



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

WASHINGTON, D.C. 20460

April 19, 2022

OFFICE OF
LAND AND EMERGENCY
MANAGEMENT

MEMORANDUM

SUBJECT: Frequently Asked Questions about Large Quantity Generator Quick Reference Guides

FROM: Carolyn Hoskinson, Director
Office of Resource Conservation and Recovery

TO: RCRA Directors, EPA Regions 1–10

This memo is intended to clarify the Environmental Protection Agency's (EPA) regulations under the Resource Conservation and Recovery Act (RCRA) regarding the Quick Reference Guide (QRG) provisions of the emergency planning requirements for large quantity generators (LQGs) of hazardous waste. The QRG requirement for LQGs was finalized in the 2016 Hazardous Waste Generator Improvements Rule (81 FR 85732; November 28, 2016). This provision requires LQGs to submit a summary of their contingency plan (i.e., a QRG) to their local emergency responders when they submit or amend their contingency plan. The new QRG requirement is more stringent than the base program and all authorized states must adopt this requirement or have a functional equivalent provision in their regulations. For information about where the 2016 Hazardous Waste Generator improvements rule is in effect, see EPA's webpage: <https://www.epa.gov/hwgenerators/where-hazardous-waste-generator-improvements-rule-effect>.

Numerous state environmental agencies and members of the regulated community have requested guidance from EPA on how to determine compliance with the QRG regulations. This memo briefly explains the intent behind the QRG regulations and addresses some of the most frequent questions EPA has received regarding the QRG.

Background on the QRG Requirements

The QRG was added to the contingency planning requirements for LQGs and is designed to provide emergency responders with a concise resource that is both informative and useable in the early stages of an incident response. Contingency plans ensure LQGs and emergency responders are prepared for potential emergencies relating to the generation and accumulation of hazardous waste, but these plans often have a broad scope and can become so lengthy that first responders cannot use them effectively en route to and in the initial response to an incident.

Thus, the QRG is intended to provide first responders with the most relevant information in a format that is easily navigable, to allow for a more effective response to an incident at a facility. Accordingly, the regulations at 40 CFR 262.262 require a QRG to include, at minimum, eight specific components deemed relevant to emergency response (see below).

The eight listed provisions are not exhaustive, as the QRG was intended first and foremost to be a useful resource for local emergency responders (i.e., those authorities most likely to respond to an incident at the site). LQGs may choose to include additional information in their QRG not captured in the eight listed provisions, but the information provided should not be so extensive as to make the QRG unwieldy. Determining how much detail to provide will require some balancing of considerations.

This balancing may come about as part of the collaborative relationship that EPA encourages LQGs to establish with their local emergency responders. In addition to the arrangements LQGs must make with their local authorities under 40 CFR 262.256, EPA encourages LQGs to collaborate with local emergency responders while originally developing their QRG and whenever updates to the QRG may be necessary. Consulting with local emergency responders during QRG development should ensure that the most appropriate information is included. When questions arise, LQGs should first seek input from their local emergency responders to determine what will be most useful for them. Maintaining communication with first responders for any QRG updates will keep these authorities aware of changes at the facility that may affect their approach or ability to respond to any incidents.

For more background information on the QRG, see the relevant preamble sections of the Hazardous Waste Generator Improvements Rule of 2016 ([81 FR 85793–85796](#), November 28, 2016).

The Quick Reference Guide Regulations

The QRG provisions are outlined in 40 CFR 262.262, which reads:

§262.262 Copies of contingency plan.

A copy of the contingency plan and all revisions to the plan must be maintained at the large quantity generator and—

- (a) The large quantity generator must submit a copy of the contingency plan and all revisions to all local emergency responders (i.e., police departments, fire departments, hospitals and State and local emergency response teams that may be called upon to provide emergency services). This document may also be submitted to the Local Emergency Planning Committee, as appropriate.
- (b) A large quantity generator that first becomes subject to these provisions after May 30, 2017, or a large quantity generator that is otherwise amending its contingency plan must at that time submit a quick reference guide of the contingency plan to the local emergency responders identified at paragraph (a) of this section or, as appropriate, the Local Emergency Planning Committee. The quick reference guide must include the following elements:
 - (1) The types/names of hazardous wastes in layman's terms and the associated hazard associated with each hazardous waste present at any one time (e.g., toxic paint wastes, spent ignitable solvent, corrosive acid);
 - (2) The estimated maximum amount of each hazardous waste that may be present at any one time;

- (3) The identification of any hazardous wastes where exposure would require unique or special treatment by medical or hospital staff;
 - (4) A map of the facility showing where hazardous wastes are generated, accumulated and treated and routes for accessing these wastes;
 - (5) A street map of the facility in relation to surrounding businesses, schools and residential areas to understand how best to get to the facility and also evacuate citizens and workers;
 - (6) The locations of water supply (e.g., fire hydrant and its flow rate);
 - (7) The identification of on-site notification systems (e.g., a fire alarm that rings off site, smoke alarms); and
 - (8) The name of the emergency coordinator(s) and 7/24-hour emergency telephone number(s) or, in the case of a facility where an emergency coordinator is continuously on duty, the emergency telephone number for the emergency coordinator.
- (c) Generators must update, if necessary, their quick reference guides, whenever the contingency plan is amended and submit these documents to the local emergency responders identified at paragraph (a) of this section or, as appropriate, the Local Emergency Planning Committee.

Frequently Asked Questions about Quick Reference Guides

1. **Question:** Does the QRG have to be a separate document from the contingency plan?

Answer: The QRG does not have to be a separate document, but should be a separate document or section. The goal is for the QRG to be easily separable and accessible to the emergency response team.

2. **Question:** What constitutes a hazardous waste that would require “unique or special treatment by medical staff” per 40 CFR 262.262(b)(3)?

Answer: This provision is intended to ensure that first responders and other medical staff are prepared to effectively and safely manage an incident requiring an unconventional response. Factors to consider in determining whether exposure to a hazardous waste requires “unique or special” medical treatment could include:

- Are first responders and/or medical facilities likely to have the required treatment in their inventories? For instance, severe hydrofluoric acid burns require treatment with calcium compounds that many ambulances and some hospitals do not keep in stock. Therefore, hazardous waste hydrofluoric acid would need to be specifically identified in the QRG so medical staff know to prepare for potential exposures by stocking these special treatments.
- Will local emergency responders need special personal protective equipment (e.g., respirators, hazmat suits, etc.) to enter the facility, treat a patient, or otherwise respond to any incidents?
- Could an exposed patient or first responder spread contamination to outside locations or other personnel when transported away from the scene? For example, a chemical weapons decommissioning facility may need to notify local hospitals of relevant decontamination procedures associated with their hazardous wastes.

Though this list is not exhaustive, hazardous wastes that do not exhibit these sorts of unconventional characteristics do not need to be specifically identified under the “unique or special treatment” provision. However, all hazardous wastes on-site should be included in the generalized listing of “the types/names of hazardous wastes in layman's terms and the associated hazard associated with each” under 40 CFR 262.262(b)(1). It is highly recommended that generators discuss which hazardous wastes, if any, should be identified as requiring “unique or special treatment” when making arrangements with local emergency responders and hospitals.

3. **Question:** What is an appropriate level of detail for the QRG?

Answer: The QRG should contain enough detail to be useful without being unwieldy. The QRG is meant to be used by first responders in an emergency, so it needs to include key information about what first responders may encounter when they arrive on site. It should not be so detailed that it quickly becomes out of date or so long that it cannot be used as a quick reference. The balance between detail and accessibility may depend on the complexity and nature of the facility, as well as input the facility receives from local emergency responders while formulating the QRG. How much detail must be included in specific sections of the QRG is addressed in questions 4–8 below.

4. **Question:** What level of detail is appropriate for the facility map required by 40 CFR 262.262(b)(4)?

Answer: The appropriate radius of the maps will depend on the size and complexity of the generator site. The facility map should help first responders identify and access areas where hazardous waste is likely to be present, so the level of detail will depend on the facility's size and layout. For example, facility maps at very large, complex LQGs could focus on the location of buildings that house hazardous waste (e.g., a campus map), while maps at less complex LQGs could focus on more-specific locations of hazardous wastes within buildings (e.g., a blueprint or floorplan).

5. **Question:** What is a useful radius for the street map required by 40 CFR 262.262(b)(5)? And what level of detail is appropriate for that map?

Answer: The appropriate radius of the street map will depend on the size of the generator and the nature of the surrounding area. In an urban environment, a smaller radius may be enough to clearly delineate the best access routes to different sides of the facility, whereas a more rural generator may need to show a larger area.

The intention of the street map is to help first responders understand the facility's local context in order to access and/or evacuate the facility and to note any special neighboring land uses (e.g., schools, community centers, residences). Thus, the appropriate street map radius will depend on local factors and input from local emergency responders, as well as other relevant considerations like the expected mobility of any environmental releases and anticipated minimum evacuation distances (such as those found in the Department of Transportation (DOT) Emergency Response Guidebook) for hazardous wastes on site.

6. **Question:** If central accumulation areas (CAAs) or satellite accumulation areas (SAAs) are temporary, do they have to be included in maps in the QRG and do they have to maintain required signage?

Answer: Hazardous waste accumulation areas, even if temporary, must be identified in the QRG. The QRG maps require identification of “where hazardous wastes are generated, accumulated and treated” so temporary accumulation areas would have the same requirements as permanent accumulation areas in this regard. However, it should be noted that the appropriate specificity of the QRG maps will depend on site-specific considerations, such as input from emergency responders and the facility’s size, layout, and surroundings (see FAQ #3, above). That is, if the exact placement of an SAA is somewhat variable depending on a changing batch process or other factors, but the generator can still make the SAA’s expected location clear on the map to the level of detail emergency responders find useful, the map would not need to change with each variation.

“Signage” is not *federally* required for temporary or permanent accumulation areas. The federal RCRA hazardous waste regulations do not require signage (e.g., placards at an SAA indicating the area is an SAA, etc.) for accumulation areas, though signage is considered a best practice and may be required by state hazardous waste authorities, other federal agencies (e.g., OSHA), and/or an LQG’s own internal policies. Note that, although signage that indicates a location is an SAA or CAA is not required, labeling of hazardous waste containers within those areas is required by the federal hazardous waste regulations (see 40 CFR 262.15(a)(5), 40 CFR 262.16(b)(6), and 40 CFR 262.17(a)(5)).

7. **Question:** How does an LQG that frequently changes the waste it accumulates (e.g., wastes being accumulated in an SAA that change daily) stay compliant with the QRG requirements?

Answer: The regulations require the QRG to identify the types, common names, and hazards of the wastes present on site. The regulations then give examples of broad types of hazardous waste— “toxic paint wastes, spent ignitable solvent, corrosive acid”—rather than examples of waste codes or specific chemical names. In addition, the regulations require that the QRG identify the wastes and associated hazards of the hazardous wastes that may be present in the facility overall, not in each SAA independently. That is, generators are not required to link each hazardous waste to a given location in the QRG, though some generators may choose to do so. For example, an LQG that accumulates the spent ignitable solvents ethyl ether and methanol at various locations across its facility would be considered in compliance for reporting the total quantity of spent ignitable solvents accumulated facility-wide in its QRG.

Thus, if the types of hazardous wastes being accumulated at an SAA vary between different types already listed in the QRG, no update would be necessary. However, if a generator begins generating a type of hazardous waste that is entirely new to that facility, a contingency plan update (per 40 CFR 262.263), and therefore a QRG update, would be required.

Similarly, if a mixture of compatible wastes is accumulated in one area and the LQG begins accumulating an additional compatible waste in that mixture, a QRG update would likely not be necessary, so long as the new addition does not introduce new hazards not already addressed in the QRG. For example, adding an additional ignitable solvent to a mixture of other compatible ignitable solvents would likely not prompt a QRG update because the regulations require reporting of “the types/names of hazardous wastes in layman's terms” and their “associated hazards.” If the example mixture were identified as “spent ignitable solvents” on the QRG, an update would not be needed.

8. **Question:** How can an LQG best stay compliant with the requirement to submit a QRG if the locations of its SAAs change frequently (e.g., batch operations or shipyards)?

Answer: Frequently changing SAA locations may impact the appropriate level of detail for the QRG, which is intended to be a useful reference for first responders in emergency situations. See FAQ #3 for more information on the appropriate level of detail.

An LQG whose SAAs change location frequently may be able to mark the general region or buildings in which SAAs are located on their facility map, rather than using pinpoint locations. The appropriate specificity of the QRG maps will depend on input from emergency responders and site-specific considerations including the facility's size, surroundings, the waste being accumulated, and number of accumulation areas. If the generator can make the SAAs' expected locations clear on the map to the level of detail emergency responders find useful, the map would not need to change with each variation. See FAQ #3 for more information on the appropriate level of detail.

9. **Question:** How do the emergency planning requirements for LQGs intersect with the emergency planning requirements for permitted treatment, storage, and disposal facilities (TSDFs)? If an LQG has a RCRA permit (e.g., for storage), which requirements apply at the permitted area of the LQG?

Answer: Under current federal regulations, the QRG requirements do not apply to the permitted area of the facility, unless such requirements are included as a condition of the permit.

However, EPA and the National Association of State Fire Marshals highly recommend that LQGs identify all hazardous waste on site in their QRGs, regardless of whether the LQG is also a permitted TSDF. Likewise, LQGs are encouraged to work with their local emergency responders when developing their QRGs. Doing so should help first responders manage emergencies safely and effectively. Discussing all the hazardous waste on site—whether located in the permitted or unpermitted area—would benefit both the LQG and their first responders.

With the exception of the QRG, under the federal regulations, LQGs and TSDFs have very similar emergency planning and preparedness requirements. The emergency planning requirements for LQGs (40 CFR Part 262 Subpart M) apply to the areas of the site where hazardous waste is “generated and accumulated,” while the emergency planning provisions for TSDFs (40 CFR 264/265 Subparts C and D) apply to the

permitted portion of the site. In practice, the requirements should be very similar or identical.

Updating Contingency plans and QRGs

10.A. **Question:** When does an LQG have to update its contingency plan?

Answer: The regulations provide five situations in which an LQG must review and, if necessary, update its contingency plan:

- (a) When the requirements change because the applicable regulations are revised;
- (b) When the plan fails in an emergency;
- (c) When the generator facility changes—in its design, construction, operation, maintenance, or other circumstances—in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency;
- (d) When the list of emergency coordinators changes; or
- (e) When the list of emergency equipment changes.

Note that an LQG is required to update its QRG “if necessary” any time the contingency plan is amended and submit the updated contingency plan and QRG to its local emergency responders. This would apply if the changes to the contingency plan impact one of the eight elements of the QRG. Not all changes to the contingency plan will necessitate a corresponding change to the QRG.

10.B. **Question:** Does opening a new SAA or generating a new waste with similar hazards trigger the need to update the contingency plan? What if an LQG begins generating a hazardous waste with a characteristic not already present at the facility?

Answer: Changes at an LQG prompt a contingency plan and QRG amendment when those changes “materially increase” the risks associated with hazardous waste at the site (40 CFR 262.263(c)). Therefore, it may not be necessary for an LQG with frequently changing conditions to update its QRG for small changes like opening an additional SAA. Conversely, introducing a new hazardous waste with characteristics not addressed in the existing QRG would likely materially increase the risks posed by the hazardous wastes at the site, prompting an amendment to both the contingency plan and QRG (see FAQ #7 for more information on adding or changing waste types). Likewise, a significant increase in the amount of hazardous waste being generated, even if no new associated hazard is introduced, may prompt an amendment.

Subpart M does not explicitly define what would constitute a material increase in risk, so LQGs should work with their local emergency responders to determine what extent of changes would trigger an update. In situations where a material increase in risk may not be occurring, the LQG may still wish to communicate operational changes with their local emergency responders (e.g., notifying responders of a new SAA or CAA and identifying the types and quantities of hazardous waste that may be accumulated there).

- 10.C. **Question:** When a QRG update is needed, does the LQG have to submit an entirely new QRG, or can they submit an amendment that only addresses the changes from the previous QRG?

Answer: When a QRG needs to be updated, the LQG can submit amendments addressing only the changes from its previous QRG, as long as the number and complexity of amendments submitted (at that point and cumulatively over time) do not hinder local emergency responders' ability to effectively use the QRG in an emergency.

For example, if an LQG's emergency coordinator changes, an update to the contingency plan and QRG are required. The LQG may be able to submit the new emergency coordinator's contact information as a single-page amendment to the QRG rather than submitting an entirely new QRG that is otherwise identical to the previous one. The LQG should check with their local emergency responders to ensure adding the amendment will not create problems for the responders (e.g., potential confusion because of a large number of previously submitted amendments).

Coordination between LQGs with on-site emergency responders and local emergency responders

- 11.A. **Question:** How are LQGs with their own on-site emergency response capabilities expected to work with local emergency responders regarding QRGs?

Answer: LQGs with their own on-site emergency response capabilities are subject to the same QRG requirements as any other LQGs. These generators are still required to submit a QRG to all local emergency responders identified in 40 CFR 262.262(a). Likewise, all eight provisions outlined in 40 CFR 262.262(b) are required, regardless of whether the LQG has its own on-site emergency response capabilities.

A large event at an LQG that has its own on-site emergency responders may require action from external responders as well, making the QRG a useful resource for both on-site and off-site emergency responders. LQGs with their own response capabilities are encouraged to work with both their on-site response personnel and off-site local emergency responders in preparing the QRG. Likewise, the LQG is encouraged to share its QRG with its on-site emergency responders for their reference.

LQGs with their own on-site emergency response capabilities can apply to the Authority Having Jurisdiction (AHJ) for a waiver from the "make arrangements" provisions at 40 CFR 262.256. However, this waiver does not extend to the QRG provisions. An LQG which has received such a waiver from their AHJ under 40 CFR 262.256 is still required to submit a QRG to their local emergency responders.

- 11.B. **Question:** If an LQG has existing systems for keeping track of where waste is being generated, how can these systems be used to comply with the QRG requirements?

Answer: Existing on-site hazardous waste tracking mechanisms may be useful in constructing the QRG, but they cannot be used as a substitute for the QRG. The Subpart M regulations neither require nor prohibit the use of software and other digital

approaches to transmit the contingency plan and associated QRG, but hazardous waste databases or similar tracking systems cannot be used as a replacement for the QRG. If an LQG wishes to construct its QRG and provide it to local responders digitally (e.g., in PDF format via email), the LQG should work with its local emergency responders to determine whether this is acceptable. In the Hazardous Waste Generator Improvements Rule preamble, EPA explicitly provided flexibility on this matter, stating that:

Proposed regulations did not specify the format in which the contingency plan must be provided nor did they discuss software applications. EPA strongly encourages LQGs to work with first responders to determine whether electronic submission of contingency plans, including incorporating contingency plan information into existing software applications, is an acceptable approach either in lieu of or in addition to a hard copy submission. However, EPA believes regulations must be sufficiently flexible to allow these decisions to be made on a facility-by-facility basis. (81 FR 85796, November 28, 2016)

This approach applies to QRGs as well; LQGs should work with their local emergency responders to determine what format is most appropriate for the QRG.

- 11.C. **Question:** If an LQG spans multiple emergency responder jurisdictions or expects different jurisdictions to respond depending on where an emergency occurs within the site borders, can that LQG create separate QRGs for the different jurisdictional areas?

Answer: All jurisdictions that may respond in an emergency need to be provided information for the full generator site, as required by 40 CFR 262.262(a). This will ensure that all potential responders have access to full information in case their assistance is requested at an area of the facility where they would not normally have jurisdiction. However, so long as local emergency responders approve, the LQG could split its QRG into multiple sections by emergency responder jurisdiction so that emergency responders can choose the relevant portion of the QRG for a given emergency's location. Note, though, that all such "partial-site" QRGs would need to be provided to all local responder groups and the separation of the QRG into multiple sections by region should not increase the QRG's level of detail to the point of being unusable in an emergency (see FAQ #3 for more information on the appropriate level of detail).

For example, a large LQG that spans two local emergency responder jurisdictions may wish to split its QRG into two portions, based on jurisdictional lines, to allow the LQG to provide more useful information and maps. The LQG should check with both local emergency responder jurisdictions to ensure they agree with this plan and ensure the resulting documents are not too detailed to be useful in an emergency. The LQG could then separate its QRG into two partial-site QRGs by emergency responder jurisdiction, and report the required information (types of waste, unique wastes, maps, etc.) specific to each jurisdiction in the relevant partial-site document. Together, the two partial-site documents would constitute the LQG's QRG, and the LQG would need to provide both partial-site documents to each emergency responder jurisdiction.

Additional Information

Please note that this letter discusses only the federal hazardous waste regulations. States that are authorized to implement the RCRA program may have regulations that are different than the federal regulations, provided they are not less stringent than the federal program. Please consult your state regulatory requirements. If you have questions about the federal hazardous waste regulations discussed in this memo, please contact Patrick Wise at wise.patrick@epa.gov or Kathy Lett at lett.kathy@epa.gov.