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Subject: Alliance of Auto Mfrs Comments

Please find attached the comments of the Alliance of Auto Mfrs. on OMB's Draft 2004 Report to Congress on Costs and Benefits of Federal Regulations. If you have any questions, please contact myself or Valerie Ugehetta here at the Alliance office.

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- OMB cmt 5-19-04.pdf.zip
- Horizon Env rpt 1-5-04.doc.zip
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May 19, 2004

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By Fax to OMB/OIRA 202-395-7245, Attn. Lorraine Hunt

**Alliance of Automobile Manufacturers**  
**Comments on OMB's Draft 2004 Report to Congress**  
**On Costs and Benefits of Federal Regulations**  
[69 FR 7987, February 20, 2004]

The Alliance of Automobile Manufacturers is a trade association representing BMW, DaimlerChrysler, General Motors, Ford Motor Company, Mazda, Mitsubishi, Porsche, Toyota and Volkswagen. The automobile industry is one of the largest industries in the United States. It creates 6.6 million direct and spin-off jobs and produces \$243 billion in payroll compensation, according to a 2001 report on the "Contribution of the Automotive Industry to the U.S. Economy" prepared by the University of Michigan and the Center for Automotive Research (CAR). No other single industry is more linked to U.S. manufacturing or generates more retail business and employment. America's automakers are among the largest purchasers of aluminum, copper, iron, lead, plastics, rubber, textiles, vinyl, steel and computer chips. There are more than 56 automobile and light duty truck assembly plants across the United States, and thousands more large and small businesses that supply parts and services for vehicle manufacturing. They share a vital interest in maintaining the global competitiveness of businesses in the United States.

The Alliance supports OMB's efforts in finalizing its 2004 Report to identify federal regulations, guidance documents, and paperwork requirements that do not provide a cost-effective approach to meeting regulatory goals or are outdated on a technical basis, and which are amenable to non-legislative solutions. The Alliance sponsored a recent survey of the federal and state environmental regulations applicable to a hypothetical "typical" auto assembly plant, and found in this "snapshot" that there were (conservatively) 1160 requirements for environmental regulations alone, compared to 884 in 1998 (Jan. 5, 2004, Horizon Environmental Corporation Report, "Environmental Regulatory Profile"). The increasing number and complexity of this web of requirements is noteworthy in itself.

Alliance members support a strong federal framework for environmental regulations supported by a sound policy footing (and transparent scientific, technical, and economic analyses) that can also serve as precedent for consideration in other countries. Regulations need to be flexible enough to readily accommodate new technologies and provide for timely permitting processes, to maintain competitiveness for business. Regulations need to be clearly written, and easily located and obtainable by electronic as well as hard copy means. Consistent compliance

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requirements should be applied by EPA and designated or delegated Regions and States, and be consistently applied over time.

We encourage OMB to review progress made on the regulatory reform nominees identified in its 2002 Report to Congress in the 2004 Final Report. While Alliance members are engaged in a large variety of federal rulemakings, for purposes of this year's Report we are focusing on a few environmental issue areas that continue to warrant OMB attention for purposes of regulatory reform. While they are part of ongoing U. S. EPA activity, they are long-standing issues that merit resolution as soon as possible. Some have been mentioned in prior OMB Reports to Congress. We have divided them into Stationary Source (manufacturing issues) and Mobile Source (vehicle-related issues). They are listed below:

### ***Stationary Source Issues:***

#### **RCRA: Definition of Solid Waste and Point of Generation**

**Summary of Issue:** One of the original goals of the Resource Conservation and Recovery Act (RCRA) was to increase resource recovery. Unfortunately, that goal is undermined by EPA's increasing attempts to regulate industrial processes, products, and materials, rather than focusing on wastes which are "abandoned, discarded, or thrown away" as was intended when RCRA was conceived. Further, through more restrictive policies and regulatory interpretations, EPA has been making inappropriate determinations of when a material becomes a "waste" and increasing the universe of industry materials regulated under RCRA. As a result, recycling efforts are diminished. EPA should revise the RCRA definition of "solid waste" to exclude materials that are legitimately recycled. Most recently, this has been the subject of extensive public comment in February 2004 in response to proposed revisions to the definition found at 68 Fed. Reg. 61558 (October 28, 2003). The issue affects many small as well as large manufacturers.

As an example of broadening interpretation of the definition of "waste": EPA has recently interpreted the purge solvent systems in the automotive paint shops to be hazardous waste management units managing a hazardous waste and subject to full RCRA regulations. Several states and the automotive industry think that the solvent in the purge system is not a waste because it is being used for its intended purpose, and therefore, is not subject to the RCRA regulations (i.e., the purge is a commodity still in use). The solvent is collected, recycled, and reused. EPA, however, initiated enforcement actions against several auto industry facilities for not managing the purge system in compliance with full RCRA regulation. *See Attachment 2.*

#### **The Development and Use of Risk Assessment Data**

**Summary of Issue:** EPA is inconsistent in its conservatism regarding the development and use of risk assessment data, including some assumptions made in modeling tools, and the acceptable risk criteria applied. In hopes of avoiding conflicting and burdensome state specific programs, most states look to EPA to establish common methodologies for calculating risk to human health and the environment. EPA has long been in need of an open, peer-review "weight of the evidence" approach to establishing acceptable limits.

As an example regarding groundwater: EPA has a long-standing (and unrealistic) goal that all groundwater will be cleaned up to its highest use (usually drinking water), without regard to risk, its likely use, or the availability of technology to clean it up. EPA's failure to establish clear, reasonable and attainable groundwater cleanup goals is severely hampering the ability to complete cleanups under the RCRA Corrective Action program at old industrial facilities, resulting in a competitive issue adversely impacting older, established domestic automakers who are engaged in site remediation and redevelopment projects.

### **Clean Water Act: Method Detection Limit /Minimum Level (MDL)/(ML)**

**Summary of Issue:** The existing laboratory analytical procedure (MDL/ML) used for establishing low-level detection and measurement of chemical constituents result in a high level of “false positives”. This data may be used for compliance determinations and may inaccurately characterize discharger effluents as being non-compliant.

As a result of a settlement agreement from litigation brought by an inter-industry coalition several years ago, EPA is in the process of re-evaluating the use of these procedures [See EPA Guidelines Establishing Test Procedures for the analysis of Pollutants, 68 FR 11770 (March 12, 2003) and Technical Support Document (TSD) for Assessment of Detection and Quantitation Approaches, 68 FR at 11791]. Although EPA’s own Technical Support Document (TSD) confirms that the MDL/ML approach is unsuitable for compliance determinations, it is anticipated that EPA will recommend that the process remain significantly unchanged. EPA’s continued use of the existing MDL would be irrational and arbitrary and subject dischargers to enforcement actions despite insufficiently precise and accurate test protocols and results.

The details about this MD/ML issue and related concerns will be provided in comments by the Inter-Industry Analytical Group (IIAG), submitted by the law firm of Hunton and Williams. The Alliance is a member of IIAG and supports those comments.

### ***Mobile Source Issues:***

#### **Emission Standard Waivers**

**Summary of Issue:** EPA usually grants the California Air Resources Board (ARB) a waiver of federal preemption requiring little if any change to the ARB regulation. Sometimes, ARB submits “within the scope” waiver requests rather than “new” waiver requests. ARB recently submitted a “within the scope” waiver request on its amendments to On Board Diagnostics (“OBD II”) (69 FR 5542, February 5, 2004) rather than submitting a “new” waiver request, even though the amendments resulted in substantial changes (e.g., additional monitors, new enforcement requirements including mandatory recall provisions, and the ability to recall vehicles that have an OBD malfunction that does not affect vehicle emissions). The Alliance believes that ARB should request a new waiver.

Also, ARB does not submit waiver requests in a timely manner. ARB adopted its OBD II regulation in September 1989 but did not submit a waiver request to EPA until June 14, 1995. EPA also does not respond to waiver requests in a timely manner. Six years elapsed between the 1997 ARB OBD II request for a “within-the-scope” waiver and the issuance of a public hearing notice permitting manufacturers to comment on the waiver request. Despite this untimeliness, ARB is still allowed to enforce regulations (i.e., without waivers).

The waiver process has become increasingly important because several ARB regulations have spread to other states, often before a waiver is approved. For example, most manufacturers optionally comply with EPA’s OBD requirements by implementing ARB OBD II systems nationwide. An issue has developed where states are required to include OBD checks in their Inspection and Maintenance (I/M) programs or have decided to replace their traditional vehicle tailpipe emissions I/M testing solely with OBD checks. For state I/M purposes, the ARB OBD II emission thresholds may be too stringent. Even EPA’s OBD emission thresholds may be too stringent for I/M purposes. As a result, some emission-related repairs may not be cost-effective and vehicle owners are being inconvenienced. When a vehicle fails an OBD check, the vehicle owner must have the vehicle repaired before the vehicle can be registered, even if the repair is quite costly relative to the resulting emissions reduction (i.e., some repairs may not be cost-effective). This concern will become increasingly important as more areas/states are required to implement OBD checks in their I/M programs because they have been designated as non-attainment under the new National Ambient Air Quality Standards (“NAAQS”) requirements, and as vehicle emissions continue to be lowered thereby further lowering the OBD emission thresholds.

Another example is where states have adopted ARB Low Emission Vehicle (“LEV II”) emission standards, including the Zero Emission Vehicle (“ZEV”) mandate requirement, rather than accepting EPA’s Tier 2 emissions standards. While Section 177 of the Clean Air Act allows states to adopt ARB standards, it only allows them to adopt those ARB standards for which a waiver has been granted. While ARB has not yet submitted a waiver request nor received a waiver for the significant changes that it made to the ZEV requirements, states have been allowed to adopt the ARB LEV II emissions standards with the ZEV mandate requirements.

EPA should enforce its authority and follow the waiver process as intended in the Clean Air Act.

## **Fuels**

**Summary of Issue:** States are not allowed to waive out of the fuel oxygenate requirement for reformulated gasoline in the Clean Air Act. The Alliance believes that this oxygenate mandate may contribute to gasoline supply and cost volatility. The estimates of emissions benefits for oxygenated fuels are based on old technology vehicles, and should be revisited.

EPA has the authority to promulgate a national fuel specification. The Alliance believes that such a specification would relieve the supply issues associated with “boutique” fuels, and provide cost effective emissions reductions.

EPA should revisit the 211(l) rule on detergents in gasoline, and update it to reflect current and near-term future vehicle technology. The regulation was written in 1995, and is based on 1986 vehicle technology. Recent experience has shown that the regulations requiring gasoline detergents are not sufficiently stringent to assure that fuel systems are operating nominally for the full vehicle life.

EPA should also act favorably on the Alliance Petition for a cap on the distillation index for gasoline. The Alliance has demonstrated that cost-effective emission reductions are possible with a cap of 1200 on the distillation index.

EPA appears reluctant to promulgate regulations that would prohibit the use of MMT in unleaded gasoline based on new data. A study by the Alliance has shown the MMT adversely affects exhaust emissions. In-use data in Canada show that MMT adversely affects vehicle emission control systems. The Alliance believes that EPA should initiate rulemaking that bans the use of MMT in unleaded gasoline.

EPA's fuel waiver process/requirements are vague. The criteria that are used to approve a waiver are not well defined. This causes difficulties for those who are requesting a waiver as well as for those who are providing comments to EPA on a waiver request. The Alliance recommends that EPA clearly define its fuel waiver process/requirements.

### **Certification**

**Summary of Issue:** The Alliance believes that the information required for the Application submittal as required by CAP 2000 should be further streamlined (i.e., move to a "real" self-certification process and allow in-use to prove-out manufacturers' processes.) The interim Part 1 and Part 2 submissions of the Application should also be eliminated to reduce burden.

EPA's proposed "Durability NPRM" should not become effective until the 2008 model year (MY) because the development of 2007 MY vehicles are already underway. The NPRM, as proposed, adds several layers of administrative burden for both manufacturers and EPA that is counter to the intent behind CAP 2000. The Evaporative Emissions Durability Requirements in the "Durability NPRM" are overly prescriptive. The language should maintain the authority of the manufacturer to use good engineering judgment in employing evaporative durability processes, carryover and carry-across. The proposed criteria for approving and re-approving manufacturers' Alternative Durability Procedures (ADPs) are unnecessary and far beyond what were intended in CAP 2000. The Alliance recommends that manufacturers be allowed to carryover already approved durability bench processes used in certify test/durability groups with aged components.

The Clean Fuel Fleet Program requires fleets to purchase Clean Fuel vehicles. In order to certify a Clean Fuel vehicle, manufacturers must perform additional testing to standards that are less strict than today's interim non-Tier 2 and final Tier 2 emission standards. The Tier 2 emission standards have made the Clean Fuel Fleet Program obsolete.

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Thank you for your consideration of these comments. Please contact us if you have any questions or need additional information.

Very truly yours,

A handwritten signature in black ink, appearing to read "Gregory J. Dana". The signature is written in a cursive style with a large initial "G".

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Vice President, Environmental Affairs  
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Attachment (1): Horizon Environmental Corporation Report  
Attachment (2): RCRA Definition of Solid Waste and Point of Generation

## ATTACHMENT 2

### RCRA DEFINITION OF SOLID WASTE AND POINT OF GENERATION

The Resource Conservation and Recovery Act (RCRA) authorizes EPA to regulate hazardous wastes.<sup>1</sup> Only materials that are “disposed of, abandoned, or thrown away” are considered to be “discarded” and “solid wastes” under the RCRA statute.<sup>2</sup> Materials that are being recycled for beneficial reuse are not discarded hazardous wastes subject to regulation under RCRA, but instead remain value products.<sup>3</sup>

Notwithstanding its limited jurisdiction, EPA has attempted to unlawfully regulate production materials as if they were discarded wastes. The D.C. Circuit Court of Appeals has struck down such over broad interpretations of RCRA, confirming that the RCRA hazardous waste regulations only apply to materials that have been thrown away or abandoned:

in light of the language and structure of RCRA, the problems animating Congress to enact it, and the relevant portions of the legislative history, Congress clearly and unambiguously expressed its intent that ‘solid waste’ (and therefore EPA’s regulatory authority) be limited to materials that are ‘discarded’ by virtue of being disposed of, abandoned, or thrown away.<sup>4</sup>

The automobile industry is the latest example of EPA imposing hazardous waste regulations to materials that are still being used in their intended product function. EPA has asserted that RCRA applies to the paint purge solvents used in the production process.

Solvents are used in at automobile and light-duty truck assembly plants for multiple purposes, including to clean paint booth applicators by removing residual paint and solids from the applicators. After cleaning paint applicators the purge material traverses through a purge piping system to solvent recovery tanks where solvent suppliers then transport it off-site for reprocessing and reuse by the auto industry.<sup>5</sup>

Several state environmental agencies with RCRA delegated authority have made unequivocal determinations that the automobile paint purge materials are not wastes subject to RCRA regulation. State and EPA inspections of automobile plants conducted after promulgation of the RCRA regulations in question never contended that auto industry purge solvents in purge solvent piping systems were “solid wastes” subject to RCRA regulation. In 1999 a single EPA Region reevaluated the issue and started the process to change the regulatory status of purge

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<sup>1</sup> 42 U.S.C. §§ 6901-6992k (1994).

<sup>2</sup> *Association of Battery Recyclers v. EPA*, 208 F.3d 1047 (D.C. Cir. 2000).

<sup>3</sup> *Safe Food and Fertilizer v. EPA*, 350 F.3d 1263 (D.C. Cir. 2003).

<sup>4</sup> *American Mining Congress v. EPA*, 824 F.2d 1177, 1193 (D.C. Cir. 1987). See also *Am. Petroleum Inst. V. EPA*, 216 F.3d 50, 55-58 (D.C. Cir. 2000)(EPA unlawfully attempted to impose RCRA regulations on petroleum industry materials that EPA had not demonstrated were “disposed of, abandoned, or thrown away.”)

<sup>5</sup> Alliance Automobile Manufacturers letter from Julie C. Becker, Assistant General Counsel, Alliance of Automobile Manufacturers to David Eberly, Office of Solid Waste, Permits & State Programs Branch (March 10, 2000).

solvents. This Region brought an enforcement action against an automobile company claiming that purge solvents in its purge solvent piping system were “solid wastes” subject to RCRA jurisdiction.<sup>6</sup> After filing the complaint, the EPA Region had “second thoughts”<sup>7</sup> and joined the company in seeking a stay so that the EPA Region could seek “clarification” from EPA Headquarters on the “point of generation” issue, *i.e.*, at what point purge solvents became “discarded” and a solid waste, an issue which EPA’s Administrative Law Judge described as “novel.”<sup>8</sup>

Following several discussions and meetings with the auto industry and States, EPA issued a final determination that the purge solvents are solid wastes regulated under RCRA the moment they exit spray applicators. *See* May 7, 2002 EPA letters to the Alliance and auto companies. This EPA action was challenged as an illegal rule in the D.C. Circuit Court of Appeals. The Court held it did not have jurisdiction to hear the merits of the petition because the agency regulatory interpretation in the May 7 letters were not binding but instead “were merely preliminary enforcement statements.”<sup>9</sup> The court noted that there would be an opportunity to challenge EPA’s regulatory interpretation in the pending administrative complaints brought by EPA.<sup>10</sup>

EPA’s attempt to expand its RCRA authority causes great burden to American industry with no corresponding benefit to the environment. The pattern and practice of EPA attempting to improperly extend its hazardous waste jurisdiction should be addressed in order to ensure the congressional limits in RCRA are not exceeded; such reform also will lift unnecessary regulatory burden off of industry to allow it to better compete on a global basis.

## OMB REQUEST FOR COMMENTS

1. Imposition of the RCRA hazardous waste regulations to purge materials being used as a product or being recycled results in significant cost to industry. EPA believes the pipes, fittings, flanges, valves, pumps and tanks that comprise purge solvent piping systems are subject to numerous burdensome RCRA obligations, including: (1) performing tank system integrity tests; (2) installing tank system secondary containment; (3) perform daily inspections on the entire piping system, including numerous points along what can be thousands of feet of piping on a daily and monthly basis; (4) keeping daily inspection logs; (5) monitoring of valves and pumps, and generate records of same; (6) marking of valves, pumps, flanges, connectors and other equipment associated with the tank, and (7) establishing a labeling, repair and recordkeeping program relating to potential air emissions from the purge solvent piping system.<sup>11</sup> Ironically, none of these RCRA

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<sup>6</sup> *In re Ford Motor Co.*, Docket No. RCRA-5-99-010, 2000 WL 382189 (EPA ALJ 2000) (“*Avon Lake*”).

<sup>7</sup> *Id.*

<sup>8</sup> *Id.*

<sup>9</sup> *General Motors Corporation v. EPA*, No. 02-1242 slip op. at 17 (D.C. Circuit, April 2, 2004).

<sup>10</sup> *Id.* at 16.

<sup>11</sup> *E.g.*, 40 C.F.R. §§ 264.191 - .92 (tank system integrity measures); 40 C.F.R. §§ 265.191-.92 (same); 40 C.F.R. § 264.193 (tank system secondary containment); 40 C.F.R. § 265.193 (same); 40 C.F.R. §§ 264.195 (daily inspection log of, among other things, aboveground portions of tank system); 40 C.F.R. § 265.195 (same); 40 C.F.R. § 264.1050(d) (marking requirements for pumps, valves and other equipment subject to Subpart BB); 40 C.F.R. § 265.1050(c) (same); 40 C.F.R. § 264.1052 (inspection, monitoring, and repair requirements for pumps); 40 C.F.R. § 265.1052 (same); 40 C.F.R. § 264.1057 (inspection, monitoring, and repair requirements for valves); 40 C.F.R. §

requirements provide any additional layer of protection against health or environmental risks beyond that provided by other federal and State environmental and worker protection laws.<sup>12</sup>

There are more than 56 automobile and light-duty truck assembly plants in the United States (Ward's Communications, *2003 Motor Vehicle Facts and Figures*). The capital and annual operating costs to meet these numerous RCRA regulations are substantial, and will cost the automotive industry millions of dollars without providing any environmental benefit.

2. Only "discarded" materials that meet the statutory definition of "solid wastes" can be regulated as a RCRA hazardous waste. 42 U.S.C. § 6903(27). It is the generator's responsibility to determine whether a hazardous waste has been generated. 40 CFR § 262.11. EPA's point of generation determination with respect to purge solvent unsettles well-established positions taken by several States administering RCRA. Congress provided for States to assume primary control of the RCRA hazardous waste regulatory program, with each State becoming the primary enforcer of its RCRA program.<sup>13</sup> In order for a State program to be "delegated" RCRA authority from EPA, a State hazardous waste program must be no less stringent than the federal RCRA hazardous waste regulatory program.<sup>14</sup> States with RCRA-delegated authority are empowered to make "point of generation" determinations as to when, if ever, a material becomes a waste. Before EPA's May 7, 2002 final agency action, several RCRA-delegated States had determined that auto industry purge solvents were not solid or hazardous wastes.<sup>15</sup>
3. The regulation violates "fair and open trade policy applications" because it damages the competitiveness of U.S. manufacturers, without conferring any benefit to the environment. By keeping paint solids suspended and preventing blockage of the lines, purge solvents ensure the smooth and uninterrupted flow of materials throughout the entire system so that different paint colors may be applied with minimal interruption. Such solvent functions are critical to maintaining required productivity and quality levels at each facility. Installing additional controls within the factory to comply with the EPA requirements would increase costs, thus diverting scarce financial resources from ongoing efforts to improve quality and productivity. Regulations that interfere with these

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265.1057(same); 40 C.F.R. § 264.1064 (recordkeeping requirements for equipment subject to Subpart BB); 40 C.F.R. § 265.1064 (same); 40 C.F.R. § 264.1084 (emission requirements for tanks, including inspections); 40 C.F.R. § 265.1084 (same); 40 C.F.R. § 264.1089(a)-(b) (recordkeeping requirements relating to emission requirements for tanks, including records of inspections); 40 C.F.R. § 265.1089(a)-(b); *see also* 40 C.F.R. § 260.10 (definitions of "tank system" and "ancillary equipment"). Part 264 applies to those facilities with RCRA permits, while Part 265 applies to those operating under "interim status." 40 C.F.R. § 264-1; 40 C.F.R. § 265.1; *see generally American Iron & Steel Institute v. EPA*, 886 F.2d 390, 401-02 (D.C. Cir. 1989).

<sup>12</sup> Alliance, "US Automobile Industry Meeting with EPA Office of Solid Waste and Emergency Response," at Slides 11-16 (Oct. 10, 2001) ("Alliance Presentation").

<sup>13</sup> 42 U.S.C. § 6926(b); 40 C.F.R. § 271.3(b).

<sup>14</sup> *Id.*

<sup>15</sup> *E.g.*, Alabama Department of Environmental Management, Kansas Department of Health and Environment, Michigan Department of Environmental Quality, South Carolina Department of Environmental Quality, Tennessee Department of Conservation, and the Texas Natural Resource Conservation Commission.

efforts to increase productivity, cut costs, and improve product quality necessarily put domestic vehicle manufacturers at an unfair international competitive disadvantage in an intensely competitive global industry where both cost and quality are critical competitive issues.

We know of no other nation whose environmental agency, as opposed to its health and safety agency, regulates industrial processes, products, and materials within the factory as a vehicle or other product is being manufactured. For example, Canada does not regulate the purging solvent in the piping system. General Waste Management Regulation R.R.O. 1990, Reg. 347 (as amended), of the Ontario Ministry of the Environment applies at point of shipment of materials that are being sent for disposal as “wastes,” which are defined under the Canadian Environmental Protection Act (EPA) as “materials that you would normally consider to be waste.” To the best of our knowledge there are no specific Japanese government environmental regulations related to paint solvent disposal within the vehicle manufacturing facilities.

Regardless of what other nations regulate and do not regulate, the misapplication of the RCRA regulation needlessly harms U.S. motor vehicle producers, without conferring any benefit to the environment or for American workers and consumers. Even if some other nation should chose to impose a costly, disruptive, and environmentally harmful regulation on its domestic auto or other producers, there would be no reason for this nation to similarly disadvantage its producers.

4. Erroneous EPA “point of generation” determinations unlawfully extend EPA’s hazardous waste jurisdiction to materials that do not meet the waste criteria Congress carefully defined in RCRA. EPA’s improper expansion of its hazardous waste authority has a negative impact on the competitiveness of auto plants that must now manage unspent materials in their production process as a hazardous waste. Because other countries do not regulate automobile assembly paint shop purge materials in this fashion, plants operating in the U.S. are burdened with capital and operating expenses that make our products more expensive and thus less competitive with vehicles produced elsewhere.

There are no environmental benefits associated with EPA’s regulating spent purge solvents as hazardous wastes since the on-site management of these materials is already effectively regulated under the Clean Air Act, the Clean Water Act, SARA and OSHA, and the solvents are shipped to legitimate recyclers. Redundant purge solvents regulation provides no additional benefit but instead add needless burden on industry.

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# *Environmental Regulatory Profile*

*Prepared for*

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*January 5, 2004*

## **LEGAL DISCLAIMER**

The Automobile Manufacturing Environmental Regulatory Profile (“Profile”) was prepared by Horizon Environmental Corporation (“Horizon”) under contract to the Alliance of Automobile Manufacturers (“Alliance”). This Profile is intended to quantify applicable environmental regulations for a typical automobile assembly plant. Regulatory requirements, including pending (“future”) requirements referenced in this report, are subject to change. For example, proposed rules (“future” requirements) may differ substantially from final rules. This report serves as a “snapshot” of current and proposed requirements based on a hypothetical (“typical”) plant, as described in the Background Section of the document.

This Profile should not be relied upon for legal advice, and you should consult with your own legal counsel to determine the requirements for compliance with any applicable federal, state or local laws.

# TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY .....</b>	<b>V</b>
<b>1. BACKGROUND.....</b>	<b>1</b>
<b>2. PROCESS DESCRIPTION .....</b>	<b>7</b>
2.1 BODY SHOP .....	7
2.2 PAINT SHOP.....	7
2.3 FINAL ASSEMBLY .....	7
2.4 POWERHOUSE AND WASTEWATER TREATMENT PLANT.....	8
<b>3. MEDIA SPECIFIC REQUIREMENTS .....</b>	<b>9</b>
3.1 WASTEWATER TREATMENT.....	9
3.1.1 Facility-Wide Requirements.....	9
A. Facility Wide Future Wastewater Requirements.....	10
3.1.2 Area Specific Requirements .....	10
A. Boilers and Associated Equipment .....	11
B. Wastewater Treatment Plant .....	11
SECTION 3.2 STORMWATER DISCHARGE .....	23
3.2 STORMWATER DISCHARGE.....	23
A. Facility Wide Future Stormwater Requirements.....	28
3.3 AIR QUALITY .....	30
3.3.1 Facility Wide Requirements .....	30
A. Processes Exempt from Permit-to-Install Requirements.....	30
(1) Body Shop .....	31
(2) Paint Shop.....	31
(3) Final Assembly .....	32
(4) Wastewater Treatment Plant.....	38
B. Renewable Operating Permit General Conditions.....	38
C. Facility Wide Future MACT Requirements.....	49
3.3.2 Area Specific Requirements .....	56
A. Body Shop.....	56
(1) Fluidized Bed Cleaner .....	56
(2) Application of Sealers.....	57
B. Paint Shop.....	58
(1) Electrodeposition Primer Coating.....	58
(2) Flash Prime Paint Application .....	61
(3) Primer Surfacer/Anti-Chip.....	63
(4) Application of Sealers and Adhesives .....	65
(5) Coating of Basecoat and Clearcoat (Topcoat) .....	67
(6) Deadener & Blackout Paint Application.....	72
(7) Miscellaneous Cleaners/Solvents.....	74
C. Final Assembly .....	76
(1) Glass Installation .....	76
(2) Fluid Fill .....	77
(3) Final Repair Paint Process .....	78
D. Powerhouse .....	80
(1) Future MACT Requirements .....	81
3.4 HAZARDOUS AND NON-HAZARDOUS MATERIALS MANAGEMENT.....	82
3.4.1 Facility-Wide Requirements.....	82
A. Hazardous Waste.....	83
(1) General .....	83
(2) Containers.....	92
(3) Hazardous Waste Tanks.....	96
(4) Hazardous Waste Transportation .....	108

(5) Hazardous Waste Air Emission Standards for Equipment Leaks, Tanks, and Containers.....	109
B. Non-hazardous Waste .....	127
C. Oil and Petroleum Products .....	128
D. Polluting Materials.....	135
E. Underground Storage Tanks.....	138
F. Hazardous Chemicals, Extremely Hazardous Substances and Toxic Chemicals .....	161
3.4.2 <i>Area Specific Requirements</i> .....	161
A. Body Shop.....	162
B. Paint Shop .....	162
C. Main Assembly .....	162
D. Powerhouse .....	162
E. Wastewater Treatment Plant .....	162
F. Other .....	162
<b>4. NON-MEDIA SPECIFIC REQUIREMENTS .....</b>	<b>163</b>
4.1 EMERGENCY PLANNING & COMMUNITY RIGHT-TO-KNOW .....	163
4.1.1 <i>Facility-Wide Requirements</i> .....	163
4.1.2 <i>Specific Area Requirements</i> .....	166
A. Paint Shop.....	166
B. Main Assembly .....	167
C. Wastewater Treatment Plant .....	167
D. Other .....	167
4.2 TOXIC SUBSTANCE CONTROL ACT .....	168
SECTION 4.3 OZONE DEPLETING SUBSTANCES.....	164
4.3. CLEAN AIR ACT TITLE VI: OZONE DEPLETING SUBSTANCES .....	171
4.3.1 <i>Area Specific Requirements</i> .....	171
4.3.2 <i>Future Requirements</i> .....	176

## TABLES

Summary Table – 2003 Environmental Regulatory Profile

## ACRONYMS

AQD	Air Quality Division (Michigan)
ASTM	American Society of Testing and Materials
BACT	Best Available Control Technology
BTU	British Thermal Unit
CFC	Chlorofluorocarbon
CFR	Code of Federal Regulations
DOT	Department of Transportation
EPCRA	Emergency Planning and Community Right-to-Know Act
FR	Federal Register
HAP	Hazardous Air Pollutant
HCFC	Hydrochlorofluorocarbon
HFC	Hydrofluorocarbon
LAER	Lowest Achievable Emission Rate
MACT	Maximum Achievable Control Technology
MDEQ	Michigan Department of Environmental Quality
MSDS	Material Safety and Data Sheet
MVAC	Motor Vehicle Air Conditioner
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standards for Hazardous Air Pollutants
NFPA	National Fire Protection Association
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NSPS	New Source Performance Standards
ODS	Ozone Depleting Substances
OSHA	Occupational Safety and Health Act
ORVR	On-Board Refueling Vapor Recovery
OVP	Organic Vapor Pressure
PCB	Polychlorinated Biphenyl
PIB	Pollution Incident Prevention
POTW	Publicly Owned Treatment Works
PSD	Prevention of Significant Deterioration
RCRA	Resource Conservation and Recovery Act
RMP	Risk Management Plan
ROP	Renewable Operating Permit
SARA	Superfund Amendments and Reauthorization Act
SC/SPP	Slug Control/Spill Prevention Plan
SNAP	Significant New Alternative Policy
SPCC	Spill Prevention, Control and Countermeasures
SWPPP	Stormwater Pollution Prevention Plan

## ACRONYMS (continued)

TSCA	Toxic Substances Control Act
TTO	Total Toxic Organics
U.S. EPA	United States Environmental Protection Agency
UST	Underground Storage Tank
VOC	Volatile Organic Compound

## EXECUTIVE SUMMARY

The Alliance of Automobile Manufacturers commissioned Horizon Environmental Corporation to create an Environmental Regulatory Profile of environmental requirements that apply to a “typical” (hypothetical) automobile assembly plant operating in Michigan as of December 2003.

Horizon’s research, which updates the Environmental Regulatory Profile completed in 1998 for the automobile industry, found that there are at least 1,160 environmental requirements for a typical Michigan automobile assembly plant (including certain proposed rules expected to be finalized early in 2004.) This compares with 884 requirements identified in 1998. There are (209) federal requirements and (839) state requirements and (112) local requirements (all stormwater and wastewater requirements) included in this total that would apply to a typical Michigan assembly plant.

The Environmental Regulatory Profile covers the following media-specific environmental requirements: industrial process wastewater discharge, stormwater discharge, air quality, hazardous and non-hazardous materials management, and for ozone depleting substances. It also includes requirements under the federal Emergency Planning and Community Right to Know Act and the federal Toxic Substances Control Act.

The typical Michigan automobile assembly plant must comply with a large number of environmental requirements found in permits issued to the plant and in federal, state, and local statutes, ordinances, and administrative rules. Sections 3 and 4 present environmental requirements applicable to the typical Michigan automobile assembly plant and the source for each requirement (for example the permit itself, State Administrative Rules, or federal or state statutes). Appropriate citations are also presented.

The Environmental Regulatory Profile confirms that the typical Michigan automobile assembly plant must comply with at least 1,160 environmental requirements (an increase from 884 in 1998) distributed as follows:

- 115 represent wastewater requirements
- 34 represent stormwater requirements
- 303 represent air quality requirements
- 606 represent hazardous and non-hazardous materials management requirements
- 60 represent requirements under the federal Emergency Planning and Community Right-to-Know Act
- 12 represent requirements under the federal Toxic Substance Control Act, and
- 30 represent requirements affecting Ozone Depleting Substances.

There are a total of 276 new requirements:

- 29 represent new wastewater requirements,
- 20 represent new stormwater requirements

- 170 represent new air quality requirements
- 44 represent new hazardous and non-hazardous materials management requirements
- 13 represent new requirements under the federal Emergency Planning and Community Right-to-Know Act
- 0 represent new requirements under the federal Toxic Substance Control Act, and
- 0 represent new requirements affecting Ozone Depleting Substances.

This profile includes in its quantification some future environmental requirements in proposed U.S. EPA rulemakings, which are expected to be finalized in 2004. These “future” requirements are subject to change in the final promulgated rules, but are quantified in this Profile in their proposed version.

For purposes of the hypothetical or “typical” plant, it was assumed that the typical automobile assembly plant has received its Renewable Operating Permit and the previously issued air permits to install have been voided. It was also assumed that the power plant operates on natural gas, there is one stack serving each process, there are no emission limitations on specific air toxic constituents, and there is one stormwater discharge point. Furthermore, the only applicable standard under the Maximum Achievable Control Technology requirements is for surface coating for automobiles and light duty trucks. In addition, it was assumed that the typical plant is not implementing any expansions or modifications that would require the application for and receipt of an air use permit-to-install. As a result, the many complex federal Clean Air Act requirements associated with major modifications are also not included. These and other conservative assumptions result in an Environmental Regulatory Profile that probably understates the number of requirements for many plants.

Most of the environmental requirements (a total of 888) impose compliance obligations predicated on the current operational status of the plant. Examples of this type of requirement include: continuous compliance with limitations on the emissions of specific constituents, periodic reporting of material usage to a regulatory agency, and periodic training of employees. Approximately seventy-one (71) of these requirements represent emission limitations.

A smaller number of requirements (a total of 225) are initiated only when a specified event takes place. For example, certain requirements are invoked in the event of the need for the assembly plant to add certain types of equipment requiring an environmental permit, or when the plant must renew a permit, or in the event of equipment malfunction requiring a report to the regulatory agency. If triggered, these requirements would impose additional compliance obligations on the assembly plant.

This profile includes some references to requirements as included in certain U.S. EPA *proposed* rules (called “future” requirements). These rules are expected to be finalized in 2004. Proposed requirements are subject to change in the *final* rule. It should be noted that Alliance members may have commented to the U.S. EPA supporting changes to U.S. EPA proposed rules described herein.

This document is a “snapshot” of potential requirements on a hypothetical “typical” plant, and should not be relied upon for compliance purposes.

## 1. BACKGROUND

Presented in this Environmental Regulatory Profile (the “Profile”) are the environmental requirements and supporting information for a typical automobile assembly plant (the “Typical Plant”) located in Michigan. Such facilities are currently in operation and must undertake a variety of complex tasks and activities to remain in compliance with the large number of environmental requirements. Most of the environmental requirements identified in the Profile are on-going requirements such as complying with emission limitations, using materials with specified ingredients, or submitting reports on a prescribed schedule. Some requirements are not on-going but are initiated as a result of an event such as a spill or equipment malfunction. The basis for these requirements are found in federal, Michigan or local statutes or ordinances, administrative rules, and permits, including:

- The federal Clean Air Act (“CAA”) and promulgated rules;
- The federal Clean Water Act (“CWA”) and promulgated rules;
- The federal Emergency Planning and Community Right-to-Know Act (“EPCRA”) and promulgated rules;
- The federal Resource Conservation and Recovery Act (“RCRA”) and promulgated rules;
- The Toxic Substances Control Act (“TSCA”) and promulgated rules pertaining to polychlorinated biphenyls (“PCBs”) only; and
- The Michigan Natural Resources and Environmental Protection Act 451 of 1994 and promulgated rules;
- The City of Detroit Municipal Wastewater Discharge Ordinance.

Environmental requirements are grouped into the following categories:

- Design parameters (such as size of containment area or stack height);
- Material usage and emission limitations (such as categorical pretreatment discharge limits or air toxic emission limits);
- Monitoring, recordkeeping, and testing (such as hazardous waste manifests or waste characterization data);
- Operational parameters (such as incinerator temperature);
- Reporting (such as quarterly reports on paint usage or release reporting obligations to state and federal authorities);
- Training (such as certification to assess plume opacity and emergency response training under the Occupational Safety and Health Act (“OSHA”); and
- Other activities (typically administrative requirements).

For example, a requirement would fall under the category: “Monitoring, Recordkeeping, and Testing”, even if the requirement provides only for recordkeeping. A forward slash (/) is used to separate categories if a requirement falls under multiple categories.

The analysis of the requirements was performed conservatively, i.e., a specific plant is likely to have a greater number of requirements than identified in the Profile. Not considered in the Profile are requirements associated with: environmental closures, requests for information from the regulatory agency (such as United States Environmental Protection Agency ("U.S. EPA") informational requests pursuant to Section 114 of the CAA), regulatory enforcement actions, and consent or judicial enforcement orders. Furthermore, it was assumed that the Typical Plant has received a Renewable Operating Permit ("ROP") and, as a result, the requirements associated with air permits-to-install have been incorporated, as appropriate, into the ROP and the Michigan Air Quality Division ("AQD") has voided all previously issued permits-to-install. In general, a source that has been issued a ROP and subsequently receives an air permit-to-install has up to 12-months to incorporate the conditions of the permit-to-install into its ROP. Consequently, it was assumed that the Typical Plant was not issued any air permits-to-install after the issuance of the ROP. As a result, the sole air permit applicable to the Typical Plant is the ROP. Although compliance with Michigan's air toxic rules, R 336.1224 through R 336.1232, was required for permits-to-install received after April 16, 1992, no specific air toxic constituent limitations resulting from an analysis of the air toxic rules are assumed in the permit conditions for the Typical Plant.

In addition, it was assumed that the Typical Plant is located in an area attaining all of the National Ambient Air Quality Standards ("NAAQS"). Furthermore, the Typical Plant is not negotiating an air permit-to-install application with the AQD for either a minor modification or a major modification that would include requirements as a result of an analysis based on the federal Prevention of Significant Deterioration ("PSD") requirements. If a source located in an area attaining the NAAQS were to undertake a major modification that is subject to the federal PSD rules, the source would need to address many additional regulatory requirements in order to receive its permit-to-install, including:

- An analysis of Best Available Control Technology ("BACT");
- A determination of the need to perform preconstruction ambient monitoring and possibly a requirement to conduct additional ambient monitoring;
- Dispersion modeling analysis assessing continued attainment of the NAAQS;
- Additional dispersion modeling analysis assessing PSD increment consumption;
- An assessment of secondary impacts such as effects on visibility and vegetation; and
- The preparation and submittal of an air use permit-to-install application.

At the time the Profile was prepared, December 2003, all of Michigan was classified as attaining the NAAQS. However, ambient air quality measurements for two pollutants, ozone and particulate matter with an effective aerodynamic diameter of 2.5 microns and smaller ("PM<sub>2.5</sub>"), at some monitors show exceedances of the revised NAAQS for those pollutants. As a result it is anticipated that the classification of some areas of Michigan will become nonattainment for ozone (8-hour time frame) and PM<sub>2.5</sub> (annual time frame). At this time, the U.S. EPA expects to designate nonattainment areas in 2004. Furthermore, the areas of expected nonattainment include counties in Southeast Michigan

where many of Michigan's automobile assembly plants are located. The full extent of the additional environmental requirements is not known; however, it is reasonable to expect that the additional environmental requirements for sources in nonattainment areas would include the 'offset provisions' for significant modifications, including the requirements of Lowest Achievable Emission Rate ("LAER"). Currently, Michigan's nonattainment requirements are found in R 336.1220; however, it is possible that these requirements would be modified or replaced by the time the Typical Plant is subject to the additional nonattainment environmental requirements.

Because the nonattainment requirements are not currently applicable, they are not included in the Profile.

The following is a summary of the existing nonattainment requirements:

- Comply with the LAER;
- A determination that all sources owned or operated by the company are in compliance with applicable air pollution requirements, or on a legally enforceable schedule of compliance;
- Obtain offset emissions at a ratio prescribed by R 336.1220;
- Demonstrate a net air quality benefit typically through dispersion modeling; and
- Prepare and submit an air use permit-to-install application.

For the reasons cited above, this Profile presents the minimum number of environmental requirements. A specific plant may have more environmental requirements than presented in this Profile.

In summary, the Profile is based on the following assumptions:

- One stack for each process;
- Two underground storage tanks;
- Asbestos is not present;
- It is assumed that the Typical Plant has no medical waste with which it must be concerned and, therefore, any environmental requirements associated with medical wastes are not included in the Profile.
- Electrodeposition prime, primer surfacer, and topcoat processes are subject to New Source Performance Standards ("NSPS") Subparts A and MM;
- The only applicable requirements under the National Emission Standards for Hazardous Air Pollutants ("NESHAP") are for the Surface Coating of Automobiles and Light Duty Trucks (40 Code of Federal Regulations ("CFR") Part 63, Subpart III). Electrodeposition prime, primer surfacer, topcoat, anti-chip, final repair, deadner, blackout, sealers, adhesives, and cleaning and purging processes are subject to this NESHAP. The final Subpart III rules were in proposal form at the time this Profile as prepared. They are expected to be promulgated in February 2004; consequently, associated regulatory requirements for the Typical Plant presented in the Profile are based on the proposed rules;

- The Typical Plant includes a powder application of anti-chip coating that is part of the primer surfacer process;
- The Typical Plant does not have individual metal or plastic part surface coating operations subject to the future Maximum Achievable Control Technology (“MACT”) requirements of 40 CFR 63 Subpart M and P, respectively;
- The Typical Plant is not subject to the Halogenated Solvent Cleaner NESHAP (40 CFR 63 Subpart T) because the Typical Plant utilizes solvents with less than 5% by weight of the following Hazardous Air Pollutants (“HAPs”): methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chloroform, or any combination thereof;
- There are no emission limitations on specific air toxic constituents in the ROP;
- The Typical Plant is subject to the Accidental Release and Mitigation requirements of Section 112(r) of the CAA and has submitted a Risk Management Plan (“RMP”) no later than June 21, 1999 in accordance with 40 CFR 68. It is assumed that there have been, and will be, no Part 68-subject changes in risk management practices that warrant a modification of the RMP prior to submittal of the required update within five years after the initial submittal, that is, no later than June 21, 2004;
- There are no additional processes other than those described in the process description in Section 2;
- Requirements that might be applicable on a site by site basis (e.g., underground storage tank closures, notice of violations, and enforcement orders) are not considered.
- Automobile air conditioners are filled with Chlorofluorocarbon (“CFC”) free refrigerant;
- The Typical Plant is located in an area that is in attainment with all of the NAAQS;
- The Typical Plant is not undergoing a major modification so the federal PSD rules are not applicable. In addition, the requirements of major offset sources and major offset modifications of R 336.1220 are not applicable;
- The Typical Plant has received its ROP, all permits-to-install have been voided, and there are no permits-to-install that have been issued subsequent to the issuance of the ROP;

There are seven locations at the Typical Plant where hazardous waste is accumulated or stored for less than 90 days, including two aboveground hazardous waste storage tanks and five container storage areas. That is the Typical Plant is a “generator” under RCRA and does not operate as either a Treatment Storage and Disposal Facility or under “interim status” as defined by RCRA;

- Process wastewater is discharged to a local municipality [the City of Detroit’s Publicly Owned Treatment Works (“POTW”)], which issues an industrial pretreatment discharge permit;
- Tier II reports are submitted annually for thirty hazardous chemicals or extremely hazardous substances under Section 312 of Superfund Amendments and Reauthorization Act (“SARA”) Title III;
- Twenty compounds reported under Section 313 of SARA Title III (Form R reports).
- The only applicable requirement of the federal TSCA is the management of PCBs. Waste PCBs or PCB articles are stored on-site for a period not exceeding 30 days;
- The revised Wayne County Air Quality Management Ordinance and Administrative Rules became effective October 1, 1998, resulting in air pollution requirements for

sources in Wayne County substantially the same as in the rest of the State. An automobile assembly plant in Wayne County, therefore, is assumed to be subject to the same requirements as any other automobile assembly plant in Michigan. Although the Wayne County Air Quality Management Division was disbanded on September 30, 2001, the Ordinance and Administrative Rules remain in effect.

Many environmental requirements that the Typical Plant must comply with are included in environmental permits issued by the AQD. Permits issued to a source contain enforceable requirements, or conditions, that the regulatory agencies contend are necessary to provide, maintain, or demonstrate compliance with federal and Michigan statutes and rules. Frequently, a permit contains multiple conditions developed pursuant to a single rule. For example, a BACT determination pursuant to R 336.1702 could result in three or more individual permit conditions, such as:

- Air pollution control equipment must be installed and operated according to the manufacturer's specifications;
- The minimum temperature of the thermal oxidizer must be 1400 °F;
- Coating usages must be recorded daily and provided quarterly to the AQD district office within 30 days of the end of each quarter.

As a result, there are many more requirements that a Typical Plant must comply with than there are citations to statutes and rules in this report and these differences are identified in the Profile. Each individual permit condition imposes enforceable requirements upon the Typical Plant. Failure to comply with any single condition can result in enforcement action and possibly, the assessment of penalties.

The Profile is divided into four sections: Background, Process Description, Media-Specific Requirements, and Non-Media Specific Requirements. The regulatory requirements that the Typical Plant must meet are presented in Sections 3 and 4, representing media specific and non-media specific requirements, respectively. The media specific requirements include those of wastewater, stormwater, air quality, and hazardous and non-hazardous materials management. The discussion of hazardous and non-hazardous materials management includes the requirements for hazardous and non-hazardous wastes, including the handling of oil and petroleum products; and the air emission standards for equipment leaks, tanks, and containers. The non-media specific requirements include those requirements of the federal EPCRA, the federal TSCA (pertaining to PCB's only), and for Ozone Depleting Substances ("ODS") required by Title VI of the 1990 Amendments to the CAA. In addition, Sections 3 and 4 are divided into area requirements (those requirements affecting the Typical Plant in general) and process specific requirements (those requirements affecting specific processes or equipment).

The environmental requirements are presented in regulatory 'boxes' prepared for each individual regulatory requirement. The key to reading each regulatory box is presented below:

**Typical Regulatory Requirement** (Identifying the requirement as a permit condition, rule, or statute is presented here, in parenthesis): This field presents text of the requirement. A requirement with quotation marks is an example of typical language found in a permit condition or the rule. A requirement without quotation marks is a summary of the requirement.

**Regulatory Citation:** The applicable citation forming the basis of the regulatory requirement is presented here. Sometimes the underlying regulatory requirement is found in both a state (or local) rule and in a federal rule. Only one citation is presented. The applicable citation is identified as a federal, state, state implementation plan, or local requirement. A federal requirement is interpreted as a requirement promulgated under federal law; A state requirement is interpreted as a requirement promulgated under state law; A state implementation plan requirement is interpreted as a requirement promulgated by the state and approved by the U.S. EPA. The local requirement is a requirement promulgated by a local municipality. *(The citation identification is presented here in italics and in parenthesis.)*

**Possible Exemption:** The conditions under which an exemption from the permit system may exist is presented here; processes which are exempt from air use permits are summarized in the Air Quality Section of this report.

**Regulatory Category:** One or more of the seven regulatory categories are presented in this field. Categories will be separated by a forward slash (/) if a requirement falls under multiple categories.

**Minimum Number of Requirements:** This field represents the minimum number of requirements for the permit condition or rule reviewed in an individual box.

## **2. PROCESS DESCRIPTION**

The Typical Plant includes three major assembly processes (body shop, paint shop, and final assembly) and the support processes of the powerhouse and wastewater treatment plant. Automobile components are produced at other locations and delivered to the Typical Plant where they are processed, e.g., welded, sanded, cleaned, and painted, as necessary. The parts are then assembled, the automobile is completed, and delivered to dealer showrooms.

### **2.1 Body Shop**

The first major step in assembly of an automobile is the body shop. This is where the sheet metal pieces are welded together to make the automobile body. The two other main activities in the body shop are grinding/sanding and application of sealers. After it has been sanded and sealers have been applied, the body is sent to the body car wash where the body is rinsed in preparation for painting.

### **2.2 Paint Shop**

The automobile body then enters the paint shop where it is first subjected to the multi-staged pretreatment process. This process consists of a series of spray and dip operations to clean and pretreat the body before it enters the dip tank to receive the electrodeposition prime application. The body passes through the dip tank where the paint is electronically charged so that it adheres to the body. The body is subsequently rinsed with deionized water and cured in an oven. After each operation in the paint shop, the body typically goes through a sanding operation, which may be wet or dry sanding or buffing.

The body then goes to a sealer deck where sealers and adhesives are applied. Sealers and adhesives may be thumbgrade, patch, bead, or sprayed onto different areas of the body. The body then goes to the primer surfacer booth where a primer surfacer coating is applied. In the Typical Plant, there is an anti-chip application using powder coatings that is part of the primer surfacer deck. Following the primer surfacer/anti-coat coatings, the body goes through an oven and then conveyed to the topcoat booth where it is coated with the main color paint, consisting of a basecoat and clearcoat. The basecoat is applied to the body first followed by a flash-off zone and then the clearcoat is applied. The painted automobile then goes to another flash-off zone and subsequently shuttled to an oven where the paint is cured. If necessary, the body is sent to a repair booth. A deadener coating is applied to the body to provide a sound-deadening feature. After the body is painted, it is ready for final assembly.

### **2.3 Final Assembly**

The final assembly area is the largest area of the Typical Plant. This is the location where the remaining parts are installed into the body including the engine, chassis, interior, and wheels. At the end of the assembly line, automotive fluids (radiator fluid, brake fluid, etc.) are pumped into appropriate receptacles in the automobile. The automobile is tested in a final inspection. If there are any areas that need repairing, the automobile is sent to the final repair area where the problems are fixed.

#### **2.4 Powerhouse and Wastewater Treatment Plant**

The powerhouse generates steam for processes and area heating. There are typically two boilers at the powerhouse using natural gas for fuel. The wastewater treatment plant treats the wastewater from the Typical Plant prior to discharge to a local municipal wastewater treatment facility.

**SECTION 3.1 WASTEWATER TREATMENT**

### **3. MEDIA SPECIFIC REQUIREMENTS**

#### **3.1 Wastewater Treatment**

Wastewater is generated in several of the various automobile assembly processes, including the body wash and phosphating system, circulating flood sheets in the coating processes and fluid fill areas, and a small amount from the static water test. Wastewater from these processes and all other assembly processes at the Typical Plant is collected and treated in the Typical Plant's wastewater treatment plant. For the Typical Plant, treated wastewater is discharged to the municipal wastewater treatment plant ("POTW") through the municipal sanitary sewer system (i.e., an indirect discharger).

The discharge of wastewater from the Typical Plant's wastewater treatment plant is subject to Federal categorical pretreatment standards established for metal finishing operations (40 CFR Part 433). The local POTW operator will generally implement the federal pretreatment standards, plus any additional standards, guidelines, and/or requirements established by the local municipality, which are more stringent than the federal standards. For the Typical Plant, the City of Detroit issues a pretreatment discharge or industrial users permit Pursuant to Ordinance 34-96, Chapter 56, and this permit contains conditions that include, but is not limited to, the requirements found in 40 CFR Part 433.

In addition to the Typical Plant's wastewater treatment plant, wastewater generated from the operation of the site's boilers and ancillary equipment is also discharged to the POTW. Federal categorical pretreatment standards have not been established solely for discharges associated with boilers. This discharge to the POTW is subject to standards, guidelines, and/or requirements as established by the local municipality.

##### **3.1.1 Facility-Wide Requirements**

A wastewater discharge permit is typically issued by the local municipality for the discharge of treated wastewater to the local POTW. Although this discharge permit generally applies to the entire site, the specific permit conditions apply most commonly to operations performed at the Typical Plant's wastewater treatment plant. For this reason, the requirements applicable to the discharge of treated wastewater are included in the following section.

Sanitary sewage throughout the site is typically discharged to the POTW. This waste stream cannot be mixed with or include industrial process wastewater unless specifically authorized by the POTW.

## Wastewater Treatment (continued)

**Typical Regulatory Requirement** (Local Ordinance): Sanitary wastewater discharged to the POTW cannot contain or be impacted with toxic substances or industrial process wastes.

**Regulatory Citation:** Municipal Wastewater Discharge Ordinance (*Local requirement*)

**Regulatory Category:** Other Activities

**Possible Exemptions:** Discharge of non-sanitary wastes is acceptable if approved by the municipality.

**Minimum Number of Requirements:** 1

### A. Facility Wide Future Wastewater Requirements

The following future requirements were approved by the Michigan Senate on June 18, 2003 through the passing of Senate Bill No. 252. The requirements identified below are based on the Senate version of the legislation. They may be modified before the time the legislation is promulgated.

**Typical Regulatory Requirement** (Michigan Statute):

An application for a permit authorizing a discharge into surface water, other than a stormwater discharge, shall be accompanied by an application fee.

**Regulatory Citation:** 1994 Public Act 451 (*Future requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Statute):

A person who receives a permit authorizing a discharge into surface water, other than a stormwater discharge, is subject to an annual permit fee.

**Regulatory Citation:** 1994 Public Act 451 (*Future requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

### 3.1.2 Area Specific Requirements

In addition to sanitary wastewater discharged throughout the Typical Plant, the only other areas that discharge wastewater are the powerhouse and the wastewater treatment plant. A summary of the specific requirements applicable to these discharges is presented in this section. Also included in this section is the requirement to submit an annual wastewater report to the State for all facilities that discharge wastewater to the waters of the State or to a sewer system.

## Wastewater Treatment (continued)

### A. Boilers and Associated Equipment

It is assumed that natural gas-fired boilers are used to generate steam for process use and space heating at the Typical Plant. Wastewater generated from the operation of the boilers and associated equipment (e.g., air compressors/condensers) includes boiler blowdown water, cooling tower purge water, condenser water and non-contact cooling water. This wastewater is discharged to the POTW through the municipal sanitary sewer system. Federal categorical pretreatment standards have not been established solely for boiler operations. The discharge of wastewater from boiler operations to a POTW is subject to standards, guidelines, and/or requirements administered by the local municipality.

**Typical Regulatory Requirement** (Local Ordinance): The discharge of boiler blowdown water, condenser water, cooling tower purge water, and non-contact cooling water to the POTW is acceptable without a discharge permit provided this discharge contains no toxic or hazardous substances.

**Regulatory Citation:** Municipal Wastewater Discharge Ordinance (*Local requirement*)

**Regulatory Category:** Material Usage and Emission Limitations

**Minimum Number of Requirements:** 1

### B. Wastewater Treatment Plant

All wastewater generated from the Typical Plant's assembly processes is treated at the wastewater treatment plant. Wastewater treatment activities include heavy metals precipitation, clarification, solids removal and management, followed by discharge of treated effluent to the POTW through the municipal sanitary sewer system. Wastewater treatment sludge is generated and treated on-site prior to being sent off-site. The wastewater discharge is subject to federal categorical pretreatment standards established for metal finishing operations (40 CFR Part 433). The local POTW operator will generally implement the federal pretreatment standards, plus additional standards, guidelines, and/or requirements established by the local municipality. A pretreatment wastewater discharge permit is issued by the local municipality.

**Typical Regulatory Requirement** (Local Ordinance): No user shall discharge or cause to be discharged into the POTW, directly or indirectly, any pollutant or wastewater which will cause interference or pass through.

**Regulatory Citation:** Municipal Wastewater Discharge Ordinance (*Local requirement, incorporates by reference 40 CFR Part 403*)

**Regulatory Category:** Material Usage and Emission Limitations

**Minimum Number of Requirements:** 1

## Wastewater Treatment (continued)

**Typical Regulatory Requirement** (Local Ordinance): It shall be unlawful for a user to discharge into the POTW:

- 1) Any liquid, solid or gas, which by reason of its nature or quantity, is sufficient either alone or by interaction with other substances to create a fire or explosion hazard or to be injurious in any way to persons or POTW operations;
- 2) Any solid or viscous substance which will cause obstruction to the flow in a sewer or other problems to POTW operations;
- 3) Any wastewater having a pH of less than 5.0 units or greater than 11.5 units;
- 4) Any wastewater containing petroleum oil, nonbiodegradable cutting oil, mineral oil products, or toxic pollutants that will cause interference, pass through, or a hazard;
- 5) Any liquid, gas, solid or form of energy that will create toxic gas, vapor, or fume within the POTW;
- 6) Any substance which is sufficient to cause the POTW's effluent or any other product of the POTW to be unsuitable for reclamation or cause the POTW to be in noncompliance with Federal laws;
- 7) Any substance which will cause the POTW to violate the local authority's National Pollutant Discharge Elimination System ("NPDES") permit or any other relevant enforceable document;
- 8) Any discharge having a color uncharacteristic of the wastewater being discharged;
- 9) Any wastewater having a temperature which will inhibit biological activity in the POTW resulting in interference;
- 10) Any pollutant discharge which constitutes a slug;
- 11) Any wastewater containing radioactive wastes or isotopes as may exceed limits established by Federal or State regulations;
- 12) Any floating fats, oil or grease which are sufficient to cause interference with or pass through the POTW;
- 13) Any solid materials having a specific gravity greater than 1.2 or a cross section dimension of ½-inch or greater.

**Regulatory Citation:** Municipal Wastewater Discharge Ordinance (*Local requirement*)

**Regulatory Category:** Material Usage and Emission Limitations

**Minimum Number of Requirements:** 13

**Typical Regulatory Requirement** (Local Ordinance): No user shall discharge wastewater containing pollutants in excess of limitations specified in the local ordinance.

**Regulatory Citation:** Municipal Wastewater Discharge Ordinance (*Local requirement*)

**Regulatory Category:** Material Usage and Emission Limitations

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Local Ordinance): All users shall comply with the applicable National Categorical Pretreatment Standards and requirements promulgated pursuant to the act as set forth in 40 CFR Subchapter N, effluent Guidelines and Standards, and all other applicable standards and requirements. Affected discharges shall comply with applicable reporting requirements.

**Regulatory Citation:** Municipal Wastewater Discharge Ordinance (*Local requirement, incorporates by reference 40 CFR Part 433*)

**Regulatory Category:** Material Usage and Emission Limitations/ Reporting

**Minimum Number of Requirements:** 1

## Wastewater Treatment (continued)

**Typical Regulatory Requirement** (Local Ordinance): No user shall increase the use of process water, or in any way dilute a discharge as a substitute for adequate treatment to achieve compliance with the national categorical pretreatment standards or any other requirement imposed by the State or local authority.

**Regulatory Citation:** Municipal Wastewater Discharge Ordinance (*Local requirement*)

**Regulatory Category:** Material Usage and Emission Limitations

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Local Ordinance): The discharge of any groundwater into the POTW is prohibited, unless authorization has been granted by the Department.

**Regulatory Citation:** Municipal Wastewater Discharge Ordinance (*Local requirement*)

**Regulatory Category:** Material Usage and Emission Limitations

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Local Ordinance): Each industrial user shall provide protection from accidental discharge of prohibited materials or other substances regulated by this division and all significant industrial users shall submit to the Department detailed plans which show facilities and operating procedures to be implemented to provide protection against such accidental discharges. Facilities and measures to prevent and abate accidental discharges shall be implemented, provided, and maintained at the industrial user's expense. The industrial user shall promptly notify the department of any significant changes to the plan.

**Regulatory Citation:** Municipal Wastewater Discharge Ordinance (*Local requirement*)

**Regulatory Category:** Design Parameters/ Other Activities

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Local Ordinance): Within one hour of becoming aware of a discharge into the POTW which exceeds or does not conform with federal, state or local laws, rules, regulations or permit requirements, or which could cause problems to the POTW, or which has the potential to cause the industrial user to implement its spill prevention or slug control plan, the industrial user shall notify the department by telephone. Within 5 calendar days after the discharge, the industrial user shall submit a detailed written report describing the cause of the discharge and the measures to be taken to prevent similar future occurrences.

**Regulatory Citation:** Municipal Wastewater Discharge Ordinance (*Local requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Local Ordinance): A notice shall be permanently posted on the industrial user's bulletin board, or other prominent place, advising employees whom to contact in the department in the event of an actual, excessive or prohibited discharge.

**Regulatory Citation:** Municipal Wastewater Discharge Ordinance (*Local requirement*)

**Regulatory Category:** Training

**Minimum Number of Requirements:** 1

## Wastewater Treatment (continued)

**Typical Regulatory Requirement** (Local Ordinance): All industrial users, who discharge into the local POTW, shall notify the department in writing of any discharge of a substance which, if otherwise disposed of, would be hazardous waste.

**Regulatory Citation:** Municipal Wastewater Discharge Ordinance (*Local requirement, incorporates by reference 40 CFR 403.12(p)*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Local Ordinance): Users of the POTW shall pay applicable charges or fees established by the local authority.

**Regulatory Citation:** Municipal Wastewater Discharge Ordinance (*Local requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Local Ordinance): A significant industrial user shall not discharge into the POTW without a wastewater discharge permit from the local authority.

**Regulatory Citation:** Municipal Wastewater Discharge Ordinance (*Local requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Local Ordinance): Any user, who proposes to discharge any wastewater other than sanitary or noncontact cooling water into the POTW, shall request approval from the department for the discharge(s) at least 30 days prior to the commencement of the discharge.

**Regulatory Citation:** Municipal Wastewater Discharge Ordinance (*Local requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Local Ordinance): An industrial user with a wastewater discharge permit shall apply for permit reissuance a minimum of 90 days prior to the expiration of the existing permit.

**Regulatory Citation:** Municipal Wastewater Discharge Ordinance (*Local requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

## Wastewater Treatment (continued)

**Typical Regulatory Requirement** (Local Ordinance): In support of an application or reapplication for a wastewater discharge permit, the industrial user shall submit specific information as required by the local authority.

**Regulatory Citation:** Municipal Wastewater Discharge Ordinance (*Local requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Local Ordinance): A wastewater discharge permit shall not be reassigned or transferred or sold to a different person, new owner, new industrial user, different premises, or a new or changed operation without notice to and written approval of the department, and providing a copy of the existing permit to the new owner or operator. It shall be the permit holder's duty to notify the department of any such change at least 30 days before the date of the change.

**Regulatory Citation:** Municipal Wastewater Discharge Ordinance (*Local requirement*)

**Regulatory Category:** Other Activities/ Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Local Ordinance): All industrial users shall promptly notify the department in advance of any substantial change in the volume or character of pollutants in their discharge, request a permit application form, and apply for a modification of the permit at least 30 calendar days prior to the change.

**Regulatory Citation:** Municipal Wastewater Discharge Ordinance (*Local requirement*)

**Regulatory Category:** Reporting/ Other Activities

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Local Ordinance): Significant industrial users shall provide, operate and maintain at their own expense a sampling manhole or special structure to facilitate monitoring, inspection, sampling, and flow measurement of their discharge by the department and the user, and to enable the department to conduct such other monitoring and sampling as required for determining compliance with discharge requirements, limits and standards as provided for in this division.

**Regulatory Citation:** Municipal Wastewater Discharge Ordinance (*Local requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

## Wastewater Treatment (continued)

**Typical Regulatory Requirement** (Local Ordinance): The sampling manhole should be situated on the industrial user's premises in a location readily accessible to the department. There shall be ample room in or near such sampling or monitoring manhole or facility to allow accurate sampling and preparation of samples for analysis. The facility and any permanently installed sampling and measuring equipment shall be maintained at all times in a safe and proper operating condition at the expense of the industrial user. The facility shall be provided in accordance with the department's requirements and all applicable local construction standards and specifications.

**Regulatory Citation:** Municipal Wastewater Discharge Ordinance (*Local requirement*)

**Regulatory Category:** Design Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Local Ordinance): Where an industrial user has security measures in force, the industrial user shall make prompt and necessary arrangements with the security personnel so that personnel from the department will be permitted to enter for the purposes of performing their specific responsibilities.

**Regulatory Citation:** Municipal Wastewater Discharge Ordinance (*Local requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Local Ordinance): Significant industrial users shall sample and analyze their discharge in accordance with the provisions of their permit.

**Regulatory Citation:** Municipal Wastewater Discharge Ordinance (*Local requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Local Ordinance): Industrial users shall maintain records of all information from required monitoring activities. Users shall maintain the records for no less than 3 years.

**Regulatory Citation:** Municipal Wastewater Discharge Ordinance (*Local requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Local Ordinance): Industrial users shall make information and records relating to discharges readily accessible to the department at all reasonable times, and allow the department to copy such records.

**Regulatory Citation:** Municipal Wastewater Discharge Ordinance (*Local requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

## Wastewater Treatment (continued)

**Typical Regulatory Requirement** (Local Ordinance): In the event that a single grab sample of the industrial user's discharge is obtained by the department and found to contain concentrations of pollutants which are 2 or more times greater than the numeric limitations, the industrial user shall implement its slug control plan and shall provide a written report to the department within 14 days which describes the cause of the concentration and describes the means by which future concentrations will be held to values less than 2 times the limitation in the future.

**Regulatory Citation:** Municipal Wastewater Discharge Ordinance (*Local requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): Monitor effluent at specified frequencies for arsenic, cadmium, chromium, copper, iron, lead, mercury, nickel, silver, zinc, cyanide, total toxic organics, oil and grease, total suspended solids ("TSS"), biochemical oxygen demand, phosphorus, pH. (This condition is typically expressed in a table in the discharge permit.)

**Regulatory Citation:** Permit condition based on 40 CFR 433.17 and 433.15 (*Local requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Possible Exemptions:** In lieu of monitoring for total toxic organics ("TTO"), facilities subject to either 40 CFR Part 413 or Part 433 may be allowed to make the TTO certification as a comment to the Discharge Monitoring Report.

**Minimum Number of Requirements:** 17

**Typical Regulatory Requirement** (Permit Condition): Effluent concentrations of arsenic, cadmium, chromium, copper, iron, lead, mercury, nickel, silver, zinc, cyanide, total toxic organics, oil and grease, total suspended solids, biochemical oxygen demand, phosphorus, and pH shall not exceed specified discharge limits. (This condition is typically expressed in a table in the discharge permit.)

**Regulatory Citation:** Permit condition based on 40 CFR 433.17 (*Local requirement*)

**Regulatory Category:** Material Usage and Emission Limitations

**Minimum Number of Requirements:** 17

**Typical Regulatory Requirement** (Permit Condition): The permittee shall maintain a discharge log of all wastewater generated on site which includes dates of discharge, volume of waste discharged, and copies of all analytical results and/or manifests.

**Regulatory Citation:** Permit condition based on Municipal Wastewater Discharge Ordinance (*Local requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

## Wastewater Treatment (continued)

**Typical Regulatory Requirement** (Permit Condition): Sampling locations are identified in the permit and no alternate locations will be accepted unless approved by the department. Except in emergencies, all requests for an alternate sampling location shall be submitted in writing at least 30 days prior to the proposed date of change.

**Regulatory Citation:** Permit condition based on Municipal Wastewater Discharge Ordinance  
(*Local requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): All sampling and analysis must be performed in accordance with the methods and techniques specified in 40 CFR Part 136. Samples analyzed by other methods are specifically prohibited.

**Regulatory Citation:** Permit condition based on Municipal Wastewater Discharge Ordinance  
(*Local requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 17

**Typical Regulatory Requirement** (Permit Condition): "If sampling performed by the permittee indicates a violation of the stated permit limitations, then the permittee shall make a demonstration of compliance which is acceptable to the Department."

**Regulatory Citation:** Permit condition based on Municipal Wastewater Discharge Ordinance  
(*Local requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): Due to the POTW's limited capability to treat certain phenolic compounds, a permittee who exceeds phenol/phenolic compound limitations in Section B shall demonstrate compliance by providing analyses of individual phenolic compounds present in its discharge.

**Regulatory Citation:** Permit condition based on Municipal Wastewater Discharge Ordinance  
(*Local requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "The permittee is prohibited from disposing of or discharging any wastes or wastewater not identified in the permit application to the POTW."

**Regulatory Citation:** Permit condition based on Municipal Wastewater Discharge Ordinance  
(*Local requirement*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

## Wastewater Treatment (continued)

**Typical Regulatory Requirement** (Permit Condition): "The permittee is required initially to submit a Slug Control/Spill Prevention Plan ("SC/SPP"), in accordance with the City of Detroit Ordinance 34-96, to provide protection against accidental discharges to the POTW."

**Regulatory Citation:** Permit condition based on Municipal Wastewater Discharge Ordinance (*Local requirement*)

**Regulatory Category:** Other Activities

**Possible Exemptions:** A SC/SPP is not required if the permittee has a written notification from the municipality exempting them from this requirement.

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): A Six Month Report must be submitted to the municipality semiannually on or before June 30 and December 31 of each year.

**Regulatory Citation:** Permit condition based on Municipal Wastewater Discharge Ordinance (*Local requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): Records for monitoring activities shall be maintained in accordance with ordinance requirements and shall include the following information for all samples: the date, time, exact place and method of sampling; the names of persons taking the sample; the technique or method of analysis, the date and results of analysis; and the names of persons performing the analysis.

**Regulatory Citation:** Permit condition based on Municipal Wastewater Discharge Ordinance (*Local requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): Within 24 hours of becoming aware of a sampling violation, the industrial user shall notify the municipality.

**Regulatory Citation:** Permit condition based on Municipal Wastewater Discharge Ordinance (*Local requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): Within one hour of becoming aware of an accidental discharge entering into the sewer system, the industrial user shall telephone the municipality and report the details of the discharge.

**Regulatory Citation:** Permit condition based on Municipal Wastewater Discharge Ordinance (*Local requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

## Wastewater Treatment (continued)

**Typical Regulatory Requirement** (Permit Condition): Within 24 hours of becoming aware of an upset at the industrial user's pretreatment facility, the industrial user shall contact the municipality and provide details of the upset and discharge.

**Regulatory Citation:** Permit condition based on Municipal Wastewater Discharge Ordinance (*Local requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): Within 24 hours of becoming aware of a bypass of the industrial users pretreatment facility, the industrial user shall contact the municipality and provide details of the bypass and discharge.

**Regulatory Citation:** Permit condition based on Municipal Wastewater Discharge Ordinance (*Local requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): Within five calendar days of becoming aware of slug loading/accidental discharge, upset or bypass condition, a written report shall be submitted to the municipality.

**Regulatory Citation:** Permit condition based on Municipal Wastewater Discharge Ordinance (*Local requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): If the industrial user anticipates the need for a bypass of the pretreatment facility, prior notice shall be submitted to the municipality at least 10 days before the date of the bypass.

**Regulatory Citation:** Permit condition based on Municipal Wastewater Discharge Ordinance and 40 CFR Part 403 (*Local requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "The wastewater discharge permit shall not be reassigned or transferred without the written approval of the (municipality) and provision of a copy to the new owner or operator. The permittee shall notify the (municipality) of any such changes at least 30 days prior to the change."

**Regulatory Citation:** Permit condition based on Municipal Wastewater Discharge Ordinance (*Local requirement*)

**Regulatory Category:** Reporting/Other Activities

**Minimum Number of Requirements:** 1

## Wastewater Treatment (continued)

**Typical Regulatory Requirement** (Permit Condition): The permittee must notify the municipality of any facility or operational changes which may affect the permit, and the terms and conditions of the permit are subject to modification by the municipality.

**Regulatory Citation:** Permit condition based on Municipal Wastewater Discharge Ordinance  
(*Local requirement*)

**Regulatory Category:** Reporting/Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "Existing permittees shall apply for permit reissuance a minimum of 90 days prior to the expiration of existing permits . . ."

**Regulatory Citation:** Permit condition based on Municipal Wastewater Discharge Ordinance  
(*Local requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "The permittee shall maintain records of all information from monitoring activities, permit requirements, or 40 CFR 403.12 for no less than three years."

**Regulatory Citation:** Permit condition based on Municipal Wastewater Discharge Ordinance  
(*Local requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "The permittee shall operate and maintain any and all pretreatment facilities in a prudent and professional manner. Records of operation and maintenance shall be provided to the (municipality) for review, upon request."

**Regulatory Citation:** Permit condition based on Municipal Wastewater Discharge Ordinance  
(*Local requirement*)

**Regulatory Category:** Operational Parameters/Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): It is the permittee's responsibility to make prompt and necessary arrangements so that upon presentation of appropriate credentials, personnel from the municipality will be permitted to enter the facility immediately for the purposes of performing their specific responsibilities.

**Regulatory Citation:** Permit condition based on Municipal Wastewater Discharge Ordinance  
(*Local requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

## Wastewater Treatment (continued)

**Typical Regulatory Requirement** (Michigan Rule): A wastewater report shall be filed annually with the State not later than August 1<sup>st</sup> of each year.

**Regulatory Citation:** R 299.9005(1) (*State requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**SECTION 3.2 STORMWATER DISCHARGE**

### 3.2 Stormwater Discharge

Stormwater runoff from the Typical Plant is conveyed to an on-site stormwater retention basin, which typically discharges to a municipal storm sewer. The discharge of stormwater associated with industrial activities to waters of the State of Michigan is subject to permitting under Federal stormwater regulations (40 CFR 122.26) which are implemented in Michigan in Part 31 of the Natural Resources and Environmental Protection Act (Michigan Act 451 of 1994, as amended).

Michigan's industrial stormwater discharge permits include general permits (cycle-year 1 through 5 watersheds), general permits with required monitoring (cycle-year 1 through 5 watersheds), and individual National Pollutant Discharge Elimination System ("NPDES") permits. To obtain coverage under one of Michigan's general stormwater permits, a Notice of Intent to discharge stormwater must be submitted to the Michigan Department of Environmental Quality ("MDEQ"). The MDEQ will then issue a Certificate of Coverage to the facility or issue an individual NPDES permit. For the purpose of this Profile, the Typical Plant's stormwater discharge is subject to a general NPDES permit that specifies certified operator requirements, development of a Stormwater Pollution Prevention Plan ("SWPPP") and implementation of structural and non-structural stormwater controls.

The Typical Plant may have one or multiple stormwater discharges. This Profile has been prepared assuming a single discharge point and is considered a facility-wide requirement.

**Typical Regulatory Requirement** (Michigan Rule): A person who discharges stormwater associated with an industrial activity shall apply for or obtain a stormwater discharge permit.

**Regulatory Citation:** R 323.2161(1)(a) (*State requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Statute): A \$200 annual storm water fee shall be paid by each facility that is authorized to discharge storm water.

**Regulatory Citation:** Section 324.3118 of Act 451 (*State requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

## Stormwater Discharge (continued)

**Typical Regulatory Requirement** (Permit Condition): A Notice of Intent (“NOI”) or other department-approved application shall be submitted to the department to obtain a certificate of coverage authorizing discharge under the general permit. The permittee must comply with specific schedule and certification requirements when submitting a NOI.

**Regulatory Citation:** Permit condition based on Part 31 of Michigan Act 451 (*State requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): Provide a certified stormwater operator for the site.

**Regulatory Citation:** Permit condition based on Part 31 of Michigan Act 451 (*State requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): Develop a SWPPP for the site that addresses:

- 1) Source identification;
- 2) Preventive measures and source controls (non-structural)
- 3) Structural controls for prevention and treatment;
- 4) Keeping the SWPPP current;
- 5) Certified operator update; and
- 6) Signature and plan review

**Regulatory Citation:** Permit condition based on Part 31 of Michigan Act 451 (*State requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirements** (Permit Condition): Completion of structural and non-structural stormwater controls.

**Regulatory Citation:** Permit condition based on Part 31 of Michigan Act 451 (*State requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirements** (Permit Condition): The permittee shall maintain records of all inspection and maintenance activities, and incidents such as spills or other discharges. All such records shall be retained for three years.

**Regulatory Citation:** Permit condition based on Part 31 of Michigan Act 451 (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

## Stormwater Discharge (continued)

**Typical Regulatory Requirements** (Permit Condition): There shall be no violation of the Water Quality Standards in the receiving water including any unnatural physical properties as a result of the discharge: turbidity, color, oil film, floating solids, foams, settleable solids, suspended solids, or deposits.

**Regulatory Citation:** Permit condition based on Part 31 of Michigan Act 451 (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirements** (Permit Condition): Any unusual characteristics of the discharge shall be reported within 24 hours to the regulating agency followed with a written report within 5 days detailing the findings of an investigation and the steps taken to correct the condition.

**Regulatory Citation:** Permit condition based on Part 31 of Michigan Act 451 (*State requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirements** (Permit Condition): Discharges of material other than storm water shall be in compliance with an NPDES permit (other than the general permit) issued for the discharge.

**Regulatory Citation:** Permit condition based on Part 31 of Michigan Act 451 (*State requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirements** (Permit Condition): To continue an authorized storm water discharge beyond the permit's expiration date, the permittee shall submit a written request to the agency 6 months prior to the permit's expiration date.

**Regulatory Citation:** Permit condition based on Part 31 of Michigan Act 451 (*State requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirements** (Permit Condition): Any noncompliance which may endanger health or the environment shall be reported, verbally, within 24 hours from the time the permittee became aware of the circumstances. A written submission shall also be provided within 5 days.

**Regulatory Citation:** Permit condition based on Part 31 of Michigan Act 451 (*State requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 2

## Stormwater Discharge (continued)

**Typical Regulatory Requirements** (Permit Condition): The permittee shall report, in writing, all other instances of noncompliance that do not endanger health or the environment at the time monitoring reports are submitted, or within 5 days from the time the permittee becomes aware of the noncompliance.

**Regulatory Citation:** Permit condition based on Part 31 of Michigan Act 451 (*State requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirements** (Permit Condition): The permittee shall immediately report any spill or loss of any product, by-product, intermediate product, oils, solvents, waste material, or any other polluting substance which occurs to the surface waters or groundwaters of the state by calling the agency. Within 10 days of the spill or loss, the permittee shall submit to the agency a full written explanation of the cause and discovery of the spill or loss, clean-up and recovery measures taken, preventative measures to be taken, and schedule of implementation.

**Regulatory Citation:** Permit condition based on Part 31 of Michigan Act 451 (*State requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirements** (Permit Condition): If a process upset has occurred, the permittee shall notify the agency by telephone within 24 hours of becoming aware of such conditions, and within 5 days, provide an explanation in writing.

**Regulatory Citation:** Permit condition based on Part 31 of Michigan Act 451 (*State requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirements** (Permit Condition): Bypass is prohibited unless unavoidable to prevent loss of life, personal injury, or severe property damage; there were no feasible alternatives to the bypass; and the permittee submitted the required notices.

**Regulatory Citation:** Permit condition based on Part 31 of Michigan Act 451 (*State requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirements** (Permit Condition): If the permittee knows in advance of the need for a bypass, it shall submit prior notice to the agency, if possible at least 10 days before the date of the bypass, and provide information about the anticipated bypass.

**Regulatory Citation:** Permit condition based on Part 31 of Michigan Act 451 (*State requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

## Stormwater Discharge (continued)

**Typical Regulatory Requirements** (Permit Condition): The permittee shall submit notice to the agency of an unanticipated bypass by telephone as soon as possible, but no later than 24 hours from the time the permittee becomes aware of the circumstances.

**Regulatory Citation:** Permit condition based on Part 31 of Michigan Act 451 (*State requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirements** (Permit Condition): A written submission shall be provided within 5 working days of commencing any bypass to the agency and at additional times as directed by the agency.

**Regulatory Citation:** Permit condition based on Part 31 of Michigan Act 451 (*State requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirements** (Permit Condition): In the event of any change in control or ownership of facilities from which the authorized discharge emanates, the permittee shall notify the succeeding owner of the existence of the permit by letter, a copy of which shall be forwarded to the agency 30 days prior to the actual transfer of ownership or control.

**Regulatory Citation:** Permit condition based on Part 31 of Michigan Act 451 (*State requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirements** (Permit Condition): The permittee shall, at all times, properly operate and maintain all treatment or control facilities or systems installed or used by the permittee to achieve compliance with the terms and conditions of the general permit.

**Regulatory Citation:** Permit condition based on Part 31 of Michigan Act 451 (*State requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirements** (Permit Condition): The permittee shall either provide an alternative power source sufficient to operate facilities utilized by the permittee to maintain compliance with conditions of the general permit; or upon the reduction, loss, or failure of power to facilities utilized by the permittee to maintain compliance with the permit, the permittee shall halt, reduce or otherwise control production and/or all discharge to maintain compliance with the permit.

**Regulatory Citation:** Permit condition based on Part 31 of Michigan Act 451 (*State requirement*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

## Stormwater Discharge (continued)

**Typical Regulatory Requirements** (Permit Condition): The permittee shall take all reasonable steps to minimize any adverse impact to the surface waters or groundwaters of the state resulting from noncompliance with the permit including, but not limited to, such monitoring as necessary to determine the nature and impact of the discharge in noncompliance.

**Regulatory Citation:** Permit condition based on Part 31 of Michigan Act 451 (*State requirement*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirements** (Permit Condition): The permittee shall provide facilities for containment of any accidental losses of concentrated solutions, acids, alkalis, salts, oils, or other polluting materials.

**Regulatory Citation:** Permit condition based on Part 31 of Michigan Act 451 (*State requirement*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirements** (Permit Condition): Residuals removed from or resulting from treatment or control of storm water, shall be disposed of in an environmentally compatible manner and according to applicable laws and rules.

**Regulatory Citation:** Permit condition based on Part 31 of Michigan Act 451 (*State requirement*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirements** (Permit Condition): The permittee shall allow the agency to enter upon the permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of the permit; and, at reasonable times to have access to and copy any records kept under the terms of the permit; to inspect process facilities, treatment works, monitoring methods and equipment regulated or required under the permit; and to sample any discharge of pollutants.

**Regulatory Citation:** Permit condition based on Part 31 of Michigan Act 451 (*State requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

### A. Facility Wide Future Stormwater Requirements

The following future requirements were approved by the Michigan Senate on June 18, 2003 through the passing of Senate Bill No. 510. The requirements identified below are based on the Senate version of the legislation. They may be modified before the time the legislation is promulgated.

## Stormwater Discharge (continued)

**Typical Regulatory Requirement** (Michigan Statute):

An annual fee of \$260.00 is required for a permit related solely to a storm water discharge associated with industrial activity.

**Regulatory Citation:** 1994 Public Act 451 (*Future requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Statute):

A person possessing a stormwater permit not related solely to a site of construction activity as of January 1st shall be assessed a fee.

**Regulatory Citation:** 1994 Public Act 451 (*Future requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

### **SECTION 3.3 AIR QUALITY**

### 3.3 Air Quality

Prior to the issuance of ROPs, many air quality requirements were found as conditions in air use permits-to-install issued by the AQD. The Typical Plant has had more than one air use permit-to-install issued to it; however, the ROP collects all the applicable requirements under one permit. In addition to the requirements found as conditions to installation permits, there are environmental requirements that the Typical Plant must meet that are based on the Michigan statute and administrative rules. Even processes that are exempt from Michigan's air quality permit system are not exempt from complying with applicable administrative rules. For example, limits on a coating's volatile organic compound ("VOC") content and the Typical Plant's recordkeeping requirements may be applicable requirements even if the associated process is exempt from the permitting system. All of the applicable requirements, therefore, are contained in the ROP.

Please note that the air quality discussion does not include the hazardous waste air emission standards for equipment leaks, tanks, and containers. The aforementioned standards are discussed in Section 3.4.1 A. (5).

#### 3.3.1 Facility Wide Requirements

**Typical Regulatory Requirement** (Michigan Rule): "The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a permit-to-install authorizing such action is issued by the Department, except to the extent such action is exempt from the permit-to-install requirements by any applicable rule."

**Regulatory Citation:** R 336.1201 (*SIP based requirement*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

#### A. Processes Exempt from Permit-to-Install Requirements

Identified below are processes at the Typical Plant that are exempt from Michigan's permit-to-install requirements. The exemptions are found in R 336.1280 through R 336.1290. As specified in R 336.1212, and except for cold cleaners, these processes are exempt from inclusion in the ROP itself; however, some processes must be listed in the application for the ROP. Although cold cleaners are exempt from the permit-to-install requirements at the Typical Plant, cold cleaners have process-specific standards that are required to be listed in the ROP. In the Typical Plant, the inclusion of cold cleaners with process-specific standards in the ROP allows the cold cleaners to avoid the Halogenated Solvent Cleaner NESHAP.

## Air Quality (continued)

### (1) Body Shop

- Welding, Brazing and Soldering - R 336.1285 - Permit-to-install exemptions; miscellaneous. (i) Brazing, soldering or welding equipment
- Sanding, Sandblasting, Rough Grinding - R 336.1285 - Permit-to-install exemptions; miscellaneous. (l)(vi) Equipment for carving, cutting, routing, turning, drilling, machining, sawing, surface grinding, sanding, planing, buffing, sand blasting cleaning, shot blasting, shot peening, or polishing ceramic artwork, leather, metals, plastics, concrete, rubber, paper stock, wood, or wood products which meets any of the following: (A) Equipment used on a nonproduction basis. (B) Equipment has emissions that are released only into the general in-plant environment. (C) Equipment has externally vented emission controlled by an appropriately designed and operated fabric filter collector that, for all specified operations with metal, is preceded by a mechanical precleaner.

Unless subject to a process-specific emission limitation or standard, the aforementioned process or process equipment need only be listed in the application to the ROP pursuant to R 336.1212(4).

- Body Car Wash - R 336.1285 - Permit-to-install exemptions; miscellaneous. (l) The following equipment and any exhaust system or collector exclusively serving the equipment: (iii) Equipment for surface preparation of metals by use of aqueous solutions, except for acid solutions.

### (2) Paint Shop

- Multi-Stage Body Cleaning (Phosphate) - R 336.1285 - Permit-to-install exemptions; miscellaneous. (l) The following equipment and any exhaust system or collector exclusively serving the equipment: (iii) Equipment for surface preparation of metals by use of aqueous solutions, except for acid solutions.
- Sanding/Buffering - R 336.1285 - Permit-to-install exemptions; miscellaneous. (l)(vi) Equipment for carving, cutting, routing, turning, drilling, machining, sawing, surface grinding, sanding, planing, buffing, sand blasting cleaning, shot blasting, shot peening, or polishing ceramic artwork, leather, metals, plastics, concrete, rubber, paper stock, wood, or wood products which meets any of the following: (A) Equipment used on a nonproduction basis. (B) Equipment has emissions that are released only into the general in-plant environment. (C) Equipment has externally vented emission controlled by an appropriately designed and operated fabric filter collector that, for all specified operations with metal, is preceded by a mechanical precleaner.

Unless subject to a process-specific emission limitation or standard, the aforementioned process or process equipment need only be listed in the application to the ROP pursuant to R 336.1212(4).

## Air Quality (continued)

- Paint Mix Room - R 336.1287 - Permit-to-install exemptions; surface coating equipment. (k) Mixing, blending, or metering operations associated with a surface coating line.

### (3) Final Assembly

Cold Cleaners – R 336.1281 - Permit-to-install exemptions; cleaning, washing, and drying equipment. (h) Cold cleaners that have an air/vapor interface of not more than 10 square feet.

The Typical Plant is not subject to the Halogenated Solvent Cleaner NESHP (40 CFR 63 Subpart T) because the Typical Plant utilizes solvents with less than 5% by weight of the following HAPs: methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chloroform, or any combination thereof.

The cold cleaners must be included in a ROP because the following process specific emission limitations and standards are associated with them:

<p><b>Typical Regulatory Requirement</b> (Permit Condition): "It is unlawful for a person to operate a new cold cleaner using a solvent having a Reid vapor pressure of more than 0.6 psia or heated above 120 degrees Fahrenheit, unless at least 1 of the following conditions is met:</p> <ul style="list-style-type: none"><li>(a) The cold cleaner is designed such that the ratio of the freeboard height to the width of the cleaner is equal to or greater than 0.7.</li><li>(b) The solvent bath is covered with water if the solvent is insoluble and has a specific gravity of more than 1.0.</li><li>(c) The cold cleaner is controlled by a carbon adsorption system, condensation system, or other method of equivalent control approved by the department."</li></ul> <p><b>Regulatory Citation:</b> R 336.1707 (<i>State requirement</i>)</p> <p><b>Regulatory Category:</b> Operational Parameters</p> <p><b>Minimum Number of Requirements:</b> 3</p>
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<p><b>Typical Regulatory Requirement</b> (Permit Condition): "The exhaust gases from the final repair paint process shall be discharged unobstructed vertically upwards to the ambient air from stacks, each with a maximum diameter of XX inches at an exit point not less than XX feet above the ground."</p> <p><b>Regulatory Citation:</b> Permit Condition based on ambient air impact analysis to meet the requirements of R 336.1230 and R 336.1901 (<i>State requirements</i>)</p> <p><b>Regulatory Category:</b> Design Parameters</p> <p><b>Minimum Number of Requirements:</b> 3</p>
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<p><b>Typical Regulatory Requirement</b> (Permit Condition): "A cover shall be installed and the cover shall be closed whenever parts are not being handled in the cleaner."</p> <p><b>Regulatory Citation:</b> R 336.1707(3)(a) (<i>State requirement</i>)</p>
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## Air Quality (continued)

**Regulatory Category:** Design Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "The cover shall be mechanically assisted if the Reid vapor pressure of the solvent is more than 0.3 psia, or if the solvent is agitated or heated."

**Regulatory Citation:** R 336.1707(3)(a) (*State requirement*)

**Regulatory Category:** Design Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "A device shall be available for draining cleaned parts."

**Regulatory Citation:** R 336.1707(3)(a) (*State requirement*)

**Regulatory Category:** Design Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "The permittee shall not use cleaning solvents containing more than 5 percent by weight of the following halogenated compounds: methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chloroform, or any combination thereof."

**Regulatory Citation:** R 336.1213(3)(a) (*State requirement*)

**Regulatory Category:** Material Usage and Emission Limits

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "The permittee shall record the date of installation of each cold cleaner."

**Regulatory Citation:** R 336.1213(3)(a) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing/Reporting

**Minimum Number of Requirements:** 1

## Air Quality (continued)

**Typical Regulatory Requirement** (Permit Condition): "The permittee shall record the identification name/number, air/vapor interface area, and type of solvent used (including Reid vapor pressure and VOC content) shall be maintained for each cold cleaner."

**Regulatory Citation:** R 336.1213(3)(a) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing/Reporting

**Minimum Number of Requirements:** 3

**Typical Regulatory Requirement** (Permit Condition): "As noted in R 336.1707(3)(c), if applicable, an initial demonstration that the waste solvent is a safety hazard shall be made prior to storage in open containers. If the waste solvent is a safety hazard and is stored in non-closed containers, verification that the waste solvent is disposed of so that not more than 20%, by weight, is allowed to evaporate into the atmosphere shall be made on a monthly basis."

**Regulatory Citation:** R 336.1213(3)(a) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing/Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "If the solvent is heated, the solvent temperature shall be monitored and recorded on a monthly basis, during peak operating conditions."

**Regulatory Citation:** R 336.1213(3)(a) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing/Reporting

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Permit Condition): "As noted in R 336.1707(2), if applicable, the option chosen to comply with R 336.1707(2) shall be recorded."

**Regulatory Citation:** R 336.1213(3)(a) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing/Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "The permittee may install or construct an unlimited number of new cold cleaners that meet one of the following requirements:

- a. The air/vapor interface of the cold cleaner is no more than 10 square feet.
- b. The cold cleaner is used for cleaning metal parts and the emissions are released to the general in-plant environment."

**Regulatory Citation:** R 336.1281(h) (*SIP based requirement*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 2

## Air Quality (continued)

**Typical Regulatory Requirement** (Permit Condition): "Waste solvent shall be stored only in closed containers, unless the stored solvent is demonstrated to be a safety hazard and is disposed so that not more than 20%, by weight, is allowed to evaporate into the atmosphere."

**Regulatory Citation:** R 336.1707(3)(c) (*State requirement*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "Parts shall be drained for not less than 15 seconds or until dripping ceases."

**Regulatory Citation:** R 336.1707(2) (*State requirement*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "The permittee shall perform routine maintenance on each cold cleaning machine as recommended by the manufacturer."

**Regulatory Citation:** R 336.1213(3) (*State requirement*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "Each new cold cleaner shall not be operated using a solvent having a Reid vapor pressure of more than 0.6 psia or heated above 120 degrees Fahrenheit, unless at least one of the following is met:

- a. The cold cleaner is designed such that the ratio of the freeboard height to the width of the cleaner is equal to or greater than 0.7.
- b. The solvent bath is covered with water if the solvent is insoluble and has a specific gravity of more than 1.0.
- c. The cold cleaner is controlled by a carbon adsorption system, condensation system, or other method of equivalent control approved by the AQD."

**Regulatory Citation:** R 336.1707(2) (*State requirement*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 3

**Typical Regulatory Requirement** (Permit Condition): "The permittee shall maintain written procedures to demonstrate compliance with the requirements of R 336.1707. Such procedures shall be posted in an accessible, conspicuous location near each machine."

**Regulatory Citation:** R 336.1707(4) (*State requirement*)

**Regulatory Category:** Other Requirements

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "The permittee may construct, reconstruct,

## Air Quality (continued)

modify, install or commence operation of any new or existing cold cleaner emission units without modifying the RO Permit providing that it is not defined as a minor or significant modification to the RO Permit, as defined by R 336.1216(2) and R 336.1216(3), respectively, and the following provisions are met:

- a. It is not a major stationary source or major modification as defined in the prevention of significant deterioration regulations in 40 CFR 52.21.
- b. It is not a major offset source or a major offset modification as defined in R 336.1113(c) and (b), respectively, for which volatile organic compounds, particulate matter, PM-10, carbon monoxide, nitrogen oxides, sulfur dioxide, or lead is a non-attainment air contaminant.
- c. It does not have actual emissions of volatile organic compounds, particulate matter, carbon monoxide, nitrogen oxides, sulfur dioxide, or lead above the significance levels as defined in R 336.1119.
- d. It is not a major source as defined in the national emission standards for hazardous air pollutants for source categories, 40 CFR 63.2, and it is subject to the provisions of 40 CFR 63.40 through 63.44.

**Regulatory Citation:** R 336.1278 (*State requirement*)

**Regulatory Category:** Other Requirements

**Minimum Number of Requirements:** 4

**Typical Regulatory Requirement (Permit Condition):** "It is unlawful for a person to operate a new cold cleaner unless all of the following conditions are met:

- (a) A cover shall be installed and the cover shall be closed whenever parts are not being handled in the cleaner. The cover shall be mechanically assisted in any of the following situations:
  - (i) The Reid vapor pressure of the solvent is more than 0.3 psia.
  - (ii) The solvent is agitated.
  - (iii) The solvent is heated.
- (a) A device shall be available for draining cleaned parts and the parts shall be drained not less than 15 seconds or until dripping ceases.
- (b) Waste solvent shall be stored only in closed containers, unless demonstrated to be a safety hazard and disposed of in a manner such that not more than 20% by weight is allowed to evaporate into the atmosphere."

**Regulatory Citation:** R 336.1707 (*State requirement*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 3

**Typical Regulatory Requirement (Permit Condition):** "A person responsible for the provisions of Rule 707 shall develop written procedures for the operation of such provisions, and such procedures shall be posted in an accessible conspicuous location near the cold cleaner."

**Regulatory Citation:** R 336.1707 (*State requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

- Natural Gas Fired Sources Rated less than 50 MM British Thermal Unit ("Btu") per hour (e.g., Space Heaters , Air Makeup Units) - R 336.1282 - Permit-to-install exemptions; furnaces, ovens, and heaters. (b) Fuel-burning equipment which is used

## Air Quality (continued)

for space heating, service water heating, electric power generation, oil and gas production or processing, or indirect heating which burns only the following fuels: (i) Sweet natural gas, synthetic gas, liquefied petroleum gas, or a combination thereof and the equipment has a rate heat input capacity of not more than 50,000,000 Btu per hour.

Unless subject to a process-specific emission limitation or standard, the aforementioned process or process equipment need only be listed in the ROP pursuant to R 336.1212(4).

- Roll Test - R 336.1285 - Permit-to-install exemptions; miscellaneous. (g) Internal combustion engines with less than 10,000,000 Btu/hour maximum heat input.

Unless subject to a process-specific emission limitation or standard, the aforementioned process or process equipment need only be listed in the ROP pursuant to R 336.1212(4).

- Maintenance Paint Booth - R 336.1287 - Permit-to-install exemptions; surface coating equipment (j) Portable equipment that is used for on-site nonproduction painting or (c) A surface coating line if all of the following conditions are met (i) The coating use rate is not more than 200 gallons, as applied, minus water, per month. (ii) Any exhaust system that serves only coating spray equipment is supplied with a properly installed and operating particulate control system. (iii) Monthly coating use records are maintained on file for the most recent 2-year period and are made available to the air quality division upon request.
- Miscellaneous Welding - R 336.1285 - Permit-to-install exemptions: miscellaneous. (i) Brazing, soldering or welding equipment.
- Engine Oil Fill and Oil Drum Storage Room Exhaust – R 336.1284 - Permit-to-install exemptions; containers. (c) Storage and surge capacity of lubricating, hydraulic, and thermal oils and indirect heat transfer fluids.

Unless subject to a process-specific emission limitation or standard, the aforementioned process or process equipment need only be listed in the ROP pursuant to R 336.1212(4).

- Diesel Engine Emergency Generator - R 336.1285 - Permit-to-install exemptions; miscellaneous. (g) Internal combustion engines with less than 10,000,000 Btu/hour maximum heat input.

Unless subject to a process-specific emission limitation or standard, the aforementioned process or process equipment need only be listed in the ROP pursuant to R 336.1212(4).

- Brake Fluid and Antifreeze Fluid Fill – 336.1284 - Permit-to-install exemptions; miscellaneous. (i) Storage or transfer operations of VOCs or noncarcinogenic liquids

## Air Quality (continued)

in a vessel that has a capacity of not more than 40,000 gallons where the contents have a true vapor pressure of not more than 1.5 psia at the actual storage conditions.

Unless subject to a process-specific emission limitation or standard, the aforementioned process or process equipment need only be listed in the ROP pursuant to R 336.1212(4).

- Black Light Booth – R 336.1283 - Permit-to-install exemptions; testing and inspection equipment. (a) Pilot processes or process equipment utilizing Best Available Control Technology for Toxics used for any of the following: (d) Equipment for the inspection metal, wood, or plastic products.
- Unleaded Gasoline – R 336.1284 - Permit-to-install exemptions; containers. (g) Gasoline or natural gas storage and handling equipment, as follows: (i) Gasoline storage and handling equipment at loading facilities handling less than 20,000 gallons per day or at dispensing facilities.

Unless subject to a process-specific emission limitation or standard, the aforementioned process or process equipment need only be listed in the ROP pursuant to R 336.1212(4).

### (4) Wastewater Treatment Plant

- Tank Farm – R 336.1284 - Permit-to-install exemptions; containers. (b) Storage of butane, propane or liquefied petroleum gas in a vessel with a capacity less than 40,000 gallons; (c) Storage of surge capacity of lubricating, hydraulic, and thermal oils and indirect heat transfer fluids; (g) Gasoline or natural gas storage and handling equipment, as follows: (i) Gasoline storage and handling equipment at loading facilities handling less than 20,000 gallons per day or at dispensing facilities; (i) Storage or transfer operations of VOCs or noncarcinogenic liquids in a vessel that has a capacity of not more than 40,000 gallons where the contents have a true vapor pressure of not more than 1.5 psia at the actual storage conditions.

Unless subject to a process-specific emission limitation or standard, the aforementioned process or process equipment need only be listed in the ROP pursuant to R 336.1212(4).

- Wastewater Treatment Plant and Retention Pond - R 336.1285 - Permit-to-install exemptions; miscellaneous. (m) Lagoons, process water treatment equipment, wastewater treatment equipment, and sewage treatment equipment.

## B. Renewable Operating Permit General Conditions

## Air Quality (continued)

**Typical Regulatory Requirement** (Michigan Rule): “A challenge by any person, the Administrator of the EPA, or the department to a particular condition or a part of this RO Permit shall not set aside, delay, stay, or in any way affect the applicability or enforceability of any other condition or part of this RO Permit.”

**Regulatory Citation:** R 336.1213(1)(f) (*State requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): “Except as provided in Subrules 2, 3, and 4 of R 336.1301, a person shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of a density greater than the most stringent of R 336.1301(1)(a) or (b) unless otherwise specified in this RO Permit. The grading of visible emissions shall be determined in accordance with R 336.1303. (R 336.1301(1) in pertinent part):

- a) A 6-minute average of 20% opacity, except for one 6-minute average per hour of not more than 27% opacity.
- b) A limit specified by an applicable federal new source performance standard.”

**Regulatory Citation:** R 336.1301(1) (*SIP based requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing/Operational Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): “The opacity of a visible emission shall be determined by a qualified observer and shall be certified in accordance with, and using the procedures specified in, reference method 9 or an alternative method approved by the department.”

**Regulatory Citation:** R 336.1303 (*SIP based requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): “Any collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in R 336.1370(2). “

**Regulatory Citation:** R 336.1370 (*SIP based requirement*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 3

**Typical Regulatory Requirement** (Michigan Rule): “Any air cleaning device shall be installed, maintained, and operated in a satisfactory manner and in accordance with the Michigan Air Pollution Control rules and existing law.”

**Regulatory Citation:** R 336.1910 (*SIP based requirement*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 3

## Air Quality (continued)

**Typical Regulatory Requirement** (Michigan Rule): “The department may require the owner or operator of any source of an air contaminant to conduct acceptable performance tests, at the owner’s or operator’s expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001(1).”

**Regulatory Citation:** R 336.2001 (*SIP based requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): “A change in ownership or operational control of a stationary source covered by a RO Permit shall be made pursuant to R 336.1216(1).”

**Regulatory Citation:** R 336.1219(3) (*State requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): “The permittee shall not cause or permit the emission of an air contaminant or water vapor in quantities that cause, alone or in reaction with other air contaminants, either of the following:

- a) Injurious effects to human health or safety, animal life, plant life of significant economic value, or property.
- b) Unreasonable interference with the comfortable enjoyment of life and property.”

**Regulatory Citation:** R 336.1901(a) and R 336.1901(b) (*State requirements*)

**Regulatory Category:** Material Usage and Emission Limitations

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): “The permittee shall comply with all conditions of this RO Permit. Any permit noncompliance constitutes a violation of Act 451 of 1994, as amended, Part 55, (Air Pollution Control) and is grounds for enforcement action, for permit revocation or revision, or for denial of the renewal of the RO Permit. All terms and conditions of this RO Permit that are designated as federally enforceable are enforceable by the Administrator of the EPA and by citizens under the provisions of the CAA. Any terms and conditions based on applicable requirements, which are designated as “state only”, are not enforceable by the EPA or citizens pursuant to the CAA.”

**Regulatory Citation:** R 336.1213(1)(a) (*State requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): “It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this RO Permit.”

**Regulatory Citation:** R 336.1213(1)(b) (*State requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

## Air Quality (continued)

**Typical Regulatory Requirement** (Michigan Rule): “This RO Permit may be modified, revised, or revoked for cause. The filing of a request by the permittee for a permit modification, revision, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition. Pursuant to R 336.1215 and R 336.1216, the permittee may make changes at a stationary source at his/her own risk.”

**Regulatory Citation:** R 336.1213(1)(c) (*State requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): “The permittee shall furnish to the department, within a reasonable time, any information the department may request, in writing, to determine whether cause exists for modifying, revising, or revoking the RO Permit or to determine compliance with this RO Permit. Upon request, a person shall also furnish to the department copies of any records that are required to be kept as a term or condition of this RO Permit.”

**Regulatory Citation:** R 336.1213(1)(e) (*State requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): “The permittee shall allow the department, or an authorized representative of the department, upon presentation of credentials and other documents as may be required by law and upon stating the authority for and purpose of the investigation, to perform any of the following activities ( R 336.1213(1)(d)):

- a) Enter, at reasonable times, a stationary source or other premises where emissions-related activity is conducted or where records must be kept under the conditions of the permit.
- b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit.
- c) Inspect, at reasonable times, any of the following:
  - i) Any stationary source.
  - ii) Any process.
  - iii) Any process equipment, including monitoring and air pollution control equipment.
  - iv) Any work practices or operations regulated or required under the Renewable Operating Permit.
- a) As authorized by Section 5526 of the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.”

**Regulatory Citation:** R 336.1213(1)(d) (*State requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 4

**Typical Regulatory Requirement** (Michigan Rule): “The permittee shall pay fees consistent with the fee schedule and requirements pursuant to Part 5522 of Act 451, P.A. 1994.”

**Regulatory Citation:** R 336.1213(1)(g) (*State requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): “This RO Permit does not convey any property rights or any exclusive privilege.”

## Air Quality (continued)

**Regulatory Citation:** R 336.1213(1)(h) (*State requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): “For renewal of this RO Permit, an administratively complete application shall be considered timely if it is received by the department not more than 18 months, but not less than 6 months, before the expiration date of the RO Permit.”

**Regulatory Citation:** R 336.1210(7) (*State requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): “For changes to any process or process equipment covered by this RO Permit that do not require a revision of the RO Permit pursuant to R 336.1216, the permittee must comply with R 336.1215.”

**Regulatory Citation:** R 336.1215 and R 336.1216 (*State requirements*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

## Air Quality (continued)

**Typical Regulatory Requirement** (Michigan Rule): “A RO Permit shall be reopened by the department prior to the expiration date and revised by the department under any of the following circumstances:

- a) If additional requirements become applicable to this stationary source with three or more years remaining in the term of the permit, but not if the effective date of the new applicable requirement is later than the RO Permit expiration date.
- b) If additional requirements pursuant to Title IV of the CAA become applicable to this stationary source.
- c) If the department determines the permit contains a material mistake, that information required by any applicable requirement was omitted, or that inaccurate statements were made in establishing emission limits or the terms or conditions of the permit.
- d) If the department determines the permit must be revised to ensure compliance with the applicable requirements.”

**Regulatory Citation:** R 336.1217(2)(a)(i), R 336.1217(2)(a)(ii), R 336.1217(2)(a)(iii), and R 336.1217(2)(a)(iv). (*State requirements*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): “Any required performance testing shall be conducted in accordance with Rule 1001(2), Rule 1001(3) and Rule 1003.”

**Regulatory Citation:** R 336.2001(2), R 336.2001(3), and R 336.2003(1) (*State requirements*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): “Any required test results shall be submitted to the AQD in the format prescribed by the applicable reference test method within 60 days following the last date of the test.”

**Regulatory Citation:** R 336.2001(4) (*State requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

## Air Quality (continued)

**Typical Regulatory Requirement** (Michigan Rule): "Records of any periodic emission or parametric monitoring required by this RO Permit, shall include the following information specified in R 336.1213(3)(b)(i), where appropriate ( R 336.1213(3)(b)):

- a) The date, location, time, and method of sampling or measurements.
- b) The dates analyses of the samples were performed.
- c) The company or entity that performed the analyses of the samples.
- d) The analytical techniques or methods used.
- e) The results of the analyses.
- f) The related process operating conditions or parameters that existed at the time of sampling or measurement."

**Regulatory Citation:** R 336.1213(3)(b) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): "All required monitoring data, support information and all reports, including reports of all instances of deviation from permit requirements, shall be kept and furnished to the department upon request for a period of not less than 5 years from the date of the monitoring sample, measurement, report or application. Support information includes all calibration and maintenance records and all original strip-chart recordings, or other original data records, for continuous monitoring instrumentation and copies of all reports required by the RO Permit."

**Regulatory Citation:** R 336.1213(1)(e) and R 336.1213(3)(b)(ii) (*State requirements*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): "Semiannually for the term of the permit as detailed in the requirement tables, or more frequently if specified in an applicable requirement in this RO Permit, the permittee shall submit certified reports of any required monitoring to the appropriate District Office of the AQD. All instances of deviations from permit requirements during the reporting period shall be clearly identified in the reports."

**Regulatory Citation:** R 336.1213(3)(c)(i) (*State requirements*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing/Reporting

**Minimum Number of Requirements:** 1

## Air Quality (continued)

**Typical Regulatory Requirement** (Michigan Rule): “The permittee shall promptly report any deviations from permit requirements and certify the reports. The prompt reporting of deviations from permit requirements is defined in R 336.1213(3)(c)(ii) as follows, unless otherwise described in this RO Permit ( R 336.1213(3)(c)):

- a) For deviations that exceed the emissions allowed under the RO Permit, prompt reporting means reporting consistent with the requirements of R 336.1912 as detailed in Condition 26. All reports submitted pursuant to this paragraph shall be promptly certified as specified in R 336.1213(3)(c)(iii).
- b) For deviations which exceed the emissions allowed under the RO Permit and which are not reported pursuant to R 336.1912 due to the duration of the deviation, prompt reporting means the reporting of all deviations in the semiannual reports required by R 336.1213(3)(c)(i). The report shall describe reasons for each deviation and the actions taken to minimize or correct each deviation.
- c) For deviations that do not exceed the emissions allowed under the RO Permit, prompt reporting means the reporting of all deviations in the semiannual reports required by R 336.1213(3)(c)(i). The report shall describe the reasons for each deviation and the actions taken to minimize or correct each deviation.

For reports required pursuant to R 336.1213(3)(c)(ii), prompt certification of the reports is described in R 336.1213(3)(c)(iii) as either of the following ( R 336.1213(3)(c)):

- a) Submitting a certification by a Responsible Official with each report which states that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete.
- b) Submitting, within 30 days following the end of a calendar month during which one or more prompt reports of deviations from the emissions allowed under the permit were submitted to the department pursuant to R 336.1213(3)(c)(ii), a certification by a Responsible Official which states that, based on information and belief formed after reasonable inquiry, the statements and information contained in each of the reports submitted during the previous month were true, accurate, and complete. The certification shall include a listing of the reports that are being certified. Any report submitted pursuant to R 336.1213(3)(c)(ii) that will be certified on a monthly basis pursuant to this paragraph shall include a statement that certification of the report will be provided within 30 days following the end of the calendar month.”

**Regulatory Citation:** R 336.1213(3)(c) (*State requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): “Except for the alternate certification schedule provided in R 336.1213(3)(c)(iii)(B), any document required to be submitted to the department as a term or condition of this RO Permit shall contain a certification by a Responsible Official which states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.”

**Regulatory Citation:** MAR R 336.1213(3)(c) (*State requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

## Air Quality (continued)

**Typical Regulatory Requirement** (Michigan Rule): “The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in R 336.1912, to the appropriate District Office of the AQD. The notice shall be provided not later than two business days after the start-up, shutdown, or discovery of the abnormal conditions or malfunction. Notice shall be by any reasonable means, including electronic, telephonic, or oral communication. Written reports, if required under R 336.1912, must be submitted to the appropriate District Supervisor within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal conditions or malfunction, whichever is first. The written reports shall include all of the information required in R 336.1912(5) and shall be certified by a Responsible Official in a manner consistent with the Clean Air Act.”

**Regulatory Citation:** R 336.1912 (*SIP based requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing/Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): “On an annual basis, the permittee shall report the actual emissions, or the information necessary to determine the actual emissions, of each regulated air pollutant as defined in R 336.1212(7) for each emission unit/process group utilizing the emissions inventory forms provided by the department.”

**Regulatory Citation:** R 336.1212(7) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing/Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): “A Responsible Official shall certify to the appropriate District Office of the AQD and the EPA that the stationary source is and has been in compliance with all terms and conditions contained in the RO Permit except for deviations that have been or are being reported to the appropriate District Office of the AQD pursuant to Condition 24. This certification shall include all the information specified in R 336.1213(4)(c)(i) through (v) and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. The EPA address is: US EPA, Air Compliance Data - Michigan, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, IL, 60604.”

**Regulatory Citation:** R 336.1213(4)(c) (*State requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): “The certification of compliance shall be submitted annually for the term of this RO Permit as detailed in the requirement tables, or more frequently if specified in an applicable requirement or in this RO Permit.”

**Regulatory Citation:** R 336.1213(4)(c) (*State requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

## Air Quality (continued)

**Typical Regulatory Requirement** (Michigan Rule): “Compliance with the conditions of the RO Permit shall be considered compliance with any applicable requirements as of the date of RO issuance, if either of the following provisions is satisfied ( R 336.1213(6)(a)(i) and (ii)):

- a) The applicable requirements are included and are specifically identified in the permit.
- b) The permit includes a determination or concise summary of the determination by the department that other specifically identified requirements are not applicable to the stationary source.”

**Regulatory Citation:** R 336.1213(4)(c) (*State requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): “Nothing in this RO Permit shall alter or affect any of the following:

- a) The provisions of Section 303 of the CAA, emergency orders, including the authority of the EPA under Section 303 of the Act.
- b) The liability of the owner or operator of this source for any violation of applicable requirements prior to or at the time of this permit issuance.
- c) The applicable requirements of the acid rain program, consistent with Section 408(a) of the CAA.
- d) The ability of the EPA to obtain information from a source pursuant to Section 114 of the CAA.”

**Regulatory Citation:** R 336.1213(6)(b)(i), R 336.1213(6)(b)(ii), R 336.1213(6)(b)(iii), and R 336.1213(6)(b)(iv). (*State requirements*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): “The permit shield shall not apply to provisions incorporated into this permit through procedures for any of the following:

- a) Changes for operational flexibility made pursuant to R 336.1215.
- b) Administrative amendments made pursuant to R 336.1216(1)(a)(i-iv) until the changes have been approved by the department.
- c) Administrative amendments made pursuant to R 336.1216(1)(a)(v) until the amendment has been approved by the department.
- d) Minor permit modifications made pursuant to R 336.1216(2).
- e) State-only modifications made pursuant to R 336.1216(4) until the changes have been approved by the department.”

**Regulatory Citation:** R 336.1215(5), R 336.1216(1)(b)(iii), R 336.1216(1)(c)(iii), R 336.1216(2)(f), and R 336.1216(4)(e). (*State requirements*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

## Air Quality (continued)

**Typical Regulatory Requirement** (Michigan Rule): “Expiration of this RO Permit results in the loss of the permit shield. If a timely and administratively complete application for renewal is submitted not more than 18 months, but not less than 6 months, before the expiration date of the RO Permit, but the department fails to take final action before the end of the permit term, the existing RO Permit does not expire until the renewal is issued or denied, and the permit shield shall extend beyond the original permit term until the department takes final action.”

**Regulatory Citation:** R 336.1217(1)(c) and R 336.1217(1)(a) (*State requirements*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Federal Rule): “If the permittee is subject to 40 CFR Part 82 and services, maintains, or repairs appliances except for motor vehicle air conditioners (“MVAC”), or disposes of appliances containing refrigerant, including MVAC and small appliances, or if the permittee is a refrigerant reclaimer, appliance owner or a manufacturer of appliances or recycling and recovery equipment, the permittee shall comply with all applicable standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F.”

**Regulatory Citation:** 40 CFR Part 82, Subpart F (*Federal requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Federal Rule): “If the permittee is subject to 40 CFR Part 82 and performs a service on motor (fleet) vehicles when this service involves refrigerant in the MVAC, the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Sub-part B, Servicing of Motor Vehicle Air Conditioners. The term “motor vehicle” as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed by the original equipment manufacturer. The term MVAC as used in Subpart B does not include the air-tight sealed refrigeration system used for refrigerated cargo or an air conditioning system on passenger buses using Hydrochlorofluorocarbon (“HCFC”) HCFC-22 refrigerant.”

**Regulatory Citation:** 40 CFR Part 82 (*Federal requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Federal Rule): “If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall register and submit to the EPA the required data related to the risk management plan (“RMP”) for reducing the probability of accidental releases of any regulated substances listed pursuant to Section 112(r)(3) of the CAA as amended in 68.130. The list of substances, threshold quantities, and accident prevention regulations promulgated under Part 68 do not limit in any way the general duty provisions under Section 112(r)(1).”

**Regulatory Citation:** 40 CFR Part 68 (*Federal requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

## Air Quality (continued)

**Typical Regulatory Requirement** (Federal Rule): "If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall comply with the requirements of Part 68 no later than the latest of the following dates as provided in 68.10(a):

- a) June 21, 1999,
- b) Three years after the date on which a regulated substance is first listed under 68.130, or
- c) The date on which a regulated substance is first present above a threshold quantity in a process."

**Regulatory Citation:** 40 CFR Part 68 (*Federal requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Federal Rule): "If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall submit any additional relevant information requested by any regulatory agency necessary to ensure compliance with the requirements of 40 CFR Part 68."

**Regulatory Citation:** 40 CFR Part 68 (*Federal requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Federal Rule): "If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permittee shall annually certify compliance with all applicable requirements of Section 112(r), as detailed in the compliance reporting and certification conditions of this RO Permit."

**Regulatory Citation:** 40 CFR Part 68 (*Federal requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

### C. Facility Wide Future MACT Requirements

40 CFR Part 63, Subpart IIII, establishes standards for surface coating of automobiles and light-duty trucks and provides for compliance options under specific circumstances. At the time the Profile was prepared, September 2003, only the proposed Subpart III rules were available. The final promulgated rules are expected in February 2004. In order to present a workable analysis of the typical requirements associated with the Typical Plant, certain assumptions were made:

1. The Typical Plant is assumed to have existing affected sources. New or reconstructed affected sources may have different requirements than presented herein.
2. The Typical Plant will use a common thermal oxidizer control to meet the HAP emission standards associated with the electrodeposition cure ovens, primer surfacer ovens, and topcoat line ovens.

## Air Quality (continued)

3. The Typical Plant will have emissions from the bake oven used to cure electrodeposition primer captured and ducted to a thermal oxidizer having a control efficiency of at least 95%, or, the electrodeposition primer system meets the following requirements:
  - a. Each individual material added to the electrodeposition primer system contains no more than 1.0 percent by weight of any organic HAP; and
  - b. Each individual material added to the electrodeposition primer system contains no more than 0.10 percent by weight of any organic HAP, which is an OSHA-defined carcinogen as specified in 29 CFR 1910.1200(d)(4).
4. The emission capture systems used with the thermal oxidizer for the oven comply with the specifications of a permanent total enclosure.
5. The Typical Plant is subject to additional requirements for monitoring, recordkeeping, and reporting required under the general MACT provisions of 40 CFR Part 63 Subpart A. However, due to the uncertainty of the requirements in the final Subpart IIII rules and the variable manner each automobile assembly plant may choose to comply with these provisions, the associated requirements are not included in the Profile.

**Typical Regulatory Requirement** (Federal Rule): "For an existing affected source, the compliance date is the date 3 years after date of publication of final rule in the federal register"

**Regulatory Citation:** 40 CFR 63 Subpart IIII §63.3083(b) (*Future requirement*)

**Regulatory Category:** Other Activity

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): For an existing source: "The permittee must limit combined organic HAP emissions to the atmosphere from electrodeposition primer, primer-surfacer, topcoat, final repair, glass bonding primer and glass bonding adhesive application to no more than 0.072 kg per liter (0.60 lb per gallon) of coating solids deposited during each month and determined according to the requirements of §63.3161."

or,

For an existing source: "The permittee must limit combined organic HAP emissions to the atmosphere from primer-surfacer, topcoat, final repair, glass bonding primer and glass bonding adhesive application to no more than 0.132 kg per liter (1.10 lb per gallon) of coating solids deposited during each month and determined according to the requirements of §63.3171."

**Regulatory Citation:** 40 CFR 63 Subpart IIII §63.3091(b) (*Future requirement*)

**Regulatory Category:** Material Usage and Emission Limitations

**Minimum Number of Requirements:** 2

## Air Quality (continued)

**Typical Regulatory Requirement** (Permit Condition): "The permittee must limit average organic HAP emissions from all adhesive and sealer materials other than materials used as components of glass bonding systems to no more than 0.010 kg/kg (lb/lb) of adhesive and sealer material used during each month."

**Regulatory Citation:** 40 CFR 63 Subpart IIII §63.3091(c) (*Future requirement*)

**Regulatory Category:** Material Usage and Emission Limitations

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "The permittee must limit average organic HAP emissions from all deadener materials to no more than 0.010 kg per kg (lb per lb) of deadener material used during each month."

**Regulatory Citation:** 40 CFR 63 Subpart IIII §63.3091(d) (*Future requirement*)

**Regulatory Category:** Material Usage and Emission Limitations

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "The average combustion temperature of the oven's thermal oxidizer in any 3-hour period must not fall below the combustion temperature limit established according to §63.3167(a)"

**Regulatory Citation:** 40 CFR 63 Subpart IIII §63.3093(b) and (c) (*Future requirement*)

**Regulatory Category:** Operational Limit

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "The permittee shall demonstrate continuous compliance, except during periods of startup, shutdown, and malfunction, with the thermal oxidizer operating limit by:

- a) Collecting the combustion temperature data according to §63.3168(c).
- b) Reducing the data to 3-hour block averages; and
- c) Maintaining the 3-hour average combustion temperature of 1400 degrees F."

**Regulatory Citation:** 40 CFR 63 Subpart IIII §63.3093(b) and (c) (*Future requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 3

**Typical Regulatory Requirement** (Permit Condition): "The capture systems used to duct emissions to the oven thermal oxidizer shall be designed in such a way that the direction of the air flow at all times must be into the enclosure".

**Regulatory Citation:** 40 CFR 63 Subpart IIII §63.3093(b) and (c) (*Future requirement*)

**Regulatory Category:** Design Parameter

**Minimum Number of Requirements:** 1

## Air Quality (continued)

**Typical Regulatory Requirement** (Permit Condition): “The capture systems used to duct emissions to the oven thermal oxidizer shall be designed in such a way that the average facial velocity of air through all natural draft openings in the enclosure must be at least 200 feet per minute;

or,

“The capture systems used to duct emissions to the oven thermal oxidizer shall be designed in such a way that the pressure drop across the enclosure must be at least 0.007 inch water, as established in Method 204 of appendix M to 40 CFR Part 51.

**Regulatory Citation:** 40 CFR 63 Subpart IIII §63.3093(b) and (c) (*Future requirement*)

**Regulatory Category:** Design Parameter

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): “The permittee shall collect the direction of air flow, and either the facial velocity of air through all natural draft openings according to §63.3168(g)(1) or the pressure drop across the enclosure according to §63.3168(g)(2).”

**Regulatory Citation:** 40 CFR 63 Subpart IIII §63.3093(b) and (c) (*Future requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing.

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Permit Condition): “The permittee shall maintain the facial velocity of air flow through all natural draft openings or the pressure drop at or above the facial velocity limit or pressure drop limit, and maintaining the direction of air flow into the enclosure at all times.”

**Regulatory Citation:** 40 CFR 63 Subpart IIII §63.3093(b) and (c) (*Future requirement*)

**Regulatory Category:** Operational Parameter.

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Permit Condition): “The permittee must develop and implement a work practice plan according to 40 CFR 63.3094(b), or alternate plan as approved by the EPA under §63.6(g), to minimize organic HAP emissions from the storage, mixing, and conveying of coatings, thinners, and cleaning materials used in, and waste materials generated by, all coating operations for which emission limits are established under §63.3090(a) through (d) or §63.3091(a) through (d).”

**Regulatory Citation:** 40 CFR 63 Subpart IIII §63.3094(b) (*Future requirement*)

**Regulatory Category:** Operational Parameter.

**Minimum Number of Requirements:** 1

## Air Quality (continued)

**Typical Regulatory Requirement** (Permit Condition): "The permittee must develop and implement a work practice plan according to 40 CFR 63.3094(c), or alternate plan as approved by the EPA under §63.6(g), to minimize organic HAP emissions from cleaning and from purging equipment associated with all coating operations for which emission limits are established under §63.3090(a) through (d) or §63.3091(a) through (d)."

**Regulatory Citation:** 40 CFR 63 Subpart IIII §63.3094(c) (*Future requirement*)

**Regulatory Category:** Operational Parameter.

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "The permittee must maintain a log detailing the operation and maintenance of the emission capture systems, add-on control devices, and continuous parameter monitors during the period between the compliance date and the date when the initial performance test(s) have been completed."

**Regulatory Citation:** 40 CFR 63 Subpart IIII §63.3100(e) (*Future requirement*)

**Regulatory Category:** Monitoring and Recordkeeping

**Minimum Number of Requirements:** 3

**Typical Regulatory Requirement** (Permit Condition): "The permittee must develop and implement a start-up, shutdown, and malfunction plan according to the provisions in §63.6(e)(3) for the emission capture systems and/or thermal oxidizer."

**Regulatory Citation:** 40 CFR 63 Subpart IIII §63.3094(f) (*Future requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing/Reporting.

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "The permittee must conduct performance test of each capture system and thermal oxidizer according to the procedures in §63.3164 and §63.3166 and establish the operating limits required by §63.3093."

**Regulatory Citation:** 40 CFR 63 Subpart IIII §63.3160(b) and §63.9(b) (*Future requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "The permittee of an existing shall submit the initial notification required by §63.9(b) no later than 1 year after date of publication of final rule in the Federal Register."

**Regulatory Citation:** 40 CFR 63 Subpart IIII §63.3110(b) and §63.9(b) (*Future requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

## Air Quality (continued)

**Typical Regulatory Requirement** (Permit Condition): "The permittee of an existing source must submit the notification of compliance status required by §63.9(h) no later than 30 calendar days following the end of the initial compliance period. The notification of compliance status must contain the information specified in §63.3110(c)(1) through (c)(12) and §63.9(h)."

**Regulatory Citation:** 40 CFR 63 Subpart III §63.3110(c) and §63.9(h) (*Future requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "Semiannual compliance reports for each affected source must be submitted in accordance with the following":

- a) The first semiannual compliance report must cover the period starting the day after the initial compliance period described in §63.3160 and ending June 30 or December 31, whichever occurs first following the end of the initial compliance period;
- b) Each subsequent semiannual compliance report must cover the subsequent semiannual reporting period from January 1 through June 30 or from July 1 through December 31;
- c) Each semiannual compliance report must be postmarked or delivered no later than July 31 or January 31 the end of the semiannual reporting period.

or,

"The first and subsequent compliance reports for each affected source must be submitted in accordance with the schedule established in the facility's ROP".

or,

"The first and subsequent compliance reports for each affected source must be submitted in accordance with an alternate schedule as approved by the administrator."

**Regulatory Citation:** 40 CFR 63 Subpart III §63.3120(a) (*Future requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): " The permittee must submit reports of performance test results for emission capture systems and thermal oxidizer later than 60 days after completing the tests."

**Regulatory Citation:** 40 CFR 63 Subpart III §63.3120(b) and §63.10(d)(2) (*Future requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

## Air Quality (continued)

**Typical Regulatory Requirement** (Permit Condition): “ The permittee must submit reports of startup, shutdown, and malfunction episodes associated with the thermal oxidizer accordance with the requirements of §63.3120(c) and §63.10(d)

**Regulatory Citation:** 40 CFR 63 Subpart IIII §63.3120(c) and §63.10(d) (*Future requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): “The permittee must keep records of the following:

- 1) A copy of each notification and report submitted for compliance with 40CFR Part 63 Subpart IIII.
- 2) A current copy of all relevant information such as manufacturer coating information (with HAP content specified) in accordance with §63.3130(b) used for determining the mass fraction of organic HAP, the density and the volume fraction of coating solids for each coating, the mass fraction of organic HAP and the density of each thinner, and the mass fraction of organic HAP for each cleaning material .
- 3) For each coating material used for electrodeposition primer, primer-surfacer including anti chip and blackout, topcoat, final repair, glass bonding primer, and glass bonding adhesive, monthly records of the amount of coating used, the mass fraction of organic HAP content, the density, and the volume fraction of solids.
- 4) For each coating material used for sealer, or adhesive, monthly records of the mass used and the mass organic HAP content.
- 5) A record of the applicable calculation of the organic HAP emission rate or average monthly mass organic HAP content. .HAP, records of all deviations, performance tests, and a copy of the startup, shutdown, and malfunction abatement plan.”
- 6) A record of the name, volume, density, and mass fraction of organic HAP of each cleaning material used during each month
- 7) Records of all deviation reports including date, time and duration and whether the deviations occurred during periods of start, shutdown, or malfunction.
- 8) Records related to startup, shutdown, or malfunction required by §63.6(e)(3)(iii) through (v).
- 9) Records showing that each affected capture system meets the criteria in Method 204 of Appendix M to 40 CFR Part 51 for a permanent total enclosure and has a capture efficiency of 100%.
- 10) Records of performance tests for the thermal oxidizer and the operating conditions under which the test was performed.
- 11) Records of the data used to establish the operating conditions for the emission capture systems and thermal oxidizer.
- 12) Records of the data and calculations used to determine the transfer efficiency for primer surfacer and topcoat application.
- 13) Records of the work practice plans and documentation showing that the plans are being implemented on a continuous basis.

**Regulatory Citation:** 40 CFR 63 Subpart IIII §63.3130 (*Future requirement*)

**Regulatory Category:** Recordkeeping

**Minimum Number of Requirements:** 13

**Typical Regulatory Requirement** (Permit Condition): “The permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.”

**Regulatory Citation:** 40 CFR 63 Subpart IIII §63.3131(b) (*Future requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Reporting.

**Minimum Number of Requirements:** 1

## Air Quality (continued)

**Typical Regulatory Requirement** (Permit Condition): "The continuous parameter monitoring system must achieve the following:

- a) The monitoring system must complete a minimum of one cycle of operation for each successive 15-minute period.
- b) Determine the average of all recorded readings for each successive 3-hour period of the emission capture system and add-on control device operation.
- c) Record the results of inspection, calibration, and validation check of the monitoring system."

**Regulatory Citation:** 40 CFR 63 Subpart IIII (*Future requirement*)

**Regulatory Category:** Design Parameters

**Minimum Number of Requirements:** 3

### 3.3.2 Area Specific Requirements

#### A. Body Shop

##### (1) Fluidized Bed Cleaner

The fluidized bed cleaner is a process used to remove and clean both cured and uncured paint from metal tools and equipment used in the paint process. It is made up of a fluidized bed with an afterburner and cyclones to clean the exhaust air from the fluidized bed.

**Typical Regulatory Requirement** (Permit Condition): "The particulate emission from the fluidized bed cleaner shall not exceed 0.10 pounds per 1,000 pounds of exhaust gases, calculated on a dry gas basis."

**Regulatory Citation:** R 336.1331 (*SIP based requirement*)

**Regulatory Category:** Material Usage and Emission Limitations

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): "Verification of particulate emission rates from the process by testing, at owner's expense, in accordance with requirements, may be required for operating approval. Verification of emission rates includes the submittal of a complete report of the test results. If a test is required, stack testing reports must have prior approval by the District Supervisor, AQD, and results shall be submitted with 120 days of the written requirement for such verification."

**Regulatory Citation:** R 336.2001, R 336.2003, and R 336.2004 (*SIP based requirements*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 3

## Air Quality (continued)

**Typical Regulatory Requirement** (Permit Condition): "Applicant shall not operate the fluidized bed cleaner unless the afterburner and cyclone are installed and operating properly."

**Regulatory Citation:** R 336.1910 (*SIP based requirement*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement:** (Permit Condition) "The exhaust gases from the fluidized bed cleaner shall be discharged unobstructed vertically upwards to the ambient air from a stack at an exit point not less than XX feet above ground level."

**Regulatory Citation:** Permit Condition based on ambient air impact analysis to meet the requirements of R 336.1230 and R 336.1901(3) (*State requirements*)

**Regulatory Category:** Design Parameters

**Minimum Number of Requirements:** 2

### (2) Application of Sealers

**Typical Regulatory Requirement** (Permit Condition): "The VOC emission rate from the application of sealers shall not exceed XX pounds per hour nor XX tons per year based on a 12-month rolling average determined at the end of each calendar month."

**Regulatory Citation:** Permit Condition developed through negotiations with regulator and based on any of the following: R 336.1702 (*SIP based requirement*), R 336.1230 (*State requirement*), R 336.1220 (*SIP based requirement*)

**Regulatory Category:** Material Usage and Emission Limitations

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Permit Condition): "Applicant shall submit sealer usage data to the District Supervisor in an acceptable format within 30 days following the end of the quarter in which the data was collected."

**Regulatory Citation:** R 336.1201(3) (*SIP based requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "Record on a monthly basis the plant production hours and the quantity of sealer used."

**Regulatory Citation:** R 336.1213(3) (*State requirement*) R 336.2041 (*SIP based requirement*), and R 336.1201(3) (*SIP based requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

## Air Quality (continued)

**Typical Regulatory Requirement** (Permit Condition): "Maintain records of the VOC content of each sealer in pounds/unit quantity. The VOC content of each sealer shall be determined using EPA Reference Test Method 24, unless formulation data has been authorized by the AQD."

**Regulatory Citation:** R 336.2040(5)(a) and R 336.2041 (*SIP based requirements*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Permit Condition): "Calculate and record VOC emission according to the method outlined or an alternative method that is acceptable to the MDEQ-AQD."

**Regulatory Citation:** R 336.1213(3) (*State requirement*) and R 336.2040(12)(a) (*SIP based requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Permit Condition): "Testing of VOC content of any sealer, as applied. Testing performed by EPA Reference Test Method 24 or an alternative method as approved by AQD."

**Regulatory Citation:** R 336.1213(3) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

### B. Paint Shop

#### (1) *Electrodeposition Primer Coating*

The electrodeposition primer coating process is a process, which electrically deposits paint on a charged body to ensure an even coating of material. The process is limited by NSPS Subparts A and MM and the emissions of VOCs will be limited in an air quality permit.

**Typical Regulatory Requirement** (Permit Condition): "The VOC emission rate from the electrodeposition prime system shall not exceed XX pounds per hour nor XX tons per year based on a 12-month rolling average determined at the end of each calendar month."

**Regulatory Citation:** Permit Condition developed through negotiations with regulator and based on any of the following: R 336.1702 (*SIP based requirement*), R 336.1230 (*State requirement*), R 336.1610 (*SIP based requirement*), R 336.1220 (*SIP based requirement*)

**Regulatory Category:** Material Usage and Emission Limitations

**Minimum Number of Requirements:** 2

## Air Quality (continued)

**Typical Regulatory Requirement** (Permit Condition): "The VOC emission rate from the electrodeposition prime system shall not exceed 0.16 kilograms per liter of applied coating solids (1.34 pounds per gallon of applied coating solids)."

**Regulatory Citation:** 40 CFR Part 60 Subparts A and MM (*Federal requirement*)

**Regulatory Category:** Material Usage and Emission Limitations

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "Thermal oxidizer temperature measured near the combustion zone shall be monitored and recorded on a continuous basis (degrees F). "

**Regulatory Citation:** R 336.1213(3) (*State Requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing/Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "The permittee shall keep monthly records of plant production hours and quantity of coatings used. "

**Regulatory Citation:** R 336.1213(3) (*State requirement*) and R 336.2041 (*SIP based requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing/Reporting

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Permit Condition): "Records of the VOC content of each coating in pound/gallon. The VOC content of each coating shall be determined using EPA Reference Test Method 24, unless formulation data has been authorized by the AQD."

**Regulatory Citation:** R 336.2040(5) and R 336.2041 (*SIP based requirements*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing/Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "Quarterly reporting of VOC emissions data shall be submitted to the AQD in an acceptable format within 30 days following the end of the quarter in which the data were collected."

**Regulatory Citation:** R 336.1213(3) (*State requirement*) and 40 CFR Part 60 Subparts A and MM (*Federal Requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing/Reporting

**Minimum Number of Requirements:** 1

## Air Quality (continued)

**Typical Regulatory Requirement** (Permit Condition): "Permittee shall comply with the applicable provisions of the federal Standards of Performance for New Stationary Sources, 40 CFR, Part 60, Subpart A & MM."

**Regulatory Citation:** 40 CFR Part 60 Subparts A and MM (*Federal Requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing/Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "The exhaust gases from the electrodeposition prime system shall be discharged unobstructed vertically upwards to the ambient air from stacks, each with a maximum diameter of XX inches at an exit point not less than XX feet above ground level."

**Regulatory Citation:** Permit Condition based on ambient air impact analysis to meet the requirements of R 336.1230 and R 336.1901 (*State requirements*)

**Regulatory Category:** Design Parameters

**Minimum Number of Requirements:** 3

**Typical Regulatory Requirement** (Michigan Rule): "Verification of particulate emission rates from the processes by testing, at owner's expense, in accordance with requirements, may be required for operating approval. Verification of emission rates includes the submittal of a complete report of the test results. If a test is required, stack testing ports must have prior approval by the District Supervisor, AQD, and results shall be submitted with 120 days of the written requirement for such verification."

**Regulatory Citation:** R 336.2001, R 336.2003 and R 336.2004 (*SIP based requirements*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 3

**Typical Regulatory Requirement** (Permit Condition): "Testing of VOC content of any coating, as applied. Testing performed by EPA Reference Test Method 24 or an alternative method as approved by AQD."

**Regulatory Citation:** R 336.1213(3) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "The permittee shall not operate the Electrodeposition system unless the oven thermal oxidizers are installed and operating properly in accordance with R 336.1911(1)."

**Regulatory Citation:** R 336.1910 and R 336.1201(3) (*SIP based requirements*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

## Air Quality (continued)

**Typical Regulatory Requirement** (Permit Condition): "The permittee shall monitor and record the temperature in each of the thermal oxidizers near combustion chamber outlet on a continuous basis in a manner and with instrumentation acceptable to the AQD."

**Regulatory Citation:** R 336.1702(a) (*SIP based requirement*) and R 336.1213(3) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "The permittee shall not operate the Electrodeposition system unless the thermal incinerators are installed and operating properly. Proper operation is defined as maintaining a combustion chamber temperature of XXXX degrees F +/- 50 degrees F averaged over any consecutive 3-hour period and a minimum retention of 0.5 seconds."

**Regulatory Citation:** R 336.1702(a) (*SIP based requirement*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

### (2) Flash Prime Paint Application

The flash prime application consists of a small spray cup application of prime paint that is applied if the electrodeposition prime coating is sanded off the body, exposing bare metal.

**Typical Regulatory Requirement** (Permit Condition): "The VOC emission rate from the flash prime system shall not exceed XX pounds per hour (averaged over the hours of operation during a calendar month) nor XX tons per year based on a 12-month rolling average determined at the end of each calendar month."

**Regulatory Citation:** Permit Condition developed through negotiations with regulator and based on any of the following: R 336.1702 (*SIP based requirement*), R 336.1230 (*State requirement*), R 336.1220 (*SIP based requirement*)

**Regulatory Category:** Material Usage and Emission Limitations

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Permit Condition): "Record on a monthly basis the plant production hours and the quantity of flash primer used."

**Regulatory Citation:** R 336.1213(3) (*State requirement*) and R 336.2041 (*SIP based requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

## Air Quality (continued)

**Typical Regulatory Requirement** (Permit Condition): "Maintain records of the VOC content of each coating in pounds/unit quantity. The VOC content of each coating shall be determined using EPA Reference Test Method 24, unless formulation data has been authorized by the AQD."

**Regulatory Citation:** R 336.2040(5)(a) and R 336.2041 (*SIP based requirements*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Permit Condition): "The exhaust gases from the flash prime paint application shall be discharged unobstructed vertically upwards to the ambient air from stacks, each with a maximum diameter of XX inches at an exit point not less than XX feet above the ground."

**Regulatory Citation:** Permit Condition based on ambient air impact analysis to meet the requirements of R 336.1230 and R 336.1901 (*State requirements*)

**Regulatory Category:** Design Parameters

**Minimum Number of Requirements:** 3

**Typical Regulatory Requirement** (Permit Condition): "Quarterly reporting of VOC emissions data shall be submitted to the AQD in an acceptable format within 30 days following the end of the quarter in which the data were collected."

**Regulatory Citation:** R 336.1213(3) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing/Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "Calculate and record VOC emission according to the method outlined or an alternative method that is acceptable to the MDEQ-AQD."

**Regulatory Citation:** R 336.1213(3) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Permit Condition): "Testing of VOC content of any coating, as applied. Testing performed by EPA Reference Test Method 24 or an alternative method as approved by AQD."

**Regulatory Citation:** R 336.1213(3) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

## Air Quality (continued)

### (3) Primer Surfacer/Anti-Chip

The primer surfacer operation is a coating operation which coats the automotive body with a prime paint before application of the topcoat. The primer surfacer may be the same color as the main color or may be a neutral color (such as gray or white). The primer surfacer operation, the electrodeposition prime system and the topcoat system are subject to NSPS and MACT requirements. The Typical Plant is assumed to have a powder based anti-chip coating that is included with the primer surfacer deck.

**Typical Regulatory Requirement** (Permit Condition): "The VOC emission rate from the prime system shall not exceed XX pounds per hour (averaged over the hours operated during a calendar month) nor XX tons per year based on a 12-month rolling average determined at the end of each calendar month."

**Regulatory Citation:** Permit Condition developed through negotiations with regulator and based on any of the following: R 336.1702 (*SIP based requirement*), R 336.1230 (*State requirement*), R 336.1610 (*SIP based requirement*), R 336.1220 (*SIP based requirement*)

**Regulatory Category:** Material Usage and Emission Limitations

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Permit Condition): "The VOC emission rate from the prime system shall not exceed 1.47 kilograms per liter of applied coating solids (12.3 pounds per gallon of applied coating solids)."

**Regulatory Citation:** 40 CFR Part 60 Subparts A and MM (*Federal requirement*)

**Regulatory Category:** Material Usage and Emission Limitations

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "The exhaust gases from the prime system shall be discharged unobstructed vertically upwards to the ambient air from stacks, each with a maximum diameter of XX inches at an exit point not less than XX feet above ground level."

**Regulatory Citation:** R 336.1230 (*State requirement*)

**Regulatory Category:** Design Parameters

**Minimum Number of Requirements:** 3

## Air Quality (continued)

**Typical Regulatory Requirement** (Permit Condition): "Permittee shall keep records of the following data, test documentation and annual reviews which are necessary to perform the calculations in the publication entitled "Protocol for Determining the Daily VOC Emission Rate of Automobile and Light-duty Truck Topcoat Operations," EPA-450/3-88-018, or amended (The EPA Protocol)

- a) For each type of coating used during the calendar month:
  - 1) Coating Identification
  - 2) Analytical VOC content as determined by EPA Reference Test Method 24.
  - 3) Formulation VOC and volume solids content.
  - 4) Coating usage (daily or monthly), including withdrawals.
  - 5) Dilution solvent usage and density.
- b) Number of vehicles coated per production day by body style, coating color, and square footage coated (or equivalent unit), unless daily coating records are kept.
- c) Transfer efficiency
  - 1) Value(s) used in protocol calculations.
  - 2) Value(s) from most recent test.
  - 3) Annual review of operating conditions to demonstrate that the transfer efficiency remains valid.
- d) Oven exhaust control device VOC loading (booth/oven split)
  - 1) Value(s) used in protocol calculations.
  - 2) Value(s) from the most recent test.
  - 3) Annual review of operating conditions to demonstrate that the oven exhaust control device VOC loading remains valid.
- e) Destruction efficiency of each control device.
  - 1) Value(s) used in protocol calculations.
  - 2) Value(s) derived from most recent test."

**Regulatory Citation:** Permit Condition based on ambient air impact analysis to meet the requirements of R 336.1230 (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "Permittee must keep records of the VOC emissions for each production day, which shall be determined by using the EPA Protocol."

**Regulatory Citation:** R 336.1213(3) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "Permittee shall keep monthly records of plant production."

**Regulatory Citation:** R 336.1213(3) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "Records of the VOC mass emission rates shall be calculated according to a method acceptable by the MDEQ-AQD."

## Air Quality (continued)

**Regulatory Citation:** R 336.1213(3) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "Permittee shall perform the EPA Reference Test Method 24 as well as formula volume solids pursuant to the EPA Protocol."

**Regulatory Citation:** R 336.2004(1)(q) (*SIP based requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "The permittee shall prepare and implement a routine check program to observe and assure proper operation of the exhaust filters used in powder anti-chip."

**Regulatory Citation:** R 336.1213(3) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

### (4) *Application of Sealers and Adhesives*

The application of sealers and adhesives occurs before the application of the primer surfacer. Sealers and adhesives are typically low in VOC concentration, and the volatiles bake out in the topcoat oven.

**Typical Regulatory Requirement** (Permit Condition): "The VOC emission rate from the application of sealers and adhesives shall not exceed XX pounds per hour (averaged over the hours operated during a calendar month) nor XX tons per year based on a 12-month rolling average determined at the end of each calendar month."

**Regulatory Citation:** Permit Condition developed through negotiations with regulator and based on any of the following: R 336.1702 (*SIP based requirement*), R 336.1230 (*State requirement*), R 336.1220 (*SIP based requirement*)

**Regulatory Category:** Material Usage and Emission Limitations

**Minimum Number of Requirements:** 2

## Air Quality (continued)

**Typical Regulatory Requirement** (Permit Condition): "Applicant shall submit adhesive and sealer usage data to the District Supervisor in an acceptable format within 30 days following the end of the quarter in which the data was collected."

**Regulatory Citation:** R 336.1201(3) (*SIP based requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "Record on a monthly basis the plant production hours and the quantity of adhesive and sealer used."

**Regulatory Citation:** R 336.1213(3) (*State requirement*) R 336.2041 (*SIP based requirement*), and R 336.1201(3) (*SIP based requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Permit Condition): "Maintain records of the VOC content of each adhesive and sealer in pounds/unit quantity. The VOC content of each adhesive and sealer shall be determined using EPA Reference Test Method 24, unless formulation data has been authorized by the AQD."

**Regulatory Citation:** R 336.2040(5)(a) and R 336.2041 (*SIP based requirements*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Permit Condition): "Calculate and record VOC emission according to the method outlined or an alternative method that is acceptable to the MDEQ-AQD."

**Regulatory Citation:** R 336.1213(3) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Permit Condition): "Testing of VOC content of any adhesive and sealer, as applied. Testing performed by EPA Reference Test Method 24 or an alternative method as approved by AQD."

**Regulatory Citation:** R 336.1213(3) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

## Air Quality (continued)

### (5) Coating of Basecoat and Clearcoat (Topcoat)

The topcoat process is where the basecoat and clearcoat (together called the topcoat system) are applied to the automobile body. This is the final process that applies paint to the body. The topcoat process is regulated under NSPS requirements Subpart A and MM and MACT.

**Typical Regulatory Requirement** (Permit Condition): "The VOC emission rate from the topcoat system shall not exceed XX pounds per hour (averaged over the hours operated during a calendar month) nor XX tons per year based on a 12-month rolling average determined at the end of each calendar month. "

**Regulatory Citation:** Permit Condition developed through negotiations with regulator and based on any of the following: R 336.1702 (*SIP based requirement*), R 336.1230 (*State requirement*), R 336.1610 (*SIP based requirement*), and R 336.1220 (*SIP based requirement*)

**Regulatory Category:** Material Usage and Emission Limitations

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Permit Condition): "The VOC emission rate from the topcoat system shall not exceed 1.47 kilograms per liter of applied coating solids (12.3 pounds per gallon of applied coating solids)."

**Regulatory Citation:** 40 CFR Part 60 Subparts A and MM (*Federal requirement*)

**Regulatory Category:** Material Usage and Emission Limitations

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "The VOC emission rate from the high bake repair tu/tone operation shall not exceed XX pounds per hour (averaged over the hours operated during a calendar month) nor XX tons per year based on a 12-month rolling average determined at the end of each calendar month."

**Regulatory Citation:** R 336.1702 (*SIP based requirement*)

**Regulatory Category:** Material Usage and Emission Limitations

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Permit Condition): "Quarterly reporting of VOC emissions data shall be submitted to the AQD in an acceptable format within 30 days following the end of the quarter in which the data were collected."

**Regulatory Citation:** R 336.1213(3) (*State requirement*) and 40 CFR Part 60 Subparts A and MM (*Federal Requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing/Reporting

**Minimum Number of Requirements:** 1

## Air Quality (continued)

**Typical Regulatory Requirement** (Permit Condition): "Monitor and record the thermal oxidizer temperature near the combustion chamber outlet on a continuous basis. The temperature monitoring device shall be installed, operated, and maintained properly. Compliance with this requirement, R 336.1201(3), shall be considered compliance with the thermal oxidizer monitoring requirement specified in 40 CFR Part 60.394 and 40 CFR Part 60.395 which have been subsumed under this streamlined requirement."

**Regulatory Citation:** R 336.1201(3) (*SIP based requirement*) and R 336.1213(3) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing/Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "Verification of the transfer efficiency rates of the Topcoat lines by testing, at owners expense, is required according to the following schedule:

- a) Within 180 days of issuance of this permit if an acceptable transfer efficiency test has not been conducted within 5 years prior to the issuance of the RO permit, unless the Permittee has submitted an acceptable demonstration that the most recent acceptable test remains valid and representative.
- b) Within 180 days of making any changes in operating conditions which necessitate reevaluation of the transfer efficiency, as required by the EPA Protocol.

Verification of transfer efficiency rates includes the submittal of a complete report of the test results. No less than 30 days prior to testing, a complete testing plan must be submitted to the DEQ-AQD. The final plan must be approved by the DEQ-AQD prior to testing. Not less than 7 days before any tests are conducted, the Permittee shall notify the DEQ-AQD District Supervisor, in writing, of the time and place of the test and who will be conducting it."

**Regulatory Citation:** R 336.1213(3) (*State requirement*) and R 336.2001(3) (*SIP based requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing/Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): "Verification of particulate emission rates from the processes by testing, at owner's expense, in accordance with requirements, may be required for operating approval. Verification of emission rates includes the submittal of a complete report of the test results. If a test is required, stack testing ports must have prior approval by the District Supervisor, AQD, and results shall be submitted with 120 days of the written requirement for such verification."

**Regulatory Citation:** R 336.2001, R 336.2003 and R 336.2004 (*SIP based requirements*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 3

## Air Quality (continued)

**Typical Regulatory Requirement** (Permit Condition): "Applicant shall not operate the topcoat process for more than XXXX hours per year nor coat more than XX cars per hour (gross)."

**Regulatory Citation:** R 336.1201(3) (*SIP based requirement*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Permit Condition): "The exhaust gases from the topcoat system shall be discharged unobstructed vertically upwards to the ambient air from stacks, each with a maximum diameter of XX inches at an exit point not less than XX feet above ground level."

**Regulatory Citation:** Permit Condition based on ambient air impact analysis to meet the requirements of R 336.1230 and R 336.1901 (*State requirements*)

**Regulatory Category:** Design Parameters

**Minimum Number of Requirements:** 3

**Typical Regulatory Requirement** (Permit Condition): "Records of the following data, test documentation and annual reviews which are necessary to perform the calculations in the publication entitled "Protocol for Determining the Daily VOC Emission Rate of Automobile and Light-duty Truck Topcoat Operations, " EPA-450/3-88-018, or amended (The EPA Protocol)

- a) For each type of coating used during the calendar month:
  - 1) Coating Identification
  - 2) Analytical VOC content as determined by EPA Reference Test Method 24.
  - 3) Formulation VOC and volume solids content.
  - 4) Coating usage (daily or monthly), including withdrawals.
  - 5) Dilution solvent usage and density.
- b) Number of vehicles coated per production day by body style, coating color, and square footage coated (or equivalent unit), unless daily coating records are kept.
- c) Transfer efficiency
  - (1) Value(s) used in protocol calculations.
  - (2) Value(s) from most recent test.
  - (3) Annual review of operating conditions to demonstrate that the transfer efficiency remains valid.
- e) Oven exhaust control device VOC loading (booth/oven split)
  - 1) Value(s) used in protocol calculations.
  - 2) Value(s) from the most recent test.
  - 3) Annual review of operating conditions to demonstrate that the oven exhaust control device VOC loading remains valid.
- f) Destruction efficiency of each control device.
  - 1) Value(s) used in protocol calculations.
  - 2) Value(s) derived from most recent test."

**Regulatory Citation:** Permit Condition based on ambient air impact analysis to meet the requirements of R 336.1230 (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "Permittee must keep records of the VOC emissions for each production day, which shall be determined by using the EPA Protocol."

## Air Quality (continued)

**Regulatory Citation:** R 336.1213(3) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "Permittee shall keep monthly records of plant production."

**Regulatory Citation:** R 336.1213(3) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "Records of the VOC mass emission rate shall be calculated according to a method acceptable by the MDEQ-AQD."

**Regulatory Citation:** R 336.1213(3) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "Permittee shall perform the EPA Reference Test Method 24 as well as formula volume solids pursuant to the EPA Protocol."

**Regulatory Citation:** R 336.2004(1)(q) (*SIP based requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "Permittee shall perform an oven exhaust control device VOC loading test to conform to the U.S. EPA Protocol."

**Regulatory Citation:** R 336.1213(3) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

## Air Quality (continued)

**Typical Regulatory Requirement** (Permit Condition): "The permittee shall verify the Oven Exhaust Control Device VOC Loading rates of the Topcoat Line by testing, at owners expense, is required according to the following schedule:

- a) Within 180 days of issuance of this permit if an Oven Exhaust Control Device VOC Loading test has not been conducted within 5 years prior to the issuance of the RO permit, unless the Permittee has submitted an acceptable demonstration that the most recent acceptable test remains valid and representative, and at least once during the term.
- b) Within 180 days of making any changes in operating conditions which necessitate reevaluation of the Oven Exhaust Control Device VOC Loading rates.

Verification of Oven Exhaust Control Device VOC Loading rates includes the submittal of a complete report of the test results. No less than 7 days before any tests are conducted, the Permittee shall notify the DEQ-AQD District Supervisor, in writing, of the time and place of the test and who will be conducting it."

**Regulatory Citation:** R 336.1213(3) (*State requirement*) and R 336.2001(3) (*SIP based requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "The permittee shall verify the analytical VOC content, as received, by testing, at owner's expense, of each non-waterborne coating, excluding powder coatings, at least once during each calendar year. Alternatively, the permittee may elect to have the EPA Method 24 analysis performed by the coating supplier on each batch of coating."

**Regulatory Citation:** R 336.1213(3) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "The permittee shall keep weekly records of the condition of water wash system, and records of the date of maintenance/repair shall be kept at the site."

**Regulatory Citation:** R 336.1213(3) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "The permittee shall not operate the Topcoat process unless the water wash equipment is operating properly."

**Regulatory Citation:** R 336.1910 (*SIP based requirement*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

## Air Quality (continued)

**Typical Regulatory Requirement** (Permit Condition): "The permittee shall operate the Topcoat process with all oven thermal oxidizers operating properly."

**Regulatory Citation:** R 336.1910 (*SIP based requirement*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "The permittee shall not operate the Topcoat process unless a minimum temperature of XXXX degrees F averaged over any consecutive 3-hour period and a minimum retention time of X seconds in the thermal oxidizers."

**Regulatory Citation:** R 336.1201(3) (*SIP based requirement*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

### (6) *Deadener & Blackout Paint Application*

The deadener paint is a black paint used to deaden sounds in the automobile. Blackout paint is used in the trunk to hide seams in the trunk carpeting.

**Typical Regulatory Requirement** (Permit Condition): "Quarterly reporting of VOC emissions data shall be submitted to the AQD in an acceptable format within 30 days following the end of the quarter in which the data were collected."

**Regulatory Citation:** R 336.1201(3) (*SIP based requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing/Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "The exhaust gases from the deadener & blackout paint application shall be discharged unobstructed vertically upwards to the ambient air from stacks, each with a maximum diameter of XX inches at an exit point not less than XX feet above the ground."

**Regulatory Citation:** Permit Condition based on ambient air impact analysis to meet the requirements of R 336.1230 and R 336.1901 (*State requirements*)

**Regulatory Category:** Design Parameters

**Minimum Number of Requirements:** 3

## Air Quality (continued)

**Typical Regulatory Requirement** (Permit Condition): "The VOC emission rates from the deadener and blackout paint systems shall not exceed XX pounds per hour (averaged over the hours operated during a calendar month) nor XX tons per year based on a 12-month rolling average determined at the end of each calendar month."

**Regulatory Citation:** Permit Condition developed through negotiations with regulator and based on any of the following: R 336.1702 (*SIP based requirement*), R 336.1230 (*State requirement*), and R 336.1220 (*SIP based requirement*)

**Regulatory Category:** Material Usage and Emission Limitations

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Permit Condition): "The exhaust gases from the deadener and blackout paint systems shall be discharged unobstructed vertically upwards to the ambient air from stacks, each with a maximum diameter of XX inches at an exit point not less than XX feet above ground level."

**Regulatory Citation:** Permit Condition based on ambient air impact analysis to meet the requirements of R 336.1230 (*State requirement*)

**Regulatory Category:** Design Parameters

**Minimum Number of Requirements:** 6

**Typical Regulatory Requirement** (Permit Condition): "Record on a monthly basis the plant production hours and the quantity of coatings and solvent reducers used."

**Regulatory Citation:** R 336.1213(3) (*State requirement*) and R 336.2041 (*SIP based requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Permit Condition): "Maintain records of the VOC content of each coating in pounds/unit quantity. The VOC content of each coating shall be determined using EPA Reference Test Method 24, unless formulation data has been authorized by the AQD."

**Regulatory Citation:** R 336.2040(5)(a) and R 336.2041 (*SIP based requirements*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Permit Condition): "Calculate and record VOC emission according to the method outlined or an alternative method that is acceptable to the MDEQ-AQD."

**Regulatory Citation:** R 336.213(3) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

## Air Quality (continued)

**Typical Regulatory Requirement** (Permit Condition): "Testing of VOC content of any coating, as applied. Testing performed by EPA Reference Test Method 24 or an alternative method as approved by AQD."

**Regulatory Citation:** R 336.1213(3) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "The permittee shall prepare and implement a routine check program to observe and assure proper operation of the exhaust filters."

**Regulatory Citation:** R 336.1213(3) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "The permittee shall not operate the deadener/blackout line unless all exhaust filters are installed and operating properly."

**Regulatory Citation:** R 336.1910 (*SIP based requirement*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

### (7) *Miscellaneous Cleaners/Solvents*

Miscellaneous cleaners and solvents are used throughout the Typical Plant for wiping the automobile body and cleaning. This process is a 'catch-all' for any cleaners or solvents not accounted for in other processes or permits.

**Typical Regulatory Requirement** (Permit Condition): "The VOC emission rate from the miscellaneous cleaners and solvents shall not exceed XX pounds per hour (averaged over the hours operated during a calendar month) nor XX tons per year based on a 12-month rolling average determined at the end of each calendar month."

**Regulatory Citation:** Permit Condition developed through negotiations with regulator and based on any of the following: R 336.1702 (*SIP based requirement*), R 336.1230 (*State requirement*), R 336.1220 (*SIP based requirement*)

**Regulatory Category:** Material Usage and Emission Limitations

**Minimum Number of Requirements:** 2

## Air Quality (continued)

**Typical Regulatory Requirement** (Permit Condition): "Record on a monthly basis the plant production hours and the quantity of wipe and solvent used."

**Regulatory Citation:** R 336.1213(3) (*State requirement*) and R 336.2041 (*SIP based requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Permit Condition): "Quarterly reporting of VOC emissions data shall be submitted to the AQD in an acceptable format within 30 days following the end of the quarter in which the data were collected."

**Regulatory Citation:** R 336.1201(3) (*SIP based requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing/Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "The exhaust gases from cleaners and solvents shall be discharged unobstructed vertically upwards to the ambient air from stacks, each with a maximum diameter of XX inches at an exit point not less than XX feet above the ground."

**Regulatory Citation:** Permit Condition based on ambient air impact analysis to meet the requirements of R 336.1230 and R 336.1901 (*State requirements*)

**Regulatory Category:** Design Parameters

**Minimum Number of Requirements:** 3

**Typical Regulatory Requirement** (Permit Condition): "Maintain records of the VOC content of each solvent wipe and cleaner in pounds per unit quantity."

**Regulatory Citation:** R 336.2041 (*SIP based requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "Calculate and record VOC emission according to a method that is acceptable to the MDEQ-AQD."

**Regulatory Citation:** R 336.1213(3) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

## Air Quality (continued)

### C. Final Assembly

#### (1) Glass Installation

The glass installation process involves the installation of the windows and windshield on the automobile. The process typically involves four different materials in order for the windshield and rear window to be properly sealed. Typically only VOCs are emitted from this process.

**Typical Regulatory Requirement** (Permit Condition): "The VOC emission rate from the glass installation process shall not exceed XX pounds per hour nor XX tons per year based on a 12-month rolling average determined at the end of each calendar month."

**Regulatory Citation:** Permit Condition developed through negotiations with regulator and based on any of the following: R 336.1702 (*SIP based requirement*), R 336.1230 (*State requirement*), R 336.1220 (*SIP based requirement*)

**Regulatory Category:** Material Usage and Emission Limitations

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Permit Condition): "Record on a monthly basis the plant production hours and the quantity of flash primer used."

**Regulatory Citation:** R 336.1213(3) (*State requirement*) and R 336.2041 (*SIP based requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Permit Condition): "Maintain records of the VOC content of each coating in pounds/unit quantity. The VOC content of each coating shall be determined using EPA Reference Test Method 24, unless formulation data has been authorized by the AQD."

**Regulatory Citation:** R 336.2040(5)(a) and R 336.2041 (*SIP based requirements*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Permit Condition): "Calculate and record VOC emission according to the method outlined or an alternative method that is acceptable to the MDEQ-AQD."

**Regulatory Citation:** R 336.1213(3) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

## Air Quality (continued)

**Typical Regulatory Requirement** (Permit Condition): "Testing of VOC content of any coating, as applied. Testing performed by EPA Reference Test Method 24 or an alternative method as approved by AQD."

**Regulatory Citation:** R 336.1213(3) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

### (2) Fluid Fill

The fluid fill operation involves filling the automobile with brake, steering, transmission, washer fluid, antifreeze, and gasoline. This process will have associated emission limitations for VOCs and opacity.

**Typical Regulatory Requirement** (Permit Condition): "The VOC emission rate from the gasoline and washer fluid filling stations shall not exceed XX pounds per hour (averaged over the hours operated during a calendar month) nor XX tons per year."

**Regulatory Citation:** Permit Condition developed through negotiations with regulator and based on any of the following: R 336.1702 (*SIP based requirement*), R 336.1230 (*State requirement*), R 336.1220 (*SIP based requirement*), R 336.1205 (*SIP based requirement*)

**Regulatory Category:** Material Usage and Emission Limitations

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Permit Condition): "Quarterly reporting of VOC emissions data shall be submitted to the AQD in an acceptable format within 30 days following the end of the quarter in which the data were collected."

**Regulatory Citation:** R 336.1201(3) (*SIP based requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing/Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "Record on a monthly basis the plant production hours and the quantity of windshield washer fluid and gasoline used."

**Regulatory Citation:** R 336.1213(3) (*State requirement*) and R 336.2041 (*SIP based requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

## Air Quality (continued)

**Typical Regulatory Requirement** (Permit Condition): "Maintain records of the VOC content of the windshield washer fluid in pounds per gallon."

**Regulatory Citation:** R 336.2041 (*SIP based requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "Calculate and record VOC emission according to a method that is acceptable to the MDEQ-AQD."

**Regulatory Citation:** R 336.1213(3) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Permit Condition): "The Permittee shall not operate the gasoline filling station unless the vehicles proceeding through the initial fill operations are equipped with on-board refueling vapor recovery ("ORVR") systems."

**Regulatory Citation:** R 336.1205 (*State requirement*), R 336.1702(a) (*SIP based requirement*), R 336.1901 (*State requirement*), and R 336.1201(3) (*SIP based requirement*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

### (3) Final Repair Paint Process

The final repair paint process is where any painting repairs are completed after the automobile leaves the paint shop. Sometimes only a portion of the vehicle is painted to repair a flaw and other times the entire vehicle is repainted.

**Typical Regulatory Requirement** (Permit Condition): "The VOC emission rate from the final repair paint process shall not exceed XX pounds per hour (averaged over the hours operated during a calendar month) nor XX tons per year."

**Regulatory Citation:** Permit Condition developed through negotiations with regulator and based on any of the following: R 336.1702 (*SIP based requirement*), R 336.1230 (*State requirement*), R 336.1610 (*SIP based requirement*), and R 336.1220 (*SIP based requirement*)

**Regulatory Category:** Material Usage and Emission Limitations

**Minimum Number of Requirements:** 2

## Air Quality (continued)

**Typical Regulatory Requirement** (Permit Condition): "Applicant shall submit record of final repair paint process coating usage to the District Supervisor in an acceptable format within 30 days following the end of the quarter in which the data were collected."

**Regulatory Citation:** R 336.1201(3) and R 336.1610 (*SIP based requirements*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "Record on a monthly basis the plant production hours and the quantity of coatings and solvent reducers used."

**Regulatory Citation:** R 336.1213(3) (*State requirement*) and R 336.2041 (*SIP based requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Permit Condition): "Maintain records of the VOC content of each coating in pounds/unit quantity. The VOC content of each coating shall be determined using EPA Reference Test Method 24, unless formulation data has been authorized by the AQD."

**Regulatory Citation:** R 336.2040(5)(a) and R 336.2041 (*SIP based requirements*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Permit Condition): "Calculate and record VOC emission according to the method outlined or an alternative method that is acceptable to the MDEQ-AQD."

**Regulatory Citation:** R 336.1213(3) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Permit Condition): "Testing of VOC content of any coating, as applied. Testing performed by EPA Reference Test Method 24 or an alternative method as approved by AQD."

**Regulatory Citation:** R 336.1213(3) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "The permittee shall not operate the final repair spray booths unless the water wash equipment is installed and operating properly."

**Regulatory Citation:** R 336.1910 (*SIP based requirement*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

## Air Quality (continued)

**Typical Regulatory Requirement** (Permit Condition): "The permittee shall conduct weekly checks of the condition of the water wash system only during weeks when coating has occurred."

**Regulatory Citation:** R 336.1213(3) (*State requirement*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "The exhaust gases from the final repair paint process shall be discharged unobstructed vertically upwards to the ambient air from stacks, each with a maximum diameter of XX inches at an exit point not less than XX feet above the ground."

**Regulatory Citation:** Permit Condition based on ambient air impact analysis to meet the requirements of R 336.1230 and R 336.1901 (*State requirements*)

**Regulatory Category:** Design Parameters

**Minimum Number of Requirements:** 3

**Typical Regulatory Requirement** (Permit Condition): "The VOC material usage from the final repair paint process shall not exceed XX pounds per gallon of coating, minus water, as applied based on a calendar day averaging period as described in R 336.1610(1)."

**Regulatory Citation:** R 336.1702 (*SIP based requirement*)

**Regulatory Category:** Material Usage and Emission Limitations

**Minimum Number of Requirements:** 1

### D. Powerhouse

The powerhouse boilers are used to generate process steam and provide heat for the facility. The Typical Plant uses natural gas fired boilers with a maximum heat rating of 81 MMBtu per hour. The boilers are applicable to the NSPS requirements in 40 CFR 60 Subpart MM and the future upcoming MACT requirement in 40 CFR Part 63 Subpart DDDDD.

**Typical Regulatory Requirement** (Permit Condition): "The permittee shall record and maintain records of the amounts of each fuel combusted during each day."

**Regulatory Citation:** 40 CFR Part 60 Subpart Dc, §60.48c (*Federal Requirement*)

**Regulatory Category:** Material Usage

**Minimum Number of Requirements:** 1

## Air Quality (continued)

**Typical Regulatory Requirement** (Permit Condition): "Applicant shall monitor and record the opacity from the boiler on a continuous basis in a manner and with instrumentation acceptable to the AQD. All opacity data shall be kept on file for a period of at least two years and made available to the AQD upon request."

**Regulatory Citation:** R 336.1201(3) and R 336.1301 (*SIP based requirements*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "The No. 2 fuel oil usage in the boiler shall not exceed XXX,XXX gallons per month."

**Regulatory Citation:** R 336.1201(3) (*SIP based requirement*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Permit Condition): "Records of the fuel oil usage per month shall be kept on file for a period of at least two years and made available to the AQD upon request."

**Regulatory Citation:** R 336.1201(3) (*SIP based requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

### (1) Future MACT Requirements

40 CFR Part 63, Subpart DDDDD, establishes standards for industrial, commercial, and institutional boilers and process heaters. The final rules are expected to be promulgated in February 2004. In order to present a workable analysis of the typical requirements, the Typical Plant is assumed to have existing affected sources. Because the boilers and process heaters used at a Typical Plant are all existing sources they are not required to meet any emission limitations or work practice standards under the MACT standards.

**Typical Regulatory Requirement** (Permit Condition): "The permittee of an existing shall submit initial notification required by §63.9(b) no later than 120 days after the date of publication of final rule in the Federal Register."

**Regulatory Citation:** 40 CFR Part 63 Subpart DDDDD, §60.48c (*Federal requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**SECTION 3.4 HAZARDOUS AND NON-HAZARDOUS MATERIALS MANAGEMENT**

### 3.4 Hazardous and Non-Hazardous Materials Management

The automobile assembly process involves the storage, use and generation of numerous hazardous materials that are subject to regulation under both state and federal environmental regulations. A summary of these types of materials and the regulations applicable to their management is provided.

<b>Materials</b>		<b>Regulations</b>
1)	Hazardous Waste	<ul style="list-style-type: none"> <li>• Subtitle C of RCRA (example 40 CFR 261.31)</li> <li>• Hazardous Waste Management (Part 111) of Michigan Act 451 (example R 299.9306)</li> </ul>
2)	Non-Hazardous Waste	<ul style="list-style-type: none"> <li>• Subtitle D of RCRA</li> <li>• Solid Waste Management (Part 115) of Michigan Act 451</li> <li>• Liquid Industrial Waste (Part 121) of Michigan Act 451 (example: Section 324.12103)</li> </ul>
3)	Oils and Petroleum Products	<ul style="list-style-type: none"> <li>• Spill Prevention, Control and Countermeasure (CWA) (example: 40 CFR 112.7)</li> <li>• Part 211 of Michigan Act 451</li> </ul>
4)	Polluting Materials	<ul style="list-style-type: none"> <li>• Part 31 of Michigan Act 451 and the Part 5 Rules (example: R 324.2004)</li> <li>• Part 211 of Michigan Act 451</li> </ul>
5)	Hazardous Chemicals, Extremely Hazardous Substances, Toxic Chemicals	<ul style="list-style-type: none"> <li>• EPCRA (SARA Title III)</li> <li>• Part 211 of Michigan Act 451</li> </ul>

Hazardous materials are stored, used, and/or generated in many of the assembly processes in quantities that range from less than one gallon to bulk storage tanks. The various regulations applicable to the management of these materials cover: 1) waste characterization, storage, off-site transportation, and disposal; 2) spill prevention and response; 3) storage requirements; 4) release reporting and notification requirements; and 5) inspection and recordkeeping.

This section includes all hazardous materials managed at the Typical Plant, including both hazardous and non-hazardous wastes, oils and other petroleum products, polluting materials, and hazardous and toxic chemicals. Because underground storage tanks (“USTs”) are commonly used to store oils and petroleum products, requirements of Part 211 of Michigan Act 451 have been included in Section 3.4.1 E

#### 3.4.1 Facility-Wide Requirements

## Hazardous and Non-Hazardous Materials Management (continued)

A summary of all hazardous material regulations applicable to the overall site is presented in this section. This summary is organized based on material type, including: hazardous waste, non-hazardous waste, oil and petroleum products, polluting materials, hazardous chemicals, extremely hazardous substances and toxic chemicals. Refer to the Background Section for the assumptions used to prepare the profiles in this section.

### A. Hazardous Waste

The hazardous waste management areas include two aboveground storage tanks with a vaulted containment system, and five container accumulation or storage areas.

#### (1) General

A summary of the general hazardous waste management requirements is presented below.

**Typical Regulatory Requirement** (Michigan Rule): Solid waste must be characterized to determine if it is a hazardous waste.

**Regulatory Citation:** R 299.9302, R 299.9212, R 299.9213, R 299.9214 of Part 111 of Michigan Act 451 (*State requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 7

**Typical Regulatory Requirement** (Michigan Rule): "A generator shall not treat, store, dispose of, transport, or offer for transportation, hazardous waste without having received an EPA identification number from the regional administrator or regional administrators designee."

**Regulatory Citation:** R 299.9303 (*State requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): "While being accumulated on-site, each container and tank is labeled with the words Hazardous Waste."

**Regulatory Citation:** R 299.9306(1)(c) (*State requirement*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 7

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): If there is a fire, explosion, or other release of hazardous waste or hazardous waste constituents that could threaten human health or the environment, or if the generator has knowledge that a spill has reached surface water or ground water, then the generator shall immediately notify the MDEQ's pollution emergency alert system.

**Regulatory Citation:** R 299.9306(1)(d) (*State requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Maintain and operate facility to minimize the possibility of a fire, explosion, or any unplanned sudden or nonsudden release of hazardous waste.

**Regulatory Citation:** R 299.9306(1)(d) (*State requirement, incorporates by reference 40 CFR 265.31*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Facility must be equipped with:

- (a) Internal communications or alarm system;
- (b) A device capable of summoning emergency assistance;
- (c) Fire control equipment, spill control equipment and decontamination equipment;
- (d) Water at adequate volume to fight fires.

**Regulatory Citation:** R 299.9306(1)(d) (*State requirement, incorporates by reference 40 CFR 265.32*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 4

**Typical Regulatory Requirement** (Michigan Rule): All communications or alarm systems, fire protection systems, spill control equipment, and decontamination equipment must be tested and maintained as necessary to assure its proper operation.

**Regulatory Citation:** R 299.9306(1)(d) (*State requirement, incorporates by reference 40 CFR 265.33*)

**Regulatory Category:** Operational Parameters/Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 4

**Typical Regulatory Requirement** (Michigan Rule): Whenever hazardous waste is being handled, all personnel involved must have immediate access to an internal alarm or emergency communications device.

**Regulatory Citation:** R 299.9306(1)(d) (*State requirement, incorporates by reference 40 CFR 265.34*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Aisle space must allow for the unobstructed

## Hazardous and Non-Hazardous Materials Management (continued)

movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment.

**Regulatory Citation:** R 299.9306(1)(d) (*State requirement, incorporates by reference 40 CFR 265.35*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement (Michigan Rule):** Must attempt to make arrangements with local emergency organizations (e.g., fire department, hospitals, emergency response teams) to familiarize them with the facility and the potential hazards associated with hazardous waste handled at the facility.

**Regulatory Citation:** R 299.9306(1)(d) (*State requirement, incorporates by reference 40 CFR 265.37*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement (Michigan Rule):** Must have a Contingency Plan designed to minimize hazards from fires, explosions, or release of hazardous waste.

**Regulatory Citation:** R 299.9306(1)(d) (*State requirement, incorporates by reference 40 CFR 265.51(a)*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement (Michigan Rule):** The provisions of the Contingency Plan must be carried out immediately whenever there is a fire, explosion, or release of hazardous waste that threatens human health or the environment.

**Regulatory Citation:** R 299.9306(1)(d) (*State requirement, incorporates by reference 40 CFR 265.51(b)*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement (Michigan Rule):** The Contingency Plan must describe actions to be taken in response to a fire, explosion, or release of hazardous waste.

**Regulatory Citation:** R 299.9306(1)(d) (*State requirement, incorporates by reference 40 CFR 265.52(a)*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): Existing emergency response plans (e.g., Spill Prevention, Control, and Countermeasure ("SPCC") Plan) can be amended to incorporate hazardous waste management requirements.

**Regulatory Citation:** R 299.9306(1)(d) (*State requirement, incorporates by reference 40 CFR 265.52(b)*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): The Contingency Plan must describe arrangements agreed to by local authorities (e.g., police, fire, hospitals) to coordinate emergency services.

**Regulatory Citation:** R 299.9306(1)(d) (*State requirement, incorporates by reference 40 CFR 265.52(c)*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): The Contingency Plan must list names, addresses, and phone numbers of emergency coordinators.

**Regulatory Citation:** R 299.9306(1)(d) (*State requirement, incorporates by reference 40 CFR 265.52(d)*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): The Contingency Plan must include the physical description, location, and capabilities of all emergency equipment at the facility.

**Regulatory Citation:** R 299.9306(1)(d) (*State requirement, incorporates by reference 40 CFR 265.52(e)*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): The Contingency Plan must include an evacuation plan for facility personnel, including evacuation signals and routes.

**Regulatory Citation:** R 299.9306(1)(d) (*State requirement, incorporates by reference 40 CFR 265.52(f)*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement (Michigan Rule):** A copy of the Contingency Plan must be maintained at the facility and submitted to local emergency response agencies.

**Regulatory Citation:** R 299.9306(1)(d) (*State requirement, incorporates by reference 40 CFR 265.53*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement (Michigan Rule):** The Contingency Plan must be reviewed and amended whenever:

- 1) Regulation(s) change;
- 2) The Plan fails;
- 3) The facility changes;
- 4) Emergency coordinator(s) change; or
- 5) Emergency equipment changes.

**Regulatory Citation:** R 299.9306(1)(d) (*State requirement, incorporates by reference 40 CFR 265.54*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement (Michigan Rule):** At all times there must be at least one employee (i.e., emergency coordinator) either on the facility or on call with the responsibility for coordinating all emergency response measures. The emergency coordinator must be thoroughly familiar with all aspects of the facility's Contingency Plan and emergency response procedures, and have the authority to commit the resources necessary to carryout the Contingency Plan.

**Regulatory Citation:** R 299.9306(1)(d) (*State requirement, incorporates by reference 40 CFR 265.55*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement (Michigan Rule):** Whenever there is an imminent or actual emergency, the emergency coordinator must immediately:

- 1) Activate internal facility alarms or communications systems; and
- 2) Notify appropriate State or local agencies if help is needed.

**Regulatory Citation:** R 299.9306(1)(d) (*State requirement, incorporates by reference 40 CFR 265.56(a)*)

**Regulatory Category:** Reporting/Operational Parameters/Other Activities

**Minimum Number of Requirements:** 1

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): Whenever there is a release, fire, or explosion, the emergency coordinator must immediately assess the situation by observation, review of available information, or chemical analysis.

**Regulatory Citation:** R 299.9306(1)(d) (*State requirement, incorporates by reference 40 CFR 265.56(b) and (c)*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): If the emergency coordinator determines that a release, fire, or explosion has occurred which could threaten human health or the environment outside the facility, he must report to or notify:

- 1) Local authorities if evacuation of local areas is advisable; and
- 2) Either the government official designated as the on-scene coordinator or the National Response Center.

**Regulatory Citation:** R 299.9306(1)(d) (*State requirement, incorporates by reference 40 CFR 265.56(d)*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): During an emergency, the emergency coordinator must take all reasonable measures to control the emergency.

**Regulatory Citation:** R 299.9306(1)(d) (*State requirement, incorporates by reference 40 CFR 265.56(e)*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): If the facility stops operating in response to an emergency, the emergency coordinator must monitor for leaks, pressure buildup, gas generation, or ruptures in process equipment.

**Regulatory Citation:** R 299.9306(1)(d) (*State requirement, incorporates by reference 40 CFR 265.56(f)*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): Immediately after an emergency, the emergency coordinator must provide for the management of any material (including environmental media) resulting from the emergency.

**Regulatory Citation:** R 299.9306(1)(d) (*State requirement, incorporates by reference 40 CFR 265.56(g)*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): The emergency coordinator must ensure that in affected area(s) of the facility:

- no incompatible waste will be stored until cleanup is complete; and
- all emergency equipment is clean and fit for use before operations resume.

**Regulatory Citation:** R 299.9306(1)(d) (*State requirement, incorporates by reference 40 CFR 265.56(h)*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): The US EPA and appropriate State and local authorities must be notified prior to resuming operations in the affected area(s) of the facility.

**Regulatory Citation:** R 299.9306(1)(d) (*State requirement, incorporates by reference 40 CFR 265.56(l)*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Any incidents requiring implementation of the Contingency Plan must be noted in the operating record. In addition, a written report on the incident must be submitted to US EPA within 15 days of the incident.

**Regulatory Citation:** R 299.9306(1)(d) (*State requirement, incorporates by reference 40 CFR 265.56(j)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing/Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): "A generator shall keep records of any test results, waste analysis, or other determinations made in accordance with R 299.9302 for not less than 3 years from the date the waste was last sent to on-site or off-site treatment, storage, or disposal."

**Regulatory Citation:** R 299.9307(1) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): "A generator who is requested by the MDEQ

## Hazardous and Non-Hazardous Materials Management (continued)

to submit evaluation results shall provide the required information within 30 days after receipt of the request.”

**Regulatory Citation:** R 299.9307(2) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement (Michigan Rule):** “A generator shall keep a copy of each biennial report required by MDEQ, or his or her designee, for a period of not less than 3 years from the date of the report.”

**Regulatory Citation:** R 299.9307(4) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement (Michigan Rule):** The periods of record retention are extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by the MDEQ.

**Regulatory Citation:** R 299.9307(6) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement (Michigan Rule):** A generator who ships any hazardous waste off-site to a treatment, storage, or disposal facility shall prepare and submit a single copy of a biennial report to the MDEQ by March 1<sup>st</sup> of each even numbered year.

**Regulatory Citation:** R 299.9308(1) (*State requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement (Michigan Rule):** “A generator shall furnish periodic reports of hazardous waste generated, stored, transferred, treated, disposed of, or transported for treatment, storage, or disposal as required by the MDEQ.”

**Regulatory Citation:** R 299.9308(4) (*State requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): "Generators of hazardous waste shall comply with the applicable requirements and restrictions of 40 CFR Part 268 (i.e., Land Disposal Restrictions)."

**Regulatory Citation:** R 299.9311 (*State requirement, incorporates by reference 40 CFR Part 268*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Facility personnel must successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with applicable hazardous waste management requirements. This program must:

- 1) Be directed by a person trained in hazardous waste management procedures;
- 2) Be designed to ensure that personnel are able to respond effectively to emergencies;
- 3) Be completed by facility personnel within six months after their date of employment or assignment to a facility;
- 4) Employees must not work unsupervised until they have completed the required training; and
- 5) Facility personnel must take part in an annual training review.

**Regulatory Citation:** R 299.9306(1)(d) (*State requirement, incorporates by reference 40 CFR Part 265.16(a), (b), and(c)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing/Training

**Minimum Number of Requirements:** 5

**Typical Regulatory Requirement** (Michigan Rule): The following training record and documents must be maintained at the facility:

- 1) Job title for each position related to hazardous waste management and employee names;
- 2) Written job description;
- 3) Written description of type and amount of introductory and continuous training;
- 4) Records documenting that the required training has been given to facility personnel;
- 5) Training records for current employees must be kept until closure of the facility and for former employees for at least 3 years from the last date of employment.

**Regulatory Citation:** R 299.9306(1)(d) (*State requirement, incorporates by reference 40 CFR 265.16(d) and (e)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 5

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): If a generator is managing and treating hazardous waste or contaminated soil in tanks or containers regulated under 40 CFR 262.34 to meet applicable LDR treatment standards, a generator must develop and follow a written waste analysis plan.

**Regulatory Citation:** R 299.9306(1)(d) (*State requirement, incorporates by reference 40 CFR 268.7(a)(5)*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): The owner or operator must close the facility in a manner that:

- 1) Minimizes the need for future maintenance;
- 2) Controls, minimizes or eliminates post-closure escape of hazardous waste or hazardous waste constituents; and
- 3) Complies with applicable closure requirements.

**Regulatory Citation:** R 299.9306(1)(g) (*State requirement, incorporates by reference 40 CFR 265.111*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 3

**Typical Regulatory Requirement** (Michigan Rule): During closure, all contaminated equipment, structures and soil must be properly disposed of or decontaminated.

**Regulatory Citation:** R 299.9306(1)(g) (*State requirement, incorporates by reference 40 CFR 265.114*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

### (2) Containers

A summary of hazardous waste regulations applicable to containers is presented below.

**Typical Regulatory Requirement** (Michigan Rule): A generator may accumulate hazardous waste on-site for 90 days or less without an operating license if . . . the waste is placed in containers and the generator complies with the provisions of 40 CFR Part 265, Subparts I, BB and CC, §264.175 and §265.174.

**Regulatory Citation:** R 299.9306(1)(a)(i) (*State requirement, incorporates by reference 40 CFR Part 265, Subparts I, BB and CC, §264.175 and §265.174*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 7

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): “The generator shall maintain inspection records on-site for a period of not less than 3 years from the date of the inspection. The period of retention shall be extended automatically during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Director.”

**Regulatory Citation:** R 299.9306(1)(a)(i) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): “If a container holding hazardous waste is not in good condition, or if it begins to leak, the owner or operator must transfer the hazardous waste from this container to a container that is in good condition, or manage the waste in some other way that complies with the requirements of this part.”

**Regulatory Citation:** R 299.9306(1)(a)(i) (*State requirement, incorporates by reference 40 CFR 265.171*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): “The owner or operator must use a container made of or lined with materials which will not react with, and are otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired.”

**Regulatory Citation:** R 299.9306(1)(a)(i) (*State requirement, incorporates by reference 40 CFR 265.172*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): “A container holding hazardous waste must always be closed during storage, except when it is necessary to add or remove waste. A container holding hazardous waste must not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.”

**Regulatory Citation:** R 299.9306(1)(a)(i) (*State requirement, incorporates by reference 40 CFR 265.173(a) and (b)*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): “The owner or operator must inspect areas where containers are stored, at least weekly, looking for leaks and for deterioration caused by corrosion or other factors.”

**Regulatory Citation:** R 299.9306(1)(a)(i) (*State requirement, incorporates by reference 40 CFR 265.174*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): “Containers holding ignitable or reactive waste must be located at least 15 meters (50 feet) from the facility’s property line.”

**Regulatory Citation:** R 299.9306(1)(a)(i) (*State requirement, incorporates by reference 40 CFR 265.176*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Incompatible wastes, or incompatible wastes and materials must be managed in containers in a manner that prevents fires, explosions, gaseous emissions, leaching or other discharge of hazardous waste or hazardous waste constituents.

**Regulatory Citation:** R 299.9306(1)(a)(i) (*State requirement, incorporates by reference 40 CFR 265.177*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): “The owner or operator shall manage all hazardous waste placed in a container in accordance with the applicable requirements of subparts AA, BB, and CC of this part.”

**Regulatory Citation:** R 299.9306(1)(a)(i) (*State requirement, incorporates by reference 40 CFR 265.178*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement (Michigan Rule):** Containers of hazardous waste must be managed in a container storage area having a containment system designed and operated as follows:

- 1) A base that is free of cracks and is sufficiently impervious to contain leaks, spills and accumulated precipitation;
- 2) The base must be sloped to drain and remove liquids, unless the containers are elevated or otherwise protected from accumulated liquids;
- 3) The containment system must have sufficient capacity to contain 10% of the volume of all containers or the volume of the largest container, whichever is greater (containers that do not contain free liquids need not be considered in this determination);
- 4) Run-on into the containment system must be prevented unless the collection system has sufficient excess capacity;
- 5) Spilled or leaked waste and accumulated precipitation must be removed in a timely manner.

**Regulatory Citation:** R 299.9306(1)(a)(i) (*State requirement, incorporates by reference 40 CFR 264.175*)

**Regulatory Category:** Design Parameters/Operational Parameters

**Possible Exemption:** Storage areas that store containers holding only wastes that do not contain free liquids need not have a containment system meeting the requirements of Section 264.175(b), provided that the storage pad is sloped to drain and remove liquids resulting from precipitation, or the containers are elevated to protect them from contact with accumulation liquid.

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement (Michigan Rule):** "The date upon which each period of accumulation begins and the hazardous waste number of the waste are clearly marked and visible for inspection on each container."

**Regulatory Citation:** R 299.9306(1)(b) (*State requirement*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 7

**Typical Regulatory Requirement (Michigan Rule):** A generator may accumulate up to 55-gallons of hazardous waste in containers at or near the point of generation and which is under the control of the operator of the process that generates the waste, provided that the generator:

- 1) complies with the container management requirements of 40 CFR 265.171, 265.172, and 265.173; and
- 2) the containers are marked with the words Hazardous Waste.

Hazardous waste accumulated in excess of 55-gallons must be marked with the date the excess amount began accumulating and within 3 days be moved to an on-site waste management unit or off-site.

**Regulatory Citation:** R 299.9306(1)(a)(i) (*State requirement, incorporates by reference 40 CFR 265.171, 265.172, and 265.173*)

**Regulatory Category:** Operating Parameters

**Minimum Number of Requirements:** 5

## Hazardous and Non-Hazardous Materials Management (continued)

### (3) Hazardous Waste Tanks

A summary of hazardous waste regulations applicable to hazardous waste tanks is presented below.

**Typical Regulatory Requirement** (Michigan Rule): A generator may accumulate hazardous waste on-site for 90 days or less without an operating license if . . . the waste is placed in tanks and the generator complies with the provisions of 40 CFR Part 265, Subpart J...and the generator complies with the provisions of R 299.9615, except R 299.9615(1) (part 264 in R 299.9615 shall be replaced by references to 40 CFR part 265).

**Regulatory Citation:** R 299.9306(1)(a)(ii) (*State requirements, incorporates by reference 40 CFR Part 265 Subpart J, R 299.9615, except R 299.9615(1) (part 264 in R 299.9615 shall be replaced by references to 40 CFR part 265)*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): Owners or operators of aboveground tank systems that are not in compliance with the requirements of 40 CFR §265.193 (b) to (f) shall do the following until the tank system is brought into compliance with 40 CFR §265.193(a) or until a variance is obtained as provided by 40 CFR §265.193(h):

- 1) Insure that tank systems which could generate free-liquids during storage, are located in areas which are paved, diked, curbed, or otherwise structurally enclosed so as to be able to contain 100% of the largest tank system within the enclosed area.
- 2) Insure that tanks systems which store hazardous waste that is incompatible with the tank system material construction within the enclosed area, or where the tank systems are interconnected so that a loss from one tank system may lead to losses in other tank systems, are structurally enclosed so as to be able to contain not less than 100% of the liquid portion of the material as being stored in all tanks.

**Regulatory Citation:** R 299.9615(2)(a) (*State requirement*)

**Regulatory Category:** Design Parameters/Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Owners or operators of underground tank systems that are used for the treatment or storage of liquid hazardous waste, or hazardous wastes which could generate free liquids and that are not in compliance with the requirements of 40 CFR §265.193 (b) to (f) shall: conduct a complete inventory of hazardous wastes in the tank system not less than twice a month, provide adequate secondary containment and a leachate collection and a withdrawal system to contain any release of hazardous wastes or hazard waste constituents from the tank system.

**Regulatory Citation:** R 299.9615(2)(b) (*State requirement*)

**Regulatory Category:** Design Parameters/Operational Parameters

**Possible Exemption:** Wastewater treatment units and elementary neutralization units may be waived from the interim secondary containment requirements based upon an assessment of the hydrogeological aspects of the site [R 299.9615(7)].

**Minimum Number of Requirements:** 1

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): Owners or operators of underground tank systems that are not in compliance with specific containment requirements must conduct leachate sampling and analysis at least once a year. If the inventories required indicate a loss of waste, leachate sampling and analysis shall be performed within 24 hours of the discovery of the loss.

**Regulatory Citation:** R 299.9306(2)(b)(iii) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Possible Exemption:** Wastewater treatment units and elementary neutralization units may be waived from the interim secondary containment requirements based upon an assessment of the hydrogeological aspects of the site.

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Tank systems shall be designed, constructed, operated, and maintained in compliance with the requirement of R 29.4101 to R 29.4504 pursuant to the provision of act 207.

**Regulatory Citation:** R 299.9615(4) (*State requirement*)

**Regulatory Category:** Design Parameters/Operational Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): Tank systems shall be labeled in accordance with the provision of National Fire Protection Association ("NFPA") standard no. 704.

**Regulatory Citation:** R 299.9615(5) and (7), R 299.11002 (*State requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): For each existing tank system that does not have secondary containment meeting the requirements of §265.193, the owner or operator must obtain and keep on file at the facility a written assessment reviewed and certified by an independent, qualified, registered, professional engineer that attests to the tank system's integrity.

**Regulatory Citation:** R 299.9306(1)(a)(ii) (*State requirement, incorporates by reference 40 CFR 265.191(a)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): The assessment required pursuant to §265.191(a) must determine that the tank system is adequately designed and has sufficient structural strength and will not collapse, rupture, or fail. At a minimum, the assessment must consider the following:

- 1) Design standard(s), if available;
- 2) Hazardous characteristics of the waste(s) that have been or will be handled;
- 3) Existing corrosion protection measures;
- 4) Documented, or estimated age of the tank system;
- 5) Results from tank integrity examinations, e.g., leak test, internal inspection.

**Regulatory Citation:** R 299.9306(1)(a)(ii) (*State requirement, incorporates by reference 40 CFR 265.191(b)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 10

**Typical Regulatory Requirement** (Michigan Rule): Tank systems used to store or treat materials that become hazardous wastes must conduct an assessment within 12 months after the date the waste becomes a hazardous waste.

**Regulatory Citation:** R 299.9306(1)(a)(ii) (*State requirement, incorporates by reference 40 CFR 265.191(c)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Owner or operator of new tank systems or components must ensure that the foundation, structural support, seams, connections, and pressure controls (if applicable) are adequately designed and that the tank system has sufficient structural strength, compatibility with the waste(s) to be stored or treated, and corrosion protection so that it will not collapse, rupture, or fail.

**Regulatory Citation:** R 299.9306(1)(a)(ii) (*State requirement, incorporates by reference 40 CFR 265.192(a)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): The owner or operator of a new tank system must obtain a written assessment reviewed and certified by an independent, qualified, registered, professional engineer attesting that the system has sufficient structural integrity and is acceptable for storing and treating of hazardous waste. At a minimum, the assessment must consider the following:

- 1) Design standard(s) to which the tank and ancillary equipment will be constructed;
- 2) Hazardous characteristics of the waste(s) to be handled;
- 3) Corrosion protection measures, for new tank systems or components in which external shell of a metal tank or metal component of the tank system is or will be in contact with the soil or water;
- 4) Determination of design or operational measures, for underground tank system components, that will protect the tank system against potential damage;
- 5) Design considerations.

**Regulatory Citation:** R 299.9306(1)(a)(ii) (*State requirement, incorporates by reference 40 CFR 265.192(a)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): The owner or operator of a new tank system must ensure that proper handling procedures are adhered to during installation.

**Regulatory Citation:** R 299.9306(1)(a)(ii) (*State requirement; incorporates by reference 40 CFR 265.192(b)*)

**Regulatory Category:** Design Parameters/Operational Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): Prior to covering, enclosing, or placing a new tank system or component in use, an independent, qualified professional engineer, trained in tank system installations, must inspect the system or components for the presence of:

- 1) Weld breaks;
- 2) Punctures;
- 3) Scrapes of protective coatings;
- 4) Cracks;
- 5) Corrosion;
- 6) Other structural damage or inadequate construction or installation.

Any discrepancies must be fixed before the tank system is covered, enclosed, or placed in use.

**Regulatory Citation:** R 299.9306(1)(a)(ii) (*State requirement, incorporates by reference 40 CFR 265.192(b)*)

**Regulatory Category:** Design Parameters

**Minimum Number of Requirements:** 2

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): New tank systems or components and piping that are placed underground and backfilled must be provided with a backfill material that is noncorrosive, porous, homogeneous. The backfill is to be placed completely around the tank and compacted to ensure that the tank and piping are fully and uniformly supported.

**Regulatory Citation:** R 299.9306(1)(a)(ii) (*State requirement, incorporates by reference 40 CFR 265.192(c)*)

**Regulatory Category:** Design Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): All new tanks and ancillary equipment prior to being covered, enclosed, or placed in use shall be tested for tightness. If a tank system is found to not be tight, repairs must be completed to remedy the leaks prior to the tank system being covered, enclosed, or placed in use.

**Regulatory Citation:** R 299.9306(1)(a)(ii) (*State requirement, incorporates by reference 40 CFR 265.192(d)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): Ancillary equipment must be supported and protected against physical damage and excessive stress due to settlement, vibration, expansion, or contraction.

**Regulatory Citation:** R 299.9306(1)(a)(ii) (*State requirement, incorporates by reference 40 CFR 265.192(e)*)

**Regulatory Category:** Design Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): The type and degree of corrosion protection, based on §265.192(a), must be provided to ensure the integrity during use of the tank system.

**Regulatory Citation:** R 299.9306(1)(a)(ii) (*State requirement, incorporates by reference 40 CFR 265.192(f)*)

**Regulatory Category:** Design Parameters/Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): The installation of a corrosion protection system that is field fabricated must be supervised by an independent corrosion expert to ensure proper installation.

**Regulatory Citation:** R 299.9306(1)(a)(ii) (*State requirement, incorporates by reference 40 CFR 265.192(f)*)

**Regulatory Category:** Design Parameters/Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Maintain on file a copy of written statements

## Hazardous and Non-Hazardous Materials Management (continued)

by those persons required to certify the design of the tank system and supervise the installation of the tank system to attest that the tank system was properly designed and installed and that any necessary repairs were performed.

**Regulatory Citation:** R 299.9306(1)(a)(ii) (*State requirement, incorporates by reference 40 CFR 265.192(g)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement (Michigan Rule):** Secondary containment systems must be at a minimum:

- 1) Constructed of or lined with materials that are compatible with the waste(s) to be placed in the tank system;
- 2) Must have sufficient strength and thickness to prevent failure due to pressure gradients, physical contact with the waste to which they are exposed, climatic conditions, installation stress, and daily operation stress;
- 3) Placed on a foundation or base capable of providing support to the secondary containment system and resistance to pressure gradients above and below the system and capable of preventing failure due to settlement, compression, or uplift;
- 4) Provided with a leak detection system that will detect the failure of the primary and secondary containment structure or any release of hazardous waste or accumulated liquid in the secondary containment within 24 hours or the earliest practicable time;
- 5) Sloped or designed or operated to drain and remove liquids.

**Regulatory Citation:** R 299.9306(1)(a)(ii) (*State requirement, incorporates by reference 40 CFR 265.193(b) and (c)*)

**Regulatory Category:** Design Parameters/Operational Parameters

**Minimum Number of Requirements:** 10

**Typical Regulatory Requirement (Michigan Rule):** Spilled or leaked waste or accumulated precipitation must be removed from the secondary containment system within 24 hours, or in a timely manner.

**Regulatory Citation:** R 299.9306(1)(a)(ii) (*State requirement, incorporates by reference 40 CFR 265.193(c)(4)*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): Secondary containment for tanks must include one or more of the following:

- 1) A liner (external to the tank);
- 2) A vault;
- 3) A double-walled tank; or
- 4) An equivalent device approved by the Regional Administrator.

**Regulatory Citation:** R 299.9306(1)(a)(ii) (*State requirement, incorporates by reference 40 CFR 265.193(d)*)

**Regulatory Category:** Design Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): The vault system secondary containment must satisfy the following requirements:

- 1) Designed and operated to contain 100% of the capacity of the largest tank within its boundary;
- 2) Designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. Additional capacity must be able to contain precipitation from a 25-year, 24-hour rainfall event;
- 3) Constructed of chemical-resistant water stops in place at joints, if any;
- 4) Provided with an impermeable interior coating or lining compatible with the stored waste and will prevent migration of waste into concrete;
- 5) Provided with a means to protect against the formation of and ignition of vapors within the vault, if the waste is ignitable or reactive and may form an ignitable or explosive vapor (§262.21);
- 6) Provided with an exterior moisture barrier, designed or operated to prevent migration of moisture into the vault if the vault is subject to hydraulic pressure;

**Regulatory Citation:** R 299.9306(1)(a)(ii) (*State requirement, incorporates by reference 40 CFR 265.193(e)(2)*)

**Regulatory Category:** Design Parameters/Operational Parameters

**Minimum Number of Requirements:** 16

**Typical Regulatory Requirement** (Michigan Rule): Ancillary equipment requires full secondary containment that meets §265.192(b) and (c) except the following items:

- 1) Above ground piping (exclusive of flanges, joints, valves, and connections);
- 2) Welded flanges, joints, and connections;
- 3) Sealless or magnetic coupling pumps and valves; and
- 4) Pressurized aboveground piping systems with automatic shut-off devices.

**Regulatory Citation:** R 299.9306(1)(a)(ii) (*State requirement, incorporates by reference 40 CFR 265.193(f)*)

**Regulatory Category:** Design Parameters

**Minimum Number of Requirements:** 2

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): Hazardous wastes or treatment reagents must not be placed in a tank system if they could cause the tank, its ancillary equipment, or the secondary containment system to rupture, leak, corrode, or otherwise fail.

**Regulatory Citation:** R 299.9306(1)(a)(ii) (*State requirement, incorporates by reference 40 CFR 265.194(a)*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Appropriate controls and practices to prevent spills and overflows from tank or secondary containment systems, including at a minimum:

- 1) Spill prevention controls;
- 2) Overfill prevention controls.

**Regulatory Citation:** R 299.9306(1)(a)(ii) (*State requirement, incorporates by reference 40 CFR 265.194(b)*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): Must inspect, where present, at least once each operating day:

- 1) Overfill/spill control equipment to ensure that it is in good working order;
- 2) Aboveground portions of the tank system to detect corrosion or releases of waste;
- 3) Data gathered from monitoring and leak-detection equipment to ensure that the tank system is operating according to design; and
- 4) Construction materials and area immediately surround the externally accessible portion of the tank system including secondary containment structures to detect erosion or signs of release of hazardous waste .

**Regulatory Citation:** R 299.9306(1)(a)(ii) (*State requirement, incorporates by reference 40 CFR 265.195(a)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 6

**Typical Regulatory Requirement** (Michigan Rule): Must inspect, where present, cathodic protection systems, at a minimum of the following schedule:

- 1) Confirm proper operation of the cathodic protection system within six months after initial installation, and annually thereafter; and
- 2) Inspect and/or test sources of impressed current at least bimonthly.

**Regulatory Citation:** R 299.9306(1)(a)(ii) (*State requirement, incorporates by reference 40 CFR 265.195(b)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 3

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement (Michigan Rule):** Must immediately remove from service a tank system or secondary containment system from which there has been a leak or spill, or which is unfit for use.

**Regulatory Citation:** R 299.9306(1)(a)(ii) (*State requirement, incorporates by reference 40 CFR 265.196*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement (Michigan Rule):** Must immediately stop the flow of hazardous waste into the tank system or secondary containment system and inspect the system to determine the cause of the release.

**Regulatory Citation:** R 299.9306(1)(a)(ii) (*State requirement, incorporates by reference 40 CFR 265.196(a)*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement (Michigan Rule):** Must satisfy the following requirements:

- 1) If release was from tank system or secondary containment, remove as much waste as is necessary to prevent further release of hazardous waste to the environment and to allow inspection and repair of the tank system to be performed within 24 hours of detection of the leak;
- 2) If release was to secondary containment, all release material must be removed within 24 hours or in as timely a manner as possible.

**Regulatory Citation:** R 299.9306(1)(a)(ii) (*State requirement, incorporates by reference 40 CFR 265.196(b)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement (Michigan Rule):** Must satisfy the following requirements if a release to the environment:

- 1) Immediately conduct a visual inspection of the release.
- 2) Based on inspection, prevent further migration of leak, spill to soils, or surface waters by removing and properly disposing of any visible contamination of the soil or surface water.

**Regulatory Citation:** R 299.9306(1)(a)(ii) (*State requirement, incorporates by reference 40 CFR 265.196(c)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): Must report to the Regional Administrator within 24 hours any release to the environment (a release reported pursuant to 40 CFR 302 satisfies this requirement).

**Regulatory Citation:** R 299.9306(1)(a)(ii) (*State requirement, incorporates by reference 40 CFR 265.196(d)(1) and (2)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Within 30 days of detection of a release to the environment, a report containing the following information must be submitted to the Regional Administrator:

- 1) Likely route of release migration;
- 2) Characteristics of the surrounding soil (soil composition, geology, hydrogeology, climate);
- 3) Results of any monitoring or sampling conducted, if results are not available within 30 days, submit results as soon as they become available;
- 4) Proximity to downgradient drinking water, surface water, and population areas; and
- 5) Description of response actions taken or planned.

**Regulatory Citation:** R 299.9306(1)(a)(ii) (*State requirement, incorporates by reference 40 CFR 265.196(d)(3)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing/Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Secondary containment, repair or closure provisions:

- 1) If cause of the release was a spill that has not damaged the integrity of the system, may return the system to service as soon as the released waste is removed and any needed repairs are made.
- 2) If cause of the release was a leak from the primary tank system into the secondary containment system, the system must be repaired prior to returning the tank system to service.

**Regulatory Citation:** R 299.9306(1)(a)(ii) (*State requirement, incorporates by reference 40 CFR 265.196(e)*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): Secondary containment, repair or closure provisions:

- 1) If source of release was a leak into the environment from a component of a tank system without secondary containment, must provide the component of the system from which the leak occurred with secondary containment that satisfies §265.193 before it can be returned to service, unless the source of the leak is an aboveground portion of a tank system.
- 2) If the source is an aboveground component that can be visually inspected, the component must be repaired and may be returned to service without secondary containment as long as the requirements of §265.196(f) are satisfied.
- 3) If a component is replaced to comply with §265.196, that component must satisfy the requirements for new tank systems or components under §265.192 and §265.193.
- 4) If a leak occurred in any portion of a tank system component that is not readily accessible for visual inspection, the entire component must be provided with secondary containment in accordance with §265.193 before being returned to use.

**Regulatory Citation:** R 299.9306(1)(a)(ii) (*State requirement, incorporates by reference 40 CFR 265.196(e)(4)*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): If a tank system has been repaired in accordance with §265.196(e) and the repair was extensive (e.g., installation of an internal liner; repair of a ruptured primary or secondary containment vessel), before the tank system can be put into service, the tank system must be certified by an independent, qualified, registered professional engineer that the repaired system is capable of handling hazardous wastes without release for the intended life of the system. Certification must be submitted to the Administrator within seven days after returning the tank system to use.

**Regulatory Citation:** R 299.9306(1)(a)(ii) (*State requirement, incorporates by reference 40 CFR 265.196(f)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing/Reporting

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): For tank system closure, must remove or decontaminate all waste residues, contaminated containment system components, contaminated soils, and structures and equipment contaminated with waste, and manage then as hazardous waste unless §261.3 applies.

**Regulatory Citation:** R 299.9306(1)(a)(ii) (*State requirement, incorporates by reference 40 CFR 265.197(a)*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 2

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): If demonstrated that not all contaminated soil can be practically removed or decontaminated, must close the tank system and perform post closure care in accordance with §265.310 for landfills.

**Regulatory Citation:** R 299.9306(1)(a)(ii) (*State requirement, incorporates by reference 40 CFR 265.197(a)*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): If not all contaminated soil can be practically removed or decontaminated, for purposes of closure, post-closure, and financial responsibility, the tank system is considered to be a landfill and must meet the requirements for landfills under 40 CFR 265 subpart G and H.

**Regulatory Citation:** R 299.9306(1)(a)(ii) (*State requirement, incorporates by reference 40 CFR 265.197(b)*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Ignitable or reactive waste must not be placed in a tank system unless:

- 1) Waste is treated, rendered, or mixed before or immediately after placement in the tank system;
- 2) Waste is stored or treated in such a way that it is protected from any material or conditions that may cause the waste to ignite or react; or
- 3) Tank system is used solely for emergencies.

**Regulatory Citation:** R 299.9306(1)(a)(ii) (*State requirement, incorporates by reference 40 CFR 265.198(a)*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): Sources where ignitable or reactive waste is stored or treated must comply with the requirements for the maintenance of protective distances between the waste management area and any public ways, streets, etc., as required under §260.11 and NFPA:

**Regulatory Citation:** R 299.9306(1)(a)(ii) (*State requirement, incorporates by reference 40 CFR 265.198(b)*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 2

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): Must not place incompatible wastes, or incompatible waste and materials in the same tank system unless §265.17(b) is complied with.

**Regulatory Citation:** R 299.9306(1)(a)(ii) (*State requirement, incorporates by reference 40 CFR 265.199(a)*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): Must not place hazardous waste in a tank system that has not been decontaminated and that previously held an incompatible waste or material, unless §265.17(b) is complied with.

**Regulatory Citation:** R 299.9306(1)(a)(ii) (*State requirement, incorporates by reference 40 CFR 265.199(b)*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 2

### *(4) Hazardous Waste Transportation*

A summary of hazardous waste regulations applicable to hazardous waste transportation is presented below.

**Typical Regulatory Requirement** (Michigan Rule): A hazardous waste generator who transports, or offers for transport, a hazardous waste for management off-site must prepare a manifest to accompany the waste.

**Regulatory Citation:** R 299.9304(1)(a) (*State requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): A hazardous waste generator who transports, or offers for transport, a hazardous waste must use a transporter or generator-owned vehicle that is licensed pursuant to Part 4 of Part 111.

**Regulatory Citation:** R 299.9304(1)(c) (*State requirement*)

**Regulatory Category:** Operational Parameters

**Possible Exemption:** The hazardous waste manifest requirements do not apply to hazardous waste that is produced by a generator of more than 100 kilograms, but less than 1,000 kilograms in a month.

**Minimum Number of Requirements:** 1

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): "If a generator manifests a shipment of hazardous waste out of state and if the state to which the shipment is manifested requires the use of another manifest, then the generator shall use that manifest."

**Regulatory Citation:** R 299.9304(3) (*State requirement*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Before transporting hazardous waste or offering hazardous waste for transportation off-site, the generator shall do the following:

- 1) Package the waste in accordance with applicable Department of Transportation ("DOT") requirements;
- 2) Label each package in accordance with applicable DOT requirements;
- 3) Mark each package in accordance with applicable DOT requirements;
- 4) Placard or offer appropriate placards to the initial transporter.

**Regulatory Citation:** R 299.9305 (*State requirement*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 4

**Typical Regulatory Requirement** (Michigan Rule): If a hazardous waste generator does not receive a copy of the manifest with the signature of the designated facility within 35 days of the date of waste shipment, the generator will:

- 1) Attempt to determine the status of the hazardous waste; and/or
- 2) Submit an exemption report to U.S. EPA and MDEQ if a copy of the manifest signed by the owner/operator of the designated facility is not received within 45 days of the date the waste was shipped.

**Regulatory Citation:** R 299.9308(3) (*State requirement*)

**Regulatory Category:** Operational Parameters/Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): A generator shall keep a copy of each signed manifest for a period of three years.

**Regulatory Citation:** R 299.9307(3) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

### *(5) Hazardous Waste Air Emission Standards for Equipment Leaks, Tanks, and Containers*

A summary of hazardous waste regulations applicable to hazardous waste air emissions from equipment leaks, tanks, and containers are presented below.

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): Subpart BB Air Emission Standards for Equipment Leaks: These standards apply to equipment that contains or contacts hazardous wastes with organic concentrations of at least 10 percent by weight and are managed in less than 90 day tanks or containers.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement incorporates by reference 40 CFR 265 Subpart BB*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Possible Exemption:** Sources subject to 40 CFR 63 Subpart IIII (Future requirement) are exempt from the requirements in Subpart BB of 40 CFR 264 and 265.

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Each piece of equipment subject to 40 CFR 265 Subpart BB shall be marked so as to be distinguished readily from other pieces of equipment.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1050(c)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Pumps in light liquid service:

- 1) Monitor monthly to detect leaks as specified in §265.1063(b);
- 2) Visually inspect each pump weekly.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1052*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Possible Exemptions:** Pumps equipped with dual mechanism seal system that includes a barrier fluid system; pumps that are designated, pursuant to 265.1064(g)(2) as indicated with no detectable emissions by an instrument reading of less than 500 ppm above background; pumps equipped with a closed-vent system capable of capturing and transporting any leakage from the seal or seals to a control device that complies with 265.1060.

**Minimum Number of Requirements:** 2

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): A leak is detected in pumps in light liquid service if:

- 1) An instrument reading of 10,000 ppm or greater is measured; and/or
- 2) Indications of liquids dripping from the pump seal.
- 3) If a leak is detected: repair as soon as practicable, but not later than 15 calendar days after it is detected and make a first attempt at repair no later than 5 calendar days after each leak is detected.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1052(b)(1) and (2) (c)(1) and (2)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Each pressure relief device in gas/vapor service shall be operated with no detectable emission.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1054(a)*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): The pressure relief device shall be returned to a condition of no detectable emissions after each pressure release.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1054(b)*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): Sampling connection systems:

- 1) Must be equipped with a closed-purge, closed-loop, or closed-vent system. The system shall collect the sample purge for return to the process or for routing to the appropriate treatment system.
- 2) Gases displaced during filling of the sample container are not required to be collected or captured.
- 3) Each close-loop, closed-vent, or closed-purge system shall:
  - a) Return the purged process fluid directly to the process line; or
  - b) Collect and recycle the purged process fluid; or
  - c) Be designed and operated to capture and transport all the purged process fluid to a waste management unit that complies with §§265.1085 through 265.1087 or a control device that complies with §265.1060.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1055*)

**Regulatory Category:** Design Parameters/Operational Parameters

**Possible Exemptions:** In-situ sampling systems and sampling systems without purges.

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): Open-ended valves or lines:

- 1) Must be equipped with a cap, blind flange, plug, or a second valve;
- 2) Cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring hazardous waste stream flow through the open-ended valve or line;
- 3) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the hazardous waste stream end is closed before the second valve is closed;
- 4) If a double block and bleed system is used, the bleed valve or line may remain open during operations that require venting the line between the block valves.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1056*)

**Regulatory Category:** Design Parameters/Operational Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): Monitor each valve in gas/vapor or light liquid service monthly, or in accordance with 265.1057(c).

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1057(a)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): Monitor flanges and other connectors within 5 days by the methods specified in §265.1063(b) if evidence of a potential leak is found by visual, audible, olfactory, or other detection method.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1058(a)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Possible Exemptions:** Connectors that are inaccessible, ceramic, or ceramic-lined are exempt from the monitoring requirements and from recordkeeping requirements under §265.1064

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Flanges and other connectors:

- 1) A leak is detected if an instrument reading of 10,000ppm or greater is measured;
- 2) Repair leak as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in §265.1059;
- 3) Make a first attempt at repair of a leak no later than 5 calendar days after each leak is detected;
- 4) First attempts at leak repairs include, but are not limited to §265.1057(e);

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1058(b), (c) and (d)*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Delay of repairs for equipment with leaks detected will be allowed:

1. If the repair is technically infeasible without a hazardous waste management unit shutdown;
2. For equipment that is isolated from the hazardous waste management unit and that does not continue to contain or contact hazardous waste with an organic concentration at least 10% by weight;
3. For valves:
  - a) If owner/operator determined that emission of purged material resulting from immediate repair are greater than the emission likely to result from delay of repair;
  - b) When repair procedures are effected, the purged material is collected and destroyed or recovered in a control device complying with §265.1060;
4. For pumps:
  - a) If repair requires the use of a dual mechanical seal system that includes a barrier fluid system;
  - b) If repair is completed as soon as practicable, but not later than 6 months aft the leak was detected.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1059*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): If subject to the requirements of §265.1057 and elect to comply with an alternative standard that allows no greater than 2% of the valves to leak

## Hazardous and Non-Hazardous Materials Management (continued)

the Administrator must be notified of choice.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1061(b)*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Complete a performance test (§265.1061(c)) initially, annually, and upon request by Administrator, if complying with an alternative standard allowing 2% of the valves to leak.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1061(b)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): If complying with an alternative standard allowing 2% of the valves to leak and a leak is detected, repair in accordance with §265.1057(d) and (e).

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1061(b)*)

**Regulatory Category:** Operational Parameters/Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): If subject to §265.1057, may elect for all valves within a hazardous waste management unit to comply with one of the alternative work practices specified under §265.1062(b)(2) or (3).

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1062(a)(1)*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): Notify the Regional Administrator before implementing one of the alternative work practices.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1062(a)(2)*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): If the percentage of valves leaking is greater than 2%, monitor monthly in compliance with the requirement in §265.1057. May elect to use §265.1062 after meeting requirements of §265.1057(c)(1)

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1062(b)(4)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Leak detection monitoring, as required in §§265.1052 through 265.1062, shall comply with the following;

- 1) Method 21 of 40 CFR 60;
- 2) Detection equipment shall meet performance criteria of Method 21;
- 3) Instruments shall be calibrated daily before use by procedure in Method 21;
  - a) calibration gases shall be zero air;
  - b) a mixture of methane or n-hexane and air at a concentration of approximately, but less than 10,000 ppm methane or n-hexane;
  - c) instrument probe shall be transverse around all potential leak interfaces as close to the interface as possible.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1063(a) and (b)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): Must determine, for each piece of equipment, whether the equipment contains or contacts a hazardous waste with organic concentration that equals or exceeds 10% by weight, using American Society of Testing and Materials (“ASTM”) Methods D2267-88, E 169-87, E 169-88, E 260-85, Method 9060 or 8260 of SW-846, or an application of the knowledge of the nature of the hazardous waste stream or the process by which it was produced. Documentation of a waste determination by knowledge is required.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1063(d)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): If determine that a piece of equipment contains or contacts a hazardous waste with organic concentrations at least 10% by weight, the determination can be revised only after following §265.1063(d)(1) or (2).

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1063(e)*)

**Regulatory Category:** Operational Parameter

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Samples used in determining the percent organic concentration shall be representative of the highest total organic content hazardous waste that is expected to be contained in or contact the equipment.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1063(g)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): To determine if pumps or valves are in light liquid service, use standard reference text for vapor pressures or ASTM D-2879-86.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1063(h)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): Must record the following information in the facility operating record for each piece of equipment subject to 40 CFR 265 Subpart BB:

- 1) Equipment number and hazardous waste management unit identification;
- 2) Approximate locations within the facility;
- 3) Type of equipment;
- 4) % by weight total organics in the hazardous waste stream at the equipment;
- 5) Hazardous waste state at the equipment (e.g., gas/vapor or liquid);
- 6) Method of compliance with the standard (e.g., monthly Leak Detection and Repair or equipped with dual mechanical seals);

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1064(b)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 6

**Typical Regulatory Requirement** (Michigan Rule): If a leak is detected as specified in §§265.1052, 265.1053, 265.1057, 265.1058, the following requirements apply:

- 1) A weatherproof and readily visible identification, marked with equipment number, date evidence of potential leak was found, date leak was detected, shall be attached to leaking equipment;
- 2) Remove identification, except on valves, once leak is repaired;
- 3) For valves, remove identification after it has been monitored for 2 successive months with no leak detected.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1064(c)*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 3

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): When a leak is detected as specified in §§265.1052, 265.1053, 265.1057, 265.1058, the following information shall be recorded in an inspection log and maintained in the facility operating record:

- 1) Instrument and operator identification numbers and equipment identification number.
- 2) Date evidence of potential leak was found, in accordance with §265.1058(a);
- 3) Date leak was detected and attempt dates to repair leak;
- 4) Repair methods for each leak attempt;
- 5) "Above 10,000" if the maximum instrument reading measured after each repair attempt is equal to or greater than 10,000 ppm;
- 6) "Repair Delayed" and the reason for delay if leak is not repaired within 15 calendar days;
- 7) Supporting documentation for delayed repair of a valve;
- 8) Signature of the owner/operator or designate whose decision it was that the repair could not be effected by a hazardous waste management unit shutdown;
- 9) Expected date of successful repair if repair is delayed;
- 10) Date of successful repair of leak.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1064(d)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 10

**Typical Regulatory Requirement** (Michigan Rule): Record in the facility record the monitoring and inspection information indicating proper operation and maintenance of the control devices other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1064(f)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): Record in a log and keep in the facility operating record the following:

- 1) List of equipment, except welded fittings, subject to 40 CFR 265 Subpart BB;
- 2) List of identification numbers which are designated as no detectable emissions;
- 3) List of equipment identification for pressure relief devices required to comply with §265.1054(a);
- 4) Dates of compliance tests required in §§265.1052(e), 265.1053(l), 265.1054, and 265.1057(f);
- 5) List of identification numbers for equipment in vacuum service;
- 6) Identification, either by list or location, of equipment that contacts hazardous waste with an organic concentration of at least 10% by weight for a period of less than 300 hours per year.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1064(g)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 6

**Typical Regulatory Requirement** (Michigan Rule): The following is required for all valves subject to §265.1057(g) and (h) and shall be recorded in a log and kept in the facility operating record:

- 1) List of identification numbers for valves that are designated as unsafe to monitor, an explanation why unsafe, and plan for monitoring valve;
- 2) List of identification numbers for valves that are designated as difficult to monitor, an explanation why difficult, and schedule for monitoring valve.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1064(h)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): Record the following in the facility operating record for valves subject to §265.1062:

- 1) Schedule for monitoring;
- 2) Percent of valves leaking during monitoring period.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1064(i)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): Maintain records required under §265.1064 for three years.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1064(l)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Subpart CC Air Emission Standards for Tanks, Surface Impoundments, and Containers: Standards applicable to tanks and containers that manage hazardous waste with an average VOC concentration of 500 ppm.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265 Subpart CC*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Perform a waste determination for a hazardous waste managed in a tank, surface impoundment, or container exempt from using air emission controls, when requested by the Administrator. Follow method under §265.1083(d).

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1083(d)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 15

**Typical Regulatory Requirement** (Michigan Rule): To determine average VOC concentration of a hazardous waste at the point of waste origination, follow 265.1084(a).

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1084(a)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 15

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): Determine the maximum organic vapor pressure (“OVP”) for each hazardous waste placed in a tank using Tank Level 1 controls in accordance with standards under §265.1085(c). Use either direct measurement as specified under 265.1084(c)(3) or knowledge of waste as specified under 265.1084(c)(4) to determine maximum OVP.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1084(c)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): The procedure under §265.1084(d) must be followed to determine no detectable organic emissions for the purposes of complying with 40 CFR 265 Subpart CC.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1084(d)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 11

**Typical Regulatory Requirement** (Michigan Rule): Control air pollutant emissions from each tank that manages hazardous waste using Tank Level 1 or Level 2 controls if all of the following requirements are met:

- 1) Hazardous waste in the tank has a maximum OVP which is less than the maximum VP limit for the tank’s design capacity category:
  - a) Equal to or greater than 151 m<sup>3</sup>, max. OVP limit for the tank is 5.2 kPa;
  - b) Equal to or greater than 75 m<sup>3</sup> but less than 151m<sup>3</sup>, maximum OVP limit for the tank is 27.6 kPa;
- 2) Less than 75m<sup>3</sup>, maximum OVP limit for the tank is 76.6 kPa;
- 3) Hazardous waste in the tank is not heated to a temperature of greater than the temperature the maximum OVP;
- 4) Hazardous waste is not treated by the owner/operator using a waste stabilization process.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1085(b)(1)*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 4

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): Perform a new waste determination whenever changes to the hazardous waste managed in the tank could potentially cause the maximum OVP to increase to a level that equal to or greater than the maximum OVP limit of the tank design capacity category.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement; incorporates by reference 40 CFR 265.1085(c)(1)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): The tank with Tank Level 1 control shall be equipped with a fixed roof meeting the following specifications:

- Fixed roof and closure device shall be designed to form a continuous barrier over the entire surface area of the hazardous waste in the tank.
- Installed such that there are no visible cracks, holes, gaps, or other open spaces between roof section joints or between the interface of the roof edge and the tank wall.
- Openings of fixed roof shall be equipped with a closure device designed to operate so when the closure device is secured in the closed position, there are no visible cracks, holes, gaps or other open space in the device or between the perimeter of the opening and the closure device.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement; incorporates by reference 40 CFR 265.1085(c)(2)*)

**Regulatory Category:** Design Parameters/Operational Parameters

**Minimum Number of Requirements:** 3

**Typical Regulatory Requirement** (Michigan Rule): Whenever a hazardous waste is placed in the tank, the fixed roof shall be installed with each closure device secured in the closed position except as provided under this section.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1085(c)(3)*)

**Regulatory Category:** Operational Parameters

**Possible Exemptions:** Opening of closure device is allowed to provide access to the tank and to remove accumulated sludge or other residue from the tank.

**Minimum Number of Requirements:** 4

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): Visually inspect the air emission control equipment to check for defects initially when the fixed roof and its closure device become subject to this section and annually thereafter.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1085(c)(4)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): If a defect is detected, repair the defect in accordance with the requirements of §265.1085(k).

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1085(c)(4)*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Control air pollutant emissions from each container having a design capacity greater than 0.1 m<sup>3</sup> (26 gal.) or less than or equal to 0.46 m<sup>3</sup> (121 gal.) with the Container Level 1 standards, §265.1087(c).

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1087(b)*)

**Regulatory Category:** Design Parameters/Operational Parameters

**Minimum Number of Requirements:** 4

**Typical Regulatory Requirement** (Michigan Rule): Containers meeting Container Level 1 controls include containers that meet applicable U.S. DOT regulations on packaging hazardous materials for transportation.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1087(c)(1)(i)*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): A container used to meet the requirements of §265.1087(c)(1)(ii) or (iii) shall be equipped with covers and closure devices, as applicable to the container, that are composed of suitable materials to minimize exposure of the hazardous waste to the atmosphere and to maintain the equipment integrity as long as it's in service.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1087(c)*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Install all covers and closure devices for the container, as applicable to the container, and secure and maintain each closure device in the closed position except as provided under this section.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1087(c)(3)*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Inspect containers and their covers and closure devices within 24 hours when hazardous waste is already in the container at the time the owner/operator first accepts possession of the container.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1087(c)(4)(i)*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): Inspect containers and their covers and closure devices once every 12 months when a container used for managing hazardous waste remains onsite for 1 year or more.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1087(c)(4)(ii)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement (Michigan Rule):** If a defect is detected for the container, cover, or closure device, make first efforts at the repair not later than 24 hours. Repairs shall be completed as soon as possible, but no later than 5 calendar days. If repair of defect cannot be completed in 5 days, then the hazardous waste shall be removed from the container and their container shall not be used to manage hazardous waste until the defect is repaired.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1087(c)(4)(iii)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement (Michigan Rule):** Maintain at the facility a copy of the procedure used to determine that containers with a capacity of 0.46m<sup>3</sup> or greater, which do not meet applicable DOT regulations as specified in §265.1087(f), are not managing hazardous waste in light material service.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1087(c)(5)*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement (Michigan Rule):** Develop and implement a written plan and schedule to perform the inspections and monitoring required by §§265.185 through 265.1088. Incorporate this plan and schedule into the facility inspection plan required under §265.15.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1089(b)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement (Michigan Rule):** Records required under §265.1090 shall be maintained in the operating records for a minimum of 3 years.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement, incorporates by reference 40 CFR 265.1090(a)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Possible Exemptions:** Air emission control equipment design documentation and information required under 265.1090(i).

**Minimum Number of Requirements:** 1

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): A tank using air emission controls in accordance with §265.1085 shall prepare and maintain records with the following information:

- 1) Tank identification number (or other unique identifier);
- 2) Record for each inspection required under §265.1085, including date of inspection and defect information.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement; incorporates by reference 40 CFR 265.1090(b)(1)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): Tanks using a fixed roof to comply with Tank Level 1 control requirements shall maintain the following records for each determination of the maximum OVP of the hazardous waste in the tank:

- Date and time samples were collected.
- Analysis method used.
- Analysis results.

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement; incorporates by reference 40 CFR 265.1090(b)(2)(i)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 3

**Typical Regulatory Requirement** (Michigan Rule): Maintain the following information when designating a cover as "unsafe to inspect and monitor":

- Identification numbers for waste management units with covers that are designated as "unsafe to inspect and monitor."
- Explanation for each cover stating why the cover is unsafe to inspect and monitor.
- Plan and schedule for inspecting and monitoring each cover

**Regulatory Citation:** R 299.9306(1)(a) (*State requirement; incorporates by reference 40 CFR 265.1090(g)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 3

## Hazardous and Non-Hazardous Materials Management (continued)

### B. Non-hazardous Waste

**Typical Regulatory Requirement** (Michigan Statute): Non-hazardous solid waste transported off-site for disposal is disposed of in a municipal solid waste landfill (also Type II Landfill).

**Regulatory Citation:** Part 115 of Michigan Act 451 (*State requirement*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Solid waste must be characterized in accordance with the rules of Part 111 to determine if it is a hazardous waste.

**Regulatory Citation:** Section 324.12103(1)(a) (*State requirement*)

**Regulatory Category:** Other Activities

**Future Requirements:** The State of Michigan is proposing to eliminate the hazardous waste characteristic for copper, which would result in spray brazing waste no longer being characterized as hazardous.

**Minimum Number of Requirements:** 5

**Typical Regulatory Requirement** (Michigan Rule): The generator of a liquid industrial waste (including used oil) must obtain a generator identification number assigned by the U.S. EPA or MDEQ.

**Regulatory Citation:** Section 324.12103(1)(b) (*State requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): A generator will "Engage, employ or contract for the transportation of liquid industrial waste only with a transporter licensed under this part, . . ."

**Regulatory Citation:** Section 324.12103(1)(b) (*State requirement*)

**Regulatory Category:** Other Activities

**Possible Exemption:** A person transporting liquid industrial waste on property in which he or she owns is exempt from specific requirements of Part 121 of Michigan Act 451.

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): "Utilize and retain a separate manifest for each shipment of liquid industrial waste transported to a designated facility."

**Regulatory Citation:** Section 324.12103(1)(b) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Possible Exemption:** The MDEQ may authorize the use of a consolidated manifest.

**Minimum Number of Requirements:** 1

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): "Submit a copy of the manifest to the MDEQ by the tenth day after the end of the month in which a load of waste is transported."

**Regulatory Citation:** Section 324.12103(1)(e) (*State requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): If a generator does not receive a copy of the manifest with the signature of the designated facility within 35 days of the date of waste shipment, the generator will:

- 1) Attempt to determine the status of the waste; and/or
- 2) Submit an exemption report to MDEQ if a copy of the manifest signed by the owner/operator of the designated facility is not received within 45 days of the date the waste was shipped.

**Regulatory Citation:** Section 324.12103(1)(g) and (h) (*State requirement*)

**Regulatory Category:** Operational Parameters/Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): A generator shall keep a copy of each signed manifest for a period of three years.

**Regulatory Citation:** Section 324.12103(3) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): If an incident involving liquid industrial waste occurs which could threaten public health or the environment, a generator must:

- 1) take appropriate action to protect public health and the environment;
- 2) immediately notify MDEQ and local authorities; and
- 3) within 30 days prepare a written report of the incident.

**Regulatory Citation:** Section 324.12111 (*State requirement*)

**Regulatory Category:** Reporting/Other Activities

**Minimum Number of Requirements:** 3

**Typical Regulatory Requirement** (Michigan Rule): Maintain as part of the facility record a copy of any written incident reports prepared pursuant to Section 324.12111(2).

**Regulatory Citation:** Section 324.12111(2) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

### C. Oil and Petroleum Products

## Hazardous and Non-Hazardous Materials Management (continued)

40 CFR Part 112 - Oil Pollution Prevention, establishes procedures, methods, equipment and other requirements to prevent the discharge of oil and other petroleum products into navigable waters of the United States (as defined in Section 112.2). For the purposes of the Profile, the Typical Plant manages oil and petroleum products in quantities that subject it to the Oil Pollution Prevention requirements of Part 112.

**Typical Regulatory Requirement** (Federal Rule): Owners and operators of facilities which have or which could reasonably be expected to discharge oil to waters of the United States must prepare a SPCC Plan. This requirement applies to facilities that have:

- 1) Above-ground oil storage capacity of;
- 2) Aggregate above-ground oil storage capacity greater than 1,320 gallons; or
- 3) Total underground storage capacity greater than 42,000 gallons.

**Regulatory Citation:** 40 CFR 112.1 and 112.3 (*Federal requirement*)

**Regulatory Category:** Other Activities

**Possible Exemption:** The facility, due to its location, could not reasonably be expected to have a discharge of oil in quantities that may be harmful to navigable waters of the United States.

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Federal Rule): The owner or operator of a facility subject to the Oil Pollution Prevention requirements must prepare and implement an SPCC Plan or amend the plan if necessary to comply with the July 17, 2002 amendments based on the following compliance schedule:

- 1) Facility in operation on or before August 16, 2002 must amend plan, if necessary to ensure compliance, on or before August 17, 2004, and implement the plan no later than February 18, 2005;
- 2) Facility becomes operational between August 16, 2002 through February 18, 2005 must prepare plan on or before February 18, 2005, and implement no later than February 18, 2005;
- 3) Facility becomes operational after February 18, 2005, must prepare and implement plan before it begins operations.

**Regulatory Citation:** 40 CFR 112.3(a) and (b) (*Federal requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Federal Rule): A licensed Professional Engineer must review and certify a Plan for it to be effective to satisfy the requirements of Part 112.

**Regulatory Citation:** 40 CFR 112.3(d) (*Federal requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Federal Rule): A complete copy of the SPCC Plan must be maintained at the facility and be available to U.S. EPA for on-site review.

**Regulatory Citation:** 40 CFR 112.3(e) (*Federal requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Federal Rule): If a facility subject to 40 CFR Part 112 discharges more than 1,000 gallons of oil in a single spill event to navigable waters of the United States, or discharges more than 42 U.S. gallons of oil in each of two discharges occurring within any twelve month period, the owner or operator shall submit specific information (including a copy of the SPCC Plan) to the Regional Administrator of U.S. EPA and the appropriate State agency.

**Regulatory Citation:** 40 CFR 112.4(a) and (c) (*Federal requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Federal Rule):

- 1) Owners or operators of a facility subject to the SPCC Plan requirements shall amend the SPCC Plan whenever there is a change in facility design, construction, operation or maintenance which materially affects the facility's potential to discharge oil to navigable waters of the United States or adjoining shorelines;
- 2) Amendments to the Plan shall be fully implemented as soon as possible, but not later than six months after such change occurs;
- 3) No amendment to the Plan shall be effective unless it has been certified by a Professional Engineer.

**Regulatory Citation:** 40 CFR 112.5(a) and (c) (*Federal requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 3

**Typical Regulatory Requirement** (Federal Rule): A review and evaluation of the SPCC Plan must be performed at least once every five years from the date such facility becomes subject to the SPCC Plan requirements.

**Regulatory Citation:** 40 CFR 112.5(b) (*Federal requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Federal Rule): The SPCC Plan must be prepared in accordance with good engineering practices and have the full approval of management at a level with authority to commit the necessary resources to fully implement the Plan.

**Regulatory Citation:** 40 CFR 112.7 (*Federal requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Federal Rule): SPCC Plans must include a discussion of past oil spill events, corrective actions, and plans for preventing recurrence. In addition, a prediction of likely oil spill events must be included if a reasonable potential exists for equipment failure, and appropriate containment and/or diversionary structures (e.g., dikes, curbs, culverts) on equipment to prevent discharged oil from reaching a navigable water course should be provided.

**Regulatory Citation:** 40 CFR 112.7(a), (b), and (c) (*Federal requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 3

**Typical Regulatory Requirement** (Federal Rule): When it is determined that the installation of structures or equipment to prevent discharging oil is not practicable, the owner or operator must clearly demonstrate such impracticability, and provide a strong SPCC Plan and a written commitment of manpower, equipment, and materials required to expeditiously control and remove any harmful quantity of oil discharged.

**Regulatory Citation:** 40 CFR 112.7(d) (*Federal requirement*)

**Regulatory Category:** Design Parameters/Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Federal Rule): "Inspections required by this part should be in accordance with written procedures developed for the facility by the owner or operator. These written procedures and a record of the inspections, signed by the appropriate supervisor or inspector, should be made part of the SPCC Plan and maintained for a period of three years."

**Regulatory Citation:** 40 CFR 112.7(e) (*Federal requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing/Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Federal Rule):

- 1) Properly train personnel in the operation and maintenance of oil spill equipment and applicable pollution control laws;
- 2) Designate a person who is responsible for oil spill prevention; and
- 3) Conduct spill prevention training/briefings at least once per year.

**Regulatory Citation:** 40 CFR 112.7(f) (*Federal requirement*)

**Regulatory Category:** Training

**Minimum Number of Requirements:** 3

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Federal Rule): The following security requirements must be complied with:

- 1) All plants handling oil should be fully fenced with gates or guards;
- 2) Valves that will permit the flow of a tank's content to the ground should be securely locked closed when in non-operational or stand by status;
- 3) Starter controls on all oil transfer pumps must be locked in "off" position or accessible only to authorized personnel;
- 4) Securely cap loading/unloading connections of oil pipelines when not in service; and
- 5) Provide adequate facility lighting.

**Regulatory Citation:** 40 CFR 112.7(g) (*Federal requirement*)

**Regulatory Category:** Design Parameters/Operational Parameters

**Minimum Number of Requirements:** 5

**Typical Regulatory Requirement** (Federal Rule): Where tank truck loading/unloading rack areas do not flow to a catchbasin or treatment facility, secondary containment designed to hold at least the maximum capacity of any single compartment of a tank truck unloaded in the plant should be provided.

**Regulatory Citation:** 40 CFR 112.7(h) (*Federal requirement*)

**Regulatory Category:** Design Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Federal Rule): "An interlocking warning light or physical barrier system, or warning signs, should be provided in loading/unloading areas to prevent vehicular departure before complete disconnect of flexible or fixed transfer lines." Also, prior to departure of any tank car or truck, all outlets should be closely examined for leakage and tightened to prevent leakage in transit.

**Regulatory Citation:** 40 CFR 112.7(h) (*Federal requirement*)

**Regulatory Category:** Operational Parameters/Design Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Federal Rule): Drainage from diked storage areas should be restrained by valves or other means to prevent a spill or leakage of oil. Diked areas may be manually emptied if the condition of the accumulated liquid is examined beforehand to ensure that no oil is discharged into water.

**Regulatory Citation:** 40 CFR 112.8(b)(1) (*Federal requirement*)

**Regulatory Category:** Design Parameters/Operational Parameters

**Minimum Number of Requirements:** 2

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Federal Rule): Plant drainage systems from undiked areas should flow into ponds, lagoons, or catchment basins designed to retain oil; or the final discharge of all in-plant ditches should be equipped with a diversion system to prevent the discharge of oil.

**Regulatory Citation:** 40 CFR 112.8(b)(3) and (4) (*Federal requirement*)

**Regulatory Category:** Design Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Federal Rule): The management of oil in bulk storage tanks/containers must include:

- 1) materials and construction that are compatible with material stored;
- 2) secondary containment adequate to contain the entire contents of the largest tank/container plus precipitation;
- 3) drainage of water from the diked area must comply with applicable water quality standards;
- 4) buried metal tanks must be protected from corrosion and leak tested regularly;
- 5) Aboveground tanks should be integrity tested periodically and when conducting material repairs;
- 6) Control leakage through defective internal heating coils;
- 7) Engineer or update each container installation in accordance with good engineering practice to avoid discharges;
- 8) Promptly correct visible discharges which result in a loss of oil from a container and promptly remove any accumulation of oil in diked areas; and,
- 9) mobile or portable tanks should be positioned to prevent spilled oil from reaching navigable waters.

**Regulatory Citation:** 40 CFR 112.8(c) (*Federal requirement*)

**Regulatory Category:** Design Parameters/Operational Parameters

**Minimum Number of Requirements:** 8

**Typical Regulatory Requirement** (Federal Rule): Oil transfer piping, pipe supports and valves should be designed and operated in a manner that prevents releases of oil.

**Regulatory Citation:** 40 CFR 112.7(e)(3) (*Federal requirement*)

**Regulatory Category:** Design Parameters/Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Federal Rule): All aboveground valves, piping, and appurtenances should be regularly inspected and conduct integrity and leak testing of buried piping.

**Regulatory Citation:** 40 CFR 112.8(d)(4) (*Federal requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Federal Rule): Vehicle traffic granted entry into the facility should be warned to be sure that the size of the vehicle will not endanger aboveground piping.

**Regulatory Citation:** 40 CFR 112.8(d)(5) (*Federal requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Oil storage facilities shall maintain adequate surveillance of all manufacturing processes, treatment systems, storage areas, and other such areas so that any oil loss can be detected in a timely manner and procedures implemented to prevent any oil from reaching the waters of the State.

**Regulatory Citation:** R 324.2004 (*State requirement*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Any facility that has any outdoor storage areas used to store oil in excess of a threshold management quantity shall provide secondary containment structures for those areas that comply with the following:

- 1) Be constructed of materials that are capable of containing any released oil so that the oil can be recovered and prevents its release to any public sewer system, surface waters or ground waters of the State;
- 2) Provide a capacity not less than 10% of the total volume of containers within the containment structure or 100% of the largest single container within the structure, whichever is larger;
- 3) Allow surveillance of the containers, timely detection of any leaks and recovery of any spillage, and the removal and proper disposal of any captured precipitation so that the minimum required capacity is maintained at all times.

**Regulatory Citation:** R 324.2005(1) and (2) (*State requirement*)

**Regulatory Category:** Design Parameters

**Possible Exemption:** Alternate secondary containment systems may be used upon written approval of the MDEQ (R 324.2005(5)).

**Minimum Number of Requirements:** 4

**Typical Regulatory Requirement** (Michigan Rule): All use areas and indoor storage areas shall be designed, constructed, maintained, and operated to prevent the release of oil through sewers, drains, or otherwise directly or indirectly into any public sewer system or to the surface or groundwaters of the State.

**Regulatory Citation:** R 324.2005(3) (*State requirement*)

**Regulatory Category:** Design Parameters

**Minimum Number of Requirements:** 1

## Hazardous and Non-Hazardous Materials Management (continued)

### D. Polluting Materials

**Typical Regulatory Requirement** (Michigan Rule): On-land facilities that handle an amount of any polluting material equal to or more than its threshold management quantity and which is situated such that loss of polluting materials could directly or indirectly reach the surface or groundwaters of the State is subject to the Part 5 Rules (Spillage of Oil and Polluting Materials) promulgated pursuant to Part 31 of 1994 Public Act 451, as amended.

**Regulatory Citation:** R 324.2001(g) (*State requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): On-land facilities subject to the Part 5 Rules shall maintain adequate surveillance of all manufacturing processes, treatment systems, storage areas, and other such areas so that any polluting material loss can be detected in a timely manner and procedures implemented to prevent any polluting materials from reaching the waters of the State.

**Regulatory Citation:** R 324.2004 (*State requirement*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Any on-land facility that has any outdoor storage areas used to store liquid polluting materials in excess of a threshold management quantity shall provide secondary containment structures for those areas that comply with the following:

- 1) Be constructed of materials that are capable of containing any released polluting material so that the material can be recovered and prevents its release to any public sewer system, surface waters or ground waters of the State;
- 2) Provide a capacity not less than 10% of the total volume of containers within the containment structure or 100% of the largest single container within the structure, whichever is larger;
- 3) Allow surveillance of the containers, timely detection of any leaks and recovery of any spillage, and the removal and proper disposal of any captured precipitation so that the minimum required capacity is maintained at all times.

**Regulatory Citation:** R 324.2005(1) and (2) (*State requirement*)

**Regulatory Category:** Design Parameters

**Possible Exemption:** Alternate secondary containment systems may be used upon written approval of the MDEQ (R 324.2005(5)).

**Minimum Number of Requirements:** 4

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): All use areas and indoor storage areas shall be designed, constructed, maintained, and operated to prevent the release of oil through sewers, drains, or otherwise directly or indirectly into any public sewer system or to the surface or groundwaters of the State.

**Regulatory Citation:** R 324.2005(3) (*State requirement*)

**Regulatory Category:** Design Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Polluting materials in solid form shall be enclosed, covered, contained, or otherwise protected to prevent run-on and any runoff, seepage, or leakage to any public sewer system or to the surface or groundwaters of the State. Solid polluting materials shall not be stored within 50 feet of a designated wetland or the shore or bank of any lake or stream. Solid polluting material containment structures located within a 100-year floodplain shall be designed and constructed to remain effective during a 100-year flood.

**Regulatory Citation:** R 324.2005(4) (*State requirement*)

**Regulatory Category:** Design Parameters

**Minimum Number of Requirements:** 3

**Typical Regulatory Requirement** (Michigan Rule): The owner or operator of any on-land facility that handles polluting materials in excess of the applicable threshold management quantity shall develop, maintain, and operate in accordance with a Pollution Incident Prevention ("PIP") Plan. At a minimum, that Plan shall include all of the following:

- 1) General facility information;
- 2) Procedures for emergency notification of specific emergency response entities;
- 3) Spill control and cleanup procedures;
- 4) A polluting material inventory;
- 5) A site plan depicting relevant site structures and all storage and use areas where polluting materials are managed on-site in quantities exceeding the threshold management quantity;
- 6) Outdoor secondary containment structures;
- 7) Other controls;
- 8) Provisions for general facility physical security.

**Regulatory Citation:** R 324.2006(1) (*State requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): The owner or operator shall maintain the pollution incident prevention plan at the facility available for inspection upon request. Within 30 days of its completion, the owner or operator shall notify the department and certify that the facility is in full compliance with these rules and notify the local emergency planning committee and the local health department serving the facility that the plan has been completed and is available upon request. Within 30 days of receiving a request for a copy of the plan, the facility shall submit a copy of the plan to the requesting agency.

**Regulatory Citation:** R 324.2006(2) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing/ Reporting

**Minimum Number of Requirements:** 3

**Typical Regulatory Requirement** (Michigan Rule): The facility owner or operator shall evaluate the Pollution Incident Prevention Plan or integrated plan every 3 years or after any release that requires implementation of the plan, whichever is more frequent. The facility shall update the plan when facility personnel, processes, or procedures identified in the plan change or as otherwise necessary to maintain compliance with this rule. Upon preparation of an updated plan, the facility shall renotify the department and recertify compliance with these rules.

**Regulatory Citation:** R 324.2006(4) (*State requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing/ Reporting

**Minimum Number of Requirements:** 3

**Typical Regulatory Requirement** (Michigan Rule): If the department determines that a pollution incident prevention plan is incomplete or inadequate, and informs the facility, in writing, of the department's findings and recommendations, and requests modification of the plan, then the facility shall modify the plan and resubmit it within 30 days after receipt of the department's request.

**Regulatory Citation:** R 324.2006(5) (*State requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): The owner, operator or manager of a facility that releases or permits to be released any polluting material in excess of a threshold reporting quantity during any 24-hour period shall notify the department as soon as practicable after detection of the release (1-800-292-4706) and file a written report (outlining the release cause, discovery, and response measures to prevent recurrence) with the department's waste management division within 10 days of the release.

**Regulatory Citation:** R 324.2007(1) and (2) (*State requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 2

## Hazardous and Non-Hazardous Materials Management (continued)

### E. Underground Storage Tanks

**Typical Regulatory Requirement** (Michigan Statute): "A person who is the owner of an underground storage tank system shall register and annually renew the registration on the underground storage tank system with the department." The system shall be registered prior to its use. Additionally, an installation registration form shall be submitted at least 45 days prior to installation of the system.

**Statutory Citation:** R 324.21102 (1) and (2) (*State Requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 3

**Typical Regulatory Requirement** (Michigan Statute): "A person who is the owner of an underground storage tank system shall notify the department of any change in the registration information or of the removal of an underground storage tank system from service."

**Statutory Citation:** R 324.21102 (4),(5) and (6) (*State Requirement*)

**Regulatory Category:** Reporting

**Possible Exemptions:** A person is not required to notify the department of changes in the contents of the system if the contents are changed routinely and all materials stored in the system are indicated on the registration form. A person is also not required to notify the department of a test conducted on the tank system but shall furnish this information upon request of the department.

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Statute): "The owner of an underground storage tank system shall, upon registration or renewal of registration, pay a registration fee of \$100.00 for each underground storage tank included in the underground storage tank system."

**Statutory Citation:** R 324.21102 (8) (*State Requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Statute): "The owner of an underground storage tank system or an underground storage tank that is part of the system that has been closed or removed shall notify the department of the closure or removal pursuant to rules promulgated by the department. The owner of an underground storage tank system shall continue to pay registration fees on underground storage tanks that have been closed or removed until notification of the closure or removal is provided on the required form pursuant to these rules."

**Statutory Citation:** R 324.21102 (10) (*State Requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 2

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Statute): If there is a suspected or confirmed release from an underground storage tank system, the owner or operator of the system shall notify the department within 24 hours and if requested by the department shall file supplementary information.

**Statutory Citation:** R 324.21103 (2) (*State Requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Statute): A person shall not knowingly deliver a regulated substance into, repair, or test an underground storage tank system that is not registered.

**Statutory Citation:** R 324.21110 (1) and (2)

**Regulatory Category:** Operational Parameters (*State Requirement*)

**Minimum Number of Requirements:** 3

**Typical Regulatory Requirement** (Michigan Rule): "The requirements of these rules apply to all owners and operators of a UST system."

**Regulatory Citation:** R 29.2103(a) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): "Upon notification by the implementing agency, a person shall not deliver a regulated substance into any UST system if the system is not in compliance with these rules."

**Regulatory Citation:** R 29.2103(e)(1) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): "A person shall not tamper with, remove, or disregard written notification affixed to the UST system."

**Regulatory Citation:** R 29.2103(e)(2) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 2

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): An owner and operator shall not continue to use a UST system that is causing a release and shall expeditiously empty the UST system of all regulated substances until repaired.

**Regulatory Citation:** R 29.2103(e)(4) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): "An implementing agency may order, at the expense of the owner, a tightness test of a UST system..., the installation of dry well test holes, or the emptying of a UST system..., when there is reason to believe that the UST system is releasing a regulated substance."

**Regulatory Citation:** R 29.2103(f) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): All UST systems shall comply with the provisions of R 29.4103 to R 29.4104 and R 29.4201 to R 29.4319 of the Michigan Administrative Code. These rules shall supercede any conflicting provision of the Michigan Administrative Code.

**Regulatory Citation:** R 29.2103(j) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Federal Rule): No person may install a deferred UST system for the purpose of storing regulated substances unless the UST system:

- 1) Will prevent releases due to corrosion or structural failure for the operational life of the UST system;
- 2) Is cathodically protected against corrosion, constructed of noncorrodible material, steel clad with a noncorrodible material, or designed in a manner to prevent the release or threatened release of any stored substance; and,
- 3) Is constructed or lined with material that is compatible with the stored substance.

**Regulatory Citation:** 40 CFR 280.11 (*Federal requirement*)

**Regulatory Category:** Design Parameters

**Minimum Number of Requirements:** 2

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): Each tank shall be properly designed and constructed, and any portion which is underground and which routinely contains product shall be protected from corrosion as follows:

- 1) The tank shall be constructed of fiberglass-reinforced plastic; or
- 2) The tank shall be constructed of steel and be cathodically protected; or
- 3) The tank shall be constructed of a steel-fiberglass-reinforced-plastic composite, with the fiberglass reinforced plastic being a minimum of 100 mils thick.

**Regulatory Citation:** R 29.2109(a)(1), (2) and (3) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Design Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): Tank construction and corrosion protection shall be determined by the department to be designed to prevent the release or threatened release of any stored regulated substance in a manner that is protective of human health and the environment.

**Regulatory Citation:** R 29.2109(a)(5) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Design Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): The piping that routinely contains regulated substances and is in contact with the ground shall be properly designed, constructed, and protected from corrosion in compliance with one of the following provisions:

- 1) The piping shall be constructed of fiberglass-reinforced plastic;
- 2) The piping shall be constructed of metal and be cathodically protected.

**Regulatory Citation:** R 29.2109(b)(1)(2) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Design Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): The piping construction and corrosion protection shall be determined by the department to be designed to prevent the release or threatened release of any stored regulated substance in a manner that is protective of human health and the environment.

**Regulatory Citation:** R 29.2109(b)(4) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Design Parameters

**Minimum Number of Requirements:** 2

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): To prevent spilling and overfilling associated with product transfer to the UST system, owners and operators shall use the following spill and overfill prevention equipment:

- 1) Spill prevention equipment that will prevent release of product to the environment when the transfer hose is detached from the fill pipe;
- 2) Overfill prevention equipment that will automatically shut off flow into the tank or alert the transfer operator by restricting flow into the tank or by triggering a high-level alarm.

**Regulatory Citation:** R 29.2109(c)(1) and (2) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Design Parameters

**Possible Exemption:** Owners and operators are not required to use the specified spill and overfill prevention equipment if alternative equipment is used that is determined by the department to be at least as protective of human health and the environment.

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): "All tanks and piping shall be properly designed, constructed, installed, operated, and maintained in accordance with the provisions of R 29.4101 et seq. Of the Michigan Administrative Code."

**Regulatory Citation:** R 29.2109(d) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Design Parameters/Operational Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): A person shall not install an UST system unless the UST system, with or without secondary containment, is more than the following distances from the following items:

- 1) Fifty feet from a single-family drinking water well;
- 2) Seventy-five feet from a type IIb and III noncommunity public water well;
- 3) Two hundred feet from a type I community and type IIa noncommunity public water well, and a public surface water intake.

**Regulatory Citation:** R 29.2109(d)(1)(i), (ii), and (iii) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Design Parameters

**Minimum Number of Requirements:** 2

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): Tanks may not be installed at a location where loads from adjacent structures of any kind can be transmitted to the tank. A structure or foundation shall not be erected or constructed within a minimum of 10 feet from any point on the tank surface unless footings extend to the bottom of the tank excavation.

**Regulatory Citation:** R 29.2109(d)(1)(iv) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Design Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): A person shall not install an UST system without secondary containment within any of the following distances from the following items:

- 1) Fifty feet of a single-family drinking water well;
- 2) Seventy-five feet of a type IIb noncommunity or type III public drinking water wells;
- 3) Two hundred feet of a type I community and type IIa noncommunity drinking water wells, and a public surface water intake.

**Regulatory Citation:** R 29.2109(d)(2) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Design Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): A person shall not install an UST system, excluding the replacement of an UST system, without secondary containment, unless the UST system is more than the following distances from the following items:

- 1) Three hundred feet from a single-family drinking water well;
- 2) Eight hundred feet from a type IIb and III noncommunity drinking water wells;
- 3) Two thousand feet from type I community and type IIa noncommunity drinking water wells, and a public surface water intake.

**Regulatory Citation:** R 29.2109(d)(3) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Design Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): The state fire marshal may require that the UST system be located or use secondary containment, or both, so as to eliminate or minimize the danger of potential contamination or may disapprove a proposed UST installation.

**Regulatory Citation:** R 29.2109(d)(5) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Design Parameters

**Minimum Number of Requirements:** 2

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): Holiday testing of composite tanks shall be performed on-site before installation, and holidays shall be repaired according to the manufacturer's recommendations.

**Regulatory Citation:** R 29.2109(d)(6) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Design Parameters/Operational Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): For double-wall UST systems and single-wall UST systems with integral secondary containment, the interstice shall be tested by pressure or vacuum for a minimum of 1 hour after being placed in the excavation to determine inner and outer wall integrity. The test shall be conducted according to the manufacturer's recommendations. All leaks shall be repaired according to the manufacturer's recommendations.

**Regulatory Citation:** R 29.2109(d)(7) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): A person shall not install a UST system, including the replacement of a UST system, without secondary containment, if the UST is located within an approved delineated wellhead protection area.

**Regulatory Citation:** R 29.2109(d)(8) and (9) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Operational Parameters

**Possible Exemption:** These requirements may be modified if a person can demonstrate, using hydrogeological information satisfactory to the department, that the UST installation would not present a hazard to a public water supply.

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): All owners and operators shall ensure that one or more of the following methods of certification, testing, or inspection are used to demonstrate compliance by providing a certification of compliance on the UST registration form:

- 1) The installer has been certified by the tank, piping and liner manufacturers;
- 2) The installer has been certified or licensed by the department;
- 3) The installation has been inspected and certified by a registered professional engineer with education and experience in UST system installation;
- 4) The installation has been inspected and approved by the implementing agency;
- 5) The owner and operator have complied with another method for ensuring compliance that is determined by the department to be at least as protective of human health and the environment.

**Regulatory Citation:** R 29.2109(e)(1), (2), (3), (4), and (6) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): All existing UST systems shall comply with one of the following requirements:

- 1) New UST performance standards under section 280.20;
- 2) Upgrading requirements;
- 3) Closure requirements under Subpart G including applicable requirements for corrective action under subpart F.

**Regulatory Citation:** R 29.2111(a)(1), (2), and (3) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Design Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): Steel tanks shall be upgraded to meet the provisions of section 280.20(d) and one of the following requirements:

- 1) Interior lining;
- 2) Cathodic protection;
- 3) Internal lining combined with cathodic protection;
- 4) Other methods approved by the department.

**Regulatory Citation:** R 29.2111(b) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Design Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): Metal piping that routinely contains regulated substances and is in contact with the ground shall be cathodically protected.

**Regulatory Citation:** R 29.2111(c) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Design Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): All existing UST systems shall comply with new UST system spill and overfill prevention equipment requirements specified in section 280.20.

**Regulatory Citation:** R 29.2111(d) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Design Parameters

**Minimum Number of Requirements:** 2

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): Owners shall register the UST system under part 211 of Act no. 451 of the Public Acts of 1994, as amended, being §324.21101 et seq. of the Michigan Compiled Laws, on a form provided by the department. All USTs shall be registered and all fees paid before any UST is removed from the ground or closed in place under subpart G, unless written approval is obtained from the department. To be considered properly registered, new owners of existing UST systems shall register the UST system with the department within 30 days of ownership. Also, any change in tank status or any change in the information required on the form shall be reported to the department on the registration form within 30 days of the change.

**Regulatory Citation:** R 29.2113(a) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): A UST registration form provided by the department shall be submitted by the owner to the department 45 days before installation of the UST system.

**Regulatory Citation:** R 29.2113(b) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): The implementing agency shall be notified not less than 7 calendar days before installation of the UST system and the UST system shall not be brought into use until it has been registered with the department on the registration for underground storage tank form.

**Regulatory Citation:** R 29.2113(c) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): For registration forms required to be submitted, an owner shall provide all of the applicable information for each tank registered. For each tank installed or upgraded after December 22, 1988, an owner shall also provide all of the information required in the certification of compliance section of the form.

**Regulatory Citation:** R 29.2113(f) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 2

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): All owners and operators of new UST systems shall certify, in the registration form, compliance with all of the following requirements:

- 1) Installation of tanks and piping under section 280.20(e);
- 2) Cathodic protection of steel tanks and piping under section 280.20(a) and (b);
- 3) The financial responsibility rules promulgated under subpart H;
- 4) Release detection under sections 280.41 and 280.42.

**Regulatory Citation:** R 29.2113(g) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Design Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): An owner of a new UST system shall ensure that the installer certifies, in the registration form, that the methods used to install the tanks and piping comply with the requirements in section 280.20(d).

**Regulatory Citation:** R 29.2113(h) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): Any person who sells a tank intended to be used as an underground storage tank shall notify the purchaser of the tank of the owner's registration obligations.

**Regulatory Citation:** R 29.2113(i) (*State requirement; incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): An owner of an UST system shall display proof of valid registration on the UST system or in the owner's place of business, or both, as required by the department.

**Regulatory Citation:** R 29.2113(j) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement (Federal Rule):** Owners and operators must ensure that releases due to spilling or overfilling do not occur. The owner and operator must ensure that the volume available in the tank is greater than the volume of product to be transferred to the tank before the transfer is made and that the transfer operation is monitored constantly to prevent overfilling and spilling.

**Regulatory Citation:** 40 CFR 280.30(a) (Federal requirement)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement (Federal Rule):** The owner and operator must report, investigate, and clean up any spills and overfills in accordance with section 280.53.

**Regulatory Citation:** 40 CFR 280.30(b) (Federal requirement)

**Regulatory Category:** Reporting/Operational Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement (Michigan Rule):** All owners and operators of steel UST systems with corrosion protection must comply with the following requirements to ensure that releases due to corrosion are prevented for as long as the UST system is used to store regulated substances:

- 1) All corrosion protection systems must be maintained to continuously provide protection;
- 2) All UST systems with cathodic protection systems shall be inspected for proper operation by a qualified cathodic protection tester;
- 3) UST systems with impressed cathodic protection systems must also be inspected every 60 days to ensure proper operation;
- 4) Records of the cathodic protection operation must be maintained;
- 5) Galvanic anode systems with a buried copper-copper sulfate reference electrode that can be read at a surface test station, may be inspected using a test measurement device designed for owners/operators not meeting the cathodic protection tester definition;
- 6) Another method determined by the department to be equally protective.

**Regulatory Citation:** R 29.2115 (State requirement, incorporates by reference 40 CFR Part 280 subparts A to H)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing/Operational Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement (Federal Rule):** Owners and operators must use an UST system made of or lined with materials that are compatible with the substance stored in the UST system.

**Regulatory Citation:** 40 CFR 280.32 (Federal requirement)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 2

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): Alterations to UST systems for product compatibility, repairs or upgrades shall be properly conducted in accordance with the provisions of sections 280.20(d) and 280.21(b) and (c).

**Regulatory Citation:** R 29.2117(a) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): Repairs to fiberglass-reinforced plastic tanks shall be made in accordance with the provisions of section 280.20(d).

**Regulatory Citation:** R 29.2117(b) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): Metal pipe sections and fittings that have released product as a result of corrosion or other damage shall be replaced. Fiberglass pipes and fittings that have released product shall be replaced or repaired in accordance with the manufacturer's specifications.

**Regulatory Citation:** R 29.2117(c) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): Repaired or upgraded tanks and piping shall be tightness-tested in accordance with the provisions of sections 280.43 (c) and 280.44(b) within 30 days following the date of the completion of the repair or upgrade. Exceptions may be made if certain conditions are met.

**Regulatory Citation:** R 29.2117(d) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): Within 6 months following the repair of any cathodically protected UST system, the cathodic protection system must be tested in accordance with section 280.31(b) and (c) to ensure proper operation.

**Regulatory Citation:** R 29.2117(e) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): UST system owners and operators must

## Hazardous and Non-Hazardous Materials Management (continued)

maintain records of each repair for the remaining operating life of the UST system that demonstrate compliance with the requirements of this section.

**Regulatory Citation:** R 29.2117(f) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement (Michigan Rule):** Owners and operators shall submit all of the following information to the department:

- 1) Reports of all releases;
- 2) Corrective actions;
- 3) Notification before permanent closure or change in service.

**Regulatory Citation:** R 29.2119(a) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement (Michigan Rule):** Owners and operators shall maintain the following information:

- 1) Documentation of operation of corrosion protection equipment;
- 2) Documentation of UST system repairs;
- 3) Recent compliance with release detection requirements;
- 4) Results of the site assessment conducted at permanent closure.

**Regulatory Citation:** R 29.2119(b) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement (Michigan Rule):** Owners and operators shall keep required records pursuant to either of the following provisions:

- 1) At the UST site and have the records immediately available for inspection by the implementing agency;
- 2) At a readily available alternative site and provide the records for inspection to the implementing agency upon request.

**Regulatory Citation:** R 29.2119(c) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): Owners and operators of new and existing UST systems must provide a method, or combination of methods, of release detection that:

- 1) Can detect a release from any portion of the tank and the connected underground piping that routinely contains product;
- 2) Is installed, calibrated, operated, and maintained in accordance with the manufacturer's instructions, including routine maintenance and service checks for operability or running condition; and
- 3) Meets the performance requirements in sections 280.43 or 280.44, with any performance claims and their manner of determination described in writing by the equipment manufacturer or installer.

**Regulatory Citation:** R 29.2121(a) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Design Parameters/Operational Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): When a release detection method indicates a release may have occurred, owners or operators shall notify the department in accordance with subpart E.

**Regulatory Citation:** R 29.2121(b) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Owners and operators of all UST systems shall comply with the release detection requirements of subpart D.

**Regulatory Citation:** R 29.2121(c) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Design Parameters/Operational Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): Any existing UST system that cannot apply a method of release detection that complies with the requirements must complete the closure procedures in subpart G.

**Regulatory Citation:** R 29.2121(d) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 2

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): Owners and operators of petroleum UST systems shall provide release detection for tanks and piping as follows:

- 1) Tanks shall be monitored at least once every 30 days.
- 2) Underground piping that routinely contains regulated substances shall be monitored in a manner consistent with the type of piping (e.g., pressurized or suction).

**Regulatory Citation:** R 29.2122(a) and (b) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): Owners and operators of hazardous substance UST systems must provide release detection.

**Regulatory Citation:** R 29.2123 (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H, specifically 40 CFR 280.42*)

**Regulatory Category:** Design Parameters/Operational Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): Product inventory control, or another test of equivalent performance, shall be conducted monthly to detect a release of not less than 1% of flow-through plus 130 gallons on a monthly basis.

**Regulatory Citation:** R 29.2125(a) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): Manual tank gauging and automatic tank gauging must meet specific requirements.

**Regulatory Citation:** R 29.2125(b) and (d) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Design Parameters/Operational Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): Tank tightness testing, or another test of equivalent performance, shall be capable of detecting a 0.1 gallon per hour leak rate from any portion of the tank while accounting for the effects of thermal expansion or the contraction of the product, vapor pockets, tank deformation, evaporation or condensation, and the location of the water table.

**Regulatory Citation:** R 29.2125(c) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): Testing or monitoring for vapors within the soil gas of the excavation zone must meet specific requirements.

**Regulatory Citation:** R 29.2125(e) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): Testing or monitoring for liquids on the groundwater shall meet specific requirements.

**Regulatory Citation:** R 29.2125(f) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): Interstitial monitoring for double-wall UST systems and integral secondary containment systems shall be performed in accordance with the manufacturer's recommendation and which can detect a release through the inner wall in any portion of the tank that routinely contains product.

**Regulatory Citation:** R 29.2125(g) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): The department may approve another method of release detection if a person can demonstrate, by clear and convincing evidence, that the method can detect a release as effectively as any of the specified release detection methods.

**Regulatory Citation:** R 29.2125(h) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Methods which alert the operator to the presence of a leak by restricting or shutting off the flow of regulated substances through piping or triggering an audible or visual alarm may be used only if they detect leaks of 3 gallons per hour at 10 pounds per square inch line pressure within 1 hour. An annual test of the operation of the leak detector must be conducted in accordance with the manufacturer's requirements.

**Regulatory Citation:** R 29.2126(a) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H, specifically 40 CFR 280.44(a)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): A periodic test of line tightness may be conducted only if it can detect a 0.1 gallon per hour leak rate at one and one-half times the

## Hazardous and Non-Hazardous Materials Management (continued)

operating pressure and secondary containment piping shall be tested by a positive pressure of not less than 5 psig for a minimum of one hour.

**Regulatory Citation:** R 29.2126(b) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H), specifically 40 CFR 280.44(b)*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement (Michigan Rule):** Any of the methods in section 280.43(e)-(h) may be used for release detection from piping if they are designed to detect a release from any portion of the underground piping that routinely contains regulated substances.

**Regulatory Citation:** R 29.2126(c) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H), specifically 40 CFR 280.44(c)*)

**Regulatory Category:** Design Parameters/Operational Parameters

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement (Michigan Rule):** All written performance claims pertaining to any release detection system used, and the manner in which these claims have been justified or tested by the equipment manufacturer or installer, shall be maintained for 5 years, or for another reasonable period of time determined by the department, from the date of installation.

**Regulatory Citation:** R 29.2127(a) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement (Michigan Rule):** The results of any sampling, testing, or monitoring shall be maintained for not less than 2 years or for another reasonable period of time determined by the department. The results of tank tightness testing shall be retained for not less than 5 years.

**Regulatory Citation:** R 29.2127(b) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): Written documentation of all calibration, maintenance, and repair of release detection equipment permanently located on-site shall be maintained for not less than 2 years after the servicing work is completed or for another reasonable time period determined by the state fire marshal. Any schedules of required calibration and maintenance provided by the release detection equipment manufacturer shall be retained for 5 years from the date of installation.

**Regulatory Citation:** R 29.2127(c) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Owners or operators of UST systems shall report to the department when any of the following conditions occur:

- 1) The discovery of released regulated substances at the UST site or in the surrounding area;
- 2) Unusual operating conditions;
- 3) Monitoring results from a release detection method indicate a release may have occurred.

**Regulatory Citation:** R 29.2129 (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): When an UST system is temporarily closed, owners or operators shall continue the operation and maintenance of corrosion protection and any release detection. However, release detection is not required if the UST system is empty.

**Regulatory Citation:** R 29.2151(a) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirement** (Michigan Rule): When an UST system is temporarily closed, owners and operators must also leave vent lines open and functioning, and cap and secure all other lines, pumps, manways, and ancillary equipment.

**Regulatory Citation:** R 29.2151(b) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): When an UST system is temporarily closed for more than 12 months, owners and operators shall permanently close the UST system if it does not meet the performance standards for new UST systems or the upgrading requirements, except that the spill and overfill equipment requirements do not have to be met. Owners and operators shall permanently close the substandard UST systems at the end of this 12-month period unless the department provides an extension which shall not be more than 12 months. Owners and operators shall complete a site assessment before applying for an extension.

**Regulatory Citation:** R 29.2151(c) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): The owner of a temporarily closed UST system is subject to payment of a registration fee.

**Regulatory Citation:** R 29.2151(d) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Immediately before bringing a UST system back into use, the owners and operators shall perform tank and piping tightness tests on a UST system that is temporarily closed for 12 months or more and shall confirm that the UST system is tight.

**Regulatory Citation:** R 29.2151(e) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Not less than 30 days before beginning either permanent closure or a change in service, or within another reasonable time period determined by the department, an owner and operator, or a person employed by the owner and operator, shall notify the department of the owner's and operator's intent to permanently close or make the change in service, unless such action is in response to corrective action. The required assessment of the excavation zone shall be performed after notifying the department, but before completion of the permanent closure or change in service. The owner and operator has the final responsibility to make sure the notification is given.

**Regulatory Citation:** R 29.2153(a) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): To permanently close a tank, an owner and operator shall empty and clean it by removing all liquids and accumulated sludges and purge it of all vapors. All tanks taken out of service permanently shall also be either removed from the ground or, when structures above or near the tank preclude removal, filled with an inert solid material. Piping permanently removed from service shall be emptied of all liquids and sludges, purged and capped, or removed from the ground.

**Regulatory Citation:** R 29.2153(b) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Continued use of an UST system to store a non-regulated substance is considered a change-in-service. Before a change-in-service, owners and operators must empty and clean the tank by removing all liquid and accumulated sludge and conduct a site assessment.

**Regulatory Citation:** R 29.2153(c) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Notification of permanent closure or a change in service shall be on a form provided by the department that shall be completed as specified. The owner and operator shall notify the department not less than 2 working weekdays before the actual permanent closure or change in service of the UST system..

**Regulatory Citation:** R 29.2153(d) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Upon notification of beginning either permanent closure or a change in service, the department shall forward an approval notice to the owner or operator. The approval is valid for 6 months. If the UST system is not closed or a change in service does not occur within the 6-month period, the owner and operator shall resubmit the notification form.

**Regulatory Citation:** R 29.2153(e) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): Within 30 days of permanent closure or a change in service of the UST system, the owner and operator shall sign and submit an amended registration form or site assessment form, to the department.

**Regulatory Citation:** R 29.2153(f) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Before permanent closure or a change-in-service is completed, owners and operators must measure for the presence of a release where contamination is most likely to be present at the UST site. In selecting sample types, sample locations, and measurement methods, owners and operators must consider the method of closure, the nature of the stored substance, the type of backfill, the depth to ground water, and other factors appropriate for identifying the presence of a release. The requirements of this section are satisfied if one of the external release detection methods is operating at the time of closure and indicates no release has occurred.

**Regulatory Citation:** R 29.2155(a) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Upon closure or change in service of an UST, a site assessment shall be performed according to specific technical criteria.

**Regulatory Citation:** R 29.2155(d), (e) and (g) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): A site assessment for piping shall be performed after emptying and purging piping or after removal of piping according to specific technical criteria.

**Regulatory Citation:** R 29.2155 (f) and (g) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): Copies of site assessment results shall be submitted to the department, within 45 days of the sample being taken, together with the site assessment report form provided by the department. The owner and operator shall complete the information specified on the form.

**Regulatory Citation:** R 29.2155(h) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): When directed by the department, the owner and operator of an UST system permanently closed before January 2, 1999, shall assess the excavation zone and close the UST system.

**Regulatory Citation:** R 29.2157 (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Owners and operators shall maintain records in accordance with the provisions of section 280.34 that are capable of demonstrating compliance with closure requirements. The results of the site assessment shall be maintained for not less than 3 years after completion of permanent closure or a change in service by mailing these records to the department and by either the owners and operators who took the UST system out of service or by the current owners and operators of the UST system site.

**Regulatory Citation:** R 29.2159 (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Federal Rule): Owners or operators of petroleum underground storage tanks must demonstrate financial responsibility for taking corrective action and for compensating third parties for bodily injury and property damage caused by accidental releases arising from the operation of petroleum underground storage tanks in specific per-occurrence and aggregate amounts.

**Regulatory Citation:** 40 CFR 280.93 (*Federal requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Federal Rule): Subject to certain limitations, an owner or operator may use any one or combination of several mechanisms to demonstrate financial responsibility for one or more underground storage tanks.

**Regulatory Citation:** 40 CFR 280.94 (*Federal requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): If a provider of financial responsibility cancels or fails to renew for reasons other than incapacity of the provider, the owner or operator must obtain alternate coverage within 60 days after receipt of the notice of termination. If the owner or operator fails to obtain alternate coverage within 60 days after receipt of notice of termination, the owner or operator must notify the Director of the implementing agency of such failure and submit specific information.

**Regulatory Citation:** R 29.2168b(b) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): An owner or operator shall submit the appropriate forms documenting current evidence of financial responsibility to the director of the implementing agency as follows:

- 1) Within 30 days after the owner or operator identifies a release;
- 2) If the owner or operator fails to obtain alternate coverage within 30 days after the owner or operator receives notice of cancellation or non-renewal of financial assurance mechanism;
- 3) As required pursuant to the provisions of sections 280.95(g) and 280.109(b).

**Regulatory Citation:** R 29.2168c(a) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): An owner or operator must certify compliance with the financial responsibility requirements as specified in the new tank notification form when notifying the appropriate state or local agency of the installation of a new underground storage tank.

**Regulatory Citation:** R 29.2168c(b) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

## Hazardous and Non-Hazardous Materials Management (continued)

**Typical Regulatory Requirement** (Michigan Rule): The Director of the implementing agency may require an owner or operator to submit evidence of financial assurance or other information relevant to compliance at any time.

**Regulatory Citation:** R 29.2168c(c) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): Owners and operators must maintain evidence of all financial assurance mechanisms used to demonstrate financial responsibility for an underground storage tank until released from the requirements under section 280.113. An owner or operator must maintain such evidence at the underground storage tank site or the owner's or operator's place of business. Records maintained off-site must be made available upon request of the implementing agency.

**Regulatory Citation:** R 29.2168d(a) (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Michigan Rule): An owner or operator commencing bankruptcy proceedings or exhibiting other financial incapacity, shall notify the director of the implementing agency within specific timeframes and by specific methods.

**Regulatory Citation:** R 29.2171 (*State requirement, incorporates by reference 40 CFR Part 280 subparts A to H*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

### F. Hazardous Chemicals, Extremely Hazardous Substances and Toxic Chemicals

Facilities that use or have on-site hazardous chemicals, extremely hazardous substances, or toxic chemicals in excess of established threshold quantities are subject to the reporting requirements of Title III of the SARA of 1986 (SARA, also known as EPCRA). A summary of the specific SARA Title III requirements applicable to the typical automobile assembly plant is provided in Section 4.1.

#### 3.4.2 Area Specific Requirements

The management of hazardous materials in the various processes at the Typical Plant is subject to the facility-wide requirements presented in Section 3.4.1. There are no unique requirements applicable to individual processes.

## Hazardous and Non-Hazardous Materials Management (continued)

A summary of the processes that involve the management of hazardous materials is provided in this section.

### A. Body Shop

- Welding/Brazing/Soldering
- Sanding/Sand Blasting/Rough Grinding
- Fluidized Bed Cleaner

### B. Paint Shop

- Paint Shop
- Electrodeposition Primer Coating
- Coating with Anti-chip Paint
- Application of Sealers and Adhesives
- Coating of Basecoat and Clearcoat
- Deadener Paint Application
- Flash Prime Paint Application
- Primer Surfaces
- Coating of Blackout Paint
- Miscellaneous Cleaners/Solvents
- Paint Mix Room

### C. Main Assembly

- Filling of Automobiles with Fluids
- Final Repair Paint Process
- Maintenance Paint Booth

### D. Powerhouse

- Boilers

### E. Wastewater Treatment Plant

- Drying of Paint Sludge
- Wastewater Treatment Plant

### F. Other

- Tank Farm
- Drum Storage Pad

**SECTION 4.1 EMERGENCY PLANNING & COMMUNITY RIGHT-TO-KNOW**

## 4. NON-MEDIA SPECIFIC REQUIREMENTS

### 4.1 Emergency Planning & Community Right-to-Know

Numerous hazardous materials are used in the Typical Plant. Many of these materials are used in quantities that subject the facility to the reporting requirements of Title III of the SARA of 1986 (also known as the EPCRA). Examples of these materials include:

Isopropyl Alcohol	Water Borne Basecoat	Argon Gas
Grit Steel	Exterior Paint Enamel	Propane
Windshield Washer Solution	Primer Sealer	#2 Diesel Fuel
Hydraulic Steering Fluid	Deadener Undercoat Fluid	Muriatic Acid
Gasoline	Lightweight Sealer	Sulfuric Acid
Automatic Transmission Fluid	Flat Black Paint	Metal Cleaner (Hydrochloric and Nitric Acids)
Manual Transmission Fluid	Special Order Paint	Aliphatic Polyamine
Water Compatible Solvent	Hydrated Lime Slack	Zinc Compounds
Antifreeze	Caustic Soda	Sodium Nitrite
High Viscosity Adhesive	Paint Equipment Cleaner	Copper
Air Conditioner Refrigerant	Phosphate Equipment Cleaner	Lead Compounds
Anti-Corrosive Phosphate	Removable Spray Coating	Nickel Compounds
Exterior Clear Coat Paint Enamel	Removable Booth Coating	Manganese Compounds
Engine Oil	Acetylene Gas	Nitrate Compounds

Facilities that use certain hazardous substances in established threshold quantities are required to provide information to specific local, state and federal agencies on the types, amounts and locations of these substances, as well as any routine and accidental releases.

#### 4.1.1 Facility-Wide Requirements

A summary of the SARA Title III requirements applicable to the overall site is presented in this section.

**Typical Regulatory Requirement** (Federal Rule): If a facility has on-site at any time an extremely hazardous substance in a quantity equal to or greater than the threshold planning quantity for that substance, the facility must notify the State Emergency Response Commission in writing on or before May 17, 1987, or within sixty days after first becoming subject to this requirement, whichever is later.

**Regulatory Citation:** 40 CFR 355.30(b) (Section 302) (*Federal requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

## Emergency Planning & Community Right-to-Know (continued)

**Typical Regulatory Requirement** (Federal Rule): Any facility subject to the notification requirements of Section 302 must designate a facility representative who will participate in the local emergency planning process as the facility's emergency response coordinator. The facility shall provide the name of the facility representative to the local emergency planning committee.

**Regulatory Citation:** 40 CFR 355.30(c) (Section 303) (*Federal requirement*)

**Regulatory Category:** Operational Parameters/Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Federal Rule):

- 1) The owner or operator of a facility subject to Section 355.30 shall inform the local emergency planning committee of any changes at the facility which may be relevant to the emergency planning;
- 2) Upon request of the local emergency planning committee, the owner or operator shall provide information necessary for the development or implementation of the local emergency plan.

**Regulatory Citation:** 40 CFR 355.30(d)(1) and (2) (*Federal requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 2

**Typical Regulatory Requirements** (Federal Rule): Any facility which produces, uses or stores a *hazardous chemical* and which has a release of a reportable quantity of an extremely hazardous substance or a Comprehensive Environmental Response, Compensation, and Liability Act hazardous substance must:

- 1) Immediately notify the National Response Center, State Emergency Response Commission and the Community Emergency Coordinator for the local emergency planning committee affected by the release;
- 2) Provide information regarding the release, including name of chemical released, quantity, time and duration of release, impacted media, known or anticipated health risks, precautions to take as a result of the release, and names and telephone numbers of persons to contact for further information; and
- 3) Provide a written follow-up notice regarding the release.

**Regulatory Citation:** 40 CFR 302.6; 40 CFR 355.40 (Section 304) (*Federal requirement*)

**Regulatory Category:** Reporting

**Possible Exemptions:** The notification requirements of Section 304 do not apply to:

- 1) Releases which result in exposure to persons solely within the boundaries of the facility;
- 2) Federally permitted releases;
- 3) Releases which are continuous and stable as defined in Section 302.8(b);
- 4) Releases not meeting the definition of a release; and
- 5) Transportation-related releases that are reported to the 911 operator.

**Minimum Number of Requirements:** 3

## Emergency Planning & Community Right-to-Know (continued)

**Typical Regulatory Requirement** (Federal Rule): Facilities that manage OSHA hazardous chemicals and extremely hazardous substances above minimum threshold levels must submit Material Safety Data Sheets ("MSDSs") or a list of these chemicals to:

- 1) The State Emergency Response Commission;
- 2) The local emergency planning committee; and
- 3) The local fire department.

A revised MSDS must be submitted to the appropriate groups upon discovery of significant new information concerning the hazardous chemical for which an MSDS was submitted. The owner or operator of a facility who has not submitted the MSDS for a hazardous chemical present at the facility shall do so upon request.

**Regulatory Citation:** 40 CFR 370.21 (Section 311) (*Federal requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Federal Rule): A facility that manages hazardous chemicals or extremely hazardous substances above minimum threshold levels must submit a Tier I or Tier II inventory form by March 1 of each year for each subject chemical to:

- 1) The State Emergency Response Commission;
- 2) The local emergency planning committee; and
- 3) The local fire department.

The minimum threshold quantities that subject a facility to the requirements of Section 312 include hazardous chemicals present in quantities at or exceeding 10,000 pounds and extremely hazardous substances present in quantities at or exceeding 500 pounds or their threshold planning quantity, whichever is less.

**Regulatory Citation:** 40 CFR 370.25 (Section 312) (*Federal requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 30

**Typical Regulatory Requirement** (Federal Rule): The owner or operator of a facility that has submitted an inventory form under Section 370.25 shall allow on-site inspections by the local fire department.

**Regulatory Citation:** 40 CFR 370.25(d) (*Federal requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

## Emergency Planning & Community Right-to-Know (continued)

**Typical Regulatory Requirement** (Federal Rule): For each toxic chemical manufactured (including imported), processed, or otherwise used in excess of an applicable threshold quantity at a covered facility for a calendar year, a completed EPA Form R must be submitted to EPA and the state in which the facility is located.

**Regulatory Citation:** 40 CFR 372 (Section 313) (*Federal requirement*)

**Regulatory Category:** Reporting

**Possible Exemptions:**

- 1) *De minimis* concentrations of a toxic chemical in a mixture;
- 2) Toxic chemicals present in an article;
- 3) Specific uses such as a structural component of the facility, products for routine janitorial or grounds maintenance; personal employee products, maintenance products for facility motor vehicles, background chemicals in air and water intakes; and,
- 4) Laboratory activities.

**Minimum Number of Requirements:** 20

**Typical Regulatory Requirement** (Federal Rule): A copy of all completed EPA Form R reports and supporting documentation must be retained for a period of three years from the date of submission of a report under Section 372.30.

**Regulatory Citation:** 40 CFR 372.10 (*Federal requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

### 4.1.2 Specific Area Requirements

The use and management of hazardous materials at the Typical Plant is subject to the facility-wide SARA Title III requirements presented in Section 4.1.1. There are no unique requirements applicable to the individual processes, outside of guidance for calculating quantities reported under requirements of 40 CFR 372.

A summary of the various processes that manage materials subject to SARA Title III requirements is provided.

#### A. Paint Shop

- Phosphate System
- Electrodeposition Primer Coating
- Coating with Anti-chip Paint
- Application of sealers and adhesives
- Coating of Basecoat and Clearcoat
- Deadener Paint Application
- Flash Prime Paint Application
- Primer Surfacer
- Coating of Blackout Paint

**Emergency Planning & Community Right-to-Know (continued)**

- Paint Storage Room
- Paint Mix Room

**B. Main Assembly**

- Filling Automobiles with Fluids
- Final Repair Paint Process
- Maintenance Paint Booth

**C. Wastewater Treatment Plant**

**D. Other**

- Tank Farm
- Drum Storage Pad

**SECTION 4.2 TOXIC SUBSTANCE CONTROL ACT**

## 4.2 Toxic Substance Control Act

TSCA addresses numerous topics including pre-manufacturing notices, chemical imports and exports, lead-based paint, asbestos and polychlorinated biphenyls (“PCB’s”). This document addresses only those portions of the TSCA related to PCB’s because of their potentially significant environmental impact. Other topics in the TSCA are not addressed in this document.

Historically, PCBs have been used in dielectric fluids in electric equipment (e.g., transformers and capacitors), in hydraulic fluids and in other uses. The use and management of PCBs in Michigan is regulated by U.S. EPA under 40 CFR Part 761 – Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce and Use Prohibitions of the TSCA. These regulations include specific requirements applicable to anyone that uses or manages PCBs or PCB-containing equipment at concentrations of 50 parts per million (ppm) or greater.

Because the manufacturing of PCBs was discontinued in the United States in 1977, newer automobile assembly facilities are not likely to have PCBs on-site unless they are present in equipment that has been salvaged and is being reused. Older facilities are more likely to have PCBs on-site, and if so, would need to comply with the general PCB requirements under TSCA. A summary of the requirements that would apply the Typical Plant that has PCB-containing equipment on-site is provided.

**Typical Regulatory Requirement** (Federal Rule): PCB-containing equipment and articles must be properly marked as PCB-containing.

**Regulatory Citation:** 40 CFR 761.40 (*Federal requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Federal Rule): Wastes containing PCBs at concentrations of 50 ppm or greater must be disposed of in an incinerator or landfill in compliance with applicable TSCA requirements.

**Regulatory Citation:** 40 CFR 761.60 (*Federal requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

## Toxic Substance Control Act (continued)

**Typical Regulatory Requirement** (Federal Rule): Specific PCB items may be stored temporarily in an area that does not comply with specific storage requirements for up to 30 days from the date of their removal from service provided the items are: marked with the date they were removed from service and other appropriate labeling, and checked for leaks on a schedule specific to the type of PCB waste.

**Regulatory Citation:** 40 CFR 761.65 (c) (*Federal requirement*)

**Regulatory Category:** Other Activities/Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Federal Rule): Spills resulting from the release of materials containing PCBs at concentrations of 50 ppm or greater must be cleaned-up following EPA's *PCB Spill Cleanup Policy*.

**Regulatory Citation:** 40 CFR 761 Subpart G (*Federal requirement*)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Federal Rule): Owners or operators of a facility that use or store PCBs or PCB items above established minimum levels must develop and maintain at the facility all required annual records and a written annual document log of the disposition of PCBs and PCB items. The annual document log shall be maintained for at least 3 years after the facility ceases using or storing PCBs and PCB items above established minimum levels.

**Regulatory Citation:** 40 CFR 761.180(a) (*Federal requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Federal Rule): A generator of PCB waste shall not process, store, dispose of, transport or offer for transportation PCB waste without having received an EPA identification number from EPA.

**Regulatory Citation:** 40 CFR 761.202(b) (*Federal requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Federal Rule): A generator of PCB waste must notify EPA of their PCB waste activities.

**Regulatory Citation:** 40 CFR 761.205 (*Federal requirement*)

**Regulatory Category:** Reporting

**Minimum Number of Requirements:** 1

## Toxic Substance Control Act (continued)

**Typical Regulatory Requirement** (Federal Rule): A generator who transports or offers for transport PCB waste for management off-site must prepare a manifest to accompany the waste.

**Regulatory Citation:** 40 CFR 761.207(a) (*Federal requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Federal Rule):

- 1) If the state to which the PCB waste is being shipped supplies the manifest and requires its use, then the generator must use this manifest.
- 2) If the state in which the generator is located supplies the manifest and requires its use, then the generator must use this manifest.

**Regulatory Citation:** 40 CFR 761.207(c) and (d) (*Federal requirement*)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Federal Rule): "Generators of PCB waste shall keep a copy of each Certificate of Disposal that they receive from disposers of PCB waste among the records they retain under Section 761.180(a)."

**Regulatory Citation:** 40 CFR 761.218(d)(1) (*Federal requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Federal Rule): If a generator does not receive a copy of the manifest with the signature of the designated facility within 35 days of the date of waste shipment, the generator will:

- 1) Attempt to determine the status of the waste; and/or
- 2) Submit an exemption report to EPA if a copy of the manifest signed by the owner/operator of the designated facility is not received within 45 days of the date the waste was shipped.

**Regulatory Citation:** 40 CFR 761.208(a)(4) and 761.215 (*Federal requirement*)

**Regulatory Category:** Operational Parameters/Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Federal Rule): A generator shall keep a copy of each signed manifest for a period of three years.

**Regulatory Citation:** 40 CFR 761.209(a) (*Federal requirement*)

**Regulatory Category:** Monitoring, Recordkeeping, and Testing

**Minimum Number of Requirements:** 1

**SECTION 4.3 OZONE DEPLETING SUBSTANCES**

### **4.3. Clean Air Act Title VI: Ozone Depleting Substances**

ODS are compounds (e.g., CFC, HCFC, halons) that are believed by some to contribute to stratospheric ozone depletion by accelerating the natural destruction cycles of the ozone layer. Regulatory and voluntary programs have been developed to protect the stratospheric ozone layer. The Montreal Protocol on Substances that Deplete the Ozone Layer is a treaty signed by over 150 countries to protect the earth's ozone layer. The Protocol was implemented in the United States by the CAA (Title VI). Sections included under Title VI are implemented in the Federal Protection of Stratospheric Ozone regulations (40 CFR 82) and the Code of Federal Regulations.

The Typical Plant may have numerous pieces of equipment using and containing a refrigerant (e.g. air conditioners, chillers, water coolers). The common refrigerant used in air conditioners for automobiles and trucks is CFC-12 (commonly known as freon). The U.S. EPA banned the production of freon in December 1995 and reviewed alternatives to CFC-12 under the Significant New Alternative Policy ("SNAP"). The Typical Plant uses a non-ozone-depleting substance, Hydrofluorcarbon ("HFC") HFC-134a, an acceptable U.S. EPA substitute for freon. HFC-134a is not classified as a class I or class II substance; however, it is subject to use conditions under federal regulations. A refrigerant includes any substance that is a class I or class II substance and a substance that is a substitute for a class I or class II substance.

The Profile has been prepared assuming a single maintenance area, three technicians, and considered the equipment type and applicable Federal restriction as area specific requirements. Activities at the Typical Plant are as follows:

- contract certified technicians or employ certified technicians to perform the maintenance, service, repair, and/or disposal activities of MVAC and appliances; and
- own or lease refrigerant recycling equipment.

#### **4.3.1 Area Specific Requirements**

Regulations have been developed to prohibit venting and achieve the lowest possible emissions of a refrigerant during the maintenance, service, repair and disposal of MVACs and appliances, including commercial refrigeration equipment. Equipment used for commercial purposes that contain or use a class I or class II substance, including air conditioners, refrigerators, chillers, or freezers are classified as appliances. Small appliances are identified as units that are fully manufactured, charged, and hermetically sealed in a factory, use a class I or class II substance, and contain less than five pounds of the refrigerant (e.g. room and window air conditioners, dehumidifiers, under-the-counter ice makers, vending machines, packaged terminal heat pumps and air conditioners, and drinking water coolers). Appliances at the Typical Plant include retail refrigeration and cold storage equipment.

## Clean Air Act Title VI: Ozone Depleting Substances (continued)

This section identifies the typical regulatory requirements for recycling and reducing emissions during the maintenance, servicing, repairing and disposing of MVACs and appliances.

**Typical Regulatory Requirement** (Federal Rule): Technicians who repair or service HFC-134a MVACs must be trained and certified by an approved EPA organization.

**Regulatory Citation:** 40 CFR 82.34 (Federal requirement)

**Regulatory Category:** Training

**Possible Exemptions:** A technician trained to handle CFC-12 does not require certification to handle HFC-134a.

**Minimum Number of Requirements:** 3

**Typical Regulatory Requirement** (Federal Rule): Equipment that recovers and recycles CFC-12 refrigerant or HFC-134a must meet the applicable standards set forth under appendix A through appendix E of this subpart.

**Regulatory Citation:** 40 CFR 82.36(a) and (b) (Federal requirement)

**Regulatory Category:** Other Activities

**Possible Exemptions:** Uncertified refrigerant recycling equipment if it meets the requirements of 82.36(b)

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Federal Rule): Automotive service technicians must be certified to handle non-ozone depleting refrigerants.

**Regulatory Citation:** 62 FR 68025 (Federal requirement)

**Regulatory Category:** Training

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Federal Rule): Technicians, when requested by the Administrator, will demonstrate on the business entity's premise their ability to perform proper procedures for recovering and/or recycling refrigerant. Any technician whose certification is revoked must be recertified prior to servicing or repairing any MVAC.

**Regulatory Citation:** 40 CFR 82.40(f) (Federal requirement)

**Regulatory Category:** Training

**Minimum Number of Requirements:** 3

**Typical Regulatory Requirement** (Federal Rule): Technicians who repair or service HFC-134a MVACs must recover the refrigerant and either recycle it on-site or send it off-site to a reclamation facility. Technicians must use EPA approved equipment.

## Clean Air Act Title VI: Ozone Depleting Substances (continued)

**Regulatory Citation:** 40 CFR 82.40 (Federal Requirement)

**Regulatory Category:** Training

**Possible Exemptions:** NA

**Minimum Number of Requirements:** 3

**Typical Regulatory Requirement (Federal Rule):** Persons maintaining, servicing, repairing, or disposing of appliances may not knowingly vent or otherwise release into the atmosphere any class I or class II substance or substitute.

**Regulatory Citation:** 40 CFR 82.154(a) (Federal Requirement)

**Regulatory Category:** Operational Parameters

**Possible Exemptions:** De minimis releases associated with good faith attempts to recycle or recover refrigerants.

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement (Federal Rule):** No persons may:

- 1) Open appliances except MVACs for maintenance, service or repair; or
- 2) Dispose of appliances except for MVACs and small appliances, unless observing §82.156 and using equipment certified for that type of appliance.

Must certify to the Administrator pursuant to §82.162 that persons performing such task have acquired certified recovery or recycling equipment and are complying with 40 CFR 82 Subpart F.

**Regulatory Citation:** 40 CFR 82.154(b) and (e) (Federal requirement)

**Regulatory Category:** Other Activities

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement (Permit Condition):** No person may alter the design of certified refrigerant recycling or recovery equipment in such a way that would effect the equipment's ability to meet the certification standards set forth in §82.158 without resubmitting the altered design for certification testing.

**Regulatory Citation:** 40 CFR 82.154 (d) (Federal requirement)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

## Clean Air Act Title VI: Ozone Depleting Substances (continued)

**Typical Regulatory Requirement (Federal Rule):** When disposing of small appliances and MVACs, no person may recover refrigerant from these units unless such person:

- 1) Has certified to the Administrator that they are using recovery equipment that meets §82.158 (l) and/or (m), as applicable;
- 2) Complies with 40 CFR 82 Subpart F.

**Regulatory Citation:** 40 CFR 82.154(f) (Federal requirement)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement (Federal Rule):** When reclaiming refrigerant, no more than 1.5% of the refrigerant may be released.

**Regulatory Citation:** 40 CFR 82.154(i) (Federal requirement)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement (Federal Rule):** Persons disposing of appliances, except small appliances and MVACs, must evacuate the refrigerant in the entire unit to a certified recovery or recycling machine.

**Regulatory Citation:** 40 CFR 82.156(a) (Federal requirement)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement (Federal Rule):** Persons opening appliances, except MVACs, must evacuate the refrigerant in either the entire unit or the part to be serviced (if the latter can be isolated) to a system receiver or a certified recovery or recycling machine. Certified technicians must verify that the applicable level of evacuation has been reached in the appliance or the part before it is opened.

**Regulatory Citation:** 40 CFR 82.156(a) (Federal requirement)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement (Federal Rule):** Persons opening or disposing appliances, except small appliances and MVACs, must have at least one piece of certified, self-contained recovery or recycling equipment available at their place of business.

**Regulatory Citation:** 40 CFR 82.156(b) (Federal requirement)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

## Clean Air Act Title VI: Ozone Depleting Substances (continued)

**Typical Regulatory Requirement** (Federal Rule): System-dependent equipment shall not be used with appliances normally containing more than 15 pounds of refrigerant unless the equipment is permanently attached to the appliance as a pump-out unit.

**Regulatory Citation:** 40 CFR 82.156(c) (Federal requirement)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Federal Rule): All recovery or recycling equipment shall be used in accordance with manufacturer's directions, unless directions conflict with 40 CFR 82 Subpart F.

**Regulatory Citation:** 40 CFR 82.156(d) (Federal requirement)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Federal Rule): Refrigerant recovered from an appliance, excluding MVACs, may be returned to another appliance owned by the same person with-out being recycled or reclaimed.

**Regulatory Citation:** 40 CFR 82.156(e) (Federal requirement)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Federal Rule): Persons recovering refrigerant from MVACs for purposes of equipment disposal must reduce the system pressure to or below 102 millimeters of mercury vacuum, using approved equipment.

**Regulatory Citation:** 40 CFR 82.156(g) (Federal requirement)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Federal Rule): Persons recovering refrigerant from small appliances for purposes of equipment disposal must either:

- 1) Recover 90% of refrigerant if the appliance compressor is operating or 80% refrigerant if compressor is not operating;
- 2) Evacuate to four inches of mercury vacuum.

**Regulatory Citation:** 40 CFR 82.156(h) (Federal requirement)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

## Clean Air Act Title VI: Ozone Depleting Substances (continued)

**Typical Regulatory Requirement** (Federal Rule): Appliances, including commercial refrigeration equipment, containing greater than 50 pounds of refrigerant are required to have leaks repaired in accordance with subpart.

**Regulatory Citation:** 40 CFR 82.156(i) (Federal requirement)

**Regulatory Category:** Operational Parameters

**Possible Exemptions:** Develop a one-year retro-fit or replacement plan within 30 days of determining the exceedance to the applicable leak rate, excluding commercial refrigeration equipment.

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Federal Rule): Must repair leaks pursuant to §82.156(i)(5) within 30 days after discovery, or within 30 days after when the leak should have been discovered if the owner intentionally shielded themselves from information that would have revealed a leak.

**Regulatory Citation:** 40 CFR 82.156(i)(9) (Federal requirement)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Federal Rule): If repairs, retrofit plans or retrofits /replacements are required for an appliance and the appliance has been moth-balled, the amount of time for owners or operators to complete the task is temporarily suspended and will resume on the day the appliance is brought back on-line and is no longer considered moth-balled.

**Regulatory Citation:** 40 CFR 82.156(i)(10) (Federal requirement)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

**Typical Regulatory Requirement** (Federal Rule): Owners or operators must repair leaks pursuant to §82.156(i)(5) within 30 days after discovery, or within 30 days after when the leak should have been discovered if the owner intentionally shielded themselves from information that would have revealed a leak.

**Regulatory Citation:** 40 CFR 82.156 (i)(11) (Federal requirement)

**Regulatory Category:** Operational Parameters

**Minimum Number of Requirements:** 1

### 4.3.2 Future Requirements

Section 608 of the Clean Air Act prohibits venting of certain class I and class II substances during maintenance, service, repair and disposal of air-conditioning and refrigeration equipment. On June 11, 1998, the U.S. EPA proposed regulations (63 FR 32044) to incorporate two types of non-ozone-depleting substances, HFCs and perfluorocarbons, to the venting prohibition. No action has been taken by the U.S. EPA; therefore, the proposed regulations are not included in the Profile.

**Summary Table - 2003 Environmental Regulatory Profile  
Alliance of Automobile Manufacturers  
January 5, 2004**

Regulatory Requirement	Federal Requirement	State Requirement	State Implementation Plan Requirement	Local Requirement	Future Requirement	New, Updated, or Unchanged	Page Number
<b>Wastewater Treatment</b>							
1994 Public Act 451, State of Michigan.		X			X	New	10
Ordinance No. 34-96, Chapter 56 to Regulate the Discharge of Wastewater into the Wastewater Collection and Treatment System of the City of Detroit. R 299.9005 Wastewater reports; filing and confidentiality.		X		X		Updated New	10, 16-21 22
<b>Stormwater Discharge</b>							
R 336.2161 Storm water discharge permits.		X				New	23
Section 324.3118 of Public Act 451, State of Michigan.		X				New	23
40 CFR 122.26 adopted by Part 31 of Michigan's Act 451, Stormwater Regulations. 1994 Public Act 451, State of Michigan.		X			X	Updated New	24-28 29
<b>Air Quality</b>							
R 336.1201 Permits to install.			X			Updated	30, 54-57, 60, 63, 65, 68, 73, 74, 76
R 336.1205 Permit to install; approval.			X			Updated	73
R 336.1210 Renewable operating permits.		X				Updated	39
R 336.1212 Administratively complete applications; insignificant activities; streamlining applicable requirements; emissions reporting and fee calculations.		X				Updated	30-35, 43
R 336.1213 Content of a renewable operating permit.		X				Updated	36, 38, 39, 41-44, 55, 57-59, 61-64, 67-73, 75, 79
R 336.1215 Operational flexibility, emissions trading activities between stationary sources, off-permit changes, and insignificant changes for a renewable operating permit.		X				New	38, 40, 44
R 336.1216 Modifications to renewable operating permits.		X				Updated	37, 38, 40, 44
R 336.1217 Renewals and reopenings of renewable operating permits.		X				Updated	40, 45
R 336.1219 Amendments for change of ownership or operational control.		X				New	37
R 336.1220 Construction of major offset sources and major offset modifications proposed for location within nonattainment areas.				X		Updated	54, 56, 58, 59, 62, 62- 64, 69, 70, 71, 73, 74
R 336.1230 Informational list for health-based screening levels and T-Bact determinations.		X				Updated	54, 56-66, 69-71, 73, 74
R 336.1281 Permit to install exemptions; cleaning, washing, and drying equipment.				X		Updated	32
R 336.1282 Permit to install exemptions; furnaces, ovens, and heaters.				X		Updated	33

**Summary Table - 2003 Environmental Regulatory Profile  
Alliance of Automobile Manufacturers  
January 5, 2004**

Regulatory Requirement	Federal Requirement	State Requirement	State Implementation Plan Requirement	Local Requirement	Future Requirement	New, Updated, or Unchanged	Page Number
<b>Air Quality Continued</b>							
R 336.1283 Permit to install exemptions; testing and inspection equipment.			X			New	34
R 336.1284 Permit to install exemptions; containers.			X			Updated	34, 35
R 336.1285 Permit to install exemptions; miscellaneous.			X			Updated	31, 33-35
R 336.1287 Permit to install exemptions; surface coating equipment.		X				Updated	32, 34
R 336.1301 Standards for density of emissions.			X			Updated	36, 54, 74, 76
R 336.1303 Grading visible emissions.			X			Updated	36, 44
R 336.1331 Emission of particulate matter.			X			Updated	53
R 336.1370 Collected air contaminants.			X			Updated	37
R 336.1610 Existing coating lines; emission of volatile organic compounds from existing automobile, light-duty truck, and other product and material coating lines.			X			Updated	56, 59, 60, 64, 65, 74
R 336.1702 General provisions for new sources of volatile organic compound emissions.			X			Updated	54, 56-59, 62-64, 69-71, 73, 74
R 336.1707 New cold cleaners.		X				New	32, 33
R 336.1901 Air contaminant or water vapor, when prohibited.		X				Updated	37, 73
R 336.1910 Air-cleaning devices.			X			Updated	37, 54, 57, 68, 70, 74, 75
R 336.1912 Abnormal conditions, start-up, shutdown, and malfunction of a source, process, or process equipment, operating, notification, and reporting requirements.			X			Updated	42, 43
R 336.2001 Performance tests by owner.			X			Updated	37, 40, 53, 57, 65, 67
R 336.2003 Performance test criteria.			X			Updated	37, 40, 46, 53, 57, 65,
R 336.2004 Appendix A; reference test methods; adoption of federal reference test methods.			X			Updated	53, 57, 62, 65, 67
R 336.2040 Method for determination of volatile organic compound emissions from coating lines and graphic arts lines.			X			Updated	55, 58, 63, 69, 72, 75
R 336.2041 Recordkeeping requirements for coating lines and graphic arts lines.			X			Updated	55, 58, 63, 69, 71-73, 75
40 CFR Part 82, Protection of Stratospheric Ozone.	X					New	45
40 CFR Part 68, Chemical Accident Prevention Provisions.	X					New	45, 46
40 CFR 63 Subpart IIII, Auto & Light-Duty Truck (Surface Coating) MACT.	X				X	New	46-53
40 CFR Part 60 Subpart A and MM, Standards of Performance for Automobile and Light Duty Truck Surface Coating Operations.	X					Unchanged	56, 59, 60, 64, 65
40 CFR Part 60 Subpart Dc, Standards of Performance for Steam Generating Units.	X					Unchanged	76
40 CFR 63 Subpart DDDDD, Industrial Commercial and Institutional Boilers and Process Heaters MACT.	X				X	New	76-77

**Summary Table - 2003 Environmental Regulatory Profile  
Alliance of Automobile Manufacturers  
January 5, 2004**

Regulatory Requirement	Federal Requirement	State Requirement	State Implementation Plan Requirement	Local Requirement	Future Requirement	New, Updated, or Unchanged	Page Number
<b>Hazardous Materials Management</b>							
R 299.9302 Hazardous waste determination and level of management.		X				Updated	79, 85
R 299.9303 United States EPA identification numbers.		X				Updated	79
R 299.9304 Manifest requirements.		X				Updated	104
R 299.9305 Pre-transport requirements.		X				Updated	104
R 299.9306 Accumulation time.		X				Updated	78-103, 105-121
R 299.9307 Generator recordkeeping.		X				Updated	85, 86, 105
R 299.9308 Generator reporting.		X				Updated	86, 105
R 299.9311 Land disposal restrictions.		X				Updated	87
R 299.9615 Tank systems.		X				Updated	92, 93
R 324.2001 Definitions; p to u.		X				Updated	130
R 324.2004 Oil storage and on-land facilities: surveillance.		X				Updated	129-130
R 324.2005 Secondary containment.		X				Updated	129-131
R 324.2006 Pollution incident prevention plan.		X				Updated	131-132
R 324.2007 Pollution incident report.		X				Updated	132
Subtitle D of RCRA adopted by Part 115 of Michigan Act 451, Solid Waste Regulations.		X				Updated	122
Section 324.21102 of Public Act 451, State of Michigan.		X				Updated	133
Section 324.12103 of Public Act 451, State of Michigan.		X				Updated	122-123
Section 324.12111 of Public Act 451, State of Michigan.		X				Updated	123
Section 324.21103 of Public Act 451, State of Michigan.		X				Updated	134
Section 324.21110 of Public Act 451, State of Michigan.		X				Updated	134
R 29.2103 Applicability.		X				Updated	134-135
R 29.2109 Interim prohibition for deferred UST systems.		X				Updated	136-139
R 29.2111 Interim prohibition for deferred UST systems.		X				Updated	140
R 29.2113 Interim prohibition for deferred UST systems.		X				Updated	141-142
R 29.2117 Repairs		X				Updated	144-145
R 29.2119 Reporting and recordkeeping.		X				Updated	145
R 29.2121 General requirements for all UST systems.		X				Updated	146

**Summary Table - 2003 Environmental Regulatory Profile  
Alliance of Automobile Manufacturers  
January 5, 2004**

Regulatory Requirement	Federal Requirement	State Requirement	State Implementation Plan Requirement	Local Requirement	Future Requirement	New, Updated, or Unchanged	Page Number
<b>Hazardous Materials Management Continued</b>							
R 29.2122 Requirements for petroleum UST systems.		X				Updated	147
R 29.2123 Requirements for hazardous substance UST systems.		X				Updated	147
R 29.2125 Methods of release detection for tanks.		X				Updated	147-148
R 29.2126 Methods of release detection for piping.		X				Updated	148-149
R 29.2127 Release detection recordkeeping.		X				Updated	149-150
R 29.2129 Reporting of suspected releases.		X				Updated	150
R 29.2151 Temporary closure.		X				Updated	150
R 29.2153 Permanent closure and changes in service.		X				Updated	151-153
R 29.2155 Assessing site at closure or change in service.		X				Updated	153-154
R 29.2157 Applicability to previously closed UST systems.		X				Updated	154
R 29.2159 Closure records.		X				Updated	154
R 29.2168 Local government fund.		X				Updated	155-156
R 29.2171 Bankruptcy or other incapacity of owner or operator or provider of financial assurance.		X				Updated	156
40 CFR Part 112, Oil Pollution Prevention.	X					Updated	124-129
40 CFR 280.11, Interim prohibition for deferred UST systems.	X					Updated	135
40 CFR 280.32, Compatibility.	X					Updated	143
40 CFR 280.93, Amount and scope of required financial responsibility.	X					Updated	154
40 CFR 280.94, Allowable mechanisms and combinations of mechanisms.	X					Updated	155
<b>Emergency Planning &amp; Community Right-To-Know</b>							
SARA Title III, Emergency Planning & Community Right-to-Know.	X					Unchanged	158-162
<b>Toxic Substance Control Act</b>							
40 CFR 761, Polychlorinated Biphenyls.	X					Unchanged	163-165
<b>Ozone Depleting Substances</b>							
40 CFR 82, Federal Protection of Stratospheric Ozone.	X					Updated	166-171

**Notes:**

- "Unchanged" refers to requirements which have not changed from the Environmental Regulatory Profile completed in 1998.
- "New" refers to requirements which were not referenced in the 1998 Profile, but are currently referenced in the 2003 Profile.
- "Updated" refers to requirements previously cited in the 1998 Profile and have been modified in the 2003 Profile.
- "Federal Requirement" refers to a requirement promulgated under federal law.
- "State Requirement" refers to a requirement promulgated under state law.
- "State Implementation Plan Requirement" refers to a requirement promulgated by the state and approved by the U.S. EPA.
- "Local Requirement" refers to a requirement promulgated by a local municipality.
- "Future Requirement" refers to a requirement that is expected to be promulgated in the future.