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RCRA, Superfund & EPCRA Hotline Training Module

Introduction to:

**Petitions, Delistings, and
Variances**

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PETITIONS, DELISTINGS, AND VARIANCES

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1. INTRODUCTION

This module reviews the regulations found in 40 CFR Part 260, Subpart C, governing rulemaking petitions. A person can petition EPA to change almost any provision of the hazardous waste regulations. EPA is obligated to examine and address the petitions, but an actual change in the regulations is not common. Most successful petitions seek to add an analytical method or to delist a waste from a particular facility. Individuals may also apply for variances from classification as a solid waste or for classification as a boiler. The requirements for variances are also outlined in this module.

After finishing this module, you will be able to define petitions and variances and distinguish between the different types. You will also be able to explain how petitions and variances are used, by whom, and for what purposes. Specifically, you will be able to:

- Specify who may petition EPA to modify or revoke any provision in 40 CFR Parts 260 through 265 and 268, and what may be changed through the petition process
- List the different components of a petition, and the steps in the petitioning, review, and decision processes
- Specify the applicability of "equivalent methods" and state the information needed for this type of petition
- Describe the process in petitioning for a new or equivalent method
- Specify the purpose of delisting, what can be delisted, and the implications of a delisting petition
- Outline the delisting procedures and provide citations for them
- Cite the Federal Registers that describe the EPA's Composite Model for Landfills (EPACML) which EPA currently uses as a tool in evaluating delisting petitions
- Identify the types of variances granted.

Use these objectives to check your understanding of the topic when you complete the module.

2. REGULATORY SUMMARY

The following is a summary of the regulations governing the process of requesting and awarding petitions, delistings, and variances. These regulations are found in 40 CFR Part 260, Subpart C. Using the procedures in §260.20, anyone may petition EPA to modify or revoke any provision of 40 CFR Parts 260-266 and 268. For example, a person may petition to delist a listed waste from Subpart D of Part 261 (the F, K, P, and U lists). The petitioner must follow the general requirements that apply to all rulemaking petitions in §260.20, as well as the specific requirements for delisting petitions in §260.22. Other types of petitions include petitions for obtaining a variance from classification as a solid waste (§§260.30, 260.31, and 260.33) and petitions to be classified as a boiler (§§260.32 and 260.33).

2.1 GENERAL PETITIONS

Section 7004 of RCRA states that any person may petition EPA for the promulgation, amendment, or repeal of any regulation under RCRA. EPA promulgated regulations pursuant to §7004 that outline the procedures for filing this type of petition. According to §260.20, each petition must include:

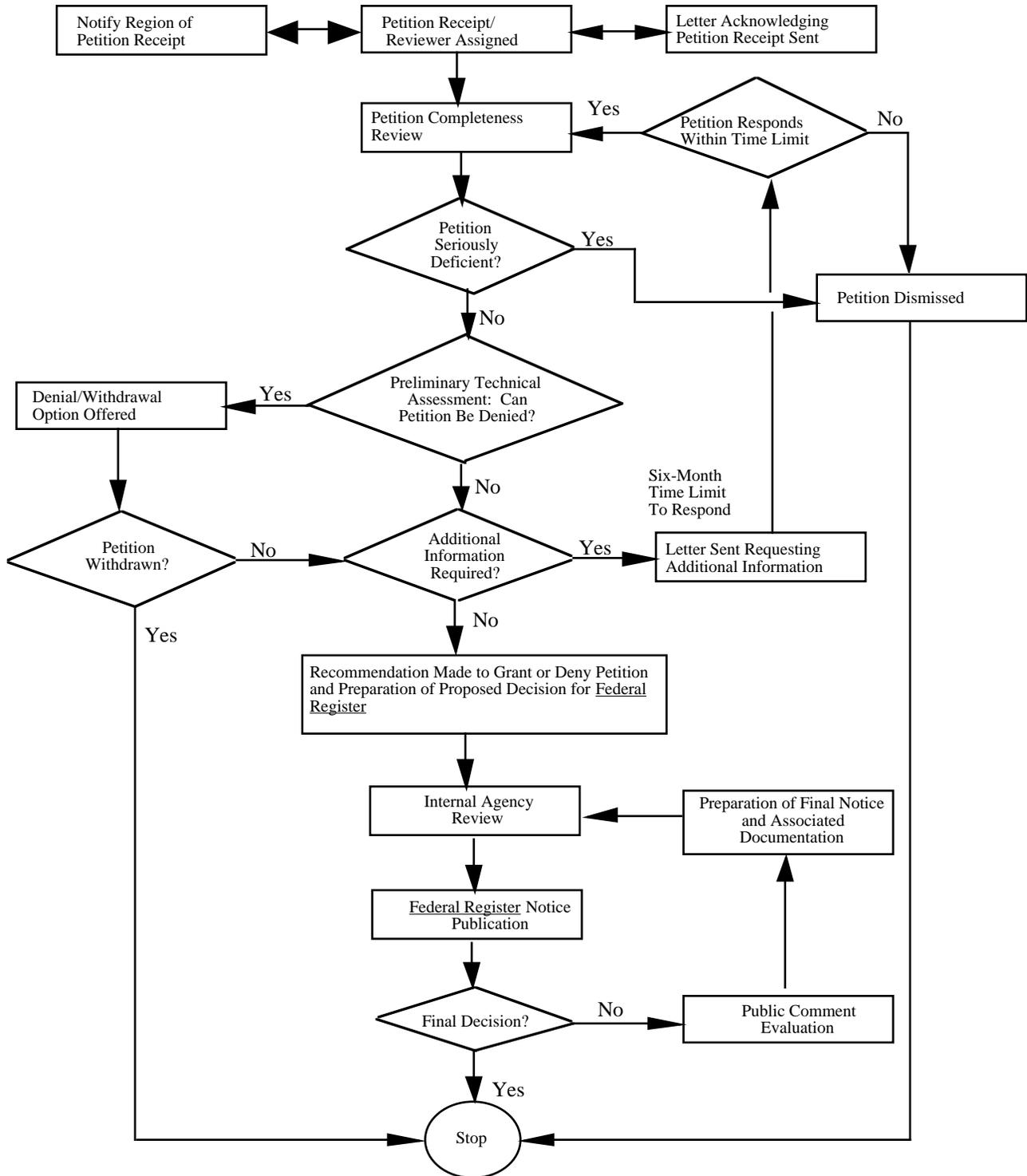
- The petitioner's name and address
- A statement of the petitioner's interest in the proposed action
- A description of the proposed action
- A statement of the need and justification for the proposed action (including any supporting tests, studies, or other information).

Upon submission, EPA reviews the petition and publishes a tentative decision in the Federal Register to grant or deny it. After a public comment period, EPA evaluates all timely comments and publishes the final decision in the Federal Register. Figure 1 illustrates the steps of the petition process.

2.2 EQUIVALENT TESTING OR ANALYTICAL METHODS

Anyone may petition to add a testing or analytical method to Parts 261, 264, or 265 (§260.21). This provision is used in cases where the regulations prescribe the use of a specific test method (e.g., to determine if a waste exhibits the characteristic of corrosivity), and a member of the regulated community wants to use an alternative test method that is less costly or more accurate. The petitioner must demonstrate that the method he or she is proposing is equivalent or superior to the existing method in terms of its sensitivity, accuracy, and precision. The content of the petition and process for its approval are outlined below.

Figure 1
PETITION REVIEW PROCESS



COMPONENTS OF THE PETITION

A petition to add a testing or analytical method must include all information required by §260.20 as well as the following:

- A full description of the proposed method
- A description of the types of wastes or waste matrices for which the proposed method may be used
- The results obtained from using the proposed methods compared to the results from the relevant or corresponding approved methods
- An assessment of any factors which may interfere with, or limit the use of, the proposed method
- A description of quality control methods necessary to ensure sensitivity, accuracy, and precision of the proposed method
- Any additional information which may be reasonably required to evaluate the method as requested by the Administrator.

THE APPROVAL PROCESS

After EPA receives a specific petition, it must be evaluated to determine if it is valid and should be granted. EPA must then officially approve any test method as equivalent before it can be used when the regulations require use of a specific test method. The steps in the approval process are the same as those in §§260.20(c), (d), and (e) and are reflected in Figure 1. If EPA amends the regulations to permit the use of a new test method, the method will be incorporated into Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, also known as SW-846.

2.3 DELISTING PETITIONS

EPA recognizes that certain listed wastes generated at a facility may not meet the criteria for which they were originally listed. This could occur, for example, when a treatment process removes, destroys, or immobilizes hazardous constituents that were present in the listed waste. Because a waste listed in Part 261, Subpart D, may not always contain the hazardous constituents for which it was listed, one of the specific petitions that may be submitted to EPA is a delisting petition. This is designed for persons who want to exclude or "delist" a listed hazardous waste generated at a particular facility from §§261.31-.33. In general, the effect of granting a delisting petition is to allow management of the excluded waste as nonhazardous (i.e., excluded from regulation under Subtitle C). A delisted waste, however, must

still be managed in accordance with applicable federal, state, and local regulations for municipal or industrial solid waste (i.e., RCRA Subtitle D).

This section discusses the regulatory basis for and intent of delisting, the regulatory impact of a delisting petition, the elements of evaluation, and petition information. This section also explains what criteria must be met for approval of delisting petitions, the types of exclusions that are granted, the conditions that might apply, the process EPA uses to evaluate a petition, and the information that must be submitted.

REGULATORY BASIS AND INTENT OF DELISTING

Under the RCRA regulations, there are two ways solid wastes can be classified as hazardous: (1) solid wastes that exhibit a characteristic of a hazardous waste (ignitability, corrosivity, reactivity, or toxicity) identified in §§261.21-261.24; and (2) solid waste that are specifically listed (F, K, P, U) in §§261.31-261.33. Delisting petitions, as the name implies, are for listed wastes. To be eligible for an exclusion under a delisting petition, a listed waste must not:

- Meet the criteria for which it was listed (§§260.22(c)(1), (d)(1), and (e)(1))
- Exhibit any of the hazardous waste characteristics (§§260.22(c)(1), (d)(3), and (e)(3))
- Be hazardous for any other reason (e.g., contain additional constituents that could cause the waste to pose a threat to human health and environment) (§§260.22(c)(2), (d)(2), and (e)(2)).

A listed waste that also exhibits a characteristic of a hazardous waste is not eligible for delisting under this provision. For example, if a wastewater treatment sludge from electroplating operations (F006) exhibits the toxicity characteristic for lead, it would not be eligible for a delisting petition.

The delisting regulations are intended to ease the regulatory burden for listed wastes that are captured by the broad listing description but are not actually hazardous. A waste generated at a specific facility may meet a listing description even though the process uses different raw materials than EPA assumed were used when listing the waste, so the waste may not contain the contaminants for which it was listed. Delistings are also used for listed wastes that have been treated and no longer pose a threat to human health or the environment.

REGULATORY IMPACT OF A DELISTING DECISION

The intent behind delisting is to allow the delisted waste to be managed as a nonhazardous waste. Submitting a petition does not automatically exempt a waste from RCRA Subtitle C regulation. Until a delisting petition becomes effective, the waste is still considered a listed waste and is subject to all applicable regulations. If the petition is denied, the waste will remain fully regulated under Subtitle C. If the

petition is granted, the waste would receive one of three types of exclusions: a standard exclusion, a conditional exclusion, or an upfront exclusion.

Standard Exclusions

One type of exclusion or delisting granted under §260.22 is known as a standard exclusion. Typically, once a listed waste has been granted a standard exclusion, no further testing of the waste is required, except as necessary to check for characteristics. There are two categories of standard exclusions:

- A standard exclusion for "source waste" that is currently generated and will be generated in the future (these exclusions generally will apply only to waste generated after the effective date of the exclusion)
- A "one-time" standard exclusion may be granted for discrete volumes of waste, typically generated in the past, such as waste contained in a surface impoundment.

Conditional Exclusions

Another type of exclusion that may be granted through the delisting process is a conditional exclusion, in which EPA may approve a delisting petition contingent upon the waste meeting certain requirements. If the waste is highly variable in composition, EPA will impose certain testing requirements that the petitioner must meet before disposal. Such exclusions typically establish delisting levels for key waste constituents. Only those batches of waste that pass the testing requirements are considered delisted; waste which fails testing remains subject to Subtitle C regulation.

Upfront Exclusions

The third type of exclusion is known as an upfront exclusion. Facilities can petition to delist waste that has not yet been generated (e.g., residue that will be generated from a planned incinerator or other treatment process). To support the petition, petitioners may submit bench- or pilot-scale data, characterization data for the untreated waste, and detailed descriptions of the treatment processes. Once the full-scale treatment process is on-line, the petitioner then conducts extensive testing to verify that the system is operating as described in the petition and that the delisting levels established for the petitioned waste are met. An upfront delisting is therefore a special form of a conditional exclusion.

ELEMENTS OF EVALUATION

As with petitions previously discussed, there are four major steps in the delisting petition evaluation process: (1) submitting the petition; (2) completeness review by EPA; (3) technical review; and (4) promulgation of the decision. The entire review process is outlined in Figure 1. Delisting is a formal rulemaking process and typically takes about two years. The evaluation is subject to review within EPA and, when published as a proposed rule, public comment is requested prior to EPA's final decision. EPA suggests that petitioners submit sampling and analysis plans (discussed later in this section) for review prior to committing time and resources to the preparation of a formal petition preparation.

Submitting the Petition

Anyone may submit a petition to delist a waste generated at a particular facility. Separate petitions must be submitted for wastes generated at different facilities, even if the contributing processes and raw materials are similar. When petitioning to delist a waste, a petitioner should consider whether the petition should be submitted to the state, EPA Region, or both. Delisting petitions are submitted to EPA Regional Administrator unless the state is specifically authorized for delisting. If a waste is managed in a state that is authorized for delisting, the petition should be submitted to the authorized state rather than the EPA Region. If the waste is transported to another state, a delisting granted by the state in which it was generated does not exempt the waste from regulation under Subtitle C in the state to which it is shipped. In this case a petitioner would need to submit a petition to both the authorized state for management of the waste in the state and the EPA Region (or the destination state if it is authorized for delisting) for management of the waste in the destination state. EPA recommends that petitioners contact relevant state and EPA regional offices to determine where the petition should be submitted. After EPA receives a petition, it is assigned a petition log number for administrative purposes. The petitioner will be notified by mail to acknowledge EPA's receipt of the petition.

Completeness Review by EPA

When a petition is submitted, EPA will first confirm whether the petitioned waste is listed as a hazardous waste, and therefore eligible for an exclusion. If the waste is listed, EPA then conducts a completeness review to determine whether the petition is seriously deficient. Generally, a seriously deficient petition lacks the necessary information and the additional information would take more than six months to collect (53 FR 6822; March 3, 1988). If a petition is seriously deficient it may be immediately dismissed. If the petition is not seriously deficient EPA will determine whether any additional information is necessary to conduct a technical review. If more information is needed EPA will send a letter requesting the information. A petitioner will have up to six months to submit the additional information. EPA may establish a shorter time frame if the information can be obtained and submitted

in less than six months. If the additional information requested is not submitted within the specified time frame, the petition may be dismissed. EPA recommends that a petitioner submit the additional information as soon as it is available. EPA performs a technical review of all submitted information once a petition is complete.

Technical Review

In the technical review stage, EPA first determines whether the waste meets all of the required criteria. Specifically, the waste must not:

- Meet the criteria for which it was listed
- Exhibit any of the hazardous waste characteristics
- Be hazardous for any other reason (e.g., contain additional constituents that could cause the waste to pose a threat to human health and the environment).

The petition is then evaluated on a waste-specific basis. Because a delisted waste is not subject to hazardous waste regulation and EPA is unable to control further management of the waste, EPA feels it is generally inappropriate to consider extensive factors pertaining to how a delisted waste will be managed or disposed.

In the technical review stage EPA will often use, as appropriate, fate and transport models that rely on waste-specific information to predict the potential environmental impact of the petitioned waste. EPA currently uses EPA's Composite Model for Landfills (EPACML), as appropriate, in the evaluation of delisting petitions. The EPACML is used as a tool for predicting the transport of hazardous constituents through soil and groundwater. Specifically, EPA uses annual waste volume and waste testing data (e.g., the Toxicity Characteristic Leaching Procedure (TCLP)) as inputs to the EPACML to project the concentration of hazardous constituents that could migrate to a downgradient drinking water well. These projected concentrations may then be compared to health-based levels used in delisting (e.g., Maximum Contaminant Levels (MCLs)) to determine if the constituents are of concern. For more information on the model and its use in delisting, petitioners should be referred to the July 18, 1991, Federal Register (56 FR 32993) for background information. Before the EPACML was developed, EPA used the Vertical and Horizontal Spread (VHS) model and Organic Leaching Model (OLM), as appropriate, as tools for evaluating delisting petitions.

In some cases, EPA also will consider groundwater monitoring data during the technical evaluation (54 FR 41930; October 12, 1989). In cases where a waste was managed in a land-based unit, EPA will assess data collected from monitoring the uppermost aquifer beneath the facility to determine whether the petitioned waste has adversely impacted the environment.

Once the technical review phase is completed EPA will decide whether to grant or deny the petition. If EPA decides that the waste is still hazardous and intends to deny the petition, the petitioner will be sent a letter notifying him or her of EPA's intent. In this letter, EPA will offer the petitioner the option to withdraw the petition to avoid a negative finding in the Federal Register. If the petitioner refuses to withdraw the petition, or EPA decides to grant the petition, the review process moves on to the promulgation of decision stage.

Promulgation of Decision

EPA must publish decisions on delisting petitions in the Federal Register. Upon completion of the technical review, a draft Federal Register proposal is reviewed internally. The proposed rule is then published in the Federal Register, and a complete copy of the petition and the supporting information is placed in the RCRA docket. The review period provides opportunity for public comment on the proposed decision (usually 45 days). Once all timely public comments on the proposed rule are addressed, a final notice is published in the Federal Register. Final delisting decisions become effective on the date of publication in the Federal Register.

DELISTING PETITION INFORMATION

The information that must be submitted for delisting petitions is found in §§260.20 and 260.22. Section 260.20 contains the general petition information that is required of any regulatory petition, and §260.22 contains the information specifically required of a delisting petition. EPA may request any other additional information reasonably required to evaluate a petition (§260.22(j)). This section of the module breaks down the specific components of a delisting petition and gives a basic outline of each part. More specifics on each component can be found in EPA's Petitions to Delist Hazardous Waste: A Guidance Manual, which was updated in March 1993.

Administrative Information

The basic administrative information requirements are found in §§260.20 and 260.22. This administrative information should include the following:

- Name and address of the individual or firm submitting the petition (§260.20(b)(1))
- Contact person for additional information that may be required (this is not a regulatory requirement, but EPA recommends that this information be provided)
- Name and address of the facility where the waste is generated, facility EPA identification number, and the location of the waste if it is different than the facility (§260.22(i)(4))

- General description of the requested delisting action (§260.20(b)(3))
- Statement of interest in the proposed delisting action (§260.20(b)(2)), and a statement of the need and justification for the proposed action (§260.20(b)(4))
- Certification statement as required in §260.22(i)(12).

Waste and Waste Management Information

Petitioners must provide specific information about their waste and the history of how the waste was managed in the past. The petition should describe the basis for the hazardous waste listing, the EPA hazardous waste number found in §§261.31-261.33, and the listing description. This section should indicate whether the waste was generated in the past, is presently being generated, or if the waste will be generated in the future. EPA also requires that a petitioner estimate the amount of waste to be excluded. This estimate should include the average amount of waste generated on a monthly and yearly basis, an estimate of the maximum monthly and yearly generation, and the waste management history (§260.22(i)(6)).

Process and Waste Management Information

The petitioner must provide information on all processes and raw materials contributing to the petitioned waste (§260.22(i)(5)). This information enables EPA to determine whether the petitioned waste was characterized with respect to all delisting constituents of concern potentially present due to the contributing processes. The two components of this section are the general information requirements and the special information required for certain situations. The general information requirement includes a description of the general operations, the manufacturing processes, waste treatment processes, process materials, and waste management operations. The special information requirements are for those petitioners requesting an upfront delisting for a waste that is not currently being generated, or for exclusion of a waste that is generated by a facility that treats multiple wastestreams (a multiple waste treatment facility).

Analytical Plan Development

In preparing an analytical plan, the petitioner should develop a complete list of the hazardous constituents of concern in the waste. The list should be drawn from the full universe of Part 261, Appendix VIII, constituents, as well as the following constituents not found in Appendix VIII: acetone, ethylbenzene, isophorone, 4-methyl-2-pentanone, styrene, and xylenes (total). These constituents are known as the delisting constituents of concern. The list should also address any constituents of concern for special waste categories (i.e., petroleum industry wastes, stabilized wastes, and dioxin wastes). A complete engineering analysis should be conducted to determine if there are other constituents of concern in the waste (§§260.22(c), (d), and (e)). The petition should demonstrate that these delisting constituents of

concern are not present in the waste at hazardous levels based on analytical data, mass balance demonstrations, or other appropriate information. This list of constituents of concern can be submitted to EPA (in conjunction with the sampling plan) for a completeness evaluation prior to sampling, analysis, and final petition preparation.

Sampling Plan Development

Data presented in a delisting petition must be based on an analysis of a representative sample of the waste. The analytical data collected must be from a sufficient number of representative samples, but in no case less than four, collected over a period of time sufficient to represent the variability and uniformity of the petitioned waste (§260.22(h)). Guidance on sampling plan development may be found in EPA publications, or other standard reference sources, such as documents published by the American Society for Testing and Materials (ASTM). The sampling plan, as stated above, may be submitted to EPA for evaluation prior to sampling.

Waste Sampling and Analysis Information

In accordance with §§260.22(i)(8)-(11), the petitioner must collect analytical data on the makeup of the waste. The petitioner should submit a comprehensive plan of how samples were actually taken. A formal written sampling and analysis plan is not a necessary part of a delisting petition. Nevertheless, EPA encourages petitioners to submit a draft plan for review before sample collection and submittal of a formal delisting petition.

The sampling and analysis data are analyzed by EPA to ensure proper procedures and methods have been followed. The testing protocols should follow the procedures in SW-846. More detail on the criteria involved in this review process is found in the updated version of EPA's Petitions to Delist Hazardous Waste: A Guidance Manual.

Groundwater Monitoring Information

In general, groundwater monitoring information should be submitted if the waste is currently managed, or has ever been managed, in a land-based unit for which a groundwater monitoring system is required under 40 CFR Parts 264 or 265, or other federal, state, or local requirements; or if such information is otherwise collected for the unit. EPA's authority to consider groundwater monitoring data in evaluating delisting petitions is clarified in the October 12, 1989, Federal Register (54 FR 41930). Groundwater data can help characterize the actual impact of the waste and compliment the predictions from the fate and transport models used as tools in the evaluation of a petition. For example, groundwater monitoring data from a unit containing the waste may indicate that the waste has contributed to groundwater contamination. This might suggest that the waste poses a hazard at one location,

and would potentially pose a hazard if disposed of at other locations. The petitioner may submit groundwater monitoring information and data, or a reference to previously submitted data. EPA usually would not require that groundwater data be submitted if the waste was never managed in a land-based unit.

2.4 VARIANCES

Sections 260.30-260.33 contain the procedures which allow the Regional Administrator to grant variances for certain materials and devices. On a case-by-case basis, the following recyclable materials may be granted a variance from classification as a solid waste:

- Materials that are accumulated speculatively without sufficient amounts being reclaimed (§§260.30(a) and 260.31(a))
- Materials that are reclaimed and then reused within the original primary production in which they were generated (§§260.30(b) and 260.31(b))
- Materials that have been reclaimed but must be reclaimed further before the materials are completely recovered (§§260.30(c) and 260.31(c)).

EPA believes that the length of time materials are accumulated before being recycled is an important indicator of whether or not the materials are wastes. Under §261.2(c)(4), materials that are accumulated speculatively (defined in §261.1(c)(8)) are normally considered solid wastes (see the module entitled Definition of Solid Waste and Hazardous Waste Recycling for further discussion of speculative accumulation). A case-by-case variance (§§260.30(a) and 260.31(a)) can be granted by the Regional Administrator allowing recyclable materials that are accumulated speculatively to be excluded from classification as a solid waste and therefore as a hazardous waste. The burden of proof, however, lies with the accumulator to show that, despite an increase in the storage time and volume, sufficient amounts of the materials are being recycled.

Under §261.2(e)(1)(i), materials that are reclaimed and then reused are also considered solid wastes. EPA, nevertheless, believes that there may be some situations where a material can be reclaimed before being reused and not be a solid waste. This type of recycling can be considered an adjunct to the original primary process; therefore, a case-by-case variance (§§260.30(b) and 260.31(b)) can be granted by the Regional Administrator allowing recyclable materials that are reclaimed prior to reuse to be excluded from classification as a solid waste.

Under §261.2(e)(1)(iii), materials that are reclaimed and need to be further reclaimed are also considered solid wastes. In some situations, more than one reclamation step may be necessary before a usable end-product of the reclamation process is

recovered. A case-by-case variance (§§260.30(c) and 260.31(c)) allows recyclable materials that are reclaimed, but must be reclaimed further, to be excluded from classification as a solid waste, provided that the intermediate material is more commodity-like than waste-like even though it has not been completely recovered. With all three variances from classification as a solid waste, EPA is encouraging recycling by providing an avenue for a reduction in the amount of regulation.

Variances may also be granted for certain enclosed devices which use controlled flame combustion. This variance allows certain devices burning used oil for energy recovery or hazardous waste as fuel to be classified as boilers even though they do not meet the technical definition of "boiler" in §260.10 (§260.32). Originally, classification as a boiler meant very few regulations for the combustion unit because hazardous waste boilers were exempt from regulation as recycling units. Once EPA established permitting standards for hazardous waste boilers and industrial furnaces, the implications of being classified as a boiler were not as significant for burners of hazardous waste fuel. A variance to be classified as a boiler is still relevant to owners or operators of nonindustrial boilers who wish to burn off-specification used oil for energy recovery. A detailed discussion of boilers and industrial furnaces (BIFs) can be found in the modules "Used Oil" and "Boilers and Industrial Furnaces."

Case-by-case variances can also be used by EPA to increase the regulation of some hazardous waste recycling activities. Normally, precious metals that are reclaimed (§261.6(a)(2)(iv)) are only regulated under Part 266, Subpart F. If these recyclable materials are not being accumulated or stored in a manner that protects human health and the environment, the Regional Administrator, in accordance with §§260.40-260.41, may decide on a case-by-case basis that the materials should be regulated more stringently under §§261.6(b) and (c). This would subject the recycler to applicable generator, transporter, and general TSD standards. These regulations (§§260.30-260.42) were published in the January 4, 1985, Federal Register (50 FR 614).

2.5 SUMMARY

Anyone may petition EPA to modify or revoke any provision of 40 CFR Parts 260-265 and 268. Petitioners may request that the Regional Administrator grant variances for certain materials from classification as solid wastes or for devices to be classified as boilers. The most common petitions are for allowing the use of equivalent test methods and for delisting hazardous wastes. The regulations covering the various types of petitions and variances, as well as the petition process itself, are found in Part 260, Subpart C.