

**FINALSUGGESTIONS ADDRESSING THE OFFICE OF REGULATORY
REINVENTION (ORR) WORKGROUP, RECOMMENDATIONS A-3 AND A-14
March 21, 2014**

PART 1. GENERAL PROVISIONS

- **R 336.1101 Definitions; A.**

Rule 101(g) "Aqueous based parts washer" means a tank containing liquid, with a VOC content of less than 5 percent, by weight, and at a temperature below its boiling point which is used to spray, brush, flush, or immerse metallic and/or plastic objects for the purpose of cleaning or degreasing.

(*The current alphabetization would have to be edited to reflect the addition of this definition)

This addition (and the recommended change to the definition of "cold cleaner") is to help distinguish between a cold cleaner holding solvent and a parts washer that uses mostly water based materials. The workgroup believes that the exemption and definitions promulgated for cold cleaners were created at a time when there was little variety amongst this type of equipment. With increased requirements, some facilities have shifted away from solvent based cleaning material. However, the requirements still pertain to equipment that contains even a small amount of VOCs. Creating a new category of cleaner (aqueous based parts washer) and adding a VOC content to the definition would allow the separation of the aqueous cold cleaners (with small amounts of VOC) from the solvent based equipment we have traditionally referred to as cold cleaners. Emissions from a parts washer using material with VOC content less than 5 percent would not result in significant emissions regardless of method of use. Having different definitions facilitates adding an exemption under Rule 336.1281.

- **R 336.1103 Definitions; C.**

Rule 103(aa) "Cold cleaner" means a tank containing organic solvent, with a VOC content of 5 percent or more, by weight, and at a temperature below its boiling point which is used to spray, brush, flush, or immerse metallic and/or plastic objects for the purpose of cleaning or degreasing.

This addition is to help distinguish between a cold cleaner holding solvent and a cold cleaner that uses mostly water based materials

with a VOC content of 5 percent or more, by weight, and

The workgroup believes that over the past several years the types of materials used in cold cleaners have changed and that many of these devices use aqueous based liquids that contain only a small amount of VOCs. Adding a VOC content to the definition would separate the based parts washers (with small amounts of VOC) from the solvent based cold cleaners.

and/or plastic

This change clarifies that if the part being washed has plastic pieces or is made of plastic, the exemptions and definitions still apply

- **R 336.1119 Definitions; S.**

Rule 119(ee). “Synthetic natural gas” means any manufactured fuel gas of approximately the same composition and BTU value as that obtained naturally from oil fields

(*The current alphabetization would have to be edited to reflect the addition of this definition)

This addition is to help clarify the term “synthetic natural gas”. The phrase has been added to Rule 282 to replace the difficult to define term “synthetic gas”. Due to that addition, it was also decided that defining “synthetic natural gas” would further clarify what was intended for exemption in Rule 282, while more clearly not allowing other gases such as landfill gas, biogas, etc. to be included.

PART 2. AIR USE APPROVAL

- **R 336.1278 Exclusion from exemption**

Rule 278 (1) The exemptions specified in R 336.1280 to R 336.12901 do not apply to either of the following:

(a) Any activity that is subject to prevention of significant deterioration of air quality regulations or new source review for major sources in nonattainment areas regulations.

(b) Any activity that results in an increase in actual emissions greater than the significance levels defined in R 336.1119. For the purpose of this rule, "activity" means the concurrent and related installation, construction, reconstruction, relocation, or modification of any process or process equipment.

(2) The exemptions specified in R 336.1280 to R 336.12901 do not apply to the construction of a new major source of hazardous air pollutants or reconstruction of a major source of hazardous air pollutants, as defined in and subject to 40 C.F.R. §63.2 and §63.5(b)(3), national emission standards for hazardous air pollutants, adopted by reference in R 336.1299.

(3) The exemptions specified in R 336.1280 to R 336.12901 do not apply to a construction or modification as defined in and subject to 40 C.F.R. part 61, national emission standards for hazardous air pollutants, adopted by reference in R 336.1299.

(4) The exemptions in R 336.1280 to R 336.12901 apply to the requirement to obtain a permit to install only and do not exempt any source

- **R 336.1278a Scope of permit exemptions**

Rule 278a. (1) To be eligible for a specific exemption listed in R 336.1280 through R 336.12901, any person owning or operating an exempt process or exempt process equipment shall be able to provide information demonstrating the applicability of the exemption. ~~The demonstration shall be provided within 30 days of a written request from the department.~~ The demonstration may include the following information:

(a) A description of the exempt process or process equipment, including the date of installation.

(b) The specific exemption being used by the process or process equipment.

(c) An analysis demonstrating that R 336.1278 does not apply to the process or process equipment.

(2) The ~~records~~ **demonstration** required by this rule shall be provided **within 30 days of a written request from the department.** ~~In addition, to a~~ Any other records required within a specific exemption **shall be provided within timeframes established within that specific exemption.**

This clarification and addition is to include clearer language indicating that the 30 day deadline is for the exemption applicability demonstration, not recordkeeping. Use of the

terms “demonstration” and “records” in Rule 278a led to confusion among company representatives, since only a demonstration is required by this rule, if requested. This confusion was amplified by specific exemption rules that require keeping records of material usage or production rates. These changes remove the confusion by referring to submittal of the demonstration required under this (278(a)) rule and separating this from any recordkeeping required in specific exemption rules.

336.1280 Permit to install exemptions; cooling and ventilating equipment.

Rule 280. The requirement of R 336.1201(1) to obtain a permit to install does not apply to any of the following:

- (a) Cold storage refrigeration equipment **and storage of the refrigerant, including cold storage equipment using anhydrous ammonia that has storage capacity of less than 500 gallons.**

This addition provides two clarifications. First, clarifying that refrigerant storage is part of the exempted equipment. Second, using anhydrous ammonia as the refrigerant does not preclude using the exemption. The cooling and ventilation systems are closed loop systems where any kind of leak of coolant would make it uneconomical to operate the system. Even if there is an accidental leak it will be very small with minimal emissions. The storage of anhydrous ammonia in quantities less than 500 gallons is exempted from air permitting; its use for cold storage equipment should not require large volumes. However, this addition makes it clear when refrigerant use of anhydrous ammonia is exempt.

- **R 336.1281 Permit to install exemptions; cleaning, washing, and drying equipment.**

Rule 281. The requirement of R 336.1201(1) to obtain a permit to install does not apply to any of the following:

- Rule 281(f) Laundry dryers, extractors, or tumblers for fabrics cleaned with only water solutions of bleach, ~~or~~ detergents **or laundry products that do not contain VOCs.**

This addition provides clarification to the use of cleaning products used in water based laundry cleaning. The intent is to generalize the exemption to all products used in water based laundry cleaning provided the cleaning products do not have any VOCs. The VOCs usually have high vapor pressure and thus a greater potential for air emissions, due to their high volatility. However, compounds such as powdered bleach (sodium hypochlorite) will not volatilize from the aqueous solution substantially. The temperature of water used in these systems does not have the high temperatures needed to

evaporate any of the non-VOC compounds into the air. Thus the potential of air emissions from laundry products that do not contain VOCs as ingredients is minimal.

- **R 336.1281 Permit to install exemptions; cleaning, washing, and drying equipment.**

Rule 281 (i) Sterilization equipment processing mercury-free materials at medical and pharmaceutical facilities using steam, hydrogen peroxide, peracetic acid, or a combination thereof.

This revision is to clarify that sterilization equipment used for items without mercury emissions is exempt. The intent of the revision is to distinguish medical sterilization equipment processing recyclable items not containing mercury from the autoclave sterilizers often used for sterilizing medical waste that contains mercury, which is not exempt from air permit rules.

- **R 336.1281 Permit to install exemptions; cleaning, washing, and drying equipment.**

Rule 281(j) Portable blast-cleaning equipment used during construction to clean ~~new~~ water tanks or other ~~new~~ structures that have not been previously coated, provided: if the tank or structure is not located closer than the lesser of 750 feet or 5 times the height of the structure to the nearest residential, commercial, or public facility and the abrasive media is a low dusting material that does not contain more than 5% crystalline silica.

(i) the tank or structure is not located closer than the lesser of 750 feet or 5 times the height of the structure to the nearest residential, commercial, or public facility,
and

(ii) the abrasive media is a low dusting material that does not contain more than 5% crystalline silica.

This addition is to limit the exemption to tanks and structures without a coating and make the exemption easier to understand. The revised Rule 281(j) language better identifies exempt use of portable blast cleaning equipment without use of an enclosure and control equipment. An enclosure and controls are required in order to be exempt in other blast cleaning circumstances under Rule 281(d). Tanks and structures that have not been painted are less likely to result in particulate emissions. Thus under the buffer zone and abrasive media conditions already in the rule, exempting uncontrolled blast cleaning is appropriate.

- **R 336.1281 Permit to install exemptions; cleaning, washing, and drying equipment.**

Rule 281(k) Aqueous based parts washers

The revision is to separate aqueous based parts washers from cold cleaners that use solvent. The workgroup is proposing to exempt parts washers that use materials low in solvent concentration (aqueous based) from inclusion in PTI's. The technology currently available in washers/cleaners was not available at the time of the creation of the cold cleaner regulations in our rules. No size limit is given as it is in cold cleaners because, at the VOC level allowed in the definition of aqueous based parts washer, the surface area of the washer would have to be over 200 square feet. (5% vs. 100% solvent therefore 20x larger than 10 sq. ft.) to compare to a cold cleaners potential emissions.

- **R 336.1282 Permit to install exemptions; furnaces, ovens and heaters.**

Rule 282. The requirement of R 336.1201(1) to obtain a permit to install does not apply to any of the following:

(a) Any of the following processes or process equipment which are electrically heated or which fire sweet gas fuel or no 1 or no. 2 fuel oil at a maximum total heat input rate of not more than 10,000,000 Btu per hour:

(i): Furnaces for heat treating **or forging** glass or metals, the use of which does not involve **ammonia**, molten materials, oil-coated parts, or oil quenching.

This addition and clarification is to include all furnaces that are used at similar facilities that have both processes of heat treatment and forging, but exclude use of ammonia, as follows:

or forging

Adding "forging furnace" to the exemption is to distinguish it from a heat treating furnace that is also used at similar industries. The air emissions and their impacts if any will be negligible from both processes.

ammonia

During a heat treating process using ammonia (also known as "nitriding"), raw ammonia or dissociated ammonia is added to the heat treating furnace. Without any controls, ammonia could be released during the process and cause odor problems. Therefore, a permit review is appropriate when nitriding.

- **R 336.1282 Permit to install exemptions; furnaces, ovens and heaters.**

Rule 282(b) Fuel burning equipment which is used for space heating, service water heating, electric power generation, oil and gas production or processing, or indirect heating and which burns only the following fuels:

- (i) Sweet natural gas, synthetic natural gas, liquidized petroleum gas, or a combination thereof and the equipment has a rated heat input capacity of not more than 50,000,000 Btu per hour..

This addition is to clarify the term “synthetic gas”. The term “synthetic gas” is vague and not well defined whereas synthetic natural gas is an accepted term in industry with a relatively consistent definition.

- **R 336.1283 Permit to install exemptions; testing and inspection equipment**

Rule 283. (1) The requirement of R 336.1201(1) to obtain a permit to install does not apply to any of the following:

- (a) Pilot processes or pilot process equipment utilizing T-BACT used for any of the following:

.....

(2) The pilot process and pilot process equipment excluded from the requirement of R 336.1201(1) pursuant to the provisions of subrule (1)(a) of this rule do not include pilot processes or pilot process equipment used for any of the following”

- (a) The production of a product for sale, unless such sale is only incidental to the use of the pilot process or pilot process equipment

The proposed changes are to clarify the accepted use of the exemption. The addition of the term “pilot” throughout this exemption simply clarifies that the process equipment also needs be for experimental processes.

- **R 336.1284 Permit to install exemptions; containers.**

Rule 284(d) Storage of no. 1 to no. 6 fuel oil as specified in ASTM-D-396, gas turbine fuel oils nos. 2-GT to 4-GT as specified in ASTM-D-2880, aviation gas as specified in ASTM D-910, jet fuels as specified in ASTM-D-1655, diesel fuel oils nos. 2-D and 4-D as specified in ASTM-D-975, or biodiesel fuel oil and blends as specified in ASTM-D6751 and ASTM-D7467. The ASTM methods are adopted by reference in R 336.1299.

(*The new ASTM specifications must be added to the adoptions by reference in Rule 299)

This change adds exemptions for aviation engine fuels including jet fuels, commonly used by the department of defense, to the exemptions of R 284(d).

The intent of the change is to clarify the confusion due to exclusion of jet fuels under ASTM-D-2880 test method, which states that jet fuel is excluded from this test method. The aviation fuels are tested under separate test methods as given in ASTM-D-910 and ASTM-D-1655. The aviation gas and jet fuels are similar to other fuels exempted under this rule and have similar low vapor pressures, emitting very minimal amounts of VOCs. The main ingredient of the fuels covered by all of these test methods, including ASTM-D-2880, is Kerosene (fuel oil # 1, storage of which is exempt under this rule) at a concentration between 92 to 100 percent, in all of these jet fuels. The addition of aviation fuels will make the rule more inclusive, thus more useful with very minimal emissions.

Biodiesel (B100) has a lower Reid vapor pressure than No.2 Diesel fuel (0.04 psia vs. 0.2 psia) thereby justifying exemption. It follows that blends of biodiesel and diesel would also have lower vapor pressures than pure No.2 diesel fuel. The ASTM standards for D6751-08 and D7467-08 would ensure this.

- **R 336.1284 Permit to install exemptions; containers.**

Rule 284(g) **Storage and handling equipment for gasoline, gasoline blends including ethanol, diesel fuel,** 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~~ **for storage, mixing, blending and handling of gasoline and/or gasoline/ethanol blends, or for diesel fuel storage and handling**
- (ii) Natural gas storage and handling equipment at ~~Dispensing facilities~~ **for storage, mixing, blending and handling of gasoline and/or gasoline/ethanol blends, for natural gas storage and handling, or for diesel fuel storage and handling.**
- (iii) **Equipment exclusively serving dynamometer facilities for gasoline and/or gasoline/ethanol blends storage and handling, for natural gas storage and handling, or for diesel fuel storage and handling.**

This addition is to include ethanol and diesel equipment at exempt facilities, add exemptions for mixing and blending processes associated with gasoline and ethanol storage and handling equipment, and include dynamometer facilities where storage of gasoline diesel and natural gas is required, as follows:

gasoline blends including ethanol and diesel

The intent of this change is to clarify and define the new types of gasoline (ethanol, E-85) being sold at gas stations. The inclusion of ethanol is necessitated by the fact it is not derived from petroleum based compounds, i.e., gasoline containing ethanol cannot be “gasoline” as defined by Rule 107 (a).

Presently any VOC handling equipment, including ethanol, having a true vapor pressure (TVP) below 1.5 psia is exempt from the permit process through Rule 284(i), provided the handling and storage capacity is below 40,000 gallons. Ethanol (TVP of 1.14 psia) mixed with gasoline (TVP of more than 4 psia) will create a mixture that is usually greater than 1.5 psia and thus not covered by the Rule 281(i) exemption. However, Rule 284(g)(i) as currently written exempts gasoline VOC emissions from small loading facilities and gasoline stations. Any mixing of ethanol and gasoline will have only small effects on the TVP of the already-exempt gasoline, thus resulting in an insignificant change in emissions. This ethanol exemption would cover all gasoline stations that sell E-85.

Similarly, diesel products have lower vapor pressures than gasoline, thereby making diesel operations lower emitters than gasoline for similar activities. For example, No.2 diesel fuel has a vapor pressure of 0.2 psia.

mixing, blending

The addition of “mixing, blending” is to include the activities that are part of operations where gasoline is stored and handled. The intent here is to clarify the exemption for all the process steps that may be part of a gasoline loading or dispensing facility. As opposed to sparging or agitating, the mixing or blending processes have negligible emissions, if any.

equipment exclusively supplying dynamometer facilities

This addition is to include use of gasoline at a special facility that tests automobile engine efficiency, emissions testing, and other quality control measures, by continuously running the automobile engines for a long time on a stationary platform. Running the engines for these operations requires handling, storage and dispensing of gasoline. Currently, Rule 284(g)(i) allows storage/handling of gasoline at smaller loading facilities and at dispensing facilities. Data gathered indicates that gasoline throughputs at dynamometer facilities are minor (<100,000 gallons a year) as compared to even small loading or dispensing facilities. The air emissions from gasoline storage at these facilities will be less than from the facilities already exempted by this rule. Minor emissions are expected from storage and handling of these fuels at dynamometer facilities due to smaller throughputs and fewer filling/dispensing events as compared to small loading or dispensing facilities.

• **R 336.1284 Permit to install exemptions; containers**

Rule 284(h) Storage ~~and of~~ water dilution of aqueous solutions of inorganic salts, ~~and~~ bases, and ~~of water solutions of~~ the following acids:

(i)...

This change adds water dilution to the processes associated with the storage of liquid solutions of salts, bases, and acids. Mixing with water will result in dilution of the salts, bases, and acids. Equipment associated with the storage of these liquid solutions is

already exempt under this rule. The addition of water dilution further clarifies the intent of this rule.

- **R 336.1284 Permit to install exemptions; containers**

Rule 284(i) Storage, ***mixing, blending,*** or transfer operations of volatile organic compounds 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.

This change adds the words “mixing and blending” to the processes associated with the storage of VOCs and liquids. The addition of mixing and blending includes the process steps that are normally part of the operations where these VOCs and other liquids are handled. The addition of these words clarifies the operations that are involved in storage and distribution of these liquids and compounds.

- **R 336.1284 Permit to install exemptions; containers**

Rule 284(k) Storage containers ***and transfer operations*** of noncarcinogenic solid material, including silos, which only emit particulate matter and which are controlled with an appropriately designed and operated fabric filter collector system or an equivalent control system.

This change adds the words “and transfer operations”. The intent is to include the loading and unloading of storage containers, which must be controlled by a fabric filter or an equivalent control system. The emissions from these operations will be minimal because the controls are expected to be over 90 percent efficient.

- **R 336.1285 Permit to install exemptions; miscellaneous.**

Rule 285(j) Portable ***torch*** cutting ~~torches~~ ***equipment which does not cause a nuisance or adversely impact surrounding areas and is used for one of the following:***

- (i) ***Activities performed on a non-production basis, such as maintenance, repair, and dismantling.***
- (ii) ***Scrap metal recycling and/or demolition activities that have emissions that are released only into the general in-plant environment and/or that have externally vented emissions equipped with an appropriately designed and operated enclosure and fabric filter***

This clarification is to limit the portable torch cutting exemption. The intent of the change is to limit the exemption to torch cutting operations that are designed and operated to minimize emissions. District staff persons have experienced great difficulty in dealing with numerous opacity violations and citizen complaints against various scrap metal and demolition operations using torch cutting equipment. The problem has also been

exacerbated due to the growth of the scrap metal recycling industry. The addition of this language will encourage minimal emissions and assure site specific review and requirements for different designs and operating practices.

- **R 336.1285 Permit to install exemptions; miscellaneous.**

Rule 285(l)(vi) Equipment for carving, cutting, routing, turning, drilling, machining, sawing, surface grinding, sanding, planing, buffing, sand blast cleaning, shot blasting, shot peening, or polishing ceramic artwork, leather, metals, graphite, plastics, concrete, rubber, paper ~~stock~~, board, wood, ~~or~~ wood products, stone, glass, fiberglass, or fabric 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 emissions controlled by an appropriately designed and operated fabric filter collector that, for all specified operations with metal, is preceded by a mechanical precleaner.

These changes add paperboard, stone, glass, fiberglass, and fabric as acceptable materials, as follows:

stone, glass, fiberglass, or fabric

Many materials require measures (such as drilling, sanding, etc.) to modify and finish them during product manufacture. Those that are inert or mostly inert usually represent little risk to employees, generate few emissions, or when vented outside, can be controlled efficiently. The recommended additions to this exemption have similar particle sizes to already-exempted materials, usually greater than 2 microns. Therefore, it is anticipated that these changes would result in emissions that are similar in nature and quantity to emissions already allowed by the current exemption.

board

The term “paperboard” has definitions available while “paper stock” does not.

- **R 336.1285 Permit to install exemptions; miscellaneous**

Rule 285(m) Lagoons, process water treatment equipment, wastewater treatment equipment, and sewage treatment equipment, except for any of the following:

(i) Lagoons and equipment primarily designed to treat volatile organic compounds in process water, wastewater, or groundwater, unless the emissions from the lagoons and equipment are only released into the general in-plant environment.

(ii) Sludge incinerators and dryers.

(iii) Heat treatment processes

~~(iv) Odor control equipment~~

This change is to remove the exclusion of odor control equipment from the exemption. The deletion is to eliminate the confusion between the current exclusion from exemption

and the provisions of Rule 285(f). Rule 285(f) exempts installation of air pollution control equipment. The intent is to clarify that odor control equipment be treated like other control equipment, and exempt if the criteria in Rule 285(f) are met.

- **R 336.1285 Permit to install exemptions; miscellaneous**

Rule 285(t) Equipment for the mining, **loading, unloading** and screening of uncrushed sand, gravel, soil and other inorganic soil-like materials.

This addition is to clarify that loading and unloading equipment for sand and gravel mining can be considered exempt. This addition is proposed to alleviate confusion regarding the exempt status of loading and unloading equipment used in sand and gravel mining. The loading and unloading will add negligible emissions to those from mining and screening.

- **R 336.1285 Permit to install exemptions; miscellaneous**

Rule 285(u) Solvent distillation **and antifreeze reclamation** equipment that has a rated batch capacity of not more than 55 gallons.

This is a change to add antifreeze reclamation equipment. This addition of antifreeze reclamation equipment is part of the small solvent distillation process. Emissions and impacts are expected to be negligible due to small size of equipment.

- **R 336.1285 Permit to install exemptions; miscellaneous**

Rule 285. (ee) open burning **as specified in Rule 310**

This addition brings attention to Rule 310. The addition is meant to ensure someone with knowledge of our permit exemptions is made aware of Rule 310, and the additional restrictions it requires.

- **R 336.1285 Permit to install exemptions; miscellaneous**

Rule 285(jj) Any vacuum truck used at a remediation site as a remedial action method **(non-emergency response) used in a manner described by any of the following:**

- i) ~~if it is not used more than once per month at a site and the usage is not more than 2 consecutive days~~ **in a month without organic compound control,**
- ii) **it is not used more than 6 days in a month with 90% efficient organic compound emission control.**
- iii) **The composition of the material being removed is greater than 90% water**

This addition clarifies and adds flexibility to the exemption for vacuum trucks at remediation sites, as follows:

(non-emergency response)

Vacuum truck emissions from cleanups at spill (emergency) sites and as part of an emergency response are considered emissions from mobile sources, and are therefore not regulated by AQD , so wording has been added to more clearly show this exemption is not intended for that use.

2 days in a month without organic compound control, or more than 6 days in a month with 90% efficient organic compound emission control.

The intent of the addition is to avoid repetitive application of permit requirements on some remediation sites where there are recurring episodes requiring minor cleanups for a few days. By allowing a longer timeframe when using control, overall emissions will likely be lower than a shorter cleanup without control. This addition as well as removing the “consecutive day” requirement allows more flexibility.

The composition of the material being removed is greater than 90% water

At times, entities conducting remediation on a site will have small pools of mostly water, often caused by rain events, that cannot be discharged and must be removed in order for them to perform duties at the site. For example, a rain event may cause a pool of water to fill a sampling area. This water needs to be removed via vacuum truck, but is mostly water. This addition is meant to allow the use of vacuum trucks in situations that are related to a remediation site, but contain few contaminants. Calculations were made using the Texas Commission on Environmental Quality’s guidance for petroleum refineries and chemical plants issued in 2012. These calculations indicate that emissions from this activity are much lower than potential emissions from the other exemption already allowed. The use of vacuum trucks at a magnitude that would cause emissions exceeding those already allowed by the vacuum truck exemption, would make this activity cost prohibitive.

• **R 336.1286 Permit to install exemptions; plastic processing equipment.**

Rule 286(f). The requirement of R 336.1201(1) to obtain a permit to install does not apply to any of the following:

- (a) Plastic extrusion, rotocasting, and pultrusion equipment and associated plastic resin handling, storage, and drying equipment.
- (d) Plastic thermoforming equipment.
- (e) Reaction injection molding (open or closed mold) and slabstock/casting equipment.
- (f) plastic welding**

This change adds plastic welding processes. Plastic welding tools generally operate in the 300-400C range. This is a similar range in which other exempt activities take place,

such as thermoforming. Operational temperatures in the plastic injection molding and thermoforming machines are usually between 300 to 400 deg. C, because at higher temperatures of 500 deg. C the plastic material starts to combust or burn. Due to these reasons the emissions will be similar to the exempt plastic processes like thermoforming.

- **R 336.1287 Permit to install exemptions; surface coating equipment.**

Rule 287(b). The requirement of R 336.1201(1) to obtain a permit to install does not apply to any of the following:

(b) A surface coating process that uses ~~only~~ handheld aerosol spray cans, including the puncturing and disposing of the spray cans, **or other coatings that are manually applied from containers not to exceed 8 ounces in size.**

This addition is to include the use of other low emission methods of coating transfers. The quantity and efficiency of hand applied coatings is such that air emissions from these processes will be much lower than already allowed by exempt aerosol spray cans.

- **R 336.1290 Permit to install exemptions; emission units with limited emissions.**

Rule 290. The requirement of R 336.1201(1) to obtain a permit to install does not apply to any of the emission units listed in (a) if the conditions listed in (b), (c), and (d) are met. Notwithstanding the definition in R 336.1121(a), for the purpose of this rule, uncontrolled emissions are the emissions from an emission unit based on actual operation, not taking into account any emission control equipment. Controlled emissions are the emissions from an emission unit based on actual operation, taking into account the control equipment.

(a) An emission unit which meets any of the following criteria:

- (i) Any emission unit that emits only noncarcinogenic volatile organic compounds or noncarcinogenic materials which are listed in R 336.1122(f) as not contributing appreciably to the formation of ozone, if the uncontrolled or controlled emissions of air contaminants are not more than 1,000 or 500 pounds per month, respectively.
- (ii) Any emission unit that the total uncontrolled or controlled emissions of air contaminants are not more than 1,000 or 500 pounds per month, respectively, and all of the following criteria are met:
 - (A) For noncarcinogenic air contaminants, excluding noncarcinogenic volatile organic compounds and noncarcinogenic materials which are listed in R 336.1122(f) as not contributing appreciably to the formation of ozone, with initial threshold screening levels greater than or equal to 2.0 micrograms per cubic meter, the uncontrolled or controlled emissions shall not exceed 1,000 or 500 pounds per month, respectively.
 - (B) For noncarcinogenic air contaminants, excluding noncarcinogenic volatile organic compounds and noncarcinogenic materials which are listed in R 336.1122(f) as not contributing appreciably to the formation of ozone, with initial threshold screening levels greater than or equal to 0.04 micrograms per cubic meter and less than 2.0 micrograms per cubic meter, the uncontrolled or controlled emissions shall not exceed 20 or 10 pounds per month, respectively.
 - (C) For carcinogenic air contaminants with initial risk screening levels greater than or equal to 0.04 micrograms per cubic meter, the uncontrolled or controlled emissions shall not exceed 20 or 10 pounds per month, respectively.
 - (D) The emission unit shall not emit any air contaminants, excluding noncarcinogenic volatile organic compounds and noncarcinogenic materials which are listed in R 336.1122(f) as not contributing appreciably to the formation of ozone, with an initial threshold screening level or initial risk screening level less than 0.04 micrograms per cubic meter.
 - (E) For total mercury, the uncontrolled or controlled emissions shall not exceed 0.01 pounds per month.**

- **Rule 336.1290, continued**

(iii) Any emission unit that emits only noncarcinogenic particulate air contaminants and other air contaminants that are exempted under paragraphs (i) or (ii) of this subdivision if all of the following provisions are met:

(A) The particulate emissions are controlled by an appropriately designed and operated fabric filter collector or an equivalent control system which is designed to control particulate matter to a concentration of less than or equal to 0.01 pounds of particulate per 1,000 pounds of exhaust gases and which do not have an exhaust gas flow rate more than 30,000 actual cubic feet per minute.

(B) The visible emissions from the emission unit are not more than 5% opacity in accordance with the methods contained in R 336.1303.

(C) The initial threshold screening level for each particulate air contaminant, excluding nuisance particulate, is more than 2.0 micrograms per cubic meter.

(b) A description of the emission unit is maintained throughout the life of the unit.

(c) Records of material use and calculations identifying the quality, nature, and quantity of the air contaminant emissions are maintained in sufficient detail to demonstrate that the emissions meet the emission limits outlined in this rule.

(d) The records are maintained on file for the most recent 2 year period and are made available to the Air Quality Division upon request.

It is proposed that Rule 290(a)(ii) include a new exempt emission rate for mercury. Currently, mercury emissions are not exempt pursuant to Rule 290 because AQD does not have a screening level established to enable the application of Rule 290(a)(ii) criteria. In the future, AQD intends to establish an ITSL for mercury compounds. The ITSL is an ambient air concentration that is protective of human health from inhalation-only exposure. AQD believes that it would be appropriate to establish an emission rate for mercury in Rule 290 but the ITSL is not an indicator of the appropriate emission because the ITSL does not account for the high persistence and bioaccumulation of mercury. Therefore, the AQD is proposing an exempt emission rate of 0.01 pounds per month for mercury compounds. The rationale for this proposed emission rate is that it would ensure a level of public health and environmental protection, would not undermine the AQD's mercury emission inventory or the goals of the statewide Total Maximum Daily Load, and would not allow known mercury sources (e.g. high volume fluorescent light drum-top crusher operations) to be exempt and thus avoid emission control requirements.

The addition of mercury to Rule 290 is recommended because ten members of the eleven person workgroup support the addition. The one person opposed to the addition of mercury indicated that mercury needs to be assessed on a case-by-case basis due to mercury's highly bioaccumulative nature.

NEW RULE; Rule 336.1291

R 336.1291 Permit to install exemptions; emission units with “de minimis” emissions.

Rule 291. The requirement of R 336.1201(1) to obtain a permit to install does not apply to any emission unit in which controlled or uncontrolled potential emissions are less than all of the limits contained in (a) and (b) and records are maintained in accordance with (c) and (d).

a)

<u><i>Air Contaminant</i></u>	<u><i>Potential Emissions</i></u>
<u><i>CO₂ equivalent</i></u>	<u><i>75,000 tons per year</i></u>
<u><i>CO</i></u>	<u><i>10 tons per year</i></u>
<u><i>NO_x</i></u>	<u><i>10 tons per year</i></u>
<u><i>SO₂</i></u>	<u><i>10 tons per year</i></u>
<u><i>VOC (as defined in R 336.1122)</i></u>	<u><i>5 tons per year</i></u>
<u><i>PM</i></u>	<u><i>10 tons per year</i></u>
<u><i>PM-10</i></u>	<u><i>5 tons per year</i></u>
<u><i>PM-2.5</i></u>	<u><i>3 tons per year</i></u>
<u><i>Lead</i></u>	<u><i>0.1 tons per year</i></u>
<u><i>Fluorides</i></u>	<u><i>1 ton per year</i></u>
<u><i>Sulfuric Acid Mist</i></u>	<u><i>0.12 tons per year</i></u>
<u><i>Hydrogen Sulfide</i></u>	<u><i>2 tons per year</i></u>
<u><i>Total Reduced Sulfur</i></u>	<u><i>2 tons per year</i></u>
<u><i>Reduced Sulfur Compounds</i></u>	<u><i>2 tons per year</i></u>
<u><i>Total Mercury</i></u>	<u><i>0.12 pounds per year</i></u>
<u><i>Air contaminants not listed above with any screening level</i></u>	<u><i>4.8 tons per year</i></u>
<u><i>Air contaminants not listed above that are non-carcinogenic and do not have a screening level</i></u>	<u><i>6 tons per year</i></u>

(b) Total combined emissions of all air contaminants with screening levels less than 0.1 micrograms per cubic meter shall not exceed 0.06 tons per year. This includes VOC, PM, PM-10, PM-2.5, and all other air contaminants that fit this definition.

(c) A description of the emission unit is maintained throughout the life of the unit.

(d) Documentation and/or calculations identifying the quality, nature and quantity of the air contaminant emissions are maintained in sufficient detail to demonstrate that the potential emissions meet the emission limits outlined in this rule.

This exemption implements ORR Recommendation A-3 which stated that Michigan should adopt a new exemption rule for minor sources with de minimis potential to emit similar to the minor new source review thresholds adopted for Indian Country (40 CFR Part 49, Subpart C), also called the “tribal rule”. The Permit Exemption Workgroup deviated from the original recommendation in the ways and for the reasons described below.

- The tribal rule, and therefore the ORR recommendation, included threshold emission values based on an area's attainment status. The workgroup concluded that one set of thresholds should be used regardless of the attainment status because there are currently few non-attainment areas in the state. Most areas would use the attainment values listed in the recommendation. This would also simplify the exemption making it easier to use.
- Another change from the tribal rule made by the workgroup was to use actual emissions, rather than potential emission, as a way to determine applicability and compliance. It was later decided that a rule based on potential would be more likely approvable into Michigan's State Implementation Plan. Therefore, the rule was edited to rely on potential emissions as a basis for the limits. (Additional discussion below)
- All of the limits of Rule 291 are equal or less than those allowed in the tribal rule with several additional restrictions (mercury, toxics, etc.). These additional restrictions address the fact that the State of Michigan has an Air Toxics Program that assesses ambient impacts and the EPA does not. It was necessary for the workgroup to expand the list of pollutants to limit air contaminants, with the exception of mercury, based on screening levels for consistency with the state's air toxics program. This addition addresses any pollutants that were previously not listed and takes into account the Part 1 definition of an air contaminant.
- MSW Combustors and MSW Landfills as listed in the ORR Recommendation were not included in the list of air contaminants in Rule 291. The limit in Recommendation A-3 for MSW Combustors was 2 tons per year. This is a very low threshold that would exempt few units. The workgroup also believes that there are potential air toxics concerns and that MSW Combustors are usually controversial. MSW Landfills were removed from the table as a Part 2 exemption already exists (R 336.1285(aa)).
- The sulfuric acid mist upper threshold limit of 2 tons per year was reduced based on a review conducted by the AQD's Toxics Unit. The original recommendation of 2 tons potential emissions per year poses a concern for irritancy and is significantly higher than what is currently allowed in Rule 290. The irritancy that can occur from sulfuric acid mist is insidious and difficult to detect and address. Therefore, the Toxics Unit proposed an emission rate cap of 0.12 tons per year, which is consistent with the current Rule 290 emission rate.
- Regarding VOC's, ORR Recommendation A-3 only included non-carcinogenic VOCs in the exemption threshold list of air contaminants. If the workgroup followed this approach, then combustion sources would not be able to use the exemption due to the small amounts of carcinogenic air contaminants emitted during combustion. The workgroup proposes a limit of 10 pounds per month (0.06 tons per year) of total air contaminants with screening levels with less than 0.1 micrograms per cubic meter.. These values were chosen based on a combination of modeling, existing limits in Rule 290, and the default screening level value used in Michigan's Air Toxics Program.
- Similar to the recommendation made for Rule 290, the workgroup recommends that a separate mercury emission limit be added to make the exemption more usable, rather than prohibiting mercury emissions altogether. The AQD believes that the appropriate emission rate for mercury compounds is 0.01 pounds per month (0.12 pounds per year).

The rationale for this proposed emission rate is that it would ensure public health and environmental protection, would not undermine the accuracy of the AQD's mercury emission inventory or the goals of the statewide Total Maximum Daily Load, and would not allow known mercury sources (e.g. high volume fluorescent light drum-top crusher operations) to be exempt and thus avoid emission control requirements.

Ten members of the eleven person workgroup support the addition of mercury to Rule 291. The one person opposed to the addition of mercury indicated that mercury needs to be assessed on a case-by-case basis due to mercury's highly bioaccumulative nature.

- One category of air contaminant that is not specifically addressed is the carcinogen without an established screening level that is also not a VOC or particulate. The workgroup believes that situations in which known carcinogens do not have a screening level, nor are a VOC or particulate are extremely unlikely. If a pollutant were to meet these criteria, a screening level could be established by the Air Toxics Unit.
- Greenhouse gases were also not included in the Tribal Rule, and so an exemption emission threshold for these sources had to be established. Rule 278 prohibits the use of the permit to install exemptions in many situations. The PSD permit applicability threshold for GHG's is 75,000 tons per year of CO₂(equivalent). The workgroup recommends establishing the same limit for inclusion in Rule 291.

As previously mentioned, an earlier version of Rule 291 was drafted by the workgroup in which actual emissions were used to determine applicability and compliance. This was a deviation from the tribal rule and therefore the ORR recommendation. Because the use of actual emissions is more easily understood by the regulated community and easier to enforce by Air Quality staff, the workgroup believed it to be a positive change. In combination with Rule 278, it was thought Rule 291 would be a useful addition to AQD's exemptions. However, AQD management believed Rule 291 as it was submitted by the workgroup would result in an EPA disapproval of inclusion in the Michigan SIP because exempting from permit review emission limits based on actual emissions would be a significant relaxation from the requirements in the existing Michigan SIP. (Note, many of the existing exemptions are not in the SIP; several have been proposed for disapproval in the past.) States must justify that SIP revisions do not result in "backsliding" from the existing SIP. The workgroup's product and AQD managements' concerns were discussed with the Air Advisory Council. Several courses of action were considered. It was decided that Rule 291 would be made more similar to the tribal rule by changing actual emissions to potential emissions in order to enhance the likelihood of approval by EPA.