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Subject: Checklist to Assist in Evaluating Whether Commercial Chemical Products are Solid and Hazardous Waste under the Resource Conservation and Recovery Act

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To: RCRA Division Directors, Regions 1–10
RCRA Enforcement Managers, Regions 1–10
Association of States and Territorial Solid Waste Management Officials (ASTSWMO)

This memorandum provides EPA regions and states a checklist designed to assist in evaluating the regulatory status under the Resource Conservation and Recovery Act (RCRA) hazardous waste management regulations of materials that would, under usual circumstances, be considered products. Under the RCRA regulations these materials are termed Commercial Chemical Products (CCP). The checklist is included as Attachment A of this memorandum.¹

We developed this checklist in response to requests for assistance in evaluating the regulatory status of CCPs from regional and state regulators and from the regulated community. One common situation in which this question arises is during a facility inspection. As an example, an inspector who observes a material being stored on-site may question facility representatives about the regulatory status of the material. If the facility claims that the material is a product and not a solid or hazardous waste, yet the observed management of the material or other information suggests otherwise, the inspector should gather additional information to support a regulatory status evaluation. The attached checklist will assist in gathering the appropriate supporting information and in making a regulatory status evaluation for CCPs.

Abandoned CCPs can and have caused environmental damages through leaks, spills, volatilization, fires, and explosions. Such damages and the associated clean up costs can be significant. To avoid such situations, facility owners or operators should be aware that abandoned CCPs may be solid and hazardous waste, and if so should be managed under the hazardous waste regulations. These regulations are designed to ensure that hazardous waste is managed in ways that are protective of human health and the environment. Figures 1–4, found at the end of this memorandum, provide photographs of examples encountered during inspections that suggest abandonment of CCPs.

¹ Generators may also want to use the checklist to evaluate the regulatory status of their own CCPs.

Applicable Regulations

EPA's authority under Subtitle C of RCRA covers management of solid and hazardous wastes, but does not extend to management of materials that are products. Note, however, that there may be regulations applicable to products under other environmental regulations, such as the regulation of toxic substances in products under the Toxics Substance Control Act (TSCA), or under programs managed by other federal agencies, such as the Occupational Safety and Health Agency (OSHA) and the Food and Drug Administration (FDA).

In the RCRA hazardous waste management regulations the term Commercial Chemical Product generally refers to materials that would, under usual circumstances, be considered products and not wastes, but if they are solid wastes would be hazardous because they are listed as hazardous waste or exhibit a characteristic of hazardous waste.²

The RCRA regulatory definition of solid waste, found in 40 CFR 261.2, prescribes what materials are solid wastes because they are discarded, and thus are potentially hazardous waste. Under 40 CFR 261.2, three provisions address situations in which a CCP may be discarded and thus a solid waste:

- 40 CFR 261.2(b)(3) specifies that materials (including CCPs) **are** solid waste if they are abandoned by being speculatively accumulated, or if they are stored, or treated (but not recycled) before, or as a means of, being abandoned or otherwise being disposed of.
- 40 CFR 261.2(c)(3) and Table 1 specify that CCPs **are not** solid waste when legitimately reclaimed.
- 40 CFR 261.2(c)(4) and Table 1 specify that CCPs **are not** solid waste when accumulated before legitimate recycling, and **not** speculatively accumulated.³

Taken together, and in context, these provisions provide the regulatory structure for determining whether a CCP is a solid waste. They establish that:

- CCPs are not solid waste if they are:
 - Appropriately stored or managed for use,
 - Legitimately reclaimed,

² From the comment at the end of 40 CFR 261.33(d): The phrase "commercial chemical product or manufacturing chemical intermediate having the generic name listed in..." refers to a chemical substance which is manufactured or formulated for commercial or manufacturing use which consists of the commercially pure grade of the chemical, any technical grades of the chemical that are produced or marketed, and all formulations in which the chemical is the sole active ingredient.

³ Speculative accumulation is defined in 40 CFR 261.1(c)(8) as accumulation before recycling. 40 CFR 261.1(c)(8) further provides specific details about how to determine whether materials are speculatively accumulated.

- Appropriately stored or managed for legitimate reclamation, or
- Not speculatively accumulated prior to legitimate recycling.
- CCPs are solid waste if they are:
 - Abandoned by being speculatively accumulated, or by being stored, or treated before, or as a means of, being disposed of.

The attached checklist is designed to assist in applying this regulatory structure to specific situations and evaluate whether a particular CCP, managed in a particular way, is a solid waste.

If a CCP is a solid waste, it then must be determined if the CCP is listed as a hazardous waste in 40 CFR subpart D, or exhibits a characteristic of hazardous waste as described in 40 CFR subpart C.⁴ If the CCP is a solid and hazardous waste, it must be managed in compliance with the RCRA Subtitle C hazardous waste management regulations.

In order to conduct this analysis, EPA and state inspectors have the authority to gather information when they encounter CCPs that appear abandoned or are being managed in a questionable manner. In fact, both EPA and the states have successfully enforced against facilities who falsely claim that their abandoned materials are CCPs.

As additional background, EPA has previously discussed when CCPs are solid wastes. In the 1983, proposed rule for the definition of solid waste, the Agency explained how the regulations address whether CCPs that could potentially be recycled are solid waste:

If, however, a recycling market does not develop and one is not expected within a reasonable time period, or if insufficient amounts of these materials are being recycled, we would consider these chemical commercial products as being stored for discard, and thus subject to regulatory control. We are not setting any time period for determining when these commercial chemical products would become wastes. However, we do expect persons storing these materials to have appropriate documentation or information to support their claim that these materials have recycling potential and that the materials are accumulating for eventual recycling. (48 FR 14489–14490, April 4, 1983)

The preamble to the 1985 final definition of solid waste rule reiterated these points. These materials (e.g., commercial chemical products)

...are wastes when discarded or intended for discard (by means of abandonment), and are not wastes when stored for recycling. (50 FR 636, January 4, 1985)

⁴ See 50 FR 14219.

The Importance of Checklists

Checklists have proven to be valuable tools for obtaining well-reasoned, consistent and well-documented information across different operational processes—including RCRA facility inspections.⁵ In practice, checklists are designed to support good inspection practices, including facility process-based inspection techniques that incorporate valuable open-ended questioning. Checklists are not intended to be used alone, but to supplement inspection findings. Similarly, inspectors should strive to ensure that appropriate facility representatives provide the requested information and should document who provided the information and their qualifications for providing it.

The use of RCRA checklists will vary from inspector to inspector and from state to state. Some inspectors, particularly experienced inspectors, use checklists as reference materials to assist them in preparing for a facility inspection. Less experienced inspectors, however, may use checklists as guides in posing questions to facility personnel or operators. Similarly, some states mandate the use of checklists by inspectors to support their inspection results, while other states leave it to the discretion of the inspector.

Checklist Questions

The checklist found in Attachment A groups a series of questions into three sections.

The first section includes questions that focus on observations the inspector may make concerning the management of the material. Managing a CCP as a valuable commodity is a good indicator that it has not been abandoned, and thus is more likely a product rather than a waste. However, if the material is being managed in a manner that suggests it has no little or no value (e.g., the containers are crushed, corroded, dusty, leaking, incompatible, open, or overpacked), then inspectors may want to pursue their inquiry further.

The second section builds on the results of the first section and focuses on materials used by the facility in the production of its products or in support of production operations. These questions focus on whether an internal market currently exists or could exist for the material. The third section also builds on the results of the first section but questions focus on materials sold into commerce. In other words, the second and third series of questions focus on the front-end and back-end of the facility's production processes.

Even if the material in question may be poorly managed, if a market or potential market exists internally or in commerce for such material, then the material may still be a product. However, if the accumulated evidence suggests that the material is both poorly managed and no market or even a potential market exists for the material, then the material is likely an abandoned material that may be subject to regulation under RCRA.

⁵ See [The Checklist Manifesto—How to Get Things Right](#), Atul Gawande, Metropolitan Books, Henry Holt and Company, 2009, for a discussion on the value of checklists.

How to Use This Checklist

This checklist is designed to assist inspectors in gathering information to help differentiate between materials that are products and materials that have been abandoned, or stored in lieu of abandonment. In cases where material mismanagement has been observed, an inspector may wish to issue a request for more information under RCRA section 3007. In other situations, the results of the inspection may lead to initiation of a case against the facility after additional field work has been completed. Since every facility is unique, inspectors will always need to take into consideration site-specific characteristics in making these determinations.

This checklist was developed with the help of experienced regional and state representatives in response to requests for assistance on this issue. We appreciate their assistance with this effort and welcome any feedback so that we can improve the checklist's usefulness.

If you have any questions, please contact Jim O'Leary, of my staff, at (703) 308-8827 or oleary.jim@epa.gov.

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Attachment A

CHECKLIST: To Assist in Evaluating Whether Commercial Chemical Products are Solid and Hazardous Waste under the Resource Conservation and Recovery Act (RCRA)

Disclaimer: This checklist is a support tool provided by EPA for the convenience of the EPA Regions, states, and the regulated community. It is not a regulation, nor can it be considered a substitute for the actual regulations or for related laws and applicable court decisions. For individuals in the regulated community using this guidance tool, EPA recommends you contact your authorized state agency or EPA regional office should you have any concerns or doubts about whether your commercial chemical product is in compliance with the applicable RCRA regulations.

The purpose of this checklist is to assist EPA and state inspectors in gathering information to help them distinguish between 1) commercial chemical products (CCPs) listed under 40 CFR 261.33 (e) and (f), or CCPs that exhibit a hazardous waste characteristic; and 2) abandoned materials or materials stored in lieu of abandonment (see 40 CFR 261.2(a)(2)(i) and 261.2(b)(3)).

This checklist should only be used in cases where it is not clear to the inspector if a material is a CCP or a waste. This includes situations where the material is not being managed in a manner consistent with a facility claim that the material has value (i.e., either for use on-site or in commerce).

There is no “bright line” for how many questions or which checklist questions provide a definitive answer to the CCP vs. abandoned waste question. Instead, site specific circumstances will most likely dictate the outcome of any determination.

This checklist should be completed for each material being evaluated.

Section 1: Does the facility appear to be managing the material being evaluated in a manner that suggests it is a product (as opposed to being abandoned or stored in lieu of abandonment)?		Yes	No	N/A	Comment
	Note: Where the inspector observes questionable management practices that suggest abandonment of a material (see below), take pictures to document these observed practices.				
1	Are the containers used to store the material in good condition (vs. crushed, bulging, corroded, dusty, leaking, incompatible with the contents, open, or overpacked)?				
2	Are the containers of concern stored in a manner that suggests the material has value? (For example, is the material protected from precipitation, locked-up when the facility is not operating, or stored in a fenced/secure area?)				
3	Does the management of the containers appear to preserve the material's integrity and serve to prevent the material from becoming unstable, unusable or contaminated?				
4	Do the containers have labels that identify the contents as product?				
5	Do the container labels have information, such as lot number, manufacture date, or expiration date, to help determine the age/viability of the material, particularly if a recommended expiration date has been exceeded?				
6	If a container is not labeled, can the facility support a claim that the contents is a product (e.g., provide analytical testing results to verify that the material meets specifications for use, or explain that it recently had to transfer contents to a new container due to damage to the original container and can provide record of purchase)?				
7	Does the condition of the material suggest it is a valuable product? (For example, no crystals have formed inside or outside the container, the material is not discolored, there is no phase separation evident)				
8	Does the facility manage the material as a valuable commodity by limiting access to the material and having security procedures in place to prevent unauthorized removal of the material?				

NOTES SUPPORTING OBSERVATIONS

Section 2: Does the facility appear to be using the material being evaluated in the production of its products or in support of production operations (as opposed to being abandoned or stored in lieu of abandonment)?		Yes	No	N/A	Comment
1	Can the facility describe how the material is used or show where the material is used in the facility?				
2	Do the containers storing the material in question appear to be stored in an appropriate location? <ul style="list-style-type: none"> - Is the material stored according to manufacturer recommendations (e.g., recommended temperatures, light)? - Are the containers accessible? - Are the materials being stored in the same location as other similar product materials? 				
3	Do product specifications exist for the material or process in which it is to be used (e.g., minimum concentration of an active ingredient, maximum concentrations of contaminants, or dates beyond which the material should not be used)?				
4	Is there a process in place for the facility to compare the properties of the material in question to specifications that must be met in order for the material to be used for the claimed purpose, or is documentation available to support a facility claim that the material meets such specifications?				
5	Does it appear that the facility has purchased new material that will be used for the same purpose as the material in question? If yes, explain in the Notes section below.				
6	Are records available to demonstrate that the facility has NOT written off the material as a loss (indicating that the facility still believes that the material has a use)?				

NOTES SUPPORTING OBSERVATIONS

Section 3: Does the facility appear to be selling into commerce the material being evaluated (as opposed to being abandoned or stored in lieu of abandonment)?		Yes	No	N/A	Comment
1	Does the facility have “active” customers or a market for the material?				
2	If yes, can the facility provide a list of such customers and document recent shipments of the material for subsequent distribution in commerce, or provide copies of contracts from past or future sales? Note: The inspector may want to obtain contact information for the receiving facility or facilities (e.g., distributors, customers).				
3	Can the facility identify any competitors for the sale of the material to support a claim that there is an existing or potential market for the material?				
4	Can the facility provide a list of inactive or past customers that purchased the material?				
5	Can the facility provide any information about a future market for the material?				
6	Is a Material Safety Data Sheet (MSDS) or SDS under OSHA’s new Globally Harmonized System available for the material (supporting a claim that the material has been in, or will enter, commerce)?				
7	Does the facility have a system for accepting/managing returned or off-specification products it produced and utilizing that material to produce a new product? If so, is this system documented?				
8	Has the material been recalled or returned from a customer? If so, can the facility explain how it intends to use the material? Is there a market for the returned material?				

Bottom Line:

Overall, does the facility appear to be managing the material in question as a valuable commodity; i.e., in a manner that preserves the material’s integrity and does not cause it to become unusable? If not, explain why not and provide supporting comments/observations below to support a conclusion that the material is being abandoned, or stored in a manner that suggests abandonment.

NOTES SUPPORTING OBSERVATIONS
