



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
JACKSON DISTRICT OFFICE



DAN WYANT
DIRECTOR

August 2, 2013

Mr. Grant R. Trigger
Michigan Cleanup Manager
Racer Trust
2930 Ecorse Road
Ypsilanti, Michigan 48198

Dear Mr. Trigger:

SUBJECT: Approval of Response Activity Plan, Potential Area of Concern (PAOC) 18 Interim Measures Work Plan, February 2013, including Coordinated Approval for Cleanup of Polychlorinated Biphenyls (PCBs), Company Vehicle Operations (CVO), Ypsilanti, Michigan; MID 005 356 795, MIK 468 293 311 (Michigan Site ID 81000496)

Revitalizing Auto Communities Environmental Response (RACER) Trust has formally requested the Michigan Department of Environmental Quality (DEQ) review of a the Response Activity Plan, outlined in Potential Area of Concern (PAOC) 18 Interim Measures Work Plan, Company Vehicle Operations (CVO), (Work Plan), received on February 27, 2013. The DEQ has completed its technical review of the Work Plan pursuant to Part 111, Hazardous Waste Management, including the environmental protection or cleanup standards and associated requirements pursuant to Part 201, Environmental Remediation, of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), Michigan Compiled Laws (MCL) §§324.11101 *et seq.* and 324.20101 *et seq.* (Part 111 and Part 201, respectively) and the Resource Conservation and Recovery Act of 1976 (RCRA), Subtitle C, corrective action requirements of Title 42 of the United States Code §6901 *et seq.*

On February 22, 2013, the DEQ formally requested Toxic Substances Control Act of 1976 (TSCA) Coordinated Approval for the Work Plan from the U.S. Environmental Protection Agency (EPA), Region 5, under the amended final rules for Disposal of PCBs effective August 28, 1998, Title 40 of the Code of Federal Regulations (CFR), Parts 750 and 761, specifically §761.77(3)(c). That letter (copy enclosed) described the basis for the request and provided additional details regarding the regulatory framework and background for the corrective action conducted at the facility to date. RACER formally requested Coordinated Approval from the EPA for the RACER CVO site on February 27, 2013.

The In-Situ soil conditioning approach was submitted in Appendix G of the work plan pursuant to Rule 323.2210(u)(iii) of Part 31, Water Resources Protection, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Specifically, Rule 323.2210(u)(iii) allows for a discharge of wastewater to a plume of groundwater contamination without a permit if the discharge is for the purpose of a remedial investigation or action and the work is approved by the division that has compliance oversight.

Based upon DEQ evaluation of the In-Situ soil conditioning, the work plan satisfies the requirements of R 323.2210(u)(iii). Implementation by the mixing of oxidants and an activator within the excavation may proceed as proposed.

Upon consultation with the EPA, the DEQ has determined that the Work Plan will comply with the corrective action objectives of Part 111/RCRA, including the environmental protection standards and associated requirements pursuant to Part 31 and Part 201 if the conditions specified below are complied with.

Section 20114b(3) of Part 201, NREPA, states that when a response activity plan is submitted for approval, the DEQ may notify the submitter that the plan is approved with conditions, if applicable. The Response Activity Plan is approved with the following conditions:

Conditions for Approval

- A. RACER wrote in Section 2.3, "The PCB remediation requirement criteria is based on disposal of TSCA regulated PCBs". In several places in the Work Plan, RACER makes a reference to the cleanup level for PCBs being 50 ppm. The way this level is represented in the Work Plan may be a concern for EPA and is a concern for DEQ. For clarification, the DEQ understands the 50 ppm level for PCB is used only for disposal decisions and is not a risk based target cleanup level. The direct contact criterion (DCC) is the appropriate generic risk based target based on land use and takes into consideration both incidental ingestion of soil and direct dermal contact with soil. Our approval of the Work Plan is conditioned upon RACER conducting the remediation in accordance with PCB environmental protection standards pursuant to Part 111 R 299.9629(3)(a)(iii) as follows:

- ≤16 ppm for nonresidential use – requires a deed restriction if greater than 4 ppm
- ≤4 ppm for unrestricted residential use

The Work Plan must also identify the following as remediation requirements:

- >50 ppm remediation/disposal level - excavation and disposal in TSCA approved landfill/incinerator
- ≤50 ppm to 16 ppm will fall into the Part 201 non-TSCA disposal if disposed of off-Site – soil remaining onsite is limited nonresidential cleanup category and requires an adequate engineered exposure control and deed restriction.

- B. RACER and DEQ evaluated multiple technologies/approaches and determined that a combination of excavation, disposal, and monitoring along with a deed restriction was the best technical and economic solution for the whole CVO property. The CVO property will be deed restricted to maintain nonresidential zoning and use. RACER has presented a conceptual plan to the DEQ for a final RCRA corrective action which will employ an element of land use restriction across the entire CVO property. Due to the extent of low level CVOCs, some metals and potentially PCBs, the deed restriction will prohibit soil movement and have groundwater use limitations (e.g. prohibit potable or other direct uses such as gardening). The DEQ expects that RACER will place additional restrictions (as required) along with engineering controls (if necessary) on portions of the CVO property where PCB sampling of soil indicates that concentrations of PCBs remain in soils at levels exceeding 16 ppm, the DEQ nonresidential direct contact criteria. The areas where levels of PCBs are found to be below 16 ppm will be included in the land use restriction applied to the entire CVO property. The DEQ expects that RACER will apply land use restrictions and engineering controls that are approvable and satisfy the requirements of TSCA in the event that PCBs exceeding 16 ppm are left in place. It is the DEQ's expectation that a restrictive covenant intended to maintain the non-residential use (i.e., all contaminants are below nonresidential criteria, but some are above unrestricted residential criteria) would list the contaminants that are

remaining on property at levels above residential criteria. If Total PCBs exceed 4 ppm, PCBs will be included as contaminants of concern as part of the restrictive covenant.

- C. Analyses to determine total PCB levels must be included in all verification sample locations collected from the floor and sidewalls at a spacing/separation consistent with DEQ S3TM guidance. These sample locations will mark the extent of the final excavation. These PCB results will be incorporated with the PCB sampling locations conducted prior to excavation for soils that will remain in place.
- D. Excavated material exceeding Land Disposal Restrictions (LDRs) will not be staged in piles outside the area for remediation but will go directly into trucks or lined and covered roll off boxes for transport to appropriate disposal. Excavated material that does not exceed LDRs may be staged in piles outside the area for remediation if
 - 1) an appropriate liner and cover are used that are compatible with the contaminants to prevent or minimize cross media transfer, and
 - 2) there is a secondary containment (e.g., berm or other elevated material under edge of liner) to prevent run-on and run-off.
- E. Section 4.1 describes the construction of decontamination pads, to be clear the construction of a second decontamination pad to be constructed within the PCB area will be the same as the decontamination pad located on the asphalt. The excavator will be steam cleaned in accordance with TSCA decontamination. The wash water will not be allowed to percolate into the PCB area and will be collected in a sump, tested for PCBs treated (if necessary) and handled with the pumped groundwater.
- F. Copies of the restrictive covenant, monitoring reports, and final reports will be sent to both the DEQ and USEPA at the following addresses.

DEQ

Attention: Mr. Kevin Lund, CPG, PE
MDEQ, RRD
Jackson District Office
301 East Louis Glick Highway
Jackson, Michigan 49201-1556

USEPA

Attention: Ms. Jean M. Greensley, Geologist
U.S. Environmental Protection Agency
Corrective Action Section 1
77 W. Jackson, LU-9J
Chicago, Illinois 60601

- G. Final approval of the PCB Remediation Plan is contingent upon the EPA Regional Administrator granting TSCA PCB Coordinated Approval after making a determination under 40 CFR §761.77(c)(1)(i) that Part 111, including the environmental protection standards and associated requirements of Part 201, requires management of PCB contamination that is no less stringent than the applicable TSCA PCB requirements found at 40 CFR §761.61(c) or §761.62(c) and that the DEQ approved Work Plan constitutes a "PCB decision or enforcement document" that conforms to the requirements of the TSCA PCB requirements found at 40 CFR §761.77(c).

This approval with conditions of the Response Activity Plan is based upon the representations and information contained in the submittal, therefore the DEQ expresses no opinion as to whether other conditions that may exist will be adequately addressed by the response activities that are proposed. Notwithstanding this approval, if environmental contamination is found to exist that is not addressed by the Response Activity Plan and you are otherwise liable for the contamination, additional response activities may be necessary.

Should you require further information, please contact Mr. Kevin Lund, P.E. at 517-780-7846; lundk@michigan.gov; or 301 East Louis Glick Highway, Jackson Michigan, 49201-1556.

Sincerely,



Mitchell Adelman, District Supervisor
Jackson District Office
Remediation and Redevelopment Division
517-780-7852

cc: Mr. Dave Favero, RACER Trust
Ms. Beth Landale, CRA
Mr. Jose Cisneros, EPA
Mr. Peter Ramanauskas, EPA
Ms. Jean Greensley, EPA
Mr. Philip L. Schrantz, DEQ
Ms. DeLores Montgomery, DEQ
Dr. Deb MacKenzie-Taylor, DEQ
Mr. John McCabe, DEQ
Mr. Kevin Lund, DEQ
Corrective Action File



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



DAN WYANT
DIRECTOR

February 22, 2013

Mr. Jose Cisneros, Chief
Waste Management Branch
Land and Chemicals Division
U.S. Environmental Protection Agency, Region 5
77 West Jackson Boulevard LU-9J
Chicago, Illinois 60604-3507

SUBJECT: Coordinated Approval for Cleanup of Polychlorinated Biphenyls (PCBs) on behalf of Revitalizing Auto Communities Environmental Response Trust (RACER), Former General Motors Company Vehicle Operations (CVO), Ypsilanti, Michigan;
MID 005 356 795, MIK 468 293 311 (Michigan Site ID 81000496)

The Michigan Department of Environmental Quality (MDEQ), Office of Waste Management and Radiological Protection (OWMRP), is requesting concurrence from the U.S. Environmental Protection Agency, Region 5 (EPA Region 5), on a process for achieving coordinated approval for PCB cleanup and disposal at CVO located at 2901 Tyler Road, Ypsilanti, Michigan, under the Toxic Substances Control Act (TSCA), Title 40 of the Code of Federal Regulations (CFR), Part 761, February 17, 1978, as amended. The MDEQ is making this request under the amended final rules for disposal of PCBs effective August 28, 1998 (40 CFR Parts 750 and 761). This letter was prepared in consultation with Dr. Deb MacKenzie-Taylor, the MDEQ's TSCA liaison.

CVO is subject to the Resource Conservation and Recovery Act of 1976 (RCRA) Subtitle C Corrective Action (CA) requirements, Title 42 of the United States Code (U.S.C.), Section 6901 *et seq.* and RACER has committed to timely implementation of CA requirements and completion of final remedies. The CA includes remediation of Potential Area of Concern (PAOC) 18, the removal of volatile organic compound (VOC) and PCB impacted soils, groundwater, and dense nonaqueous phase liquid (DNAPL) at the CVO facility located in Ypsilanti, Michigan. The MDEQ is the lead agency in facilitation, oversight, and approval authority for CA obligations at CVO under its authority as a state authorized to implement RCRA (42 U.S.C., Section 6926) and in furtherance of its statutory and regulatory responsibilities pursuant to Part 111, Hazardous Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), Michigan Compiled Laws (MCL) 324.11101 *et seq.* and including the environmental protection or cleanup standards and associated requirements pursuant to Part 201, Environmental Remediation, of the NREPA, MCL 324.20101 *et seq.*

The MDEQ and EPA Region 5 have long recognized the importance of facilitating the cleanup of PCB-contaminated sites by using their resources in complementary ways and minimizing any duplication of effort. Working in close coordination with EPA Region 5 TSCA staff and the Office of Regional Counsel, the MDEQ drafted a Memorandum of Agreement (MOA) that expressed the intentions of both parties to coordinate the implementation of their respective authorities in achieving more effective and efficient review and approval of PCB remediation activities in Michigan (see Attachment 1 for the final draft version of the MOA, last modified in 2004). As part of this draft MOA, the MDEQ and EPA Region 5 agreed to mutually exercise their respective legal authorities to (1) facilitate timely and consistent application of TSCA requirements for environmental response actions conducted in Michigan pursuant to Michigan laws or federal laws and (2) meet each agency's mandate to protect public health, safety,

welfare, and the environment. Although it was recognized by both parties that the MOA would not have any legally binding effect and did not create any legal rights or obligations, the MOA was intended to support Michigan's use of its authorities to achieve cleanups consistent with TSCA requirements.

The draft MOA was never formalized due to a shift in priorities and responsibilities within each agency. However, the need still exists for a streamlined, coordinated approval process for remediation activities that relies more heavily on state authorities and resources as a primary influence in directing EPA Region 5 decision-making.

Consistent with the original goals of the 2004 draft MOA, the MDEQ is specifically requesting the following with regard to PCB remediation activities at CVO:

- Pursuant to the Michigan Administrative Code (MAC) R 299.9629(3)(a)(ii), concentrations of PCBs in environmental media at CVO that exceed the Michigan generic cleanup criteria for PCBs constitute an unreasonable risk of injury to human health and/or the environment. The MDEQ recognizes that the EPA Regional Administrator has no authority under TSCA over PCB waste disposed prior to April 18, 1978, which does not currently exceed 50 parts per million (ppm); however, for ease of implementation, concentrations of PCBs in environmental media at CVO that exceed the Part 201 generic cleanup criteria are assumed to constitute an unreasonable risk of injury to human health or the environment and are, therefore, subject to regulation under Part 111, which includes the cleanup standards under Part 201, regardless of when the contamination occurred.
- The MDEQ is requesting that the EPA Regional Administrator make a determination that MDEQ-approved CA that complies with Part 111, including the Part 201 cleanup standards, constitutes a "PCB decision or enforcement document" that conforms to the requirements of the TSCA PCB requirements found in 40 CFR, Section 761.77(c).
- The MDEQ is requesting that the EPA Regional Administrator make a determination under 40 CFR, Section 761.77(c)(1)(ii) that Part 111, using the Part 201 cleanup standards, requires management of PCB contamination that is no less stringent than the applicable TSCA PCB requirements found in 40 CFR, Sections 761.61(c) or 761.62(c). For background information on Part 111 CA and the Part 201 cleanup standards, see Attachment 2.

Until such time that the draft MOA is formalized, the MDEQ is asking that the EPA Region 5 provide formal, documented concurrence on the process outlined below through which RACER may seek expeditious approval of response activity under Part 111 to address its PCB contaminated property under the TSCA PCB coordinated approval in 40 CFR, Section 761.77. The MDEQ is hopeful that the following streamlined process will meet both state and federal requirements; meet or exceed each respective agency's benchmarks for achieving protection of human health, welfare, and the environment; and expedite the MDEQ and EPA Region 5 review of RCRA CA activities to address PCB contaminated soils and DNAPL at CVO:

1. RACER will formally seek approval from the MDEQ of response activities to address PCB contamination in facility soils under a proposed CA work plan that meets the requirements of Part 111. RACER, in coordination with the MDEQ, will submit the work plan and formally request coordinated approval from the EPA Region 5 at the time they submit the work plan to the MDEQ.

2. If the MDEQ determines that the proposed CA work plan (including any revisions required by the MDEQ as part of its review) satisfies Part 111, including the Part 201 cleanup standards for PCB remediation, the MDEQ will transmit a recommendation to approve, along with a copy of documents relevant to PCB remediation activities for areas subject to coordinated approval and a copy of the MDEQ draft approval document, to the EPA Region 5. Documents will include a summary description of the site, contamination, remediation targets, and disposal activities. As part of the formal notice of intent to approve, the MDEQ will verify to the EPA Region 5 that the regulatory package is complete and identify significant facility-specific issues, if any.
3. The EPA Region 5 agrees that within 30 days after receipt of the MDEQ's recommendation to approve RACER's CA work plan and the request for coordinated approval, it will issue a letter (may be informal) of intent to grant or deny the coordinated approval, request further information, or request additional time to complete its review. The grant of approval may include conditions necessary to prevent unreasonable risk of injury to human health or the environment.
4. The EPA Region 5 agrees that if it requests additional information after receipt of the MDEQ's recommendation to approve, it will issue a letter of intent to grant or deny coordinated approval within 30 days after all requested information is provided. The EPA Region 5 also agrees that if it must request additional time, it will complete its review as expeditiously as possible.
5. As soon as the EPA Region 5 issues a letter of intent to grant approval, the MDEQ will expeditiously (within 14 days) issue a formal approval that is an enforceable document, including any conditions the EPA Region 5 indicates are necessary to prevent unreasonable injury to human health or the environment.
6. The EPA Region 5 agrees to issue a formal approval letter granting the coordinated approval within 14 days of receiving a copy of the MDEQ enforceable document that serves as the basis, as long as it is consistent with the EPA Region 5 letter of intent.
7. RACER agrees that if they receive coordinated approval under this proposed process, they must also comply with the reporting and recordkeeping requirements of 40 CFR Part 761, Subparts J and K, if applicable and deemed necessary by the EPA Region 5.
8. The MDEQ will monitor compliance with the approved PCB remediation measures and will notify the EPA Region 5 of changes relating to PCB remediation requirements and/or changes in facility ownership.
9. This process in no way supersedes or eliminates the PCB remediation and disposal options available to RACER at any time under 40 CFR, Section 761.61.
10. Outstanding CA obligations that meet all other requirements under Part 111, including Part 201 cleanup standards, will be considered administratively complete when a letter from the EPA Region 5 granting the TSCA PCB coordinated approval is received by the MDEQ, consistent with Part 111, MCL 324.1126, MAC 299.9502(2)(a),(3)(c) and Part 201, MCL 324.20118(2)(b).

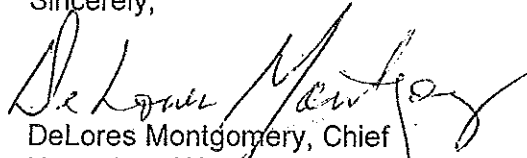
Thank you for your consideration of this proposed process for streamlining the review of PCB remediation activities at CVO. The MDEQ is confident that Michigan's Part 111 Program, which

incorporates the Part 201 cleanup standards, meets the requirements at 40 CFR, Section 761.77(c)(1)(ii) for a TSCA PCB coordinated approval (see Attachment 2 and reference the Corrective Action Memorandum of Understanding entered into by the EPA and the MDEQ on November 3, 2000, and the addendum letter dated April 15, 2002; see [http://www.michigan.gov/deq/0,1607,7-135-3312_4118_4240-56396--,\)\)](http://www.michigan.gov/deq/0,1607,7-135-3312_4118_4240-56396--,)))). Therefore, the MDEQ has proposed this administrative process to expedite coordinated approval for PCB remediation activities at CVO.

The MDEQ is looking forward to receiving a letter of concurrence from the EPA Region 5. Reaching agreement on a process for achieving cleanup goals for PCBs prior to submittal of a final CA work plan is imperative to ensuring RACER's success in achieving all CA goals in the already designated time frames assigned by the MDEQ and EPA Region 5.

Mr. Kevin Lund, P.E. of the Jackson District Office, Remediation and Redevelopment Division, MDEQ, has been designated as the contact point for state PCB management authority at CVO. Mr. Lund may be contacted at (517) 780-7846; lundk@michigan.gov; or 301 East Louis Glick Highway, Jackson Michigan, 49201-1556. You may also contact Dr. MacKenzie-Taylor at (517) 335-4715; mackenzie-taylord@michigan.gov; or MDEQ, OWMRP, P.O. Box 30241, Lansing, Michigan 48909-7741 or you may contact me.

Sincerely,


DeLores Montgomery, Chief
Hazardous Waste Section
Office of Waste Management and
Radiological Protection
517-373-7973

Enclosures

cc/enc: Mr. Peter Ramanauskas, EPA, Region 5
Mr. Grant Trigger, Michigan Cleanup Manager, RACER
Mr. Dave Favero, Assistant Michigan Cleanup Manager, RACER
Ms. Elizabeth M. Browne, MDEQ
Mr. Phil Schrantz, MDEQ
Mr. Mitch Adelman, MDEQ
Ms. Virginia Himich, MDEQ
Mr. Kevin Lund, MDEQ
Dr. Deb MacKenzie-Taylor, MDEQ
PCB TSCA Project File

Attachment 1

2004 DRAFT

Memorandum of Agreement Between the United States Environmental Protection Agency and the Michigan Department of Environmental Quality

This Memorandum of Agreement (MOA) is entered into between the Regional Administrator, United States Environmental Protection Agency (U.S. EPA), Region 5 (Region 5), and the Director, Michigan Department of Environmental Quality (MDEQ), to more effectively and efficiently implement the requirements of the Toxic Substances Control Act (TSCA) impacting polychlorinated biphenyl (PCB) remediation activities at subject facilities in Michigan. Among other things, this MOA establishes operating procedures for coordination and communication between the MDEQ and Region 5 regarding TSCA-regulated PCB contamination in Michigan.

I. Purpose

Region 5 and the MDEQ recognize the importance of facilitating the cleanup of PCB-contaminated sites by using their resources in complementary ways and minimizing any duplication of effort. Therefore, Region 5 and the MDEQ agree to mutually exercise their respective legal authorities to: (1) facilitate timely and consistent application of TSCA requirements for environmental response actions conducted in the State of Michigan pursuant to Michigan laws or federal laws; and (2) meet each agency's mandate to protect public health, safety, welfare, and the environment. This MOA expresses the intentions of the parties regarding how they intend to coordinate the implementation of their respective authorities. It does not have any legally binding effect and does not create any legal rights or obligations. This MOA is intended to support Michigan's use of its authorities to achieve cleanups consistent with TSCA requirements.

II. Parties

The following officials and their respective Agencies are Parties to this MOA:

Regional Administrator, U.S. EPA, Region 5
Director, MDEQ

III. Authority

Region 5 enters into this MOA in furtherance of its statutory and regulatory responsibilities and authority under TSCA, Title 15 of the United States Code

(U.S.C.), §2601 et seq., and other applicable federal laws and regulations, including Title 40 of the Code of Federal Regulations (40 C.F.R.), Part 761. The MDEQ enters into this MOA in furtherance of its statutory and regulatory responsibilities pursuant to Part 111, Hazardous Waste Management, and Part 201, Environmental Remediation, of Michigan's Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), Michigan Compiled Laws §§324.11101-324.11152 (1997) and §§324.20101-324.20142 (1995), respectively, and their associated administrative rules; and other applicable state laws and regulations, including its authority as an authorized state under Section 3006 of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. §6926.

IV. Background

The State of Michigan and Region 5 are mandated to protect public health and the environment. Michigan has an active environmental remediation program under NREPA and is an authorized state for most aspects of the RCRA program, including corrective action. Some cleanups that the MDEQ implements or requires under its NREPA and RCRA authorities include PCB contamination subject to TSCA requirements. Implementation of the TSCA program is the responsibility of the U.S. EPA. TSCA responsibilities are not delegated to the State of Michigan. Region 5 and the MDEQ acknowledge the potential benefits that can be achieved by outlining the parties' intentions and expectations for expedited, coordinated efforts to assure TSCA compliance at facilities addressed under Michigan laws.

Both the MDEQ and Region 5 acknowledge their mutual respect, positive working relationship, and commitment to the successful implementation of this agreement. In particular, the MDEQ and Region 5 seek to protect human health and the environment by:

- A. Providing coordinated and consistent technical standards and procedures to allow for informed decision making by property owners, prospective purchasers, lenders, public and private developers, citizens, local units of government, and elected officials.
- B. Ensuring cleanup of sites that protects public health and the environment and promoting revitalization of contaminated property for appropriate use.
- C. Promoting processes by which cleanups are carried out expeditiously and consistent with TSCA objectives.
- D. Facilitating the productive use of all authorities and resources in ways that are mutually complementary and not redundant.

V. Implementation Agreement

A. Relevant State Authorities

1. Region 5 recognizes that the MDEQ has been delegated or authorized to implement most major federal environmental programs other than TSCA. The MDEQ's authority for implementing these programs is contained in the NREPA. These programs are implemented by several divisions within the MDEQ under various parts of the NREPA. Each part may have program-specific remediation processes and criteria.

The RCRA Corrective Action (CA) and closure programs in Michigan are authorized to be implemented by the MDEQ, Waste and Hazardous Materials Division (WHMD), under Part 111. Michigan's state Superfund Program is implemented by the MDEQ, Remediation and Redevelopment Division, under Part 201. Michigan's various programs, laws, and regulations, such as Part 201 and Part 111, work together to achieve cleanup objectives.

The Superfund Memorandum of Agreement Addendum II, dated March 24, 1997, established U.S. EPA's recognition of MDEQ's Part 201 Environmental Remediation Program as consistent with the goals of the federal Superfund program for state enforcement lead sites on the National Priority List. In a Memorandum of Understanding entered into November 3, 2000, U.S. EPA and MDEQ agreed that MDEQ's use of the Part 201 cleanup standards and related processes were also an acceptable way of achieving the objectives of the authorized Part 111 CA program.

Michigan's Part 201 cleanup criteria include provisions for developing risk-based cleanup standards for PCB contamination at facilities or sites that are otherwise subject to environmental remediation under Part 111 or Part 201. Part 201 provides for management of PCB contamination that is no less stringent in protection of human and the environment than applicable TSCA requirements.

Cleanups conducted using the process outlined under Part 201 are implemented through an interim response work plan and/or Remedial Action Plan (RAP) approved by the MDEQ, or an equivalent approved enforcement document such as a Part 111 license, closure plan, post-closure plan, or consent order. Part 201, Section 20118 also requires that facilities conducting remedial actions that are subject to TSCA PCB rules must demonstrate compliance with those standards prior to MDEQ approval.

2. Region 5 has reviewed and evaluated the Part 201 processes and methodologies for establishing risk-based cleanup standards for PCBs and has determined that the MDEQ's use of the Part 201 cleanup standards and related processes are an acceptable way of achieving the objectives of the TSCA program. Region 5 has determined that cleanup standards developed under Part 201 are consistent with TSCA risk-based disposal criteria under 40 C.F.R. §§761.61(c) and 761.62(c). Therefore, a facility or site that complies with the PCB cleanup standards developed under Part 201 would be expected not to pose any unreasonable risk of injury to health or the environment.

Similarly, PCB cleanup standards established in an interim response work plan and/or RAP approved consistent with Part 201, in an equivalent document approved under Part 111, or in written identification of applicable or relevant and appropriate state requirements (ARARs) requested by the U.S. EPA Comprehensive Environmental Response, Compensation and Liability Act, 1980 PCL 96-510 (CERCLA) program are considered by Region 5 to be a "PCB decision or enforcement document" for purposes of coordinated approval under 40 C.F.R. §761.77.

B. Applicability and Process

Based on the determinations described above, Region 5 has determined that coordinated approval under 40 C.F.R. 761.77 can be granted expeditiously for PCB cleanup standards established in an interim response work plan and/or RAP approved consistent with Part 201, in a closure plan or other appropriate vehicle approved under Part 111, or in written identification of ARARs requested by the U.S. EPA CERCLA program. As a result, the following streamlined process will be followed for Region 5's review of PCB cleanup standards established by MDEQ using Part 201 standards, processes and criteria:

1. Any person seeking approval from the MDEQ of response activities to address PCB contamination under a proposed RAP, interim response activity work plan, closure plan, or other appropriate vehicle will also be required by the MDEQ to formally request coordinated approval from Region 5. An electronic form will be created and used to facilitate this step.
2. If the MDEQ determines that the proposed RAP, interim response work plan, closure plan, or other appropriate vehicle (including any revisions required by the MDEQ as part of its review) satisfy the Part 201 processes and criteria for PCB remediation, the MDEQ will transmit a notice of intent to approve, and a copy of documents

relevant to PCB remediation activities for areas subject to coordinated approval, to Region 5. Documents should include a summary description of the site, contamination, remediation targets, and disposal activities. An electronic form will be created and used by the MDEQ to verify to Region 5 that the regulatory package is complete and to identify significant facility-specific issues, if any.

3. Region 5 agrees that within 30 days after receipt of the MDEQ's notice of intent to approve and the request for coordinated approval, it will issue a letter granting or denying coordinated approval, requesting further information, or requesting additional time to complete its review. The grant of approval may include conditions necessary to prevent unreasonable risk of injury to health or the environment.
4. Region 5 agrees that if it requests additional information after receipt of the MDEQ's notice of intent to approve, it will issue a letter granting or denying coordinated approval within 30 days after all requested information is provided. Region 5 also agrees that if it must request additional time, it will complete its review as expeditiously as possible.
5. All requirements, conditions and limitations of the MDEQ's approved RAP, interim response work plan, closure plan or other appropriate vehicle are conditions of the coordinated approval.
6. Facilities that receive coordinated approval under this MOA must comply with the reporting and recordkeeping requirements of 40 C.F.R., Part 761, Subparts J and K, as applicable.
7. The MDEQ will monitor compliance with the approved PCB remediation measures and will notify Region 5 of changes relating to PCB waste requirements and/or changes in facility ownership.

Region 5 will consult with the MDEQ and provide the MDEQ, where practicable and appropriate, an opportunity to take appropriate action within a timely manner, prior to denying or conditioning a request for coordinated approval.

This MOA does not supersede nor eliminate the PCB remediation and disposal options available to facilities under 40 C.F.R. § 761.61.

For purposes of this MOA, PCB wastes in Michigan with concentrations of PCBs in environmental media that exceed the Part 201 generic cleanup criteria constitute an unreasonable risk of injury to human health or the environment and are therefore subject to regulation under TSCA and/or

Part 201, regardless of when the contamination occurred.

The cleanup criteria specified in Part 201 of the NREPA provide for land use based cleanups which may entail restrictive covenants or other restrictions in order to meet the criteria specified for each land use category. The WHMD will utilize criteria specified in Part 201 when reviewing and approving institutional controls used in lieu of restrictive covenants.

Region 5 does not anticipate taking action pursuant to TSCA at facilities being addressed by the MDEQ under a coordinated approval except where one or more of the following circumstances apply:

1. Region 5 determines that the PCB waste management process at the facility is being operated in a manner which may result in an unreasonable risk of injury to health or the environment.
2. The facility owner or operator fails to properly implement a condition or course of action required by the MDEQ or by U.S. EPA.
3. The facility is subject to an existing federal (administrative or judicial) order for PCB cleanup.
4. The MDEQ-approved document expires, is revoked, suspended, or otherwise ceases to be in full effect.
5. The exercise of federal authority is necessary for Region 5 to meet its legal responsibilities.
6. The exercise of federal authority or assistance is specifically requested by the MDEQ.

Region 5 will consult with the MDEQ and provide the MDEQ, where practicable and appropriate, an opportunity to take appropriate action within a timely manner, prior to making a determination that federal action is necessary at a facility where coordinated approval has been granted consistent with this MOA.

C. Coordination Between the MDEQ and Region 5

1. Under this MOA, Region 5 and the MDEQ have established a process for streamlined and coordinated review of cleanup standards at facilities that choose to initiate remediation activities which include measures to address PCB contamination. Key to the success of this process is frequent communication between Region 5 and the MDEQ regarding these facilities and regarding

implementation of this process. Region 5 and the MDEQ hereby commit to continuing review and improvement of this process.

2. Frequent communication between Region 5 and the MDEQ is critical to the success of the streamlined TSCA review process and to avoiding unnecessary delays in completion of cleanups due to TSCA issues. Region 5 and the MDEQ commit to continuing to share information on facilities with TSCA remediation issues, implementation priorities, new program initiatives, cleanup criteria decisions, and other relevant issues.

In order to achieve this level of communication, the MDEQ and Region 5 shall conduct quarterly meetings or conference calls to discuss progress in implementing this MOA, the PCB cleanup program in general, meeting GPRA commitments, and facility-specific concerns.

3. Region 5 will notify MDEQ of all contacts it receives for PCB cleanup approvals or for self-implementing PCB cleanup under 40 C.F.R., Part 761, from facilities located in Michigan.

VI. Entry and Modification

This MOA has been developed by mutual cooperation and consent and hereby becomes an integral part of the working relationship between Region 5 and the MDEQ.

Region 5 enters into this MOA based on a review of the MDEQ's Part 201 cleanup criteria and processes in their current format. The MDEQ agrees to provide Region 5 with prompt notice of changes to the laws, regulations and guidance, and practices that impact the Part 201 cleanup criteria and processes for implementing response activity for PCBs.

This MOA may only be modified by the mutual written agreement of both Parties, or it may be terminated by one Party after a 45-day notice to the other Party.

For the Michigan Department of Environmental Quality

Steven E. Chester, Director
Michigan Department of Environmental Quality

Date

For the United States Environmental Protection Agency, Region 5

Thomas V. Skinner, Regional Administrator
U.S. Environmental Protection Agency

Date

Attachment 2
Background Information on the Part 111 Corrective Action, including the Part 201 Environmental Protection Standards in Support of Toxic Substances Control Act (TSCA) Polychlorinated Biphenyls (PCBs) Coordinated Approvals in Michigan

Background: Part 111 Corrective Action and the Use of Part 201 Environmental Protection Standards

The Michigan Department of Environmental Quality (MDEQ) has facilitation, oversight and approval authority for corrective action obligations as a state authorized to implement the Resource Conservation and Recovery Act of 1976 (RCRA), as amended, Subtitle C Hazardous Waste Management Program, at Title 42 of the United States Code (U.S.C.), §6901 *et seq.* Michigan implements its State Hazardous Waste Program, including corrective action obligations, under Part 111, Hazardous Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), §324.1101 *et seq.* In accordance with the Michigan Administrative Code (MAC) R 299.9629(3)(a)(ii), (iii), (b)(ii), and (iii), corrective action requirements include the groundwater protection standards and environmental protection standards for other media established pursuant to Part 201, Environmental Remediation, of the NREPA.

Background: Part 201 Cleanup Program

Michigan has a comprehensive environmental cleanup program that is governed by Part 201. Part 201 provides for the identification, risk assessment, evaluation, and cleanup of sites of environmental contamination in Michigan. Part 201 is administered by the MDEQ, Redevelopment and Remediation Division (RRD), which also oversees Michigan's participation in the federal Superfund Program.

Under Part 201, the MDEQ is authorized to establish environmental protection standards (generic cleanup criteria) in land-use based categories. The generic categories for cleanup criteria are residential, commercial, industrial, and recreational. Generic exposure assumptions based on land use are used to calculate generic cleanup criteria for each category. To date, generic cleanup criteria have been developed for residential, industrial, and commercial land use. Due to the wide spectrum of possible activities and land uses, recreational sites are currently considered on a case-by-case basis. The categorical cleanup standards require that land use and/or resource use restrictions be imposed at sites that do not comply with residential criteria. These use restrictions assure that land and resource use at a site match the assumptions applied in calculating the cleanup criteria. For example, if a site complies with industrial criteria but exceeds residential criteria, use of the property must be restricted to industrial purposes unless further evaluation and/or remediation are done. A notice of MDEQ-approved environmental remediation is recorded on the property deed for generic industrial, commercial, or recreational land use categories to ensure that future use will be consistent with the closure assumptions. No notice is required under the generic residential category because sites closed under this category are appropriate for unrestricted use.

Part 201 also provides for "limited" categories for each land use. Site closures under the limited categories are used when an exposure barrier/control, land use, and/or resource use restriction will prevent contact with environmental media impacted at concentrations above the generic cleanup criteria. For example, if soil concentrations exceed generic criteria for the intended land use, pavement and/or clean cover may be used to prevent future exposures to soil with land use restrictions requiring routine inspection and maintenance of the cover, dig restrictions, and institutional controls for handling any future excavation in the restricted area. Land use restrictions may also be used to prevent the use of impacted groundwater as a source of drinking water.

In addition, site-specific risk assessments and cleanups are possible under Part 201. Site-specific cleanups are used when the anticipated conditions, activities, and exposures (e.g., soil characteristics,

exposure duration, or frequency) for a site differ from those assumed for the generic categories. Limited and many site-specific cleanups require that land use restrictions and/or exposure barriers be described in a restrictive covenant, a legally enforceable document, to be recorded on the deed to the property. Additionally, permanent markers may be required at the site.

Both a notice of MDEQ-approved environmental remediation and a restrictive covenant run with the land and are binding on the owner's successors, assigns, and lessees.

Part 201 Screening Level Risk Assessment for PCBs

The methodology for calculation of Part 201 generic criteria is consistent with that presented in the U.S. Environmental Protection Agency's (EPA) *Soil Screening Guidance: Technical Background Document* (May 1996) and the *Risk Assessment Guidance for Superfund* (1989). The Part 201 cleanup criteria and methodologies were promulgated into the Part 201 administrative rules in December 2002 (R 299.5101 *et seq.*). Part 201 criteria are back-calculated from a target cancer risk for carcinogens or a hazard quotient for noncarcinogens. The statutory target cancer risk under Part 201 is 1 additional cancer above the background cancer rate for 100,000 individuals. A hazard quotient of 1 is used to derive criteria for noncarcinogenic compounds. Criteria are developed based on generic assumptions that characterize patterns of human exposure associated with a specific land use category. Consistent with the EPA guidance, a mix of upper bound and average values are chosen to represent a reasonable maximum exposure for a human receptor identified to represent the pattern of activity for each land use. Therefore, if site concentrations do not exceed criteria, it may be assumed that exposure to contaminants will not result in an unacceptable risk. Conversely, concentrations that exceed criteria indicate that exposure to site contaminants may result in an unacceptable risk of adverse health effects.

Criteria for groundwater and soil have been calculated for several human exposure pathways including drinking water ingestion, soil leaching to groundwater, dermal contact with groundwater in an excavation, incidental ingestion and dermal contact with soil, volatile and particulate releases to ambient air, and groundwater and soil volatilization to indoor air. Additional criteria for the protection of aquatic species, terrestrial wildlife, and human secondary exposures are applicable to groundwater that vents to surface water bodies. At sites of environmental contamination where multiple pathways are relevant, the most restrictive criterion for each media is chosen as the applicable cleanup goal.

While the Part 201 Program relies heavily on the generic cleanup criteria to evaluate sites of environmental contamination, professional judgment is also used to identify those situations that require more restrictive cleanup. For example, if site conditions result in overland runoff of soil contaminants to surface waters, response action may be required even where soil concentrations do not exceed the applicable generic criteria.

For PCBs in soil, the Part 201 direct contact pathway results in the most restrictive generic cleanup criteria. The Part 201 generic direct contact criteria (DCC) consider both incidental ingestion of soil and direct dermal contact with soil. The following table presents the DCC for PCBs for each land use category. Compliance with the DCC is required throughout the soil profile, including soils at depth, since it is assumed that subsurface soils may be brought to the surface in the future.

Land Use Category	Part 201 DCC in parts per million (ppm) or milligrams per kilogram (mg/kg)
Residential & Commercial Subcategory I	4.0 (1.0 to be no less stringent than TSCA)
Industrial & Commercial Subcategory II	16
Commercial Subcategory III	33
Commercial Subcategory IV	22

Part 201 requires that a State Drinking Water Standard, if available, be used as the cleanup criterion for groundwater used as a source of drinking water. The Michigan standard is identical to the federal maximum contaminant level (MCL) for PCBs of 0.5 parts per billion (ppb) or micrograms per liter ($\mu\text{g/L}$). If groundwater is currently venting to surface water or may vent to surface water in the future, the water quality standard for protection of surface water is 0.2 ppb ($\mu\text{g/L}$) for PCBs. In addition, a Part 201 groundwater contact criterion (GCC) of 2.3 ppb ($\mu\text{g/L}$) is available for PCBs. The GCC is protective of direct contact with groundwater under a soil intrusive scenario such as utility installation or repair. The GCC is applicable for all land use categories, but is controlling only if groundwater does not, and will not, vent to surface water, and if groundwater is either not in an aquifer, or will be prevented from use as drinking water by an institutional control.

Title 40 Code of the Federal Regulations (CFR), §761.50 Applicability - Pre-1978

Disposals

40 CFR, §761.50(b)(3)(i) gives the EPA Regional Administrator the authority to direct "any person responsible for PCB waste at concentrations ≥ 50 ppm placed in a land disposal facility, spilled, or otherwise released into the environment prior to April 18, 1978" to characterize and/or cleanup PCB remediation wastes. Cleanup may be directed if the EPA Regional Administrator makes a finding that an unreasonable risk of injury to health or the environment from exposure to PCBs exists at the site. The screening level risk assessment presented above is used to generate the cleanup criteria based on a set of exposure assumptions for each land use category provided for in Part 201. As such, if PCB concentrations at a site exceed the risk-based criteria, it may be assumed that an unreasonable risk of injury to health or the environment may exist for this site. The MDEQ is requesting that the EPA Regional Administrator make a finding that concentrations that exceed the Michigan generic Part 201 cleanup criteria for PCBs constitute an unreasonable risk of injury to health and/or the environment.

40 CFR, §761.77 Coordinated Approval

40 CFR, §761.77 gives the EPA Regional Administrator the authority to issue a TSCA PCB Coordinated Approval and details the requirements for such an approval. Approval may be granted under 40 CFR, §761.77(c)(1)(ii) if the EPA Regional Administrator determines (1) that the activity will not pose an unreasonable risk of injury to health and the environment and (2) if a person requesting the approval has a **permit or other decision or enforcement document** issued by a State Director pursuant to a State program that has been approved by EPA, which exercises control over the management of PCB wastes and the person is in compliance with all terms and conditions of that document. The state program may be **no less stringent** in protection of health or the environment than the applicable TSCA requirements.

"Risk of Injury" – A screening level risk assessment is used to generate the generic cleanup criteria based on a set of exposure assumptions for each land use category provided for in Part 201. As such, if PCB concentrations at a site **do not** exceed the generic risk-based criteria developed for each cleanup category, it may be assumed that an unreasonable risk of injury to health or the environment

does not exist for this site providing that future site activities remain consistent with the closure assumptions.

"PCB Waste Management Permit or Other Decision or Enforcement Document" – Part 111, §324.11115a(2) requires corrective action to be conducted under a license, permit, or order. "Enforceable document" is defined under MAC R 299.9103(e) and includes a postclosure plan, corrective action order, or other document issued by the MDEQ in lieu of an operating license. Any work plans approved under a license, postclosure plan, or corrective action order [or settlement agreement – RACER] pursuant to Part 111, become an enforceable document once approved by the MDEQ.

Part 201, §324.20118 provides the MDEQ with the authority to undertake response activity, or to approve response activity proposed by a person, consistent with Part 201 and the rules promulgated thereunder. Response activity undertaken under Part 201 must (1) assure protection of the public health, safety, and welfare, and the environment; (2) attain a degree of cleanup and control of hazardous substances that complies with all applicable or relevant and appropriate requirements, rules, criteria, limitations, and standards of state and federal law; and (3) be consistent with any cleanup criteria incorporated in the Part 201 Rules but not less stringent than TSCA.

"No Less Stringent" – 40 CFR, §761.61(c) and §761.62(c) provide for risk-based disposal approval for PCB remediation waste and bulk product waste, respectively. The Part 201 screening level risk assessment used to generate the generic cleanup criteria is consistent with the risk assessment methods presented in the EPA's *Risk Assessment Guidance for Superfund* (1989) and *Soil Screening Guidance: Technical Background Document* (1994). Environmental PCB concentrations below Part 201 risk-based criteria may be assumed to not pose an unreasonable risk of injury to human health or the environment. Site closures under Part 201 limited categories are also consistent with the risk assessment methods presented in the EPA's *Risk Assessment Guidance for Superfund* (1989). Land use restrictions and/or exposure barriers approved under limited category cleanups render human exposure pathways incomplete. Since exposure to impacted media is prevented, a site-specific risk assessment will indicate no unacceptable risk to human receptors. Environmental impacts of PCB contamination must also be considered within limited and some site-specific cleanups, and additional cleanup activities may be required as necessary to protect the environment. As such, Part 201 provides for management of PCB waste within generic, limited, and site-specific cleanups that is no less stringent in protection of human health or the environment than the applicable TSCA requirements in 40 CFR, §761.61(c) and §761.62(c).