



Types of RCRA Permits

BACKGROUND: Unless exempt from permitting requirements under the implementing regulations, the owner/operator of a facility that treats, stores, or disposes of hazardous waste regulated under the Resource Conservation and Recovery Act (RCRA), Subtitle C, "Hazardous Waste Management," must have a permit during the active stage (including the closure period) of waste management at the facility (section 3005 of RCRA). The terms "treatment," "storage," "disposal," and "hazardous waste" are defined in 40 CFR 270.2. A facility that exists on the effective date of statutory or regulatory changes subjecting it to RCRA permitting requirements may operate under interim status until a permit has been issued or denied [40 CFR 270.70]. The owner/operator of a new facility that manages hazardous waste must apply for and obtain a RCRA permit before construction begins [40 CFR 270.10(f)(1)]. The permit can be issued by EPA or an authorized state. The owner/operator of a surface impoundment, landfill, land treatment unit, or waste pile unit that received waste after July 26, 1982 [40 CFR 270.1(c)], or that certified closure (according to 40 CFR 265.115) after January 26, 1983, must obtain a post-closure permit to govern activities during the post-closure stage of the unit's life, unless closure by removal has been demonstrated.

This Information Brief explains the different types of RCRA permits provided under Federal RCRA regulations to govern hazardous waste treatment, storage, and disposal (TSD) activities during the active stage of a hazardous waste management facility's life. The permitting requirements for the post-closure stage are not addressed. Such requirements are dealt with in the RCRA Information Brief entitled, "RCRA Post-Closure Permits" (DOE/EH-231-021/0593).

STATUTES: RCRA as amended by the Hazardous and Solid Waste Amendments of 1984 (HSWA) and by the Federal Facility Compliance Act of 1992 (FFCA)

REGULATIONS:

40 CFR Part 124,	"Procedures for Decisionmaking"
40 CFR Part 270,	"EPA Administered Permit Programs: The Hazardous Waste Permit Program"
40 CFR Part 260,	"Hazardous Waste Management System: General"
40 CFR Part 261,	"Identification and Listing of Hazardous Waste"
40 CFR Part 262,	"Standards Applicable to Generators of Hazardous Waste"
40 CFR Part 264,	"Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities"
40 CFR Part 265,	"Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities"
40 CFR Part 273,	"Standards for Universal Waste Management"

RREFERENCES: *RCRA Permitting Guide for Hazardous and Radioactive Mixed Waste Management Facilities*, U.S. Department of Energy, Office of Environmental Policy and Assistance, RCRA/CERCLA Division (April 1997), DOE/EH [RCRA] 9705 .

"RCRA Post-Closure Permits," RCRA Information Brief, DOE/EH-231-021/0593, May 1993.

What are the types of RCRA hazardous waste permits?

Unless a hazardous waste TSD facility qualifies for an exemption from the RCRA permitting requirements, it must obtain a RCRA permit for the active stage of its life, which includes both operating and closure activities. Such RCRA permits can be divided into two categories: standard permits and special forms of permits. A standard RCRA permit is issued for a hazardous waste TSD facility where one or more hazardous waste management units may be located.

Hazardous waste management units that typically receive standard RCRA permits include: containers and

container storage areas, tanks and tank systems, surface impoundments, waste piles, land treatment facilities, landfills, miscellaneous units, drip pads, and containment buildings.

Under Federal regulations, the administrative process that must be completed before EPA issues a standard RCRA permit involves the following components: convene at least one public meeting before the permit application is submitted; issue a public notice when the application is filed; assess the need for an informational repository; review the permit application; prepare a draft permit; issue a public notice announcing the opportunity for comments on the draft permit; convene public hearings (if needed); and finalize the permit [40 CFR part 124].

Special forms of RCRA permits are issued when the type of unit being permitted, or the circumstances of permit issuance, justify modifying the standard administrative process. Special forms of permits include: emergency permits [40 CFR 270.61]; permits by rule [40 CFR 270.60]; research, development, and demonstration permits [40 CFR 270.65]; hazardous waste incinerator permits [40 CFR 270.62]; permits for land treatment demonstrations using field test or laboratory analyses [40 CFR 270.63]; interim permits for underground injection control (UIC) wells [40 CFR 270.64]; and permits for boilers and industrial furnaces burning hazardous waste [40 CFR 270.66].

What facilities that treat, store or dispose of hazardous waste are exempt from RCRA permitting requirements?

Hazardous waste TSD units and facilities that are exempt from RCRA permitting requirements are briefly described below:

- Storage units where a generator accumulates waste on-site for 90 days or less are not required to have RCRA permits as long as the units are in compliance with the applicable requirements of 40 CFR 262.34 [40 CFR 270.1(c)(2)(i)].
- Storage units where a generator of greater than 100 kilograms (kg), but less than 1,000 kg of hazardous waste in a calendar month accumulates such waste on-site for 180 days or less (270 days or less if transport for off-site treatment, storage or disposal must exceed 200 miles), provided that: the quantity of accumulated waste never exceeds 6,000 kg; the accumulation units comply with applicable interim status standards for containers or tanks in 40 CFR part 265, subparts I and J, respectively; and the date accumulation began and the words “hazardous waste” are marked on the accumulation tank or container. Such generators must comply with interim status standards for preparedness and prevention; comply with the requirement for a waste analysis plan in 40 CFR 268.7(a)(4); and meet all other requirements listed in 40 CFR 262.34(d)(5) [40 CFR 262.34(d) and (e)].
- A container located at or near the point of generation, in which a generator accumulates less than 55 gallons of hazardous waste, or less than one quart of acutely hazardous waste, is not required to have a RCRA permit as long as: the container is under the control of the operator of the waste-generating process; the container is in compliance with certain requirements for interim status container use; and the generator marks the container with the word “hazardous waste” or other words identifying the contents [40 CFR 262.34(c)(1)].
- A facility treating, storing, or disposing of hazardous waste that is excluded from regulation under 40 CFR 261.4 and 261.5 does not need a RCRA permit [40 CFR 270.1(c)(2)(iii)]. Wastes excluded from regulation by 40 CFR 261.4 and 261.5 include:
 - Certain materials that are excluded from the definition of solid waste [40 CFR 261.4(a)];
 - Certain solid wastes that are excluded from the definition of hazardous waste [40 CFR 261.4(b)];
 - Hazardous wastes generated in certain tanks, vessels, pipelines, and manufacturing units, until the wastes exit the unit in which they are generated, provided that the waste exits the unit within 90 days after the unit ceases operation, and provided that the unit is not a surface impoundment [40 CFR 261.4(c)];
 - Solid waste and media samples collected for the purpose of testing [40 CFR 261.4(d)];
 - Certain hazardous waste samples generated and collected for the purpose of conducting treatability studies [40 CFR 261.4(e)];
 - Certain hazardous waste samples undergoing treatability studies [40 CFR 261.4(f)]; and
 - Hazardous wastes originating from conditionally exempt small quantity generators as defined in 40 CFR 261.5 (generating 100 kg or less of hazardous waste in a calendar month).
- Totally enclosed treatment facilities as defined by 40 CFR 260.10 are not required to obtain RCRA permits [40 CFR 270.1(c)(2)(iv)]. Such facilities include facilities for the treatment of hazardous waste that are directly connected to industrial production processes, and that are constructed and operated in a manner that prevents the release of any hazardous waste (or any constituent thereof) into the environment during treatment [40 CFR 260.10].
- Wastewater treatment units meeting the definition of a wastewater treatment unit in 40 CFR 260.10 [40 CFR 270.1(c)(2)(v)].
- Elementary neutralization units (devices used for neutralizing wastes that are hazardous only because they exhibit the characteristic of corrosivity or because they were listed for exhibiting the characteristic of corrosivity) [40 CFR 270.1(c)(2)(v)].
- Transfer facilities where transporters store manifested shipments of hazardous waste in containers meeting the requirements of 40 CFR 262.30 at a transfer facility for a period of ten days or less [40 CFR 270.1(c)(2)(vi)].
- Operations that involve adding absorbent material to waste in a container or adding waste to absorbent material in a container (provided that these actions occur when the waste is first placed in the container) are exempt from RCRA permit requirements, as long as such operations comply with the requirements of 40 CFR 264.17(b), 264.171, and 264.172 [40 CFR 270.1(c)(2)(vii)].
- Universal waste handlers and universal waste transporters who are regulated under 40 CFR part 273, “Standards for

Universal Waste Management,” and who manage: (1) batteries as described in 40 CFR 273.2, (2) pesticides as described in 40 CFR 273.3, and (3) thermostats as described in 40 CFR 273.4 [40 CFR 270.1(c)(2)(viii)].

- Treatment or containment activities do not require a RCRA permit when taken in immediate response to: a discharge of hazardous waste; an imminent and substantial threat of a discharge of hazardous waste; discharge of a material which, when discharged, becomes a hazardous waste; or an immediate threat to human health, public safety, property, or the environment from the known or suspected presence of military munitions, other explosive material, or an explosive device, as determined by an explosive or munitions emergency response specialist as defined in 40 CFR 260.10. Treatment activities that continue after the immediate response is over, however, do require a RCRA permit [40 CFR 270.1(c)(3)].
- Some hazardous waste recycling processes (e.g., the blending of reclaimed solvents) do not require a RCRA permit. The storage of RCRA hazardous materials before they are recycled, however, does require a RCRA permit [40 CFR 261.6(c)].

Under what circumstances would an emergency permit be available to a DOE hazardous waste TSD facility?

As an example, DOE's Savannah River Site obtained an emergency permit in July 1990 from the South Carolina Department of Health and Environmental Control to deactivate some ether, picric acid, and other chemicals that had begun to form peroxides presenting a potential explosion hazard. Another situation that might justify an emergency permit would be the need to detonate certain munitions that are too dangerous to be moved to an interim status or permitted open burning/open detonation unit, but that do not present an immediate threat to human health, public safety, property, or the environment.

An emergency permit is a special form of RCRA permit because it is issued at the discretion of the responsible regulatory agency for the purpose of temporarily addressing imminent and substantial threats to human health or the environment. An emergency permit may be issued to:

- Non-permitted facilities to allow treatment, storage, or disposal of hazardous waste, or
- Permitted facilities to allow treatment, storage, or disposal of a hazardous waste not covered by the effective permit.

The duration of an emergency permit may not exceed 90 days. Emergency permits may be oral or written. If oral, it must be followed in five days by a written emergency permit. Emergency permits must be accompanied by a public notice [40 CFR 270.61].

Under what circumstances would a permit by rule be available to a hazardous waste TSD facility?

Under 40 CFR 270.60, three types of hazardous waste activities are deemed to have RCRA permits without administrative action under RCRA by the responsible regulatory agency if such activities meet stipulated conditions. The stipulated conditions include having a permit issued under a specified non-RCRA EPA permitting program, and compliance with cited RCRA standards applicable to owners and operators of hazardous waste treatment, storage, and disposal facilities. The three hazardous waste management activities that qualify for permit by rule are listed below. Currently, DOE does not conduct any of these type of activities.

- Ocean disposal of hazardous waste from barges or vessels having permits for ocean dumping issued under 40 CFR part 220 (see general ocean dumping regulations, authorized by the Marine Protection, Research, and Sanctuaries Act, as amended, 33 U.S.C. 1420 et seq.) [40 CFR 270.60(a)];
- Underground injection of hazardous waste into injection wells having permits issued under 40 CFR part 144 or 145 (see regulations for the UIC program, authorized by the Safe Drinking Water Act, as amended, 42 U.S.C. 300f et seq.) [40 CFR 270.60(b)]; and
- Wastewater discharges from Publicly Owned Treatment Works (POTWs) having National Pollutant Discharge Elimination System permits [40 CFR 270.60(c)].

Under what circumstances could a hazardous waste TSD facility seek a research, development, and demonstration (RD&D) permit?

An RD&D permit may be issued by the EPA Administrator (or an authorized representative) to a facility that proposes to utilize an innovative and experimental hazardous waste treatment technology or process for which permit standards have not been promulgated [40 CFR 270.65(a)]. With RD&D permits, the responsible regulatory agency may expedite the permitting process by modifying or waiving the standard RCRA permit application and issuance procedures specified in 40 CFR parts 124 and 270. Operation of an experimental unit under a RD&D permit is limited to one year, unless the permit is renewed before the end of its term. Renewal can occur up to three times, but like the term of the original RD&D permit, each renewal period is limited to no more than one year [40 CFR 270.65(d)]. Immediate termination of all operations under a RD&D permit can be ordered by the responsible regulatory agency, if necessary to protect human health and the environment [40 CFR 270.65(c)].

Under what circumstances would a hazardous waste TSD facility require a hazardous waste incinerator permit?

A RCRA hazardous waste incinerator permit would be required for any hazardous waste treatment unit having the

characteristics of an incinerator as defined by 40 CFR 260.10. According to that definition, an incinerator is any enclosed device that: (1) uses controlled flame combustion and neither meets the criteria for classification as a boiler, sludge dryer, or carbon regeneration unit, nor is listed as an industrial furnace; or (2) meets the definition of infrared incinerator or plasma arc incinerator.

EPA regulations categorize the RCRA permit for a hazardous waste incinerator as a special form of permit because, unlike standard RCRA permits, the administrative process for issuing incinerator permits is phased [40 CFR 270.62].

New Incinerator Units

For new hazardous waste incinerators, the first phase follows the standard administrative process described in the response to question #1, above. The outcome of this phase is an initial permit that authorizes incinerator construction and establishes allowable waste feeds and operating conditions for the start-up/shake-down period during which the incinerator reaches the point of operational readiness necessary to conduct a trial burn.

During the second phase of the administrative process for issuing a permit to a new incinerator, a trial burn plan [40 CFR 270.62(b)(2)] must be submitted. The regulatory agency must specify Principal Organic Hazardous Constituents (POHCs) for the trial burn, review and approve the trial burn plan, and issue public notice of the scheduled commencement and completion dates for the trial burn as specified by 40 CFR 270.62(b)(6).

The last phase of the administrative process for issuance of a hazardous waste incinerator permit to a new unit begins after the trial burn. During this phase, the incinerator operator must collect, certify, and submit the results of the trial burn to the responsible regulatory agency [40 CFR 270.62 (b)(7) through (b)(10)]. The responsible regulatory agency uses the results to develop specific permit conditions that will govern incinerator operation, and issues a final permit.

Existing Incinerator Units

If DOE seeks a RCRA hazardous waste incinerator permit for an existing incinerator, either data from a new trial burn, or other information as specified in 40 CFR 270.19(c), must be submitted to demonstrate that it is feasible for the existing incinerator to comply with 40 CFR 264.343 (performance standards for hazardous waste incinerators). The standard administrative process (see question # 1 above) would be followed in issuing the permit for an existing incinerator, if the information specified in 40 CFR 270.19(c) were used to demonstrate the feasibility of compliance. If new trial burn data were used, DOE would be required to submit a trial burn plan to the responsible regulatory agency in the same manner as described above for Phase 2 of the permitting process for new incinerator units. The responsible agency would issue a notice of

intent to approve the plan. Finally, DOE would be required to complete the trial burn and submit the trial burn results to the responsible regulatory agency, preferably with the RCRA Part B permit application. A later time for submitting the trial burn results could be arranged, but in any event, the permit would not be issued until such results were submitted.

Under what circumstances would a hazardous waste TSD facility require a permit for a land treatment demonstration using field test or laboratory analyses?

To obtain a RCRA permit for a land treatment unit operation, an owner or operator must demonstrate that the waste can be completely degraded, transformed, or immobilized in accordance with the requirements of 40 CFR 264.272. This special form of RCRA permit may be issued either as a treatment or disposal permit based on data collected from field tests, or laboratory analyses. Alternatively, these permits may be issued as a two-phase RCRA facility permit, with the first phase covering the field tests, or laboratory analyses; and the second phase covering the design, construction, operation, and maintenance of the land treatment unit [40 CFR 270.63].

Under what circumstances would a hazardous waste TSD facility need an interim permit for an UIC well?

Permits for UIC activities are considered a special form of RCRA permit because their availability is limited to states in which no state UIC program has yet been approved or promulgated [40 CFR 270.64]. In such states, UIC well owners and operators must seek interim RCRA permits from EPA.

Under what circumstances would a hazardous waste TSD facility require a permit for a boiler or industrial furnace burning hazardous waste?

EPA regulations [40 CFR part 270] categorize RCRA permits for boilers and industrial furnaces that burn hazardous waste as special forms of permits because the administrative process for issuing boiler and industrial furnace permits is phased. Any new boiler or industrial furnace (as defined by 40 CFR 260.10) that would burn hazardous waste would be required to obtain a RCRA permit issued pursuant to 40 CFR 270.66.

Questions of policy or questions requiring policy decisions will not be dealt with in EH-413 Information Briefs unless that policy has already been established through appropriate documentation. Please refer any questions concerning the subject material covered in this Information Brief to Atam Sikri, RCRA/CERCLA Division, EH-413, (202) 586-1879.

