

QUALITY ASSURANCE/QUALITY CONTROL PLAN FOR ENVIRONMENTAL DATA COLLECTION

**Demonstrating CERCLA Equivalency
of the Michigan Environmental Remediation**

USEPA Brownfields Cleanup Grant Program
Cooperative Agreement: BF-00E02883-0
Calhoun County, Michigan

INTRODUCTION

SME, in support of Calhoun County (the County), prepared this Quality Assurance Plan (QAP) to document the quality assurance/quality control (QA/QC) program for collection and use of environmental data during planned, non-time-critical, removal actions (environmental response actions) funded by Calhoun County's U.S. Environmental Protection Agency (USEPA) Brownfields Cleanup Grant. This QAP demonstrates that data collected under the Michigan Department of Environment, Great Lakes and Energy's (EGLE's) voluntary cleanup program will satisfy the QA/QC requirements of CERCLA and be of equivalent quality. It serves as an "equivalent substitute" for a USEPA-approved Quality Assurance Project Plan for environmental response actions funded by the County's Cleanup Grant.

The County anticipates that generation of environmental data will occur through collection and analyses of soil and groundwater samples. A site-specific, QAP supplement will be prepared if environmental data will be collected from media or by procedures not addressed in this QAP.

The project QA/QC program for environmental sampling of soil and groundwater will follow the requirements and protocols established by EGLE pursuant to Part 201 of the Michigan Natural Resources and Environmental Protection Act, as amended (Part 201). Part 201 defines the environmental remediation program for sites impacted with contaminated soil and groundwater within the State of Michigan.

The QA/QC requirements of Part 201 will satisfy the data quality objectives (DQOs) required by the USEPA for response actions funded wholly or in part by Cleanup Grant funds. DQOs required by the USEPA for brownfields sites are outlined in the Cooperative Agreement (CA) between the USEPA and the County. The equivalency of the Part 201 QA/QC program is discussed in further detail below.

1.0 APPLICATION OF THE QUALITY ASSURANCE REQUIREMENTS OF MICHIGAN'S ENVIRONMENTAL PROGRAM

1.1 Soil and Groundwater

EGLE has published guidance documents and operational memoranda that define QA/QC practices, policies, procedures, specifications, and standards required to produce environmental data of sufficient quality to meet Part 201 program objectives. The collective Part 201 QA/QC program complies with 40 CFR 31.45 requirements for practices to produce data adequate to meet project objectives and to minimize data loss and are consistent with the requirements of USEPA Directive No: CIO 2105.1. The following is a summary of typical USEPA quality assurance program elements and the corresponding EGLE guidance documents for defining and implementing those elements within the Part 201 program:

Data Generation and Acquisition

Sampling Process Design

- EGLE Guidance- Sampling Strategies and Statistics Training Materials (2002).
- EGLE RRD Guidance – Soil Background and Use of the 2005 Michigan Background Survey (September 2019).
- EGLE RRD Guidance – Groundwater-Surface Water Pathway Compliance Options (April 2016).
- EGLE RRD Guidance – Groundwater Modeling (February 2014).
- EGLE RRD Guidance Document for the Vapor Intrusion Pathway (May 2013, revised September 2020).
- EGLE RRD Guidance – Non-aqueous Phase Liquid (NAPL) Characterization, Remediation, and Management for Petroleum Releases (June 2014).
- EGLE RRD Operational Memorandum No. 9 – Guidance and Soil Closure Verification (January 2005).

Sampling Methods

- EGLE RRD Guidance - Application of Target Detection Limits and Designated Analytical Methods (March 2016).
- EGLE RRD Guidance – Target Detection Limits and Designated Analytical Methods (March 2016).
- EGLE RRD Guidance – Incremental Sampling Methodology and Applications (February 2018).
- EGLE RRD Standard Operating Procedure – Low Level Mercury Collection (March 2016).
- EGLE RRD Standard Operating Procedure – Methanol Preservation in the Field (March 2016).
- EGLE RRD Guidance Document for the Vapor Intrusion Pathway (May 2013, revised September 2020).

Sample Handling

- EGLE RRD Guidance - Application of Target Detection Limits and Designated Analytical Methods (March 2016).
- EGLE RRD Guidance – Target Detection Limits and Designated Analytical Methods (March 2016).
- EGLE RRD Guidance Document for the Vapor Intrusion Pathway (May 2013, revised September 2020).

Analytical Methods

- EGLE RRD Guidance - Application of Target Detection Limits and Designated Analytical Methods (March 2016).
- EGLE RRD Guidance – Target Detection Limits and Designated Analytical Methods (March 2016).
- EGLE RRD Guidance Document for the Vapor Intrusion Pathway (May 2013, revised September 2020).

Quality Control

- EGLE RRD Guidance - Application of Target Detection Limits and Designated Analytical Methods (March 2016).
- EGLE RRD Guidance – Target Detection Limits and Designated Analytical Methods (March 2016).
- EGLE RRD Guidance Document for the Vapor Intrusion Pathway (May 2013, revised September 2020).

Instrument Calibration and Frequency

- EGLE RRD Guidance - Application of Target Detection Limits and Designated Analytical Methods (March 2016).
- EGLE RRD Guidance – Target Detection Limits and Designated Analytical Methods (March 2016).
- EGLE RRD Guidance Document for the Vapor Intrusion Pathway (May 2013, revised September 2020).

Assessment and Oversight

Assessment and Response Actions

- EGLE Guidance- Sampling Strategies and Statistics Training Materials (2002).
- EGLE RRD Guidance – Response Activity Plan to Undertake Response Actions to Mitigate Unacceptable Exposures and Achieve Compliance with Section 20107a(1)(b) Content (February 2021).
- EGLE RRD Guidance – Non-aqueous Phase Liquid (NAPL) Characterization, Remediation, and Management for Petroleum Releases (June 2014).
- EGLE RRD Guidance – In Situ Remediation (February 2016).
- EGLE RRD Guidance – Groundwater-Surface Water Pathway Compliance Options (April 2016)
- EGLE RRD Operational Memorandum No. 4 - Site Characterization and Remediation Verification (May 2006).
- EGLE RRD Operational Memorandum No. 4 – Monitored Natural Attenuation (December 2008).
- EGLE RRD Operational Memorandum No. 9 – Guidance and Soil Closure Verification (January 2005).
- EGLE RRD Operational Memorandum No. 11 – Criteria for Evaluating Groundwater Not in an Aquifer (August 1997).
- EGLE RRD Guidance Document for the Vapor Intrusion Pathway (May 2013, revised September 2020).

Data Validation and Usability

Data Review, Verification, and Validation

- EGLE RRD Guidance - Application of Target Detection Limits and Designated Analytical Methods (March 2016).

- EGLE RRD Guidance – Target Detection Limits and Designated Analytical Methods (March 2016).
- EGLE RRD Guidance Document for the Vapor Intrusion Pathway (May 2013, revised September 2020).

Environmental analysis data will be collected and used to perform assessments and verify remediation of contaminated media to applicable and relevant cleanup criteria defined in rules promulgated pursuant to Part 201. Samples will be collected, preserved, and analyzed and resulting data will be evaluated and validated in accordance with the DQO-appropriate methods and procedures specified in EGLE guidance (see above) applicable to the project.

2.0 USEPA MEMORANDUM OF AGREEMENT FOR MICHIGAN'S CLEANUP PROGRAM UNDER PART 201

The relationship between the USEPA Brownfields Cleanup Grant Program and the EGLE Part 201 cleanup program is outlined in a USEPA Superfund Memorandum of Agreement (SMOA) with the State of Michigan. Applicable addenda to the SMOA are appended to this document.

On July 10, 1996, the USEPA and EGLE entered into the **Addendum 1: Brownfields Redevelopment** of the SMOA. Addendum 1 provides that the USEPA "...will not plan or anticipate any federal action against a covered party (owner, operator, generator, or transporter) under the Superfund law when one or more of the following conditions is satisfied: (1) The covered party is a new owner/operator who discloses a Baseline Environmental Assessment (BEA) to the EGLE and is not otherwise liable for environmental contamination existing on the site. A BEA does not relieve the covered party from its due care obligations under federal and state law, or (2) the covered party conducts its activities on the property consistent with an EGLE-approved Remedial Action Plan (RAP) for closure." The decision to not take federal action applied to past and future EGLE determinations. The County's interpretation of this SMOA is that the USEPA supports and encourages use of the Part 201 regulations and program as an equivalent substitute for the USEPA requirements for CERCLA.

3.0 STATE OF MICHIGAN INVOLVEMENT

The County will ensure the State of Michigan's involvement in the response action funded by the Cleanup Grant. The State of Michigan's role will be to ensure environmental response actions conducted at the site are not inconsistent with the state's voluntary cleanup program.

The State of Michigan's role in environmental response actions will be directed by the EGLE Remediation and Redevelopment Division (RRD). Descriptions of risk analyses and proposed cleanup criteria; proposed response actions; specific tasks; and proposed environmental sampling, analyses, and QA/QC plans and protocols will be made available to the EGLE prior to initiation of response actions. The purpose of the EGLE involvement, at a minimum, will be to obtain EGLE acknowledgement that the proposed environmental response actions are not inconsistent with a response action pursuant to Part 201. This information may be provided to the EGLE for review in a written summary.

4.0 CONCLUSION

The County will require that environmental data generation, QA/QC, and reporting activities funded with Cleanup Grant funds meet the DQOs applicable to the project tasks and comply with the applicable State of Michigan oversight program. A report documenting response actions and data evaluations will be prepared at the conclusion of the Cleanup Grant-funded activities. Reports that document data generation activities will include the appropriate references to Michigan QA/QC guidance documents and operational memoranda. The reports will be placed in the Administrative Record for the site, and copies will be sent to the USEPA for placement in the Cooperative Agreement file.

APPENDIX

SUPERFUND MEMORANDUM OF AGREEMENT

Addendum I: Brownfields Redevelopment

Addendum II: Site Assessments

SUPERFUND MEMORANDUM OF AGREEMENT ADDENDUM I
BROWNFIELDS REDEVELOPMENT

The redevelopment of contaminated, or potentially contaminated, properties (often referred to as "brownfields") provides significant benefits to the protection of human health and safety, the environment and the economy of local communities. To the extent possible, the U.S. Environmental Protection Agency, Region V (Region V) and the Michigan Department of Environmental Quality (MDEQ) agree to mutually exercise their authorities to facilitate the productive redevelopment of brownfields in Michigan. Specifically, the MDEQ agrees to continue to support efforts to promote and implement Region V's brownfields initiatives, whereas Region V agrees to support the MDEQ in the development and implementation of its newly amended cleanup program (Part 201 of the Natural Resources and Environmental Protection Act (NREPA), 1994 PA 451, as amended, MCL 324.20101 et seq., as follows:

With respect to properties in Michigan which are sites that are not proposed or listed on the National Priorities List (NPL) and are not subject to an order or other enforcement action under Superfund law or do not pose an imminent and substantial endangerment to public health or welfare or the environment or an emergency situation, Region V will not plan or anticipate any federal action against a covered party (owner, operator, generator or transporter) under Superfund law when one or more of the following conditions are satisfied:

- I. The covered party is a new owner/operator who discloses a Baseline Environmental Assessment (BEA) to the MDEQ and is not otherwise liable for environmental contamination existing on the site. A BEA does not relieve the covered party from its due care obligations under federal and state law.
- II. The covered party conducts its activities on the property consistent with an MDEQ-approved remedial action plan (RAP) for closure.
- III. The covered party conducts its activities on the property consistent with a written settlement agreement between the covered party and the Department of Attorney General acting on behalf of the MDEQ and/or the State of Michigan.
- IV. The covered party is an owner or operator of property (site) which is removed from the Michigan Sites of Environmental Contamination list after MDEQ review of the cleanup actions that have been completed.

Region V and MDEQ acknowledge that the foregoing provisions (I-IV) of Michigan's Part 201 cleanup program provide for: response actions that are

protective of human health and safety, opportunity for public involvement, and appropriate oversight and technical assistance.

With respect to properties which are sites proposed or listed on the NPL, subject to an order or an enforcement action under Superfund law or that pose an imminent and substantial endangerment to public health or welfare or the environment or an emergency situation, Region V and the MDEQ will continue to work cooperatively to resolve the concerns of covered parties regarding federal activity under Superfund. Such efforts may include the execution of multi-party agreements with the covered party, consistent with Region V and the MDEQ policies. When considering site specific agreements, Region V will follow the "Guidelines on Agreement with Prospective Purchasers of Contaminated Property" (9835.9).

At sites where both Region V and MDEQ have conducted response activities in furtherance of revitalization, the agencies will attempt to coordinate enforcement actions with respect to the responsible party. In the event Region V and MDEQ have determined that EPA involvement is no longer essential, the MDEQ will have lead responsibility for future response activities and enforcement actions. Region V and MDEQ agree that each agency will have lead responsibility in the recovery of their respective enforcement and response activity costs.

Notwithstanding the above, if under exceptional circumstances, conditions at the property are such that the site poses an imminent and substantial endangerment to public health or welfare or an emergency situation, or in the event the covered party fails to substantially comply or conduct its activities consistent with provisions I-IV above, Region V may, at its discretion or upon referral from the MDEQ, pursue federal action. Region V will consult with the MDEQ and give the MDEQ an opportunity to correct such non-compliance with provisions I-IV, prior to making a determination that federal response action is necessary at any state enforcement lead site. The Region V decision not to take federal action unless the site poses an imminent and substantial endangerment to public health or welfare or emergency situation will apply to both past and future state settlement agreements and enforcement actions.

Region V will continue to provide technical assistance and, at its discretion, financial support to local and state governmental agencies in order to facilitate the redevelopment of contaminated or potentially contaminated properties in Michigan and engender the environmental and social benefits which accompany the revitalization of brownfields.

This Memorandum of Understanding has been developed by mutual cooperation and consent, and hereby becomes an integral part of the working relationship between the EPA and MDEQ.

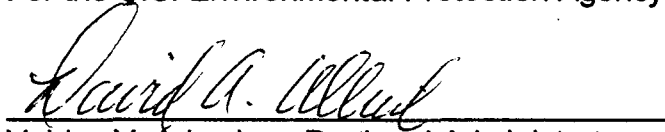
For the Michigan Department of Environmental Quality



Russell J. Harding, Director
Michigan Department of Environmental Quality

6/19/96
Date

For the U.S. Environmental Protection Agency, Region V



Valdas V. Adamkus, Regional Administrator
U.S. Environmental Protection Agency

7/10/96
Date

SUPERFUND MEMORANDUM OF AGREEMENT ADDENDUM II
BETWEEN THE
MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AND THE
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, REGION 5

I. PURPOSE

The Michigan Department of Environmental Quality (MDEQ) and the United States Environmental Protection Agency, Region 5 (Region 5) have entered a Superfund Memorandum of Agreement (SMOA). Among other things, the SMOA establishes operating procedures for general coordination and communication between the MDEQ and Region 5 regarding the Superfund program. Pursuant to Part II.A. of the SMOA, the MDEQ has been designated lead agency for remedial activities at selected sites in the state of Michigan. The purpose of this addendum is to further define the roles and responsibilities of Region 5 and the MDEQ with respect to activities conducted at state enforcement lead sites.

II. BACKGROUND

The MDEQ and Region 5 recognize the importance of facilitating the cleanup of sites by Potentially Responsible Parties (PRPs). Both agencies agree that it is in the best interest of the environment and the Superfund program to exercise their authorities and use their resources in mutually complementary ways and to minimize the duplication of effort, especially in the area of remedial enforcement.

The MDEQ has long been involved in remedial enforcement activities at federal Superfund sites, as co-signatories with Region 5 on various consent decrees and through management assistance grants. In addition, using enforcement authority pursuant to Part 201 of the Natural Resources and Environmental Protection Act, 1994 PA 451 (formerly known as the Michigan Environmental Response Act), the MDEQ has entered into enforceable agreements with PRPs that require the PRPs to perform investigations and/or cleanups at sites of environmental contamination. Based on both of the above factors, the MDEQ has been designated as the lead agency at selected sites in the state of Michigan appearing on the National Priorities List (NPL). These sites are designated as state enforcement lead sites.

Region 5 recognizes that the MDEQ has implemented this law (Part 201), and has the ability to select and implement cleanups that are protective of human health and the environment.

III. PRINCIPLES

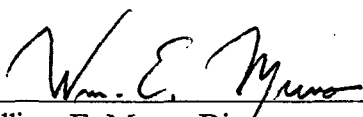
For those state enforcement lead sites in Michigan that have been investigated and/or remediated in compliance with Part 201 and for which the MDEQ has approved a Remedial Action Plan

(RAP), Region 5 will not plan or anticipate any federal response action under the Comprehensive Environmental Response, Compensation and Liability Act unless, in exceptional circumstances, conditions at the property are such that the site may pose an imminent and substantial endangerment to public health or welfare or the environment or an emergency situation. Region 5 will consult with the MDEQ, and give the MDEQ an opportunity to correct such non-compliance with the approved RAP, prior to making a determination that federal response action is necessary at any state enforcement lead site. The Region 5 decision not to take federal response action unless the site poses an imminent and substantial endangerment or emergency will apply to both current and future state enforcement lead investigations and cleanups.

When a state enforcement lead site has been remediated in compliance with Part 201 pursuant to a RAP approved by the MDEQ, MDEQ will request via letter to EPA that deletion from the NPL be initiated. In making a determination to delete a release from the NPL, EPA shall consider, in consultation with the state, whether any of the criteria in 300.425 (e) (1) has been met. After making this determination, Region 5 will initiate the process required to delete the site from the NPL.

Region 5 will work with the MDEQ to remove any concerns about federal activity under Superfund so as to encourage the investigation and/or remediation of NPL sites in Michigan by PRPs in accordance with Part 201 and under the direction of the MDEQ.

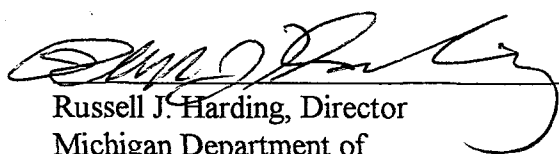
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY



William E. Muno, Director
Superfund Division

Date 3/14/97

STATE OF MICHIGAN



Russell J. Harding, Director
Michigan Department of
Environmental Quality

Date 3/24/97