



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
SAGINAW BAY DISTRICT OFFICE



KEITH CREAGH
DIRECTOR

March 29, 2016

Mr. Dave Favero
Deputy Clean-Up Manager
RACER Trust
500 Woodward Avenue, Suite 1510
Detroit, Michigan 48226

Dear Mr. Favero:

SUBJECT: Approval of Risk Based Disposal Work Plan for PCB Impacted Material, RACER Trust Saginaw Malleable Industrial Land- MID0053566696 (Former General Motors Saginaw Malleable Iron Facility), 77 West Center Street, Saginaw, Saginaw County, Michigan

RACER Trust has formally requested approval for the Saginaw Malleable Industrial Land from the Michigan Department of Environmental Quality (MDEQ) for response activities, outlined in the Risk Based Disposal Work Plan for PCB Impacted Material, (Work Plan), dated May 8, 2015. The MDEQ has completed its technical review of the Work Plan pursuant to Part 111, Hazardous Waste Management, of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), Michigan Compiled Laws (MCL) §§324.11101 et seq. (Part 111) including the environmental protection or cleanup standards and associated requirements pursuant to Part 201, Environmental Remediation, of the NREPA, MCL §§324.20101 et seq. (Part 201) and the resource federal Conservation and Recovery Act of 1976 (RCRA), Subtitle C, corrective action requirements of Title 42 of the United States Code §6901 et seq.

On May 15, 2015, the MDEQ 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 Trust formally requested Coordinated Approval from the EPA for the Work Plan for the Saginaw Malleable Industrial Land on May 8, 2015.

Upon consultation with the EPA, the MDEQ 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.

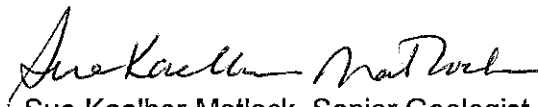
This approval is based in part on other interim response work that has been completed to address the environmental conditions at the site, including, but not limited to, contaminated soil excavation, Non-Aqueous Phase Liquid (NAPL) recovery, and sewer work and the imposition of land use restrictions, engineering controls, and long-term monitoring and maintenance across the site. The MDEQ expects that RACER Trust for Saginaw Malleable Industrial Land will apply

land use restrictions and engineering controls that are approvable and satisfy the requirements of TSCA for PCBs that exceed the applicable cleanup criteria and are left in place. It is the MDEQ's expectation that a restrictive covenant intended to maintain nonresidential use and any engineering controls that are necessary would list the contaminants that are remaining on the property at levels above residential criteria. If total PCBs are left in place above the applicable residential or high occupancy criteria, PCBs will be included as contaminants of concern as part of the restrictive covenant.

This approval of the Work Plan is based upon the representations and information contained in the submittal; therefore, the MDEQ 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 this Work Plan, additional corrective action may be necessary.

Should you require further information please contact me at the number below.

Sincerely,



Sue Kaelber-Matlock, Senior Geologist
Saginaw Bay District Office
Remediation and Redevelopment Division
989-894-6249
matlocks@michigan.gov

Enclosure

cc: Mr. Joe Cisneros, EPA
Mr. Peter Ramanauskas, EPA
Ms. Jean Greensley, EPA
Dr. Deb MacKenzie-Taylor, MDEQ
Ms. Rhonda Klann, MDEQ

Attachment
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. The United States Environmental Protection Agency (EPA) Region 5 has concurred with the use of the Part 201 cleanup criteria for corrective action in Michigan with a 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/deg/0,1607,7-135-3312_4118_4240-56396--\).html](http://www.michigan.gov/deg/0,1607,7-135-3312_4118_4240-56396--).html).

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 and nonresidential. 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 and nonresidential 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 restrictive covenant is recorded on the property deed for generic nonresidential land use category properties 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	4.0 (1.0 to be no less stringent than TSCA when applicable)
Nonresidential	16

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.

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, corrective action order, or consent judgment 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. An interim response activity plan must be submitted and approved if (1) the person proposing the plan wishes to document MDEQ approval of the plan. An interim response activity plan approved by MDEQ via this process constitutes both a decision and, in some cases, an enforceable document issued by a State Director pursuant to a State PCB Waste Management Program. Therefore, the MDEQ is requesting that the EPA Regional Administrator make a determination that a MDEQ approved interim response activity plan that complies with Part 201 constitutes a "PCB decision or enforcement document" that conforms to the requirements of the TSCA PCB requirements found at 40 CFR, §761.77(b).

"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).