contaminated environmental media and wastes; and 5) other general remedy decision factors (balancing criteria) including long-term reliability and effectiveness; reduction in contaminant toxicity, mobility and/or volume of wastes; short-term effectiveness; implementability; cost; and community acceptance.

Any proposed final remedy, whether presented in the CMS, RFI Report or another deliverable, shall specify the scope of work for final remedy implementation by addressing applicable elements of Chapter V of the EPA guidance document

entitled RCRA Corrective Action Plan (Final), May 1994, OSWER Directive 9902.3-2A and EPA's Subpart S Advance Notice of Proposed Rulemaking, May 1, 1996; 61 FR 19432-19464.

As indicated above, opportunities for meaningful public/community involvement in the ECAP process will, at a minimum, be necessary at the time of final remedy selection. ***Facility XYZ*** agrees to be responsible for providing public notice and opportunity for comment for any proposed final remedy for a minimum of 30 calendar days. ***Facility XYZ*** also agrees to be responsible for establishing and updating, as necessary, a repository (typically the public library closest to ***Facility XYZ***) containing the complete corrective action administrative record, as determined by DNR, for ***Facility XYZ*** for public viewing prior to publishing any public notice pursuant to this LOA. DNR agrees to make ***Facility XYZ's*** complete corrective action administrative record available for public review at its offices, approve ***Facility XYZ's*** public notice correspondence prior to publication, and be the recipient of and respond to comments, if any, received during the public comment period. Following the close of the public comment period, any public comments concerning the proposed final remedy will be addressed by DNR in consultation with ***Facility XYZ***. Modification of the proposed final remedy in response to public comments, if necessary, shall be accomplished prior to final remedy implementation by ***Facility XYZ*** including any necessary modification of documents and/or this LOA.

I. Final Remedy Implementation and Completion

Upon completion of the public comment period for the proposed final remedy, the Missouri Department of Natural Resources' (DNR) response to any public comments and remedy modification, if any, in response to those comments, ***Facility XYZ*** may be required to prepare and submit a work plan for final remedy implementation to the extent that other deliverables submitted pursuant to this LOA do not adequately describe the scope of work for the final remedy and the schedule for remedy implementation. Chapter V of the EPA guidance document entitled RCRA Corrective Action Plan (Final), May 1994, OSWER Directive 9902.3-2A and EPA's Subpart S Advance Notice of Proposed Rulemaking, May 1, 1996; 61 FR 19432-19464 shall be used in developing the site-specific scope of work to be included in the work plan (if required) for final remedy implementation.

The final remedy implementation work plan (or equivalent information in the RFI Report and/or CMS) shall outline the objectives of the final remedy and shall contain, as applicable: 1) a detailed description of the design, construction, operation, monitoring, quality assurance, and maintenance requirements; 2) a cost estimate to define costs for design, construction, operation, maintenance and monitoring; 3) a schedule for design, construction, and monitoring; and 4) management procedures for hazardous wastes and/or hazardous constituents during implementation of the final remedy.

Should corrective measures for groundwater prove necessary, **Facility XYZ** shall demonstrate that groundwater contamination has not exceeded appropriate regulatory levels (e.g., promulgated standards, MCLs, etc.), guidelines or other criteria (may include protective facility-specific risk-based levels) throughout the identified plume of groundwater contamination for a period of three consecutive years prior to submission of the final remedy implementation report, described below, to document that the final remedy is complete.

In the event that a long-term final remedy (e.g., groundwater pump and treat system with groundwater monitoring) is necessary, financial assurance for final remedy operation, maintenance and monitoring may be required. The amount of financial assurance will generally be based on the cost estimate contained in the final remedy implementation work plan or equivalent. The need for, timing, and acceptability/use of specific financial assurance instruments will be discussed/negotiated with **Facility XYZ** on a case-by-case basis.

Upon completion of the final remedy (i.e., once the clean-up criteria for all contaminated media have been attained and/or long-term institutional/engineering controls are in place), **Facility XYZ** shall submit a final remedy implementation report to DNR. This report shall contain a summary of corrective measures activities conducted at the facility and a detailed description of any long-term operation and maintenance and/or monitoring program associated with the corrective measures. The final remedy implementation report shall be accompanied by a written certification stating that the final remedy has been completed in accordance with the approved work plan(s). This certification shall be signed by **Facility XYZ** and an independent professional engineer and/or registered geologist licensed/registered in the state of Missouri.

J. Deliverables

A RFI Work Plan addressing the objectives outlined above shall be submitted by **Facility XYZ** pursuant to this LOA. The necessity for and submission of any other work plans covering investigation, monitoring, interim/stabilization measures, corrective measures evaluation and remedy implementation will be discussed with **Facility XYZ** and addressed on a case-by-case basis.

A RFI Report containing the information outlined above shall be submitted by **Facility XYZ** pursuant to this LOA. The necessity for and submission of any other reports covering investigation, monitoring, interim/stabilization measures, corrective measures evaluation and remedy implementation will be discussed with **Facility XYZ** and addressed on a case-by-case basis. SWMUs and/or AOCs requiring extended time periods for final remedy implementation (e.g., groundwater remediation) may necessitate submission of periodic progress reports which are

more detailed than the Quarterly Progress Reports described below. Again, the necessity for and submission of such reports will be discussed with *Facility XYZ* and addressed on a case-by-case basis.

From the time of execution of this LOA until a Certification of Completion has been issued to *Facility XYZ*, *Facility XYZ* shall submit to the Missouri Department of Natural Resources (DNR), within 60 days of the end of each calendar quarter, Quarterly Progress Reports summarizing all corrective action activities undertaken during the preceding calendar quarter. The Quarterly Progress Reports shall include the following information: 1) a description of the work completed; 2) summaries of all findings, including summaries of laboratory data; 3) summaries of all problems or potential problems encountered during the reporting period and actions taken to rectify the problems; and 4) deviations from approved work plans or schedules including justification for any delays and a revised projection of the completion date(s), and 5) projected work for the next reporting period. Detailed technical information submitted as part of other deliverables pursuant to this LOA need not be reproduced as part of the Quarterly Progress Reports.

Facility XYZ shall submit two copies of all reports, documents, plans or specifications required under the terms of this LOA to:

Chief, Permits Section
Missouri Department of Natural Resources
Hazardous Waste Program
P.O. Box 176
1738 E. Elm Street (Lower Level)
Jefferson City, MO 65101 (65102 if use P.O. Box)

Facility XYZ shall submit one copy of all reports, documents, plans or specifications required under the terms of this LOA to:

Chief, RCRA Corrective Action and Permitting Branch
U.S. Environmental Protection Agency Region VII
Air, RCRA and Toxics Division
901 N. 5th Street
Kansas City, KS 66101

K. Schedule

Except as otherwise agreed to and noted in this LOA, *Facility XYZ* shall be allowed to propose, in the work plan(s), reports and/or other deliverables required by this LOA, its own schedule(s) for conducting the activities hereunder. The Missouri Department of Natural Resources (DNR) expects that, any schedule(s) proposed by *Facility XYZ* will be of reasonable duration and that once such schedules have

