



# **Regulation of Fuel Blending and Related Treatment and Storage Activities Memo**



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
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OFFICE OF  
SOLID WASTE AND EMERGENCY RESPONSE

**MEMORANDUM**

**SUBJECT:** Regulation of Fuel Blending and Related Treatment and Storage Activities  
**FROM:** *Elizabeth A. Clotsworth*  
for Michael H. Shapiro, Director  
Office of Solid Waste  
**TO:** Hazardous Waste Management Division Directors  
Regions I-X

The purpose of this memorandum is to address a number of questions under the Resource Conservation and Recovery Act (RCRA) regarding the regulatory status of hazardous waste fuel blending activities. The memorandum is concerned primarily with facilities that are commonly known as "fuel blenders," although the waste management activities of these facilities most often include a set of integrated waste processing operations more diverse and complex than just the fuel blending activities themselves. A number of issues have been raised regarding the applicability of the RCRA permitting requirements and the land disposal restriction (LDR) requirements to these facilities. The guidance provided below discusses these issues generally. However, since many fuel blending operations are complex, there may be some facility-specific regulatory concerns that are best addressed on a case-by-case basis.

**Permit Requirements**

The RCRA program regulates hazardous waste storage, treatment and disposal activities with the permitting requirements of 40 CFR Part 270, and with unit-specific standards and other substantive requirements of Parts 264-268. Hazardous waste fuel blending facilities have activities that constitute storage and/or treatment of hazardous wastes. Consequently, they are subject to full RCRA regulation, including permitting, with few exceptions as discussed below.

Fuel blending operations are addressed in Part 266. Specifically, §266.101(c) states that, "owners and operators of facilities that store hazardous waste that is burned in a boiler or industrial furnace are subject to the applicable provisions of Parts 264, 265 and 270 of this chapter..." This provision

further states, "These standards apply to storage by the burner as well as to storage facilities operated by intermediaries (processors, blenders, distributors, etc.) between the generator and the burner."

Some fuel blenders have asserted that, since their activities are considered recycling, the blending operation is exempt from permit requirements according to §261.6(c)(1). Section 261.6(a)(2), however, clearly states that hazardous wastes which are recycled materials and are burned for energy recovery "...are regulated under Subparts C through H of Part 266 of this chapter and all applicable provisions in Parts 270 and 124 of this chapter." This provision makes it clear that fuel blending is not exempt from regulatory standards or permitting.

It is possible that fuel blending in tanks or containers could be exempt from permitting, but only if the blending occurs at the site where the wastes being blended are generated. The permit-exempt management would have to meet the provisions of §262.34, which requires the waste to be processed within 90 days in units that comply with the technical standards of Part 265, Subpart J (for tanks), and Subpart I (for containers). The generator must also comply with specific emergency response and personnel training provisions of Part 265. This permit exemption is not available if the unit is classified under Part 265 as a thermal treatment unit (Subpart P). Thus, fuel blending is treated like any other treatment or storage activity for purposes of qualifying for the ninety-day generator permit exemption.

There may be some recycling operations at a fuel blending facility that are exempt from permitting, even though the fuel blending process itself is not exempt. The exemption is only available to units that are solely engaged in permit-exempt recycling; if the reclaimed materials are sometimes sent for use as a fuel, then the recycling unit would be subject to the permitting standards. In States that are authorized for the RCRA program, the State recycling exemptions must be as stringent as the Federal program.

#### Appropriate Unit Standards

Most fuel blending facilities employ unit operations that are regulated under the tank standards of Subpart J of either Part 264 or 265. However, some facilities are using other devices such as shredders, grinders, filters, microwave units and distillation columns in their hazardous waste management operations. Depending on the specific configuration of these operations, they are permitted as either tank systems (including ancillary equipment) or as miscellaneous units under Subpart X. Furthermore, additional permit conditions may be imposed using the omnibus authority of RCRA Section 3005(c)(3) as necessary to protect human health and the environment. Since these operations

vary from site to site, the appropriate permitting authority (the State or EPA Regional Office) must decide which unit standards are the most relevant for each specific facility.

### Air Emission Standards

Another question that has been raised concerns the applicability of the organic air emission standards for process vents and equipment leaks (Subparts AA and BB, Parts 264/265). These standards limit organic emissions from (1) process vents associated with distillation, fractionation, thin-film evaporation, solvent extraction, and air or steam stripping operations that manage hazardous wastes with 10 parts per million by weight (ppmw) or greater total organic concentration, and (2) leaks from equipment that contains or contacts hazardous waste streams with 10 percent by weight or greater total organics. Due to the typically high organic content of the hazardous wastes managed at fuel blending facilities, we would expect the Subpart AA and BB requirements to be applicable.

The AA and BB requirements are also applicable to hazardous waste recycling units if they are located at hazardous waste management facilities that have other units subject to permitting. Although some recycling units are exempt from the unit-specific standards of Parts 264 and 265 pursuant to §261.6(c), such units must comply with any applicable AA and BB requirements of those Parts. See §261.6(d).

On July 22, 1991 (56 FR 33490), the Agency proposed unit-specific air emission standards that would provide additional controls on tanks, containers, and Subpart X units, among others. When these standards are promulgated as final rules (promulgation is scheduled for November 15, 1994), they will be applicable to fuel blender facilities.

### Transfer Facilities

Transfer facilities are those transportation related sites including loading docks, parking areas, storage areas and other similar areas where shipments of hazardous wastes are held or repackaged during the normal course of transportation. Section 263.12 allows these facilities to store wastes in containers without RCRA permits as long as specific packing requirements are followed and the wastes do not remain on-site for more than 10 days. Transfer operations are limited to bulking and consolidation of wastes. Selective blending of hazardous waste fuels to meet a fuel specification at a transfer facility is not an appropriate activity under §263.12; this would constitute hazardous waste treatment requiring a permit.

## Land Disposal Restrictions

### **Generators**

Generators of prohibited hazardous wastes (i.e. hazardous wastes required to meet a treatment standard before they can be land disposed) must comply with certain notification, certification, and recordkeeping requirements designed to assure proper tracking of the waste and adequate notice to the treatment facility of applicable treatment standards, as set forth in 40 CFR 268.7(a). (Note that if an offsite fuel blender/multi-purpose facility treats or otherwise manages a waste such that a new point of generation occurs, then the offsite facility becomes a generator and is therefore subject to these generator requirements.) These provisions apply whenever a generator ships a prohibited waste to another entity for eventual land disposal, and so apply when generators send prohibited wastes to fuel blenders/multi-purpose treatment/storage facilities. Although the wastes may be combusted, some residue (such as combustion ash) would be land disposed and must meet the treatment standard applicable to the combusted hazardous waste (as discussed at 58 FR 29872; May 24, 1993). Information normally required to be included in the notice are:

- EPA hazardous waste number
- constituents of concern
- treatability group
- manifest number
- waste analysis data (where available)

According to §268.9(a), these provisions also apply when generators send characteristic wastes off-site. If the generator treats the characteristic waste to make it non-hazardous before sending it to a fuel blender/multi-purpose facility, a one-time notice and certification must be placed in the generator's files and also be sent to the EPA region or authorized State, according to §268.9(d). This one-time notice provision applies only to cases where wastes are hazardous by reason of characteristic alone, (as discussed in 55 FR 22662-63; June 1, 1990), and so does not apply when a mixture includes a listed waste.

There are circumstances where an otherwise-prohibited waste destined for combustion may not be subject to LDR requirements (including the tracking requirements) because neither the waste nor the residue from treating the waste is subject to a treatment standard when land disposed. This could occur where hazardous wastes are going to be burned for energy recovery in a Bevill device, such as a boiler or cement kiln. If the wastes are burned for energy recovery in a Bevill device that processes normal Bevill raw materials as well, and the Bevill device can show that its residues were not significantly affected by its hazardous waste-burning activities (the "significantly affected"

test is found in 40 CFR 266.112), then the residues can retain Bevill-exempt status and not have to meet LDR treatment standards. Further, if the Bevill device produces a product that is used in a manner constituting disposal (e.g., a cement or light-weight aggregate kiln), and the hazardous waste is burned for energy recovery rather than for destruction or as an ingredient, then the product is not required to meet LDR treatment standards. In these situations where neither residues nor products are subject to LDR treatment standards, the original generator's waste would not be considered prohibited from land disposal. According to §268.7(a)(6), if such a generator can assure that the conditions discussed above are all true regarding the disposition of its otherwise-prohibited waste, then the generator is only required to prepare a one-time notice for its facility records documenting this disposition and not to comply with other tracking/notification requirements. If a generator is not in a position to know that this is the case, then the full notification/certification requirements under §268.7(a) would apply.

#### **Fuel Blending Facilities**

According to §268.7(b), treatment facilities (e.g., fuel blenders, BIFs, etc.) must also prepare a notification and certification for prohibited wastes. These provisions ordinarily apply to fuel blending operations because combustion residues are ultimately land disposed and the combustion residue ordinarily remains subject to LDR treatment standards. These treatment standards would continue to apply to characteristic wastes that no longer exhibit a characteristic when land disposed, according to §268.40(e), so that de-characterized residues from burning prohibited characteristic wastes are still subject to treatment standards. (Note, that for D001 wastes, combustion residues meet the BDAT standard since these standards require a method of treatment rather than treating hazardous constituents to a specified concentration level.)

Because fuel blenders are intermediate treatment operations, they must comply with §268.7(b)(6) (assuming the intermediate treatment does not fully achieve the treatment standard). Specifically, this section requires the fuel blender to prepare the same notification and certification that is required for generators, which in some cases will be the one-time notification discussed for generators above and in other cases will be applicable to each waste shipment. The notification and certification would accompany the blended fuel when it leaves the site to be transported to the subsequent treater (e.g., BIF).

If you have any questions on the applicability of the regulations and permitting requirements for fuel blending activities, please call James Michael of my staff at

(703) 308-8610. Questions on the applicability of the land disposal restrictions (LDR) on fuel blending activities should be directed to Rhonda Craig of my staff at (703) 308-8771.

cc: RCRA Branch Chiefs, Regions I-X  
RCRA Permit Section Chiefs, Regions I-X  
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Waste Combustion Permit Writers' Workgroup