



Technical
Assistance
Project



Environmental
Guidance

Emergency Planning and Community Right-To-Know Act
Section 313 Toxic Release Inventory Reporting

*Questions & Answers
Update*

September 1997

U.S. Department of Energy
Office of Environmental Policy & Assistance
RCRA/CERCLA Division, EH-413
Washington, D.C.

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Toxic Release Inventory Reporting***

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Prepared by

**U.S. Department of Energy
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Introduction

The purpose of this Technical Assistance Project (TAP) report is to address specific questions posed by DOE Field Elements regarding DOE facility TRI reporting requirements. This is a continuing series of questions and answers on the topic building upon the Office of Environmental Policy and Assistance's (EH-413) guidance issued March 1994 entitled Toxic Chemical Release Inventory Reporting "Qs&As." These questions are applicable to TRI reporting for reporting years 1996 and 1997. However, on May 1, 1997, the Environmental Protection Agency (EPA) promulgated a final rule that changed the definition of "otherwise use." This rule will be effective for reporting year 1998. EH-413 will publish a Regulatory Bulletin by the end of 1997 to explain how these changes will affect reporting at DOE sites.

This TAP report has been coordinated with the EPA Office of Pollution, Prevention and Toxics, Environmental Assistance Division, TRI Branch; comments received are reflected herein and are greatly appreciated.

Background

Executive Order (E.O.) 12856 directs Federal agencies to comply with Toxic Release Inventory (TRI) reporting provisions under section 313 of Emergency Planning and Community Right-to-Know Act (EPCRA), Section 6607 of the Pollution Prevention Act, all implementing regulations, and future amendments to these authorities. E.O. 12856 does not alter or remove any existing legal obligation of the private contractor of a government owned, contractor-operated (GOCO) Federal facility to report.

Under E.O. 12856, TRI reporting applies to all Federal facilities with 10 or more employees (or 20,000 hourly equivalent) that annually manufacture or process more than 25,000 pounds, or otherwise use more than 10,000 pounds of a listed toxic chemical. For each chemical manufactured, processed, or otherwise used in excess of the established threshold quantity, facilities must prepare an annual TRI report using EPA's Form R, the Toxic Chemical Release Inventory Reporting Form. While the applicability of the TRI reporting (i.e., section 313 reporting) requirements is based on the quantity of a listed toxic chemical manufactured, processed, or otherwise used at a facility, the actual TRI report includes releases, transfers, and waste management activities of the chemical.

For purposes of TRI reporting, the term “manufacture” means to produce, prepare, compound, or import a listed toxic chemical. The term manufacture also includes coincidental production of a listed toxic chemical (e.g., as a byproduct or impurity) as a result of the manufacture, processing, otherwise use, or treatment of other chemical substances. The term “process” means the preparation of a listed toxic chemical, after its manufacture, for distribution in commerce. Processing is usually the intentional incorporation of a listed toxic chemical into a product. For purposes of DOE reporting, sending a product containing a listed toxic chemical off-site is considered equivalent to being distributed in commerce. For example, a facility that recycles lead block on-site by melting and fabricating lead into waste containers that are subsequently used off-site at another DOE facility would be processing the lead.

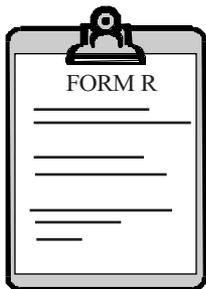
The term “otherwise use” generally encompasses non-incorporative activities involving a listed toxic chemical at a facility that does not fall under the definitions of manufacture or process. This would include uses as a processing or manufacturing aid, or ancillary uses as a cleaner, degreaser, lubricant, fuel or use in treating wastes. A chemical that is otherwise used by a facility is not intentionally incorporated into a product distributed in commerce. In the previous processing example, if the lead recycling includes the melting and fabricating of lead into waste containers that are subsequently used on-site (not used off-site at another DOE facility), the lead is considered to be “otherwise used” because although the lead was incorporated into the waste containers, it was not distributed in commerce.

Questions and Answers

Q In 1995, a DOE facility exceeded the otherwise use threshold for lead. During that year, the facility shipped 43,000 pounds of lead off-site for decontamination and recycling. This was reported as an off-site transfer for recycling and constituted most of the facility’s total reportable quantity. Although this may not recur, the facility may miss a 1999 site reduction goal because of this recycling activity. How can this be avoided or how should a missed goal be addressed?

A In accordance with E.O. 12856 and a Secretary of Energy memorandum issued on May 3, 1996, DOE set a complex-wide goal of a 50% reduction, by December 31, 1999, in the releases and transfers for treatment

and disposal of TRI chemicals. Individual sites may have set their own site-specific goals to assist in achieving the Departmental goal. The complex-wide goal is measured against DOE's 1993 baseline year and applies only to total releases of toxic chemicals to the environment and transfers of toxic chemicals for treatment and disposal. These releases and transfers are



reported in Sections 8.1 and 8.7 of the Form R. Section 8.1 (quantity released) is the amount directly discharged to air, water, land, and injected underground at the site. Section 8.1 also includes amounts sent off-site for disposal and listed metals and metal compounds sent off-site for solidification/stabilization or to publicly owned treatment works (POTWs). Section 8.7 (quantity treated off-site) is the amount sent off-site to be treated (except for metals and metal compounds), including quantities sent to POTWs. The 50% reduction goal does not apply

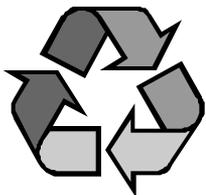
to the quantity used for energy recovery (Sections 8.2 and 8.3), the quantity recycled (Sections 8.4 and 8.5) or the quantity treated on-site (Section 8.6). Thus, the shipment of lead off-site for recycling is not counted against the Departmental goal.

If the lead being transferred off-site meets the definition of an “article” under EPCRA (see 40 CFR 372.3), (i.e. the pieces of lead remain identifiable as the article and handling the lead results in a total release of less than 0.5 pounds per year) it is exempt from both threshold calculations and TRI reporting. Since in this example the otherwise use reporting threshold for lead was already exceeded, all non-exempted releases and transfers for treatment and disposal of lead would need to be reported, and would count against the complex reduction goal.

DOE considers recycling a good environmental practice and sites are encouraged to recycle in ways that do not result in releases to the environment. If reduction goals are missed because releases cannot be avoided, a good management practice is to prepare a fact sheet to explain the lead recycling program and make it available to the public and media when Form R's are submitted to help explain what is being reported on the Form R.

Q A facility recently restarted its lead shop and is producing lead for R&D applications by recycling existing lead stock. The Form R for lead will show a dramatic increase in releases compared to previous years when the lead shop was shut down. How can the facility report this in a way to minimize adverse public reaction?

A First, check to see if the activity is being characterized correctly. Remember that if the recycling of lead stock does not change the shape of the article so that it loses its identity, and the activity is producing releases less than 0.5 pounds per year, the lead qualifies for the article exemption and is not counted toward thresholds or reported if sent off-site. However, if the lead stock is melted, recast and used on-site, it counts toward the “otherwise used” threshold. If the lead stock is melted, recast and shipped off-site to another DOE facility, it counts toward the “process” threshold.



One of the inherent shortcomings of TRI reporting is that it just shows quantitative values with no place for explanations of the numbers. To put the releases in a more positive light, consider preparing a fact sheet to describe the lead recycling program and make it available to the public and the media when the Form R report is submitted.

Q A site exceeds the reporting threshold for a newly listed TRI toxic chemical that was not reportable in the 1993 baseline year. How is the release of this newly listed chemical measured against the 1993 baseline year when calculating achievement of TRI reduction goals?

A DOE has established 1993 as its baseline year for measuring complex-wide progress toward achieving the December 31, 1999 50% reduction goal for total releases and transfers for treatment and disposal of listed toxic chemicals. This 1993 baseline total is fixed and is amended only in the event that a facility submits a revised Form R report for that year. Newly listed chemicals, not reportable in the baseline year, are included in the complex-wide total each year they are reported. This has a potential impact of indicating less overall reduction than has actually been achieved. However, delisted chemicals that were reported in the baseline year are no longer reported and are no longer included in the yearly complex-wide totals. This has a potential impact of showing greater overall reduction than

has actually been achieved. To avoid the confusion that would result from changing the baseline to account for chemicals being added and delisted, as well as trying to make adjustments for new facility reporting and facilities that reported as part of the baseline but have since left the DOE complex, it was decided to keep the baseline constant and to provide supplemental analysis of these influences in the annual DOE E.O. 12856 progress report to EPA. DOE's TRI database is available for viewing/downloading on the EH-41 World Wide Website at <http://tis-nt.ch.doe.gov/oeпа>.

Q A facility is producing benzene when treating (via vitrification) legacy liquid high level waste. Can this benzene production be considered part of cleanup/stabilization rather than manufacturing?

A No. The benzene did not exist prior to the treatment process and is therefore considered to be coincidentally manufactured during the vitrification process, and the quantity manufactured must be applied to the 25,000 pound/year manufacturing threshold. If a reporting threshold is exceeded, releases from all non-exempted sources at the facility must be reported.

Q Are laboratories exempt from EPCRA section 313 reporting?

A Not necessarily. The type of the laboratory activity and conditions under which the activity occurs determine whether the quantity of a toxic chemical manufactured, processed, or otherwise used qualifies for the "laboratory activities" exemption. 40 CFR 372.38 lists uses of chemicals in laboratories which are exempt from threshold determination and release reporting. It states, "if a toxic chemical is manufactured, processed, or otherwise used in a laboratory at a covered facility under the supervision of a technically qualified individual, as defined in Section 720.3(ee) of the Toxic Substances Control Act (TSCA)," it is excluded from 313 reporting requirements. 40 CFR 720.3(ee) (TSCA) defines "technically qualified individual" as "a person or persons who, because of education, training or experience, or a combination of these factors, is capable of understanding and minimizing risks associated with the substance, and is responsible for safe procurement, storage, use, and disposal within the scope of research."



The exemption does not exempt all facilities that are laboratories or have the word “laboratory” in their names. The exemption applies only to specific laboratory activities conducted on-site, not the site as a whole. The “laboratory activities” included in this exemption are limited to research and development, sampling and analysis, and quality assurance/quality control. Other activities, such as specialty chemical production, pilot plant scale operations, and laboratory support operations, such as photo processing, wastewater treatment and instrument sterilization, are specifically excluded from this exemption and therefore must be included in all threshold determinations and release calculations.

Q A site exceeds the threshold for a TRI toxic chemical and is required to report releases from all sources, including storm water. How should a site determine the amount of a listed toxic chemical in storm water associated with current releases from that year’s production as opposed to the amount from legacy waste?

A There is no definitive way to determine if a chemical in storm water is associated with that year’s production or is from legacy wastes. A facility should use best engineering judgement, based on available monitoring data and knowledge of conditions at the facility, to estimate the amount of a listed toxic chemical in storm water resulting from that year’s production. In the absence of documentation, listed toxic chemicals found in storm water should be reported as current releases.

Q A DOE site has determined that it must submit a Form R for benzene. The site also conducts remediation activities that involve digging up old drums containing benzene. The process of digging caused some of the drums to leak benzene into the ground. The contaminated soil is treated on-site in an incinerator and benzene still contained in the drums is sent off-site for disposal. Where should the release, treatment, and disposal of benzene generated from this remedial activity be reported on the Form R?



A The quantity of benzene released to the ground from the leaks should be reported in Part II, Section 5.5.4, “Releases of the toxic chemical to the environment on-site, other disposal.” The quantity of benzene sent off-site for disposal would be reported in Part II, Section 6.2, “Transfers to other off-site locations.” The on-site treatment of benzene should be reported in Part II, Section 7A, “On-site waste treatment methods and efficiency.” The quantity of benzene contained in wastes from the remediation activities would also need to be reported in Part II, Section 8. Because none of the benzene involved in the remediation activities was generated by production processes that occurred during the reporting year, the entire quantity of excavated benzene (including quantities sent off-site, treated on-site, and that which leaked) would need to be reported in Part II, Section 8.8, “Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processes.”

Please direct questions regarding these Questions and Answers on the Emergency Planning and Community Right-to-Know Act Section 313 Toxic Release Inventory Reporting:

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