Missouri
Department of
Natural Resources

Hazardous Waste Forum
April 8, 2009
Container Management Workgroup Packet

Numbers 3, 8, and 9 Correspond to the numbers on the "REGFORM Recommendation List" posted on the HW Forum Webpage under the May 10, 2007 Meeting.

Hazardous Waste Regulation Worklist
For Stakeholders

Revised 9-17-07 Status Key:
2. Additional info requested from REGFORM to advance.
3. Stakeholder input needed.

Commenter/ Date	MO Provision	CSR Citation(s) 10 CSR 25-	How Different from Federal Rules?	Stakeholder Issue/Concern and Recommendation	DNR Response/ Next Steps	Status
3 REGFORM 4-10-06	Prescriptive containment requirements for storage of waste containers in generator storage areas and transfer stations. Lesser requirements if no free liquids or <1000 kg non-acute hazardous waste.	5.262(2)(C)2.D. 6.263(2)(A)10.D	Federal rules require weekly inspections and separation of incompatibles with a dike, berm, wall, etc., but do not prescribe containment area design for generator or transfer station storage.	Containment requirements are excessive for generators (90/180/270-day max. storage time) and transfer stations (10 days). Container deterioration in these storage timeframes is an unlikely source of container leakage. Examination of spill reports should reveal that most releases occur during container handling when transporting from accumulation areas or into transport vehicles, not within the confines of storage areas or during undisturbed storage. Weekly inspections are designed to detect any gradual deterioration, and the rules require container replacement/overpack in this case. As waste generators change their production operations and move processes, it is advantageous to relocate 90/180/270 day waste storage locations, but the prescriptive Missouri containment rules cause this to be a major construction or containment building relocation project. As a result, these storage areas are not moved, and the risk of incidents increases because of longer in-plant waste transportation routes. **RECOMMENDATION**: Rescind rule and prescriptive requirements for storage area design. threshold.	DNR Response (Monday, April 10) DNR will await further comment from REGFORM. However, to help further the dialog, REGFORM notes that "examination of spill reports should reveal that most releases occur during container handling when transporting from accumulation areas or into transport vehicles, not within the confines of storage areas or during undisturbed storage". If REGFORM would provide its data, it would be helpful to justify reducing the protection to sewers and groundwater that this rule is intended to provide. DNR pointed out during the meeting that the purpose served by the regs is additional protection to groundwater and sewers however, since spills into a containment system (per the MO regs) would not normally be considered a reportable event, there should be very few reports of releases into containment systems. Based on what DNR sees during inspections, most facilities find using containment pallets an inexpensive, easy and extremely flexible means of compliance. DNR questions REGFORM's statement that a "major construction or containment building relocation project" is necessary if waste needs to be relocated. **Next Steps:** This item was tabled for future discussion. Roger Walker notes that he wants to discuss this with the REGFORM member who supplied the comment to better clarify the concern	2 and 3

Item 3: Containment Requirements for Generators and Transfer Facilities

The following regulations provide the full language of the federal and state citations referenced in the preceding matrix.

Federal Requirements:

40 CFR 265.177 Special requirements for incompatible wastes.

(a) Incompatible wastes, or incompatible wastes and materials, (see appendix V for examples) must not be placed in the same container, unless §265.17(b) is complied with.

(b) Hazardous waste must not be placed in an unwashed container that previously held an incompatible waste or material (see appendix V for examples), unless §265.17(b) is complied with.

(c) A storage container holding a hazardous waste that is incompatible with any waste or other materials stored nearby in other containers, piles, open tanks, or surface impoundments **must be separated from the other materials or protected from them by means of a dike, berm, wall, or other device.**

[*Comment:* The purpose of this is to prevent fires, explosions, gaseous emissions, leaching, or other discharge of hazardous waste or hazardous waste constituents which could result from the mixing of incompatible wastes or materials if containers break or leak.]

40 CFR 265.174 Inspections.

At least weekly, the owner or operator must inspect areas where containers are stored, except for Performance Track member facilities, that must conduct inspections at least once each month, upon approval by the Director. To apply for reduced inspection frequency, the Performance Track member facility must follow the procedures described in §265.15(b)(5) of this part. **The owner or operator must look for leaking containers and for deterioration of containers caused by corrosion or other factors.**

[Comment: See §265.171 for remedial action required if deterioration or leaks are detected.]

State Requirements:

Generator- 10 CSR 25-5.262(2)(C)2.D.

Containment for storage in containers. This subparagraph sets forth **additional requirements for storage of hazardous waste in containers.**

(I) Container storage areas shall have a containment system that is designed and operated in accordance with part (2)(C)2.D.(III) of this rule, except as provided in part (2)(C)2.D.(II) of this rule.

(II) **Storage areas that store containers holding only wastes that do not contain free liquids or storage areas that store less than one thousand kilograms (1000 kg)of nonacute hazardous waste containing free liquids need not have a containment system** as described in part (2)(C)2.D.(I) of this rule, provided that the storage area is sloped or is otherwise designed and operated to drain and remove liquid resulting from precipitation, or the containers are elevated or are otherwise protected from contact with accumulated liquid.

(III) A containment system shall be designed, maintained and operated as follows:

(a) The containment system shall include a base which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills and accumulated precipitation until the collected material is detected and removed. The base shall be under the container;
(b) The base shall be sloped or the containment system shall be designed and operated to drain and remove liquids resulting from leaks, spills or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids;
(c) The containment system shall have a capacity equal to ten percent (10%) of the containerized waste volume or the volume of the largest container, whichever is greater. (Containers that do not contain free liquids need not be considered in this calculation);
(d) Run-on into the containment system shall be prevented unless the collection system has sufficient excess capacity in addition to that required in subpart(2)(C)2.B.(III)(c) of this rule to contain any run-on which might enter the system; and
(e) Spilled or leaked waste and accumulated precipitation shall be removed from the sump or collection area as necessary to prevent overflow of the collection system.

Transporter- 10 CSR 25-6.263(2)(A)10.D.

D. A secondary containment system for storage of hazardous waste in containers at a transfer facility shall meet the following requirements:

(I) A containment system shall be designed, maintained and operated as follows:
(a) The containment system shall include a base which is free of cracks or gaps and is sufficiently impervious to contain leaks, spills and accumulated precipitation until the collected material is detected and removed. The base shall be under the container;
(b) The base shall be sloped or the containment system shall be designed and operated to drain and remove liquids resulting from leaks, spills or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids;
(c) The containment system shall have a capacity equal to ten percent (10%) of the containerized waste volume or the volume of the largest container, whichever is greater (Containers that do not contain free liquids need not be considered in this calculation.);
(d) Run-on into the containment system shall be prevented unless the collection system has sufficient excess capacity in addition to that required in part (2)(A)10.D.(I) of this rule to contain any runon which might enter the system; and
(e) Spilled or leaked waste and accumulated precipitation shall be removed from the sump or collection area as necessary to prevent overflow of the collection system; and

(II) The containment system shall be inspected as part of the weekly inspections required by 40 CFR 265.174 incorporated by reference in 10 CSR 25-7.265(1);

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8 REGFORM 4-10-06	Generators and transfer station operators shall "provide safety equipment such as fire blankets, gas masks and self-contained breathing apparatus."	5.262(2)(C)2.G. 6.263(2)(A)10.F.	Required preparedness and prevention equipment is specified in 40 CFR 265.32, but it does not include these additional questionable items.	OSHA regulations require that cartridge respirators ("gas masks") and SCBA units be used only by persons who are fit-tested to a specific size facemask and who are trained to use them. Because of this, employers restrict respirator use to designated persons, who are supplied respirators that meet these requirements, but do not make them generally available. For liability reasons, the waste facility should not provide respiratory gear to non-employees in a local Fire Department or other outside entity (ex. cleanup contractors) on an ad hoc basis. Fire blankets are no longer in common use. Their use should be governed by the highly specific criteria in NFPA and local fire codes, rather than by hazardous waste rules. **RECOMMENDATION**: Eliminate this rule altogether or simply require that generators and transfer station operators follow NFPA and local fire codes.	DNR Response (Mon, April 10) DNR agrees that general citation to NFPA guidelines and local fire codes makes more sense but need to be sure that if local codes or NFPA goes away for some reason that the State is not left without a regulatory structure. DNR pointed out during the meeting that 40 CFR 265.32 requires equipment unless hazards addressed do not apply. DNR has considered this reg to mean that if you don't require a type of equipment, you don't have to have it. This has been applied by examining facility statements, procedures and documents for evidence about the types of activities planned and conducted, and comparing equipment. If facility responses didn't require a SCBA, it was not required. Next Steps DNR welcomes REGFORM's input on citations of the NFPA standards it feels are applicable to all generators. We agreed to keep talking about how to utilize general references.	2 and 3

Item 8: Generators and Transfer Stations Shall Provide Safety Equipment.

The following regulations provide the full language of the federal and state citations referenced in the preceding matrix.

Federal requirements:

40 CFR 265.32 Required equipment.

All facilities must be equipped with the following, unless none of the hazards posed by waste handled at the facility could require a particular kind of equipment specified below:

(a) An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel;

(b) A device, such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or State or local emergency response teams;

(c) Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and

(d) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.

State requirements:

Generator : 10 CSR 25-5.262(2)(C)2. G.
Preparedness and prevention. In addition to the required equipment specified in 40 CFR 265.32, incorporated in 10 CSR 25-7.265, a generator shall also provide safety equipment such as fire blankets, gas masks and self-contained breathing apparatus.

Transporter: 10 CSR 25-6.263(2)(A)10.F.
Preparedness and prevention. A transporter shall equip the transfer station as specified in 40 CFR 265.32 incorporated by reference in 10 CSR 25-7.265(1). In addition, a transporter shall also provide safety equipment such as fire blankets, gas masks and self-contained breathing apparatus;

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9 REGFORM 4-10-06	Missouri requires that generators package, mark and label during the entire time hazardous waste is accumulated on–site.	5.262(2)(C)(1)	40 CFR 262.32 requires generators to package, mark and label hazardous waste before offering for transportation offsite. It does not require DOT labels on containers that will never be shipped off-site.	The more stringent Missouri regulations are expensive, time consuming, and do not have an environmental benefit. DOT labels are expensive. The federal rule requiring compliance prior to shipping is sufficient protection. Roger Walker invites additional input on this issue, noting that one accident should not be the model for regulations that impact the entire state. He suspects that all facilities are marked in a manner allowing emergency personnel to understand the nature of the contents of the buildings they enter and that the specific labeling is not necessary and does not add to the level of safety. **RECOMMENDATION**: Remove the requirement that containers temporarily storing hazardous waste be labeled per DOT and make it clear that DOT compliance applies only at the time of shipment.	DNR Response (Mon. April 10) DNR agrees that DOT does not require labeling until time of shipment but noted that this provision was put in place after a disaster in Kansas City involving firefighters and the lack of adequate labeling of stored chemicals. They would agree to use the "diamond" signs that would provide information of the nature of the stored items. Next Steps Update Dec. 06 - DNR notes that facilities are not always adequately marked for emergency personnel and safety. Also, aside from emergency needs, it is often a challenge for inspectors to know what is in a container, even with adequate lighting and facility personnel beside them to provide information. During the meeting we discussed that DNR's original desire was to have the NFPA 704 (diamond) system apply to all generators, but the Hazardous Waste Management Commission felt it was less burdensome to apply DOT labels early that will eventually be required. If REGFORM wishes to propose a higher level of safety for first responders by requiring the diamond system in lieu of early labeling, DNR would consider it, since promoting the safety of first responders was one of the primary reasons for the promulgation of this reg. Stakeholder input is welcome.	2 and 3

Item 9 DOT Package, Mark, Label

The following regulations provide the full language of the federal and state citations referenced in the preceding matrix.

Federal Requirements:

Subpart C—Pre-Transport Requirements

40 CFR 262.30 Packaging.

Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator must package the waste in accordance with the applicable Department of Transportation regulations on packaging under 49 CFR parts 173, 178, and 179.

40 CFR 262.31 Labeling.

Before transporting or offering hazardous waste for transportation off-site, a generator must label each package in accordance with the applicable Department of Transportation regulations on hazardous materials under 49 CFR part 172.

40 CFR 262.32 Marking.

(a) Before transporting or offering hazardous waste for transportation off-site, a generator must mark each package of hazardous waste in accordance with the applicable Department of Transportation regulations on hazardous materials under 49 CFR part 172;

(b) Before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator must mark each container of 119 gallons or less used in such transportation with the following words and information in accordance with the requirements of 49 CFR 172.304:

HAZARDOUS WASTE—Federal Law Prohibits Improper Disposal. If found, contact the nearest police or public safety authority or the U.S. Environmental Protection Agency.

Generator's Name and Address
Generator's EPA Identification Number
Manifest Tracking Number

State Requirements:

10 CSR 25-5.262(2)(C)1. Pretransport, Containerization and Labeling Requirements.

1. **During the entire time hazardous waste is accumulated in storage on-site**, generators shall package, mark and label hazardous waste containers in compliance with the requirements of 40 CFR 262.32 and 40 CFR part 262 subpart C, as incorporated and modified within these regulations. The generator is not required to mark the manifest document number for the shipment on the container until it is prepared for off-site shipment.