EMERGENCY PLANNING AND COMMUNITY
RIGHT-TO-KNOW ACT SECTION 313

ADDENDUM TO THE GUIDANCE DOCUMENTS
FOR THE NEWLY ADDED INDUSTRIES
INTRODUCTION

This addendum is being provided as additional guidance to newly added industries. This document is intended to compliment existing guidance materials for use in clarifying EPCRA section 313 reporting issues for facilities operating in industry groups that may be affected by the final rule (62 FR 23834, May 1, 1997). This document does not contain general background explaining basic reporting definitions and requirements of the EPCRA section 313 program. Facilities are directed to reference the current year's Forms and Instructions document, industry specific guidance documents, specific chemical guidance, the EPCRA Section 313 Questions and Answers (revised 1997 version), and other sources to attain a complete understanding of the reporting requirements associated with the EPCRA section 313 program and how to meet any obligations the facility may have.

Section I (Additional Guidance in Response to Questions Received) of this document is comprised of numerous questions directed to EPA from representatives in the new industry sectors. This section provides facilities with additional guidance to determine how particular activities should be considered under EPCRA section 313. Many of these questions were raised during training sessions held for the recently added industries in the fall of 1997. While many of the questions raised closely resemble activities and questions to which EPA has responded in the recent revision of EPCRA Section 313: Questions and Answers (1997 version), several questions are unique to activities conducted at facilities operating in the recently added industry groups.

Section II (Clarification of the New Industry Guidance Documents) amends and clarifies sections of the guidance documents prepared for the newly added industries.
# TABLE OF CONTENTS

Section 1. ADDITIONAL GUIDANCE IN RESPONSE TO QUESTIONS

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>RECEIVED</td>
<td>4</td>
</tr>
<tr>
<td>FACILITY</td>
<td>4</td>
</tr>
<tr>
<td>Ownership</td>
<td>4</td>
</tr>
<tr>
<td>Multi establishment</td>
<td>6</td>
</tr>
<tr>
<td>Right-of-Way</td>
<td>6</td>
</tr>
<tr>
<td>COVERED SIC CODE</td>
<td>7</td>
</tr>
<tr>
<td>Auxiliary Facility</td>
<td>9</td>
</tr>
<tr>
<td>Solvent Recovery</td>
<td>10</td>
</tr>
<tr>
<td>EMPLOYEE THRESHOLD</td>
<td>11</td>
</tr>
<tr>
<td>CHEMICAL SPECIFIC ISSUES</td>
<td>12</td>
</tr>
<tr>
<td>REASONABLE ESTIMATES</td>
<td>15</td>
</tr>
<tr>
<td>Emission Factors</td>
<td>17</td>
</tr>
<tr>
<td>RELEASE REPORTING</td>
<td>17</td>
</tr>
<tr>
<td>Maximum Amount On-site</td>
<td>20</td>
</tr>
<tr>
<td>Section 8 Reporting</td>
<td>20</td>
</tr>
<tr>
<td>INFORMATION MANAGEMENT</td>
<td>21</td>
</tr>
<tr>
<td>Record Keeping</td>
<td>21</td>
</tr>
<tr>
<td>MANUFACTURING</td>
<td>22</td>
</tr>
<tr>
<td>Impurity</td>
<td>23</td>
</tr>
<tr>
<td>Import</td>
<td>24</td>
</tr>
<tr>
<td>PROCESSING</td>
<td>26</td>
</tr>
<tr>
<td>Intercompany Transfers</td>
<td>29</td>
</tr>
<tr>
<td>Repackaging</td>
<td>30</td>
</tr>
<tr>
<td>OTHERWISE USE</td>
<td>31</td>
</tr>
<tr>
<td>EXEMPTIONS</td>
<td>32</td>
</tr>
<tr>
<td>De Minimis</td>
<td>32</td>
</tr>
<tr>
<td>Article</td>
<td>33</td>
</tr>
<tr>
<td>Intake Water</td>
<td>33</td>
</tr>
<tr>
<td>Facility Grounds Maintenance</td>
<td>35</td>
</tr>
<tr>
<td>Structural Component</td>
<td>35</td>
</tr>
<tr>
<td>Personal Use Exemption</td>
<td>36</td>
</tr>
<tr>
<td>Laboratory Exemption</td>
<td>37</td>
</tr>
<tr>
<td>Motor Vehicle Maintenance</td>
<td>38</td>
</tr>
<tr>
<td>INDUSTRY SPECIFIC GUIDANCE</td>
<td>39</td>
</tr>
<tr>
<td>Metal Mining Overburden</td>
<td>39</td>
</tr>
</tbody>
</table>
Mining Disposal .................................................. 39
Coal Extraction Exemption ....................................... 41
Electricity Generating Facilities .................................. 42
Coincidental Manufacturing ....................................... 43
Petroleum Bulk Terminals and Stations ........................... 43

Section II. CLARIFICATION OF THE NEW INDUSTRY GUIDANCE DOCUMENTS .......................... 45
DEFINITIONAL CLARIFICATIONS .................................. 45
SIC Code Coverage ................................................... 45
Processing ............................................................. 45
Recycling ............................................................... 45
Disposal ................................................................. 45
Thresholds .............................................................. 45
Reporting Releases ................................................... 46
EXEMPTIONS .......................................................... 46
Laboratory Materials .................................................. 46
Structural Component ................................................ 47

AMENDMENTS TO INDUSTRY SPECIFIC GUIDANCE DOCUMENTS ........................................... 47
Metal Mining Guidance ............................................... 47
  Beneficiation ......................................................... 47
  Overburden .......................................................... 47
Chemical Distributors Guidance Document ........................ 48
Electricity Generators Guidance Document ........................ 48
  Estimating Thresholds from Combustion ......................... 49
Section I. ADDITIONAL GUIDANCE IN RESPONSE TO QUESTIONS RECEIVED

EPA has received numerous questions requesting a determination of how particular activities should be considered under EPCRA section 313. Many of these questions were raised during training sessions held for the recently added industries in the fall of 1997. While many of the questions raised closely resemble activities and questions to which EPA has responded to in the recent revision of EPCRA Section 313: Questions and Answers: Revised 1997 version, EPA is providing the following for additional assistance to potentially affected facilities.

FACILITY

Ownership

Q1. Company A owns and operates an electricity generating facility. The facility consists of a combustion unit and a peaker unit. Company A sells the combustion unit to Company B on June 15 of the reporting year, but retains ownership of the peaker unit. From the time of purchase, Company B controlled and operated the combustion unit and company A continued to own and operate the peaker unit. What are the reporting responsibilities of Companies A and B for determining thresholds and filing Form R reports?

A1. From the time of the purchase transaction on June 15, there are two separate facilities with two non-related owners and operators. Thus, Company B is responsible only for reporting for the combustion unit after its purchase. Company A is responsible for the combustion unit and the peaker unit prior to sale, and only the peaker unit after the sale. Thus, for threshold determinations, Company A must combine amounts of toxic chemicals “manufactured,” “processed,” or “otherwise used” at the entire facility before the transaction on June 15, with those “manufactured,” “processed,” or “otherwise used” at the peaker unit after the transaction (see Q#30 of the Questions and Answers Document 1997 version).

Q2. An electricity generating facility (EGF) is comprised of multiple independent owners. Each individual owner runs his/her own separate operation, but each has a financial interest in the operation of the entire facility. What name should be entered as the parent company in Part I, Section 5.1 of Form R? Should the facility report under one holding company name?

A2. The electricity generating facility should enter in Part I, Section 5.1 of the Form R the name of the holding or parent company, consortium, joint venture, or other entity that owns, operates, or controls the facility.

Q3. A coal mine, that is subject to EPCRA Section 313, is owned and operated by
company A and is adjacent to an electricity-generating facility (EGF), which is also subject to EPCRA Section 313. The EGF is owned and operated by a joint venture which Company A owns 40 percent of and Company B owns 60%. Are the coal mine and the EGF considered one facility?

A3. No. The parent company in a joint venture is the joint venture. The electricity generating facility is owned by Company B and is a separate facility from the adjacent coal mine.

Q4. A piece of contiguous property consists of three covered sites with various buildings, structures and equipment. The three sites are owned by two different companies - Company A and Company B. All three sites operate completely independently of each other and have separate personnel, finances, and environmental reporting systems. Site 1 and its buildings and structures are owned and operated by Company A and site 3 and its buildings and structures are owned and operated by Company B. The middle site, site 2 and its buildings and structures are owned by Company A and operated by Company B (See Diagram). Are all three sites and their buildings and structures considered separate facilities under EPCRA Section 313? Who is responsible for reporting for each?

<table>
<thead>
<tr>
<th>Site</th>
<th>Owner and Operator</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Owned and operated by A</td>
</tr>
<tr>
<td>2</td>
<td>Owned by A and operated by B</td>
</tr>
<tr>
<td>3</td>
<td>Owned and operated by B</td>
</tr>
</tbody>
</table>

A4. Under 40 CFR Section 372.3 a facility is defined as; "all buildings, equipment, structures, and other stationary items which are located on a single site or on contiguous or adjacent sites and which are owned or operated by the same person." Because all buildings and structures located on sites 1 and 2 are located on contiguous property and are owned by the same person they are considered one facility. Because all buildings and structures located on sites 2 and 3 are located on contiguous property and are operated by the same person they are also considered one facility. Therefore, the toxic chemicals "manufactured," "processed," and "otherwise used" at site 2 must be counted toward both facility A's and facility B's threshold determinations. The release and other waste management reporting for sites 2 and 3 are the primary responsibility of Company B and the release and other waste management reporting for site 1 is the primary responsibility of Company A. EPA allows the release and other waste management reporting to be done in this manner to avoid "double counting" of releases and waste management activities at site 2. However, if no reports are received from a covered facility both the owner and the operator are liable for penalties.
Multi establishment

Q5. Establishment A, B, and C are all part of Facility 1 and they elect to file separate Form R reports for chemicals that exceeded a threshold based on combined activities. Facility 1 exceeds the reporting threshold for benzene, but only Establishments A and B use any benzene. Is Establishment C required to file a Form R report for benzene?

A5. Provided that Establishment C has no amounts of the toxic chemical involved in threshold or release calculations, Establishment C is not required to submit a report for that chemical.

Q6. Two distinct SIC code operations that are covered under EPCRA section 313 (e.g., an electricity generating facility and a cement plant) are located on adjacent properties and are owned by the same parent company. The two operations are operated completely independently of one another (e.g., separate accounting procedures, employees, etc.). Are these two operations considered one facility under EPCRA Section 313?

A6. Yes. Under EPCRA Section 313 facility is defined as: "all buildings, equipment, structures, and other stationary items which are located on a single site or on contiguous or adjacent sites and which are owned or operated by the same person." Because these two operations are located on adjacent properties and are owned by the same person they are considered one facility for EPCRA Section 313 reporting purposes.

Right-of-Way

Q7. A single company owns two divisions that operate separately. Both divisions are within a covered SIC code. The two divisions are located on contiguous/adjacent property that is divided by a public right-of-way. The entrance and exit between the two operations are not at a cross-roads (i.e., access between the two operations can only be gained by going along the public right-of-way; not simply crossing the public right-of-way). Are the two divisions considered two separate facilities under EPCRA Section 313?

A7. No. Because the two divisions are owned by the same person and are physically contiguous/adjacent to one another, except for a public right-of-way, they are considered one facility for Section 313 reporting purposes. A facility may consist of more than one establishment. The entrances to each establishment within a multi-establishment facility do not have to be located at a crossroads in order to meet the definition of facility. EPCRA Section 313 defines a facility as "all buildings, equipment, structures, and other stationary items which are located on a single site or on contiguous or adjacent sites and which are owned or operated by the same person" (40 CFR 372.3).
Q8. Two covered bulk petroleum stations owned by the same parent company are connected to each other by a pipeline some distance apart from each other. The parent company controls the easement of the pipeline but the land on which the pipeline rests is not owned by the parent company. For the purposes of reporting on the Form R, are the two stations considered two separate facilities?

A8. Yes. Since the two bulk petroleum stations are not contiguous or adjacent properties and are connected only by a pipeline, the two stations are considered two separate facilities with the same owner, even though the parent company controls the easement on which the pipeline is located (see Q6 and Q48 of the EPCRA section 313 Questions and Answers Document: Revised 1997 version).

Q9. An electricity generating facility is owned by a utility authority but operated by a different company. The utility authority has rights to half of the energy produced at the electricity generating facility, and the operator of the facility has rights to the other half. The operator sells its half of the energy to various users, including the utility authority. Who is responsible for reporting?

A9. Both the owner and the operator are subject to the Section 313 reporting requirements. However, EPA believes that the operator is more likely to have the information necessary for reporting. If no reports are received from a covered facility both the owner and the operator are liable for penalties (see Q27 and Q32 of the EPCRA section 313 Questions and Answers Document: Revised 1997 version).

Q10. An electric generating facility produces power using coal and/or oil. All of the power generated at the facility is used to support a single facility within the same company that operates off-site from the electric generating facility. Is the electricity produced by the electric generating facility considered to be distributed in commerce for purposes of determining if the facility is "covered"?

A10. Yes. The electricity generating facility is classified within the SIC codes of 4911, 4931, or 4939 and combusts coal and/or oil for purposes of generating power for distribution in commerce. Supplying electricity to a facility off-site is considered generating power for distribution in commerce. For purposes of EPCRA section 313 reporting, it does not matter that the sole user of the electricity produced by the electricity generating facility is part of the same company.

Q11. Does a facility that is subject to RCRA Subtitle C but only manages waste generated
by facilities within the same company fall within the covered SIC code range for TRI reporting?

A11. Yes. Waste treatment facilities are classified in SIC code 4953—Refuse Systems, which includes such activities as Hazardous waste treatment and disposal sites. Hazardous waste treatment facilities which are regulated under the Resource Conservation and Recovery Act, subtitle C, 42 U.S.C. section 6921 et seq., were added in the Final rule published on May 1, 1997 (62 FR 23833). A facility's SIC code classification is not necessarily affected by limiting its function to activities that service facilities within the same company. That a facility solely manages wastes from facilities of the same company does not affect its classification and does not affect its coverage under EPCRA section 313 in terms of the facility meeting the SIC code classification.

Q12. Is a mobile solvent recovery unit in the solvent recovery SIC code?

A12. Yes. If the owner or operator of a mobile solvent recovery unit conducts solvent recovery services on a contract or fee basis, it is in SIC code 7389—the solvent recovery SIC code. However, employee and activity thresholds must be exceeded before reporting may be required.

Q13. An electricity generating facility in SIC code 4939 combusts coal for generating power for distribution in commerce. A warehouse is located several miles away and stores materials for the electricity generating facility. While the warehouse serves as support to a covered facility and is considered an auxiliary facility, the warehouse does not combust coal or oil. Is the warehouse subject to EPCRA Section 313?

A13. No. Although the warehouse is an auxiliary facility, and therefore assumes SIC code 4939 from the electricity generating facility, facilities in SIC code 4939 are only covered by EPCRA Section 313 if they also combust coal or oil for purposes of generating electricity for distribution into commerce. Since the warehouse does not combust coal or oil, it is not subject to reporting under Section 313.

Q14. Is a waste management facility that is classified in SIC code 4953 (Refuse Systems), but is not regulated under Subtitle C of the Resource Conservation and Recovery Act (RCRA) subject to EPCRA section 313?

A14. No. Facilities in SIC code 4953 are only subject to EPCRA section 313 if they are also regulated under RCRA Subtitle C. Many types of waste management facilities operate within SIC code 4953 which are not regulated under the RCRA Subtitle C programs, such as sanitary landfills, garbage collection, and street refuse systems, which were not added under EPCRA section 313 under the May 1, 1997 final rule.
Q15. The final rule on facility expansion created regulatory language in 40 CFR 372.22(b) that limits the coverage of electricity generating facility to those who operate in SIC codes 4911, 4931, and 4939 specifically to those “facilities that combust coal and/or oil for the PURPOSE (emphasis added) of generating power for distribution in commerce.” Based on this regulatory language, are electricity generating facilities that only use coal and/or oil to test backup generators considered covered facilities for TRI reporting?

A15. No. Use of oil or coal for purposes of testing safety equipment, for example at nuclear facilities, would not constitute a use of oil or coal for purposes of generating power for distribution in commerce. Even if excess power is unavoidably generated during testing and is consequently distributed in commerce. Thus, the facility would not be considered covered. For example, existing regulations governing nuclear facilities, such as those found in 10 CFR §50 Appendix A, require nuclear reactors to maintain safety equipment to ensure that certain protective measures are operable in the event that equipment may fail. These regulations specify that the safety equipment must be designed in such a way as to be independent from the nuclear portion of the facility in order for safety equipment to continue to function in the event that the nuclear portion fails or malfunctions. This type of use of these fuels is not sufficient to bring a facility under the coverage of EPCRA section 313. However, if a facility intentionally generates excess power during the testing operations for the purpose of distributing it in commerce, the facility would be “covered.”

Auxiliary Facility

Q16. A retail gas station sells only products supplied by one covered bulk petroleum station. Is the retail gas station considered an auxiliary facility and therefore does it take on the covered SIC code of the bulk petroleum station?

A16. No. While the retail gas station sells only products supplied by the covered bulk petroleum station it is not an auxiliary facility because it does not support the operation of the bulk petroleum station (i.e., the retail sale of gasoline and other petroleum products is a distinctly separate activity that benefits the gas station as opposed to benefiting the bulk petroleum station). An auxiliary facility is one that supports another facility’s activities. An auxiliary facility can assume the SIC code of another covered facility if its primary function is to serve that other covered facility’s operations.

Q17. A covered facility consists of three establishments. If a warehouse located on a non-contiguous/adjacent site 20 miles away solely supports one of the covered facility’s establishments that is not within a covered SIC code, is that warehouse considered a covered facility because of its status as an auxiliary facility?

A17. No. An auxiliary facility may assume the SIC code of the specific establishment or establishments it supports. Because the auxiliary facility assumes a non-covered SIC
code, it is not a covered facility.

Q18. A chemical distribution facility has an off-site chemical bulk storage unit on a non-contiguous property that is typically unmanned. When filling orders for customers, the facility sends trucks to the off-site bulk storage unit, "drums-off" a specified amount and delivers the order to the customer. What reporting is required for the chemicals that are "processed" at this off-site location?

A18. The off-site location may itself be classified as a chemical distribution facility and be "covered" in terms of its SIC code designation. The off-site bulk storage facility may also assume the SIC code of the "covered" chemical distributor that it supports and also be considered "covered." In terms of determining if the off-site facility meets the employee threshold and potentially be required to report, the facility should consider all of the hours spent servicing the units such as product delivery, tank clean-out, and construction in making that determination. If these hours add up to 20,000 over the course of the reporting year, the facility would meet the employee threshold and be required to consider its chemical management practices. It is possible that the type of employee hours associated with the off-site bulk storage facility would potentially exceed thresholds in one year and not in another.

Solvent Recovery

Q19. SIC Code 7389 (business services, not elsewhere classified) contains many diverse activities. How does a facility that conducts more than one activity in SIC 7389 determine if it is primarily engaged in solvent recovery, and therefore, covered under EPCRA section 313?

A19. A facility that conducts several uniquely different activities that are within SIC code 7389, should identify the value of the goods or services which each contribute. A facility is considered to be "primarily engaged" in solvent recovery, if the goods or services produced by the solvent recovery portion have a value of more than 50 percent of the total value of all goods and services produced at the facility, or if the goods and services produced by the solvent recovery portion of the facility are greater than those produced by any other portion of the facility (see Q#41 from the Questions and Answers Document revised 1997 version).

EMPLOYEE THRESHOLD

Q20. Does Facility A need to include in its employee threshold (10 FTE/20,000 hours) determination sales representatives that work for Facility A but are never/rarely physically working at Facility A?

A20. Yes. For purposes of determining the EPCRA section 313 employee threshold, employee
hours should be included in the employee calculation for the facility which the employees
directly support. Therefore, if the hours spent by sales staff directly support a facility,
then their hours should be allocated to the facility they directly support, regardless of the
amount of time that the employee is physically at the facility.

Q21. Facility A stores oil at Facility B. Facilities A and B have different owners. Facility
A sends personnel to Facility B to load oil onto Facility A's trucks using Facility B's
truck rack. Facility A then distributes the oil in commerce. Who processed the oil
and does Facility B have to count Facility A's hours?

A21. Facility B has processed the oil which was taken from Facility B's truck rack located on
Facility B's property. Facility A's management of product at Facility B must be
considered toward Facility B's threshold, release and other waste management
calculations where appropriate. The hours spent by Facility A's truck drivers while at
Facility B do not directly support Facility B but instead directly support Facility A and
should be accounted for by Facility A, if required.

Q22. A petroleum bulk terminal contracts with truck jobbers who purchase its petroleum
products. The terminal has no direct control over the activities of the truck drivers.
Are the hours worked by these jobbers and their drivers at the petroleum terminal
counted towards the terminal's employee threshold calculation?

A22. No. The hours worked by the truck jobbers do not directly support the terminal. The
jobbers purchase the petroleum products and function as customers to the terminal. The
terminal has processed the petroleum product at the point that the jobbers take possession
of the petroleum products.

Q23. A covered facility that is part of a larger corporate entity has corporate employees
located on-site. These employees do not directly support the activities that are
conducted at the facility where they are located; rather, their time is spent working
for other facilities that are part of the same corporate entity. Does the facility where
these employees are located have to count the hours worked by these employees
toward its employee threshold?

A23. Yes. The facility where these employees are located should count the hours worked by
them toward its employee threshold. unless the facility's time keeping system allows it to
track the time worked by these employees according to the actual facility for which they
were working. If a facility can demonstrate through time keeping records that the time
worked by these employees was in support of another facility within the same corporate
entity, it does not have to count the hours worked by these employees towards its
employee threshold. The facility which these employees directly support would have to
count the hours toward its employee threshold.
Q24. An electricity generating facility has maintenance staff for maintaining the electricity distribution system. Staff are based on site. When counting the hours of this staff, the electricity generating facility is over the 20,000 hours or 10 FTE threshold. Without counting the management staff hours, the electricity generating facility falls below the 20,000 hours or 10 FTE threshold. Because these hours are not directly in support of the electricity generating portion of the facility (i.e., they are in support of the distribution system), do they count toward the 20,000 hours or 10 FTE threshold?

A24. Yes. Hours worked by employees who support the distribution system must be included in the facility’s employee determination. All of the hours worked by all employees based at a “covered” facility whose function it is to support the “covered” facility would be considered toward the facility’s employee threshold, regardless of whether the activities they perform are associated with covered activities or not (see also Q18 of the EPCRA section 313 Questions and Answers Document; Revised 1997 version).

Q25. How does a facility consider overtime worked by full-time employees?

A25. For purposes of determining the facility’s employee threshold, the actual number of hours worked are considered, and therefore, the facility should count the overtime hours for any employee that directly supports the facility (see Q16 of the EPCRA section 313 Questions and Answers Document Revised 1997 version).

CHEMICAL SPECIFIC ISSUES

Q26. How should a facility estimate sulfuric acid drifting (aerosol or reportable forms) out of a cooling tower? There is no accepted procedure/guidance for how to best estimate this sulfuric acid drift. Is this reportable?

A26. Amounts of sulfuric or hydrochloric acid that drift from process steps are considered a release and are reportable provided the facility has exceeded thresholds. Facilities must use their best available information in developing estimates. This information may come from a variety of sources, and to assist facilities in determining what is reportable for sulfuric acid aerosols, EPA has published a guidance document entitled. Emergency Planning and Community Right-to-Know Act-Section 313: Guidance for Reporting Sulfuric Acid (EPA-745-R-97-007; November 1997 EPA-745-R-97-007. Facilities may also find equipment operating specification information useful in developing threshold and release calculations.

Q27. How should facilities estimate the maximum quantity on-site for hydrochloric acid (aerosol), which is manufactured as a by-product of the combustion process and directly vented to a stack?
A27. When determining the maximum amount on-site for Part II, section 4 of the Form R, only the reportable form of a chemical (e.g., aerosol) is to be considered. The quantity of the hydrochloric acid (aerosol) could be estimated by determining the volume of the air stream that could contain hydrochloric acid (aerosol), as well as the concentration of the acid in the air stream. In this case, the volume would be the interior volume of the equipment from where it is manufactured (e.g., boiler) to where it is released (e.g., stack). Keep in mind that the range codes used for the maximum quantity on-site are quite broad, and therefore, a precise calculation may not always be required. Facilities are also directed to refer to the Guidance for Reporting Sulfuric Acid (EPA-745-R-97-007; November 1997) and the Coal Mining Guidance Document EPA 745-B-97-012, October 1997 for further assistance.

Q28. In 1999, a facility's sulfuric acid reuse system starts the year with 4,000 pounds of sulfuric acid, and the facility adds 8,000 pounds to the system. How should the facility make threshold determinations for sulfuric acid (acid aerosol)?

A28. The method for estimating amounts of sulfuric acid (acid aerosol and hydrochloric acid (acid aerosol) for threshold purposes is unique as compared to other listed toxic chemicals. In the above question, the facility should apply 12,000 pounds towards the "manufacturing" and "otherwise use" thresholds. To determine the amount "manufactured" in an acid reuse system, the facility should calculate the total volume amount of acid in the system. The total volume of acid is the sum of the reporting year's starting amount and the amount added during the reporting year. Because all the sulfuric acid aerosol "manufactured" is subsequently "otherwise used," the 12,000 pounds are also applied to the "otherwise use" threshold of 10,000 pounds. Therefore, the facility exceeds the "otherwise use" threshold and must file a Form R or Form A. Facilities are also directed to refer to the Guidance for Reporting Sulfuric Acid (EPA-745-R-97-007; November 1997, and the Coal Mining Guidance Document EPA 745-B-97-012, for further assistance.

Q29. At a mining facility, sulfuric acid aerosol is sprayed onto a copper ore pile to leach copper sulfate for further processing. How should the facility make threshold determinations for sulfuric acid?

A29. Sulfuric acid is reportable only in aerosol form, therefore, the facility "manufactures" sulfuric acid (acid aerosol) each time the acid passes through the spray mechanism. In this particular example, the acid converts to copper sulfate, which is subsequently reacted to generate sulfuric acid and applied to the ore pile. In this case, because the facility generates another listed toxic chemical (copper sulfate), the facility must count the amount of sulfuric acid (acid aerosol) "manufactured" each time it passes through the spray mechanism, and apply this amount to the "manufacturing" threshold of 25,000
pounds for sulfuric acid (acid aerosol), in addition to considering amounts of copper sulfate that is also “manufactured.” Because all the sulfuric acid (acid aerosol) “manufactured” is subsequently “otherwise used,” the facility must apply this same amount towards the “otherwise use” threshold of 10,000 pounds. Facilities are also directed to refer to the Guidance for Reporting Sulfuric Acid (EPA-745-R-97-007; November 1997) for further assistance.

Q30. Would a sulfuric acid drip system that is in contact with an ore leach pile (described as analogous to a gardener’s drip hose) be manufacturing sulfuric acid in an aerosol form?

A30. No, provided that the sulfuric acid does not become airborne. Based on the situation described, the sulfuric acid does not become airborne, it is not an aerosol form of sulfuric acid and, therefore, not a reportable toxic chemical under EPCRA Section 313.

Q31. At a mining facility, hydrochloric acid aerosol is sprayed onto an ore pile to leach minerals for further processing. According to Guidance for Reporting Sulfuric Acid, the total volume of acid should be counted towards the manufacturing threshold of 25,000 pounds. Should this quantity also go towards the otherwise use threshold?

A31. Yes, because the facility is “otherwise using” the hydrochloric acid (acid aerosol). Amounts of the acid aerosol should also be considered toward the “otherwise use” threshold.

Q32. A facility “manufactures” an aluminum dust which is captured in a bag house, the dust is put into a smelter, and then put back into the process where it is recast into ingots, and sold. How is the dust considered for purposes of determining thresholds and estimating releases and waste management activities?

A32. The facility must count the amount of aluminum dust that is “manufactured” toward the “manufacturing” threshold. The amount of aluminum dust that is collected and recast into ingots and sold is incorporated into a product that is distributed in commerce, and these amounts are considered to be “processed” and must be counted toward that “processing” threshold. The aluminum dust that is captured and put back into the process is reported in Part II, Section 8.6 - Quantity Treated On-Site because the aluminum dust is converted to a non-listed form of the chemical.

REASONABLE ESTIMATES

Q33. If a facility has analytical data that will take extensive time and money to calculate emissions, can that facility use the maximum emission level specified in their permit to calculate their emissions?
A33. EPCRA allows facilities to use "readily available data" to provide information required under Section 313. When data are not readily available, EPCRA allows facilities to use "reasonable estimates" of the amounts involved. A facility must use its best judgment to determine whether analytical data are "readily available." If they are not, the facility's use of maximum emissions levels, as specified in its permits, may be a reasonable basis from which to form its estimates. In any event, a facility should carefully document the reason for its decision making.

Q34. Ozone is manufactured as a result of the generation and transmission of electric power. Must the electricity generating facility report the amount of ozone manufactured?

A34. Yes. Amounts of ozone (a listed toxic chemical) "manufactured" at a covered facility must be considered toward the facility's "manufacturing" threshold for ozone. If the facility knows that ozone is being "manufactured," then the facility must use its best available information to provide reasonable estimates in making threshold and release and other waste management calculations.

Q35. What burden does the facility have undertake to verify the accuracy/completeness of information provided to it under the requirements of supplier notification?

A35. A facility must use the best available information in making threshold determinations and release and other waste management calculations. If the facility has an indication that information provided by the supplier is unreasonable, they should look to other sources of information that they believe are more representative of listed toxic chemicals and their concentrations contained in mixtures or trade name products received from their suppliers. Facilities must document assumptions and calculations used for making threshold determinations and reporting on Form R or Form A.

Q36. If a facility has analytical data indicating the concentration of a Section 313 chemical is below the limits of detection and the facility has no information on the probability of the chemical being present in that waste stream (e.g., Superfund waste), should the facility use half the detection limit? What documentation will EPA require if the facility asserts that it had no basis for expecting the Section 313 chemical to be present?

A36. If the facility has no information to indicate that the chemical exists in the waste stream, it may assume that the concentration is zero. If the facility has reason to believe that the listed toxic chemical is present, it may use half of the detection limit. The facility should document that it looked at all information available to the facility.
Q37. A covered treatment, storage, and disposal facility (TSDF) receives a corrected waste profile in September for a type of waste that the facility has been receiving since January 1. The corrected waste profile indicates that a listed toxic chemical is in the waste stream at a higher concentration than was indicated on previous waste profiles. Must the TSDF revise its threshold determinations and release and other waste management calculations back to the beginning of the reporting year or only from the date (September) that the corrected information was received?

A37. The facility must revise its threshold, release and other waste management calculations back to the beginning of the year, if the facility receives information that they believe is more accurate in depicting amounts of toxic chemicals that they manage. Facilities required to report under EPCRA section 313 are required to use their best readily available information as provided by EPCRA section 313(g)(2). If facilities obtain information that they believe is better than the information that they applied for previous report submissions, the facility may submit a revision for prior years provided that they document the basis for the revision.

Q38. A covered facility is required to file a Form R for benzene. The facility did not have any known accidental spills or releases to land of benzene during the calendar year. Is it appropriate for the facility to report “NA” in Part II Section 5.5.4, Other Disposal?

A38. No. It is only appropriate to report NA when there is no possibility a release could have occurred to a specific media or off-site location. In Section 5.5.4 the facility is required to report any amount of a listed toxic chemical released to land that does not fit the categories of landfills, land treatment, or surface impoundments. This includes any spills or leaks of the listed toxic chemical to land. While there were no known spills or leaks to land of benzene, the possibility does exist that a release could have occurred. In this situation, the facility should report 0 in Section 5.5.4 and provide a basis of estimate (see Toxic Release Inventory Form R and Instructions: Revised 1996 version).

Q39. A metal mining facility “manufactures,” “processes,” and “otherwise uses” cyanide compounds but only exceeds the “otherwise use” threshold. How should this facility complete Part II, Section 3 of the Form R?

A39. Even though the facility only exceeds the “otherwise use” threshold it is required to identify all manufacture, process, and otherwise use activities and check at least one box in Sections 3.1, 3.2, and 3.3. The Form and Instructions document directs facilities to check all the boxes in Section 3 that apply. Note that once a threshold has been exceeded for a listed toxic chemical, the facility must report releases and other waste management activities associated with all non-exempt activities at the facility, and not just those.
associated with otherwise use activities.

**Emission Factors**

**Q40.** Are emission factors published by other than EPA sources reported as an “E” or an “O.”

**A40.** Published emission factors by sources other than EPA which contain chemical specific emission rates may be reported as “E” otherwise, published emission factors which are not chemical specific are indicated as “O”.

**RELEASE REPORTING**

**Q41.** Are toxic chemicals in waste stored on a concrete pad outside considered a release?

**A41.** Waste stored on a concrete pad must be counted as a release to land if the facility intends to leave the material on the pad for an indefinite period. If the facility routinely uses the pad for “temporary” storage of waste until enough waste is accumulated and then sends the waste off-site for treatment or disposal purposes, or otherwise management activities on-site, then the “temporary” storage need not be reported as a release to land within the reporting year when it is “temporarily stored” and only those amounts released from the pad, such as runoff, would be reported as released, provided thresholds have been exceeded elsewhere at the facility.

**Q42.** If a facility in one of the new industries, which begins reporting for activities conducted in 1998, has information on the amount of seepage from a landfill in 1998, do they report this amount as a release to land, since they were not required to report the initial disposal to land in the previous year?

**A42.** No. facilities are required to report only the amounts which are disposed during the year in which they are disposed, provided certain thresholds have been meet and the facility does not conduct any further activities involving amounts previously disposed. Amounts which move within the same media, such as seepage from a landfill to surrounding soils do not have to be included in release estimates in subsequent years. EPA requires reporting of the amount of toxic chemical placed in an on-site landfill during the year. It is not necessary to estimate migration from the landfill in subsequent years, provided the facility does not conduct activities that further involve the listed toxic chemical disposed (see Q348 of the EPCRA section 313 Questions and Answer Document; Revised 1997 version).

**Q43.** In 1999, a facility disposes of a waste containing benzene in an on-site landfill, but does not exceed an activity threshold for benzene. The facility does not report the amount of benzene released to the landfill in 1999. In 2000, the facility exceeds a
threshold for benzene. If some of the benzene released to land in 1999 seeps from
the landfill to groundwater (i.e., migrates within the same media), does the facility
report the amount of benzene that seeped into groundwater during 1999?

A43. No. EPA requires reporting of the amount of a toxic chemical placed in an on-site landfill
during the year in which these amounts were disposed. Amounts disposed in previous
years are not reportable in subsequent submissions provided no additional activity was
performed with these amounts.

Q44. A facility disposes of an amount of waste in a surface impoundment in year 1 for
which no report was required. In year 2, a report for the chemical is required and
the chemical has migrated from the surface impoundment to groundwater. Does
the facility have to report the amount migrated in year 2?

A44. No, facilities are only required to report amounts released or otherwise managed in the
year that the amounts were released or otherwise managed for chemicals for which they
exceeded thresholds. If a facility exceeds thresholds in a subsequent year for a chemical
that was disposed of in a preceding year, the facility should not report amounts previously
released or otherwise managed. Facilities are also not required to estimate the migration
of chemicals from landfills except for the current reporting year (see Q348 of the EPCRA
section 313 Questions and Answer Document: Revised 1997 version).

Q45. A facility captures leachate from a landfill, treats the leachate with a toxic chemical
and then uses the treated leachate as on-site irrigation water. Assuming the facility
exceeds the otherwise use threshold for the toxic chemical, is the “otherwise use” of
treated leachate containing the toxic chemical as irrigation water reported as a
release to land in Section 5.5.4, Other Disposal?

A45. Yes. Use of a leachate and chemicals contained in the leachate for irrigation purposes is
considered an “otherwise use” and amounts of listed toxic chemicals contained in the
leachate must be counted toward the “otherwise use” threshold. Any listed toxic
chemicals manufactured during the treatment of the leachate would also need to be
considered toward the “manufacturing” threshold. The leachate, and listed toxic
chemicals contained in the leachate, are also considered a waste and any “otherwise use”
of listed toxic chemicals contained in the leachate is not eligible for the de minimis
exemption. All amounts must be counted toward the “otherwise use” threshold. The
“otherwise use” of these chemicals for irrigation constitutes a release to land and would
be reportable in Part II 5.5.4 Other Disposal.

Q46. If waste rock piled at the end of one reporting year is considered a release to land,
and is processed in subsequent years, should the tailings/closed dump resulting from
the subsequent processing be reported again as a release to land? If so, wouldn’t
this constitute double accounting over the reporting years?

A46. Amounts released, including disposed, are reportable during the year in which the releases occur, provided reporting thresholds have been exceeded. If an amount of a listed toxic chemical previously disposed of is “manufactured,” “processed,” or “otherwise used” in a subsequent year then the facility should consider these amounts as it would new materials brought on-site, and report any waste management activities that are associated with toxic chemicals for which thresholds have been exceeded.

Q47. A mining facility leaches metals from an outdoor ore pile and collects the leachate for further processing. Should the toxic chemicals in the pile be reported as a release to land on the Form R?

A47. During the leaching, the ore pile is considered part of the facility’s process, and toxic chemicals in the pile should not be reported as a release to land. Once the leaching process is complete, and the ore pile is “closed,” the facility will report the toxic chemicals remaining in the pile as a release to land in Section 5.5.4 of Form R, “Other Disposal.” However, amounts of listed toxic chemicals that escape the pile and are either released to land or surface water, for example, must be considered toward release calculations if a threshold has been exceeded.

Q48. Is ash placed on-site in a pile waiting to be sold during construction season considered a release to land for the reporting year prior to its transfer?

A48. Material that is placed on site during a reporting year does not have to be reported as a release to land on-site if the pile was only used for temporary storage. EPA will consider the pile used for temporary storage if the facility routinely made off-site transfers of material from the pile during that reporting year or the facility had a contract in place to transfer the material before the end of the reporting year and transferred the material containing listed toxic chemicals off-site before that year’s report was required or by July 1, whichever comes first (see Q395 of the EPCRA section 313 Questions and Answers Document: Revised 1997 version).

Maximum Amount On-site

Q49. How do facilities that operate landfills report maximum amount of a chemical on site? Does this data element take into account amounts of a chemical that have been disposed of in prior years?

A49. To comply with EPCRA’s maximum amount on site requirement, facilities should report in data element 4.1, Part II, of the Form R, the maximum quantity of the toxic chemical present at the facility during the fiscal year. Facilities should include amounts of the chemical in storage tanks, process vessels, onsite shipping containers, and any other
amount of the chemical at the facility. If the toxic chemical was present at several locations within the facility, the facility should use the total amount present at the entire facility at any one time. Facilities do not have to count amounts of the toxic chemical that it disposed of on site in previous years.

Section 8 Reporting

Q50. A facility has estimated fugitive emissions to be 52 pounds and, based on their lack of precision in this estimate, have reported it as range code B (11-499 pounds) in section 5 of the Form R. When reporting the quantity released in section 8.1, what quantity should they use to represent their fugitive emissions when adding up all releases: 52 (the calculated result) or 255 (the midpoint of the range)?

A50. Facilities are not allowed to use range codes in section 8 of the Form R. In this instance, the owner/operator seems to have estimated their fugitive emissions from data relevant to the listed toxic chemical and the activities occurring at their facility. The air emissions reported in section 8.1 should be 52 pounds unless they have better information about their emissions.

Q51. Are releases due to a pipe rupture which was caused by premature failure of the pipe (no direct cause known) considered a catastrophic release and reportable in Part II, Section 8.8?

A51. Releases reported in Part II, Section 8.8 of the Form R should be the result of a remedial action, a catastrophic event or a one time release not associated with normal or routine production processes. In general, pipes have an expected lifespan. If a pipe ruptures during its expected lifespan for no known reason, the release should be considered a one-time release not associated with normal or routine production processes and should be reported in section 8.8. However, if the pipe bursts because it was in use after its expected lifespan, it should not be considered a one-time release because it should have been replaced.

INFORMATION MANAGEMENT

Q52. Is it appropriate for a TSDF to develop an average concentration for a section 313 chemical contained in thousands of different waste streams managed by the facility, and then use that average as a basis of threshold determination? If so does EPA have a recommended approach for developing such an average?

A52. EPCRA allows facilities to use “readily available data” to provide information required under Section 313. When data are not readily available, EPCRA allows facilities to use “reasonable estimates” of the amounts involved. A facility must use its best judgment to
determine whether data are "readily available." Thus, with regard to use of average concentration levels, a facility must use its best judgment to decide whether the raw data from which it might base any average concentration level are readily available. In any event, a facility should carefully document its decision making. For example, if a facility decides to use average concentration levels, it should document why the raw data from which the averages are based are not readily available, how it arrived at any average concentration level used, and why the average concentration level is a "reasonable estimate" of the amount of the toxic chemical in the waste stream. EPA does not have a recommended approach for determining average concentration levels.

**Record Keeping**

**Q53. What are the EPCRA section 313 recordkeeping requirements for facilities that do not exceed thresholds?**

**A53.** If a facility does not exceed an activity threshold for any listed toxic chemical, or is not in a covered SIC code, or does not have ten or more full time employees, it is not required under EPCRA section 313 to maintain any records associated with its uses, releases, or other waste management activities involving listed toxic chemicals. Such facilities, however, may want to keep records of the amounts of listed toxic chemicals they "manufacture," "process," or "otherwise use" in order to defend against any claim that they failed to report.

**MANUFACTURING**

**Q54. Is the conversion from one metal compound to another metal compound within the same metal compound category considered "manufacturing" for purposes of threshold, release and other waste management calculations?**

**A54.** Yes. The conversion of one metal compound to another metal compound within the same metal compound category is considered the "manufacture" of a metal compound, which must be considered toward threshold calculations. This is identical to how threshold calculations are derived for listed toxic chemicals in non-metal compound categories. The unique aspect for metal compounds, as compared to non-metal compounds within a listed compound category, is how amounts released and otherwise managed are reported. As stated in the final rule (62 FR 23850; May 1, 1997), "if a metal is converted to a metal compound or if a metal compound is converted to another metal compound.... a metal compound has been "manufactured" as defined under EPCRA section 313." However, provided that thresholds are exceeded, facilities are instructed to report only the amount of the parent metal contained in the metal compounds for amounts released or otherwise
managed. Facilities have the option to submit one Form R or Form A (which ever is appropriate) that includes the amounts of the elemental metal from the parent metal along with amounts of the metal portion from the metal compounds on their report. if thresholds for both the elemental metal and its metal compounds have been exceeded.

Q55. Are facilities required to consider in threshold determinations and release and other waste management calculations, amounts of section 313 chemicals manufactured from combustion during exempt “otherwise use” activities (e.g., from motor vehicles, personal use, routine maintenance, intake water, and structural component).

A55. The exemptions defined at 40 CFR 372.38(c) are intended for chemicals “otherwise used.” Amounts of chemicals manufactured during these “exempt” activities are not exempt (see Q170 of the EPCRA section 313 Questions and Answer Document: Revised 1997 version).

Q56. A mining facility stores coal or ore outside. One or more listed toxic chemicals are contained within the storage piles. Due to exposure and weathering influences, other listed toxic chemicals are manufactured in the storage piles and may subsequently run-off onto land or surface water. How should the facility consider the manufacturing of listed toxic chemicals within a storage pile?

A56. Amounts of listed toxic chemicals known to be “manufactured” on-site from the storage of raw materials, mixtures, or trade name products must be considered toward the “manufacturing” threshold for those chemicals. The term “manufacture” means “to produce, prepare, import, or compound a toxic chemical.” If the mining facility has knowledge that a listed toxic chemical is “manufactured” on-site, the facility should count the amount of the listed toxic chemical “manufactured” toward the “manufacturing” threshold.

Q57. A mining facility uses sodium cyanide to leach gold from an ore pile. The leaching produces a solution of gold cyanide compounds, which is further processed to extract the gold from the cyanide compounds. The remaining cyanide is converted back to sodium cyanide for reuse on the leach pile. How should the facility calculate the amount of cyanide compounds manufactured and otherwise used? Since cyanide compounds are manufactured prior to each use, should the facility use the method outlined for sulfuric acid threshold determinations? Are the cyanide compounds also processed since they are intermediates?

A57. In this scenario, cyanide compounds are “otherwise used,” “processed,” and “manufactured.” Both the gold cyanide compound and sodium cyanide are “manufactured.” Cyanide compounds are “processed” because part of the cyanide
compound, i.e., the gold cyanide compound, is incorporated into a material (gold) that is distributed in commerce. Cyanide compounds are also “otherwise used” because sodium cyanide is used to extract the gold but no part of the sodium cyanide compound is incorporated into a material that is distributed in commerce. The facility should not use the method outlined for the sulfuric acid threshold because the processes involving sulfuric acid are not analogous to the reaction chemistry occurring in the extraction of gold.

**Impurity**

Q58. A facility adds a chemical to water for pH control which results in the coincidental manufactures of another listed toxic chemical. This chemical is then applied to coal which is further distributed in commerce. Is the generated chemical considered an impurity and eligible for the de minimis exemption?

A58. No, under EPCRA section 313, an impurity refers to a chemical that is coincidentally “manufactured” as a result of the “manufacture,” “process,” or “otherwise use” of another chemical, but is not separated from that chemical and remains primarily with the product or mixture. Because the listed toxic chemical is “manufactured” during the treatment of water and not during the “processing” of the primary product or mixture, then it is not considered an impurity. In this case, the facility should consider amounts of chemicals “manufactured” toward the “manufacturing” threshold, to the extent that the facility has information on the amount of a listed toxic chemical that is “manufactured.” In addition, to the extent that the water and the listed toxic chemicals that are applied to the coal are intended to be incorporated into the coal product, then the chemical “manufactured” in the water treatment process may also be “processed”.

Q59. A chemical is manufactured in a waste stream. The waste stream is then applied to a product for distribution in commerce. Can the de minimis exemption be taken for the toxic chemicals manufactured in the waste stream that are distributed with the product?

A59. No. For the purposes of calculating the “manufacturing” threshold, the de minimis exemption cannot be applied to listed toxic chemicals in waste or listed toxic chemicals “manufactured” in waste.

**Import**

Q60. For purposes of considering listed toxic chemicals to be imported under EPCRA section 313, are the U.S. Virgin Islands within the customs territory of the United States?

A60. No. The U.S. Virgin Islands are not within the customs territory of the United States.
customs territory of the United States is comprised of the 50 States, the District of Columbia, and Puerto Rico. The 50 States do not include Guam, American Samoa, the U.S. Virgin Islands, the Northern Mariana Islands, or any other territory or possession over which the United States has jurisdiction, therefore, listed toxic chemicals that come from the U.S. Virgin Islands into the U.S. customs territory would be considered imported.

Q61. If a TSDF imports a waste that contains a listed Section 313 chemical and assigns it to a transfer facility, whereby the transfer facility sends it to a final TSDF, who has imported it?

A61. To be considered an “importer” the facility receiving the material from a source outside the customs territory must have “imported” or “caused the material to be imported.” If the “ordering facility” receives the shipment, then the ordering facility has “imported” the listed toxic chemicals in the waste shipment and must consider these amounts toward their “manufacturing” thresholds. However, if the ordering facility on its own initiative directs another facility to receive the shipment, then the receiving facility has not “imported” the shipment, neither has the ordering facility for purposes of EPCRA section 313 because the listed toxic chemicals were not brought on-site of the ordering facility. Regardless, the receiving facility would need to consider amounts received for the purpose of further waste management toward their “otherwise use” threshold, if they treat for destruction, stabilize, or dispose the toxic chemical.

Q62. U.S. law requires that wastes produced in Mexico by an American owned company be sent back to the U.S. for further waste management (Maquiladora waste). When the facility operating within the U.S. receives the wastes, has it manufactured the toxic chemicals contained in those waste? Because this law requires that these wastes be returned to the U.S. for further waste management, did the U.S. facility receiving these wastes cause the wastes to be imported?

A62. Yes, the receiving facility either has a contract or agreement in place to receive “imported” waste and is functioning as the importing facility. Amounts of listed toxic chemicals received in waste must be counted toward the “manufacturing” threshold and because the amounts are in waste the de minimis exemption is not applicable. Regardless, the receiving facility would need to consider amounts received for the purpose of further waste management toward their “otherwise use” threshold, if they treat for destruction, stabilize, or dispose the toxic chemical.

Q63. A TSDF requests certain types of waste containing toxic chemicals from an import/export broker. The broker then forwards the waste to the TSDF for waste management. Who “caused” the toxic chemical to be imported?
A63. The TSDF “caused” the toxic chemical to be imported into the customs territory of the United States and must count the amount imported towards its “manufacturing” threshold. By ordering the waste containing listed toxic chemicals, the TSDF “caused it to be imported,” even though it used an import brokerage firm as an agent to obtain the toxic chemicals. Regardless, the receiving facility would need to consider amounts received for the purpose of further waste management toward their “otherwise use” threshold, if they treat for destruction, stabilize, or dispose the listed toxic chemical.

Q64. A chemical distributor arranges the importation of a material containing a toxic chemical, by specific request from a customer. The material goes directly to the customer. The material never enters the boundaries of the chemical distributor’s facility. Who should count the amount of toxic chemical towards the manufacturing threshold?

A64. The customer has “caused” the toxic chemical to be imported into the customs territory of the United States. If the customer is a “covered” facility, the customer must count the amount of the listed toxic chemical imported that enters their facility toward the “manufacturing” threshold. The chemical distributor acted as an agent for the customer, and therefore, did not “import” the toxic chemical.

PROCESSING

Q65. A facility receives a chemical in bulk and repackages it into smaller containers which are sent to consumers. Are amounts “repackaged” considered toward an “activity threshold.”

A65. Amounts repackaged for distribution in commerce must be considered toward the “processing” threshold amount of 25,000 pounds per listed toxic chemical.

Q66. Does it matter for purposes of determining the “processing” threshold if amounts are received in smaller containers and repackaged into a larger container prior to their distribution in commerce?

A66. No. The act of transferring any amount from one unit container to another prior to distributing the material in commerce constitutes the act of “processing.” The size of the container does not matter.

Q67. A facility receives a chemical in bulk, repackages the chemical into reusable containers that are sent to customers, who then return the containers to be refilled. How does the facility consider residual amounts of the product returned to the facility in used containers, which are then subsequently refilled and redistributed in
A67. The residual amounts that are returned to the facility in the reusable containers, which are subsequently refilled and further distributed to other customers are considered to be “processed.” These amounts must be considered toward the facility’s “processing” threshold.

Q68. The preamble to the final rule says that extraction of ore containing toxic chemicals for subsequent distribution in commerce constitutes the “processing” of those listed chemicals. Does this mean that metal compounds in extracted ore are processed, even if they are later converted to different compounds which are then distributed in commerce (i.e., the extracted compound is considered a process intermediate)?

A68. Yes. Amounts of materials that undergo a “processing” step (extraction) as part of the facility’s preparation of a material for distribution in commerce are considered “processed” and must be considered toward the facilities “processing” threshold because a part of the original metal compound is incorporated into the product which is ultimately distributed in commerce.

Q69. If ore is extracted for ultimate distribution in commerce, are toxic chemicals in ore that are not actually distributed during the reporting year considered to be processed for threshold determination purposes, since they were prepared for distribution during the reporting year?

A69. Yes. The total amounts of the listed toxic chemicals contained in the ore are considered toward the facility’s processing threshold in the year that the amounts undergo a processing step. For purposes of EPCRA section 313 threshold determination, extraction is considered a processing step and all amounts extracted for preparation of a product to be distributed in commerce are considered “processed” in the year they are extracted.

Q70. Are trace metals in ore that remain in the product, and are in the same form as the one extracted considered processed? Does it matter if the facility is attempting to remove those trace metals from the product, and does not intend for them to be distributed in commerce? What if the trace metals that were extracted do not remain in the product?

A70. Amounts of listed toxic chemicals that remain with the product (metal concentrate) that is distributed in commerce are considered “processed” and these amounts must be factored into the facility’s “processing” threshold. Amounts of listed toxic chemicals in mixtures and trade name products that are “processed” are eligible for the de minimis exemption. Any trace metal or other listed toxic chemical that is completely removed from the commerce?
facility’s product prior to distribution and disposed of on-site would not count toward the facility’s “processing” threshold, but would need to be considered in release and other waste management calculations if the facility has exceeded thresholds for the listed toxic chemical elsewhere.

Q71. A coal mine uses a flotation agent containing listed toxic chemicals to clean coal. Some of the flotation agent remains on the coal, which is then distributed into commerce. The facility chooses the flotation agent for the purpose of cleaning the coal and not to add value to the coal product. Has the facility “processed” the amount of the listed toxic chemical that adheres to the coal from the flotation agent?

A71. No. In this example the facility is “otherwise using” the listed toxic chemicals which are components of the flotation agent. Amounts of listed toxic chemicals contained in the flotation agent must be considered toward the facility’s “otherwise use” threshold. The facility is using these listed toxic chemicals for the purpose of cleaning the coal and not for the purpose of adding value to the coal product.

Q72. A facility feeds 50,000 pounds of solvent containing 90% MIBK (i.e., 45,000 pounds) into a recycling process that is 85% efficient. The facility distributes the recovered MIBK in commerce. Should the facility count 45,000 pounds of MIBK (i.e., the entire amount that was inserted into the process) towards the processing threshold?

A72. Yes. The facility considers the entire amount (45,000 pounds of MIBK) entering the recovery system toward the “processing” threshold regardless of the recovery efficiency of the process.

Q73. A facility feeds 50,000 pounds of solvent containing 50% MIBK and 50% glycol ether into a recycling process. The facility’s intent is to recover as much of the organic as possible and distribute the organics into commerce. The facility is primarily concerned with the recovery of MIBK. The product specification of the resulting solvent requires a specific concentration range for MIBK, but the amount of glycol in the final product does not matter. How does the facility consider amounts of glycol ether?

A73. Given that the facility knows that glycol ether is recovered with the desirable MIBK, the facility should count all amounts of glycol ether that enter the recovery system toward the facility’s “processing” threshold.

Q74. A facility receives a spent solvent, recovers the solvent and sells the recovered solvent in commerce. Is the recovered solvent considered a waste, and if not is the
reusable solvent considered a product? At what point might the solvent be eligible for the \textit{de minimis} exemption?

A74. The recovery facility must consider the amount of the material that it feeds into the recycling operation toward the facility’s “processing” threshold. The solvent is part of a waste (not usable in the form received) and therefore the amount processed is not eligible for the \textit{de minimis} exemption until the recovery is complete and the solvent is no longer subject to further waste management activities. Once the recovery is complete, the solvent is no longer a waste and thus the recovery facility may take the \textit{de minimis} exemption for amounts subsequently prepared for distribution in commerce. The purchasing facility considers the recovered solvent as a new product and its “processing” or “otherwise use” of the solvent may be eligible for the \textit{de minimis} exemption.

Q75. Electricity generating facilities supply companies ash for off-site market testing (e.g., the receiving company may test the ash to see if it could be used in a topsoil), is this processing?

A75. Amounts of listed toxic chemicals contained in material or products that are sent off-site for sample testing, are considered “processed” and amounts of the listed toxic chemicals must be considered toward threshold and release and other waste management calculations (see Q205 of the EPCRA section 313 Questions and Answers Document: Revised 1997 version).

\textit{Intercompany Transfers}

Q76. Company A stores oil at their Storage Facility 1. Company A transfers oil from Storage Facility 1 to their Storage Facility 2 (a separate facility for EPCRA section 313 purposes). From Storage Facility 2, the oil is distributed in commerce. Does the transfer from Storage Facility 1 to Storage Facility 2 constitute processing on the part of Storage Facility 1?

A76. Yes. Under EPCRA section 313, “processing” means the preparation of a listed toxic chemical after its “manufacture,” for distribution in commerce (40 CFR Section 372.3). Distribution in commerce includes any distributive activity in which benefit is gained by the transfer, even if there is no direct monetary gain. Listed toxic chemicals that are shipped from one facility to another facility under common ownership are considered to be distributed in commerce. Although the chemical in the product is not distributed to the general public, the preparing facility does derive economic benefit by transferring the listed toxic chemical, as both facilities are under common ownership. The amount of listed toxic chemical prepared at the facility must be counted towards the 25,000 pounds “processing” threshold (see Q136 of EPCRA section 313 Questions and Answers Document: Revised 1997 version).
Q77. A mine sends a metal concentrate for smelting to another covered facility owned by the same company. Has the mine distributed toxic chemicals in the concentrate into commerce, and therefore, processed them? What about trace metals in the concentrate that the mine has partially but not fully removed (i.e., they may not have intended to remove all of the trace metals at the first facility)?

A77. Yes. Under EPCRA “process” means the preparation of a listed toxic chemical, after its “manufacture,” for distribution in commerce (40 CFR Section 372.3). Distribution in commerce includes any distributive activity in which benefit is gained by the transfer, even if there is no direct monetary gain. Listed toxic chemicals that are shipped from one facility to another facility under common ownership are considered to be distributed in commerce. Although the chemical in the product is not distributed to the general public, the preparing facility does derive economic benefit by transferring the listed toxic chemical, as both facilities are under common ownership. The amount of listed toxic chemical prepared at the facility must be counted towards the 25,000 pound “processing” threshold. This also applies to the listed toxic chemicals present in low concentrations. However, for the facility that is “processing” these chemicals, these amounts may be eligible for the de minimis exemption (see Q136 of the EPCRA section 313 Questions and Answers Document: Revised 1997 version).

Repackaging

Q78. Facility #1 receives a spent solvent, repackages it to send off-site to a recycling facility (Facility #2). Facility #2 recovers the solvent and returns it to Facility #1 who then repackages it to be distributed into commerce. Does Facility #1 count the toxic chemical in the solvent twice toward the processing threshold (i.e., when it is distributed off-site for recycling and when they distribute the recovered solvent into commerce)?

A78. Yes. Amounts of listed toxic chemicals that are transferred off-site for recycling are considered “processed” and Facility #1 processed the listed toxic chemical when it was sent off-site for recycling. Facility #2 who recovers the listed toxic chemical also “processed” amounts recovered, which were subsequently distributed back to Facility #1. Facility #1 then receives amounts of the listed toxic chemical recovered by Facility #2 and repackages amounts of the listed toxic chemical for purposes of further distribution in commerce. Therefore, Facility #1 must include these amounts toward their “processing” threshold. While this may seem to be a double counting of the same amounts of the listed toxic chemical, the activities are completed at each interval and are clearly taking place at multiple locations. Each activity is independently performed and there is no double counting within the same activity sequence of steps.

Q79. Does breaking the integrity of the package which contains the toxic chemical
constitute repackaging?

A79. No. The listed toxic chemical must be transferred from one package to another in order for the listed toxic chemical to be considered repackaged.

Q80. Lab packs and hazardous waste in general tend to move progressively from smaller containers to larger containers. Is this repackaging?

A80. Yes. Provided the listed toxic chemical is taken out of the smallest unit container and is transferred to another container, it is considered repackaged. If the listed toxic chemical is not removed or taken from the smallest unit, but is simply placed in a larger container while the contents remain in the smaller container, then the listed toxic chemical is not considered to be repackaged.

Q81. A facility receives a waste from off-site, samples the waste, and then sends the waste off-site to be recycled without changing the packaging. Has the facility processed the listed toxic chemical in the waste?

A81. No. Provided that the listed toxic chemical transferred to the off-site facility remains in the packaging in which it was received, it has not been repackaged. The facility has simply opened the original package for sampling and transferred the listed toxic chemical to another facility. Because no repackaging has occurred, no “processing” step has taken place.

Q82. A petroleum bulk station receives petroleum via pipeline. The petroleum goes from the pipe, into a storage tank, and exits the facility again through the pipeline. It is then sent to another petroleum bulk station within the same company but located on non-contiguous or non-adjacent property, which distributes the petroleum into commerce (i.e., their customers). Did the first station “repackage” and “process” the petroleum?

A82. Yes. The petroleum received via pipeline, stored and subsequently transferred to another facility has been repackaged and the listed toxic chemicals have been distributed in commerce. Amounts of listed toxic chemicals contained in the amount “repackaged” must be considered toward the “processing” threshold.

Q83. How does a facility consider multiple activities within the same threshold activity, such as multiple repackaging steps, or blending followed by repackaging?

A83. Amounts of a listed toxic chemical undergoing multiple activities within a single threshold activity are counted only once during the activity sequence. For example, if a
facility receives a bulk quantity of a chemical which it then places in a storage container from which amounts are subsequently blended and placed in smaller containers which are sold, the facility has prepared for distribution in commerce the entire amount of the chemical, and therefore, the facility has “processed” the entire amount of the listed toxic chemical.

OTHERWISE USE

Q84. A coal mine receives a flotation agent containing a toxic chemical in December of 1998, but does not use it until January of 1999. Is the amount of toxic chemical in the flotation agent considered for threshold determinations in the 1998 reporting year?

A84. No. Storage in itself of a toxic chemical is not considered a manufacturing, processing, or otherwise use activity and, therefore, is not subject to threshold determinations. However, the facility is required to include any amounts released or otherwise managed that occur during storage of the listed toxic chemical, provided a threshold has been exceeded elsewhere at the facility. When the toxic chemical is used in 1999, the facility will include the amount of toxic chemical used towards the 10,000 pound “otherwise use” threshold, or the 25,000 pound threshold for processing, whichever is appropriate (see Q51, Q52, and Q53 of the EPCRA section 313 Questions and Answers Document: Revised 1997 version).

EXEMPTIONS

De Minimis

Q85. A metal mining facility receives ash for incorporation in concrete for which it uses on site to form cement blocks. Is this direct use of ash eligible for the de minimis exemption?

A85. The use of ash as a component of a mixture (concrete) which is “otherwise used” on-site to construct cement blocks constitutes an “otherwise use” of a material containing listed toxic chemicals and amounts must be counted toward the facility’s “otherwise use” of those chemicals. In this case, the ash is not considered a waste because it is not managed as a waste. Thus, the listed toxic chemicals contained in the ash are eligible for the de minimis exemption.

Q86. A metal mining facility receives sewage sludge from off-site for use in soil reclamation. Is the application of sewage sludge to land considered an “otherwise use,” is it eligible for the de minimis exemption, and if so, how are amounts reported
(e.g., released to land)?

A86. The metal mine is "otherwise using" the listed toxic chemicals contained in the sewage sludge as a soil building material. However, because the listed toxic chemicals contained in the sludge are being applied to land the facility is managing the sewage sludge as a waste. Therefore, amounts of listed toxic chemicals being "otherwise used" are not eligible for the de minimis exemption. Amounts of listed toxic chemicals are reported as a release to land. The "otherwise use" of listed toxic chemicals, such as nitrate compounds for farming, is to be reported as a release to land in section 5.5. of the Form R (see Q115 and Q398 of the EPCRA section 313 Questions and Answers Document: Revised 1997 version).

Article

Under EPCRA section 313, items containing listed toxic chemicals meeting the definition of an article are exempt from threshold determination and release and other waste management calculations. The definition of what qualifies for an article located at (40 CFR 372.28(b)) has created a degree of confusion. In order to assist facilities in taking advantage of this exemption, EPA has provided a number of responses related to applying the Article Exemption in the recently released EPCRA section 313 Questions and Answers Document: Revised 1997 version. This revised document, however, does not contain many of the questions raised during the training sessions in the fall 1997 for the newly added industries. Some of the article-related questions raised during these training sessions along with EPA's responses are provided below. EPA intends to address any outstanding article-related issues during an upcoming initiative to clarify the relevant regulatory language.

Q87. A facility has a condenser that consists of many individual copper tubes. These copper tubes must be replaced periodically and are often replaced individually. Can each of the copper tubes be considered an "article" under section 313?

A87. Each tube may be considered an article, provided that releases of all listed toxic chemicals for all "like" articles do not exceed 0.5 pounds and it meets the other requirements of the definition of the article exemption (see Toxic Release Inventory Form R and Instructions revised 1996 version).

Q88. A mine's electrorefining operation uses an anode containing a toxic chemical. The anode is meant to degrade, and the thickness changes over the entire anode. Is this anode eligible for the article exemption?

A88. No. Since the item did not retain its original thickness in whole or in part, the anode is not considered an article.
**Intake Water**

**Q89.** If a facility uses process wastewater containing a listed toxic chemical on-site, are toxic chemicals in the wastewater exempt under the intake water exemption?

**A89.** No. Since the listed toxic chemicals are not drawn from the environment, the facility must count the amount of the listed toxic chemicals toward threshold determinations and release calculations.

**Q90.** A facility dewater its underground mine and places the water in a surface impoundment. Are toxic chemicals in the water eligible for the intake water exemption and are they exempt from release reporting?

**A90.** No, because the facility is not “otherwise using” the water drawn from the underground mine the intake water exemption does not apply. The facility is simply disposing of the water containing these chemicals drawn from materials on site, and therefore, the facility is not “manufacturing,” “processing,” or “otherwise using” these chemicals and these amounts would not count toward thresholds. However, the facility is disposing of these chemicals and if a threshold is exceeded elsewhere at the facility for one of the same chemicals, then the facility would be required to report the amounts disposed.

**Q91.** A facility dewater its underground mine and sells the water, which contains reportable toxic chemicals, to other facilities. Are toxic chemicals in the water exempt from threshold determinations?

**A91.** No. If a facility sells water that it extracts from its underground mine, it is “processing” the water and any listed toxic chemicals contained in the water must be considered toward threshold determinations and release and other waste management calculations.

**Q92.** If a facility uses wastewater or storm water that contains a section 313 chemical as process water, is the facility required to count the amount of the section 313 chemicals toward threshold determinations and release calculations or would the section 313 chemicals be exempt under the intake air and water exemption?

**A92.** The intake water exemption is specifically limited to “otherwise use” of toxic chemicals present in process water or non-contact cooling water that are drawn from the environment or from municipal sources. The above facility uses water in its process sequence and would not be required to account for amounts of listed chemicals contained in stormwater. However, wastewater is not drawn from the environment and amounts of listed toxic chemicals which are “otherwise used” are ineligible for the exemption and any information on amounts of listed toxic chemicals would have to be considered toward thresholds.
Q93. A facility dewater its underground mine and injects the water into a well on-site. Are the amounts of listed toxic chemicals injected considered a release to land, or are these amounts exempt under the “use of toxic chemicals present in process water and non-contact cooling water as drawn from the environment”? The water is not used, nor is it process water or non-contact cooling water.

A93. No. The exemption for chemicals contained in water drawn from the environment or from municipal sources is provided for the use of water containing these chemicals in processes and for non-contact cooling purposes. The facility is not “otherwise using” the water drawn from the underground mine, and therefore, the intake water exemption does not apply. The facility is simply disposing of the water containing listed toxic chemicals as drawn from on-site, and therefore, the facility is not “manufacturing,” “processing,” or “otherwise using” these chemicals. These amounts would not count toward thresholds. However, the facility is disposing of these chemicals and if a threshold is exceeded elsewhere at the facility for one of the same chemicals, then the facility would be required to count amounts injected as released.

Facility Grounds Maintenance

Q94. Does a listed toxic chemical that is applied to a road as a dust suppressant qualify for the routine facility grounds maintenance exemption?

A94. The application of a dust suppressant that contains listed toxic chemicals to land surfaces at the facility, is beyond the scope of the original intent of the “facility grounds maintenance” exemption. Listed toxic chemicals contained in mixtures used as dust suppressants are not eligible for the “facility maintenance” exemption. The original intent of the facility grounds maintenance exemption was to provide facilities relief from tracking such ancillary uses of chemicals involved with such routine activities as janitorial cleaning supplies, fertilizers, and pesticides that are similar in type and concentration to consumer products. Dust suppressants are not products that are generally considered similar to consumer products. The large scale use of dust suppressants likely to occur at a mining extraction facility is considered integral to the facility's process operations and of such a magnitude that amounts of listed toxic chemicals used for dust suppression are not eligible for the “facility grounds maintenance” exemption.

Structural Component

Q95. Are listed toxic chemicals contained in paint that is used to paint processing equipment subject to threshold determination, release and other waste management reporting?

A95. Yes. Paint used on process related equipment would not qualify for the structural
component exemption. Amounts of listed toxic chemicals used to paint process related equipment must be considered toward threshold determinations and release and other waste management calculations.

Q96. Are the listed toxic chemicals contained in process related equipment, such as piping, eligible for the structural component exemption?

A96. No. If pipes are process related, the structural component exemption does not apply and the facility may have to consider amounts of listed toxic chemicals contained in process related pipes that are put into use during the reporting year toward the facility’s threshold determination, and include release and other waste management amounts in calculations where applicable (see Q180 and Q184 of the EPCRA section 313 Questions and Answers Document: Revised 1997 version).

Personal Use Exemption

Q97. Are the listed toxic chemicals used in cooling equipment for air conditioning process control rooms eligible for the “personal use exemption”?

A97. No. As provided in 40 CFR 372.38, the personal use exemption applies to the use of listed toxic chemicals limited to: personal use by employees or other persons at the facility of foods, drugs, cosmetics, or other personal items containing toxic chemicals, including supplies of such products within the facility such as a facility operated cafeteria, store, or infirmary. This exemption is limited and does not include chemicals used in process related activities.

Q98. Is the use of toxic chemicals for employee comfort only applicable in an administrative setting for the personal use exemption?

A98. The personal use exemption is limited to chemicals used in non-process related activities, which may include administrative activities. Amounts of listed toxic chemicals used for administrative purposes are eligible for the personal use exemption and do not have to be considered toward threshold or release calculations.

Q99. If a facility is treating sanitary waste and, as a result of the treatment, nitrate compounds and/or ammonia are manufactured. Are the section 313 chemicals “manufactured” considered exempt under the personal use exemption?

A99. No. Exemptions provided at 40 CFR 372.38 apply to the use of listed toxic chemicals. These exemptions do not include “manufacturing” or “processing” listed toxic chemicals, even if this results from an activity where the use is exempt. If a listed toxic chemical is “manufactured” during an activity where the use of a listed toxic chemical is exempted, the chemical “manufactured” is not exempt and amounts must be considered toward
threshold and release or other waste management calculations.

Q100. Would a facility be required to report on the section 313 chemicals in an air conditioning unit that cools a mine process operation or production room in which employees must work? In other words, because the air conditioning unit is being used in a production process, could the personal use exemption for employee comfort still apply for these activities?

A100. No. The "use exemption for personal uses by employees or other persons" was intended to apply to such incidental uses of toxic chemicals that may take place at a facility simply because of personal needs. The types of incidental chemical uses intended to be eligible for this exemption include foods, drugs, cosmetics, or other personal items containing toxic chemicals, including supplies of such products within the facility such as in a facility operated cafeteria, store, or infirmary. The use of chemicals to promote process related activities including employee access to such process related areas which would otherwise not be possible is not incidental to the process and therefore, must be considered toward threshold and release calculations.

Laboratory Exemption

Q101. If a facility takes a sample from its process stream to be tested in a laboratory for quality control purposes, are releases of a section 313 chemical from the testing of the sample in the laboratory exempt under the laboratory activities exemption?

A101 Yes, provided that the laboratory at the covered facility is under the direct supervision of a technically qualified individual as provided in 40 CFR 372.38(d). The laboratory exemption applies to the "manufacture," "process," or "otherwise use" of listed toxic chemicals and any associated release or other waste management amounts that take place in a qualifying laboratory.

Q102. A TSDF takes a sample from a process stream (i.e., waste stream), that has already undergone treatment, to be tested in a laboratory for quality control purposes. The waste is tested in a laboratory under the supervision of a technically qualified individual. The TSDF then places the sample back into the treated waste stream before being sent off-site for disposal. Provided the TSDF exceeds an activity threshold for the toxic chemical, is the TSDF required to report the off-site transfer of the sample in Part II Section 6.2 of the Form R?

A102. No. The portion of the waste released (including disposal) that is "manufactured," "processed," or "otherwise used" in a laboratory under the supervision of a technically qualified individual is eligible for the laboratory activities exemption (40 CFR 372.38).
Amounts from the laboratory do not have to be included in the facility’s off-site transfer figures provided that the waste sample does not undergo any further non-exempt “otherwise uses” or “processing” before leaving the site.

Q103. A TSDF takes a sample from a process stream (i.e., waste stream) to be tested in a laboratory for quality control purposes. The waste is tested in a laboratory under the supervision of a technically qualified individual. The TSDF then places the sample back into the process stream where it undergoes further treatment and is destroyed. Provided the TSDF exceeds an activity threshold for the toxic chemical, is the TSDF required to consider the amount of the toxic chemical treated for destruction as part of the facility’s “otherwise use” of the listed toxic chemical, as well as report any amount in Part II Section 5 of the Form R as appropriate?

A103. Yes. Despite the fact that the listed toxic chemical may have been eligible for the laboratory exemption, amounts of the listed toxic chemicals were returned to what is essentially the facility’s process stream and subject to subsequent “manufacture,” “process,” or “otherwise use” activities. Activities performed involving listed toxic chemicals subsequent to an exempted activity must be considered toward threshold or release and waste management calculations. Since the sample was placed back into the process stream and subsequently “otherwise used” (i.e., destroyed), amounts of the listed toxic chemical must be considered toward threshold and release and other waste management calculations.

Motor Vehicle Maintenance

Q104. How does a facility that collects a quantity of used motor oil from motor vehicles owned and operated by the facility consider amounts of the used oil which are sent off site for recycling?

A104. Amounts of releases (including disposal) or other waste management practices associated with an exempt “otherwise use” of listed toxic chemicals are also exempt from release or other waste management calculations, provided the facility does not conduct a subsequent non-exempt activity involving the chemical.

Q105. Are toxic chemicals used to maintain fleets of large earth-moving vehicles at mining facilities exempt from threshold determinations and release or other waste management reporting?

A105. Yes. Listed toxic chemicals used to maintain motor vehicles owned and operated by the facility are eligible for the motor vehicle exemption.

Q106. Are chemicals used to maintain a non-motorized barge stationed at a facility eligible for the motor vehicle maintenance exemption?
A106. Listed toxic chemicals used to maintain a non-motorized barge are not eligible for the motor vehicle maintenance exemption and must be factored into threshold determinations and release or other waste management calculations. Additionally, listed toxic chemicals used to operate machinery positioned on the barge, such as dredging equipment or cranes, are similarly not eligible for the motor vehicle exemption.

Q107. Does the motor vehicle exemption apply to railcars, which contain no motors; e.g., maintenance of railcars or tractor trailers?

A107. Chemicals used to maintain railcars such as paint and lubricants are not eligible for the motor vehicle maintenance exemption. Tractor trailers or railcars are not themselves motor vehicles and listed toxic chemicals contained in mixtures used to maintain them are not eligible for the motor vehicle maintenance exemption.

INDUSTRY SPECIFIC GUIDANCE

Metal Mining Overburden

Q108. Are listed toxic chemicals in overburden subject to reporting under EPCRA Section 313? What about toxic chemicals used in removing overburden?

A108. No. Listed toxic chemicals that are constituents of overburden, as defined in the May 1, 1997 final rule, which are processed or otherwise used are not subject to threshold determinations or reporting for release and other waste management activities (40 CFR 372.38(h)). However, listed toxic chemicals used in removing overburden during metal mining activities are not eligible for the overburden exemption.

Mining Disposal

Q109. Sulfuric acid is injected into a Class II well for the purpose of in situ leaching, not for the purpose of waste disposal. The in situ leaching is a recirculating system and as sulfuric acid is injected into the well, low concentrations of metals are solubilized, brought to the surface, and subsequently separated from the sulfuric acid solution. Some of the metal compounds that are solubilized remain with the sulfuric acid solution and are reinjected into the in situ recirculating leaching system. Would the metals injected back into the Class II well be considered otherwise used and eligible for the de minimis exemption? Would the amount of metal injected back into the Class II well be reported in Part II, section 5.4 if an activity threshold is exceeded?

A109. There are several activities that are taking place in the above scenario that the facility needs to consider in terms of EPCRA section 313 reporting. The injection of sulfuric acid solution to extract certain metals is likely to result in the formation or “manufacturing” of listed toxic chemicals such as metal sulfate compounds. The
amounts of listed toxic chemicals "manufactured" must be considered toward the facility's "manufacturing" threshold. The metal compounds are also being recovered for subsequent distribution in commerce, and these amounts must be considered toward the "processing" threshold. Metal compounds that are being reinjected are being released, but for purposes of EPCRA section 313 reporting, amounts of listed toxic chemicals reinjected and recirculated are not reportable as release provided that these amounts continue to be circulated. Any amounts known to escape the "recirculating/leaching system" and remain in the leaching zone or otherwise escape within the reporting year would be considered a "release" and would be reportable within the year that those amounts escaped.

Q110. In reporting year 1999, a mining facility exceeded a threshold for copper compounds and reported releases to land of copper in waste rock tailings. If that same waste rock or tailings are beneficiated in reporting year 2000, is the disposal of the resulting wastes from the processing of the waste rock considered a release to land?

A110. Yes. The facility is required to report the copper in the waste rock tailings as a release to land in both reporting year 1999 and in reporting year 2000. The facility must report the releases and other waste management activities that occur in each reporting year for material that undergoes a non-exempt activity (i.e., facility is not required to consider any further releases of materials that have been disposed of and are not subjected to further management activities).

Q111. A facility is re-mining waste rock which was disposed to land in a prior reporting year. In re-mining the waste rock, a portion of the waste rock previously disposed is taken from the landfill and moved to another location at the facility to allow access to other waste rock that has a metal content sufficient for further beneficiation. Is the waste rock that is taken from the landfill and disposed considered a release to land: Part II section 5.5.4 Other Disposal, despite the fact it was originally reported as release to land for disposal in a prior reporting year?

A111. Yes. Toxic chemicals that have been released in one reporting year, must also be reported in subsequent years when the material undergoes non-exempt activities, provided certain thresholds have been exceeded. The facility is required to report the listed toxic chemical in the waste rock as a release to land because the toxic chemicals have been displaced and subsequently "released" or disposed in a following reporting year.

Q112. A metal mine stockpiles waste rock during the reporting year and has plans to leach this waste rock in the following year. What type of documentation (if any) would EPA accept from the mine to show that the waste rock will be processed, and therefore not have to be reported as a release to land during the reporting year?
For example, the facility may have drawn plans for the leaching pad, have contracts with a supplier for materials used to construct the pad, or have a permit modification for the leach pad but the start date is in March of the following year.

A112. Waste rock containing listed toxic chemicals that is added to stockpiles during a reporting year does not have to be reported for that reporting year, as a reportable release to land on-site, if the stockpile was only used for temporary storage. EPA will consider the pile used for temporary storage if the facility routinely made off-site transfers or processed on-site waste rock from the stockpile during the reporting year, has good documentation of the transfers or amounts processed, or has contracts in place to transfer the materials prior to that year’s reporting deadline, and removes or processes all of the listed toxic chemicals from the stockpile before that year’s report is submitted or July 1, whichever comes first.

Coal Extraction Exemption

Q113. In the final rule (62 FR 23833), EPA provided an exemption for coal extraction activities. Can a coal mining facility assume that all activities prior to beneficiation, or in other words all activities that take place before the coal enters a processing plant, are exempt under the extraction exemption?

A113. No. In the final rule (62 FR 23833), EPA specifically exempted extraction activities. EPA defines coal extraction, for purposes of determining which activities are eligible for the “extraction exemption” to mean the physical removal or exposure of ore, coal, minerals, waste rock, or overburden prior to beneficiation, and to encompass all extraction-related activities prior to beneficiation. EPA defines beneficiation as the preparation of ores to regulate size (including crushing and grinding) of the product, to remove unwanted constituents, or to improve the quality, purity, or grade of a desired product. Based on these definitions, certain beneficiation activities such as crushing or grinding, may occur before coal enters a processing plant which are not exempt under the extraction exemption.

Q114. Which activities constitute “extraction”? Are the following coal mining activities included in the coal mining extraction exemption under 40 CFR 372:

a. Crushing for transport only.

b. Land disposal or discharge of oily water pumped from underground. (The oil that comes from the conveyor belt carrying the coal to the surface and ultimately to the coal preparation plant.)

c. Screening of coal to remove waste rock that has fallen into the coal product. (This screening occurs at the surface before transportation.)

d. Coal mine reclamation activities: examples of reclamation activities include:
   - Ash received from off-site for use as roadfill, or structural support
A114. In terms of identifying which activities are considered part of extraction, EPA has made the following determinations: listed toxic chemicals involved in the transportation of coal, and reclamation of the extraction site are not considered "extraction" activities, and while these activities may involve listed toxic chemicals, existing exemptions should greatly reduce and simplify the amount of reporting required by facilities that conduct these activities. Crushing and grinding are considered beneficiation steps under 40 CFR 261.4(b)(7), which was referenced in the final rule as the basis for determining which activities constitute beneficiation, and therefore, which activities are covered. The following items specifically address the activities raised in the question.

a). Crushing for transportation or other purposes is not considered part of extraction and amounts of listed toxic chemicals involved in these activities must be considered toward threshold determinations and release or other waste management calculations.

b). Land disposal of materials including waste rock, ore, and oily water from underground coal extraction activities are considered part of extraction activities and would therefore not be subject to threshold and release determinations, or other waste management calculations at coal mining facilities.

c). Coal product screening activities that take place prior to transportation are likely to involve grading of coal after it has been crushed, both of which are considered beneficiation steps, and therefore, would not be considered part of extraction. Ash or other materials used for structural support during extraction activities would be considered part of extraction and would be eligible for the extraction exemption.

d). Otherwise use of ash, waste rock or fertilizer for reclamation are not considered part of extraction and amounts of listed toxic chemicals contained in these materials must be considered toward threshold determinations and release and other waste management calculations.

Electricity Generating Facilities

Q115. Do EGFs that burn coal tar with their coal/oil report this amount in section 8 as energy recovery?

A115. No. While coal tar is a by-product of destructive distillation in the production of coke, it is not a waste. Therefore, EPA would not interpret its combustion to be a waste
management activity and it would not be reportable in section 8 of Form R.

Coincidental Manufacturing

Q116. An EPCRA section 313 covered facility heats coal to approximately 2,000 degrees F to drive off the volatiles from the coal to produce an activated carbon product. Is this activity considered coal combustion such that section 313 metal compounds are manufactured in this operation?

A116. Based on available information, the temperature described in the question is not high enough to cause coal combustion. Generally, activation of carbon or other organic material, involves a two-step process. The first step consists of carbonizing the organic material which is generally carried out by subjecting the material to temperatures in the range of 500 to 700 degrees Celsius (approximately 930 - 1300 degrees F). The second step—the activation process—may be chemically performed or it may also be conducted using temperatures typically in the 750 - 1000 degree Celsius range (approximately 1380 - 1850 degrees F). Both activities occur at temperatures that are below the temperature posed in the question. In any case, while these are high temperatures, these ranges are not equivalent to the temperatures that take place during combustion. For example, furnaces may operate at temperatures above 1400 degrees Celsius (approximately 2552 degrees F). The temperatures described in the question may not result in many of the chemical conversions, such as the transformation of metal compounds, which are expected to occur during combustion; however, these temperatures may result in some conversions and the facility would need to determine what takes place based on their best available information and report as necessary.

Petroleum Bulk Terminals and Stations

Q117. Many bulk petroleum stations operating in some Midwestern states sell their petroleum products directly to end users. These plants typically sell to farmers and construction companies, as well as state and local governments. Generally, quantities are transferred to the customer in quantities of 500 gallons or less. For these facilities, distribution to retail facilities may make up approximately 5 percent of their overall customer business. Are these facilities considered bulk wholesale distributors of petroleum products, or are they more appropriately classified in retail trade and therefore not covered under EPCRA section 313?

A117. Based on the facts provided in the question, these facilities are properly classified in SIC code 5171 (bulk petroleum stations and terminals) and not SIC code 5541 (gasoline service stations). Therefore, these facilities must comply with the reporting requirements of EPCRA section 313. According to the SIC code Manual (1987 ed) "...establishments or places of business primarily engaged in selling merchandise to retailers: to industrial.
commercial, institutional, farm, construction contractors, or professional business users; or other wholesalers; or acting as agents or brokers in buying or selling merchandise to such persons or companies" are properly classified in Division F, Wholesale Trade, and are therefore covered under EPCRA section 313, beginning with the reporting year 1998. EPA believes that the facilities described in the above question are appropriately classified in the Wholesale Division as defined in the SIC code manual.
Section II. CLARIFICATION OF THE NEW INDUSTRY GUIDANCE DOCUMENTS

The following is being provided to amend and clarify some of the sections in the industry specific guidance documents which were recently published to assist the newly added industries. Since publication of these documents in October of 1997 (62 FR 63548), EPA and various other commenters have found statements which are believed to be unclear or potentially incompatible with previous guidance. The following are points of clarification which amend those sections indicated.

DEFINITIONAL CLARIFICATIONS

SIC Code Coverage.
The guidance documents describe covered facilities as those within the recently added Standard Industrial Classification (SIC) codes in addition to facilities within the manufacturing sector of SIC codes 20 through 39 (for example, see p. 2-3 of the Coal Mining Guidance document). For clarification, facilities in other SIC code classifications that support other "covered" facilities may also be considered as "covered" based on their auxiliary association (see EPCRA Section 313 Questions and Answers Document: Revised 1997 version).

Processing.
Repackaging as described on page 2-7 should be amended to include the preparation of the listed toxic chemical in the same, as well as different form, state, or quantity (see Toxic Chemical Release Inventory Reporting Form R and Instructions: revised 1996 version page 8).

Recycling.
In the guidance documents (for example, Metal Mining Guidance page 2-7), an interpretation of recycling is provided. Given that the definition for recycling is tied to the Pollution Prevention Act (PPA), and that the implementing regulations for the PPA are currently not final (although the statute is in place and facilities are required to follow the law), a more appropriate description of EPA's guidance to assist facilities in complying with these requirements should be introduced as "recycling is interpreted to include..." until such time that the regulations are finalized.

Disposal.
As stated in the guidance documents (for example Metal Guidance p. 2-10) "Disposal is defined by EPCRA..." is incorrect. Disposal is actually defined by EPA through implementing regulations and not provided in the statute.

Thresholds.
On page 3-9 in the first full paragraph of the Coal Mining Guidance, the guidance document refers to metals being converted to various compounds which should be considered toward "manufacturing" thresholds. The guidance describes mercury as a unique metal that may simply vaporize during coal combustion, not forming other chemical compounds but being released in
its elemental state. As a point of clarification, the guidance omits that the use of coal containing mercury is considered an "otherwise use" of mercury along with any other listed toxic chemical contained in the coal. Additionally, the guidance is not clear to the point that mercury likely exists in a compound form when found in coal and typically converts to the elemental form during combustion. In this case, amounts of elemental mercury—a listed toxic chemical—are formed during combustion and these amounts must be considered toward the facility's "manufacturing" threshold.

**Reporting Releases.**

As a point of clarification, the first paragraph under this section on page 4-5 of the Electricity Generators guidance document for example, describes subsequent leaching from a disposal unit such as a landfill or surface impoundment to ground water as not being reportable in subsequent years. Under EPCRA section 313, it is correct that once an amount is reported as released in year 1 it is not reported as a release in subsequent years, if it has simply migrated or leached to another medium without having been displaced by the facility. For example, an amount disposed in a landfill in year 1 which migrates to groundwater in year 2 is only reported as released to land in element (5.5.1) in year 1 and not subsequently reported in year 2, unless the facility conducts an activity involving the amount previously disposed. However, if in year 1 the facility disposed of an amount to a landfill and the facility knows that an amount volatilizes to air within the same year, for example, the facility should report the amount that was disposed in the landfill minus the fraction that was released to air which should be reported as a fugitive emission released to air all within year 1.

**EXEMPTIONS**

**Laboratory Materials.**

The guidance documents incorrectly describe the laboratory exemption as limited to chemicals "used" in certain laboratory activities. (For example, see Metal Mining Guidance p.2-15.) While most of the exemptions provided under EPCRA section 313 are limited to certain "uses," the laboratory exemption actually applies to the "manufacture," "process," or "otherwise use" activities which may occur at laboratories meeting the applicable requirements. The guidance documents also describe the activities that are eligible for the laboratory use exemption as being limited to sampling and analysis, research and development, and quality assurance or quality control activities. While there are some activities which do not qualify for the laboratory exemption described in 40 CFR 372.38(d), those listed in the guidance document may not include all eligible activities. (Please refer to the Forms and Instructions package: current year and the EPCRA section 313 Questions and Answers Document: Revised 1997 version for additional guidance.)
**Structural Component.**

Page 3-4 of the Chemical Distributors guidance document for example, provides an example of metal pipes as being a type of item that could be considered a structural component, which could allow the facility to exclude amounts of listed toxic chemicals contained in the item from threshold, release and other waste management calculations. While in some cases this may be correct, such as pipes associated with plumbing used for employee restrooms, pipes may also be associated with process activities which are not eligible for the structural component exemption.

**AMENDMENTS TO INDUSTRY SPECIFIC GUIDANCE DOCUMENTS**

**Metal Mining Guidance.**

In the Metal Mining Guidance document on page 2-6, a very general statement is made which needs clarification to ensure greater accuracy. On page 2-6, it states, "removal of waste rock to gain access to an ore body does not constitute processing..." This statement is conditional that nothing, other than a waste management activity, is being done with the waste rock. For example, if the waste rock is distributed in commerce, then amounts of listed toxic chemicals contained in the waste rock would be considered "processed." If, however, if the facility is simply moving the waste rock to gain access to an ore body, provided that the waste rock is considered a different material than the ore being processed, the facility is not conducting a reportable "activity" and amounts moved would not be counted toward an activity threshold, although amounts of listed toxic chemicals contained in waste rock may be required to be included in release and other waste management calculations if thresholds have been exceeded elsewhere at the facility.

**Beneficiation.**

As stated in the Metal Mining Guidance document on page 2-11, "EPA believes that overburden and waste rock constitute two separate and discernable types of waste (62 FR 23859)." These materials are not waste but after removal they sometimes may be managed as waste. Often they are developed as product. For example, when top soil or landscaping stone are removed to gain access to an ore body and are distributed in commerce rather than disposed.

**Overburden.**

As a technical matter, page 2-11 of the Metal Mining Guidance incorrectly states that "overburden is specifically exempt from TRI reporting." While this is true for metal mining facilities, and this statement only appears in the metal mining guidance, it is not specifically true for coal mining facilities. Coal mining facilities have the extraction exemption, and while this exemption certainly pertains to the removal of overburden during coal extraction, it does not necessarily exempt all activities involved with overburden at coal mining facilities.

**Chemical Distributors Guidance Document.**

The Chemical Distributors guidance document contains an error on page 4-11 in the example box
Estimating Releases for Accidental Losses. The example describes a situation that, based on the direction provided in the guidance, is incorrectly interpreted to be a release that is not associated with normal or routine production, and directs the user to report amounts released in 8.8 and not 8.1 (in addition to section 5) of the Form R. This direction is contrary to that provided in the Form R and Instructions Manual (p.45 1996 version) which states, if releases could have been prevented due to improvement of handling, loading, etc., then amounts should be reported in section 8.1 (and section 5) and should not be reported in field 8.8 (Releases as a result of remedial actions, catastrophic events, or one-time events not associated with production). Amounts released as described in the example provided in the Guidance for Chemical Distribution Facilities are not a result of remedial actions, catastrophic events, or one-time events not associated with production, and should be reported on Form R in section 5 and in 8.1.

Electricity Generators Guidance Document. In Section 3, Making The Threshold Determination, on page 3-5 the second paragraph under the discussion of the de minimis exemption requires clarification. The second sentence in the paragraph beginning with “As to the latter analysis...” through the end of paragraph should be replaced with:

“Listed toxic chemicals contained in fuel, must be considered toward the facility’s otherwise use” threshold. Amounts of these listed toxic chemicals are eligible for the de minimis exemption. In addition to the listed toxic chemicals that are "otherwise used" during combustion, listed toxic chemicals are also "manufactured" during combustion. The listed toxic chemicals "manufactured" during combustion should be included in the facility’s "manufacturing" threshold and these amounts are not eligible for the de minimis exemption. EPA has provided additional information within this chapter, in addition to the Addendum to the Guidance Documents for Newly Added Industries, to assist facilities estimate quantities of metal compounds likely to be present in coal and oil and the compounds likely to be manufactured during combustion. The facility should also consider the amounts of listed toxic chemicals contained in mixtures and trade name products used by the facility toward the facility’s "otherwise use" threshold.”

Page 3-8 of the Electricity Generators Guidance document describes some listed toxic chemicals, such as organics in fuels, which should be considered by facilities toward the “otherwise use” threshold. Up to this point in the guidance document, most of the discussion pertains to amounts of listed chemicals that may be “manufactured” during the combustion of certain fuels. Before page 3-8, there is very little discussion regarding how facilities should consider listed chemicals “otherwise used” during the combustion of certain fuels. The paragraph on page 3-8 is not intended to be a complete list of fuels and the chemicals of which facilities should be aware in determining their “otherwise use” threshold, but was included as a reminder that facilities are also “otherwise using” the listed toxic chemicals that are components of fuels, and that these amounts should also be considered when making threshold determinations. Additional guidance
on related issues is provided in the Question and Answer portion of this document.

On page 5-11 of the Electricity Generators Guidance document in the side box describing Off-Site Transfers of Waste, the last sentence is incomplete and should read, "...that occur at any off-site facility."

Estimating Thresholds from Combustion.
In the final rule that expanded the industrial sectors which must report under EPCRA section 313 (May 1, 1997; 62 FR 23834) EPA stated that "...in the absence of better facility-specific information, a facility may assume that all of the metals present in the coal or oil are converted to the lowest weight metal oxide (per unit of metal) possible for each metal." The document "Section 313 Emergency Planning and Community Right-to-know Act Guidance for Electricity Generating Facilities, Version 1.0. September 26, 1997," contained a table (Table 3-3) that estimated the amount of coal that must be used in order to exceed the "manufacturing" threshold for metal compound manufacturing. However, that table was not developed as a lowest weight metal oxide table and therefore contained some metal oxides that were not the lowest weight oxide possible for the metal. To further assist facilities in making threshold determinations, EPA is providing the following table that lists the lowest weight metal oxide possible for each metal and may be used to help determine EPCRA section 313 threshold quantities when better information is not available.

<table>
<thead>
<tr>
<th>Section 313 Metal Constituents of Coal and the Estimated Tons of Coal Needed to Manufacture 25,000 Lbs. of the Corresponding Metal Oxide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section 313 Metal/ Lowest Weight Metal Oxide That May Be Manufactured from the Metal</td>
</tr>
<tr>
<td>Zinc/ZnO</td>
</tr>
<tr>
<td>Chromium/CrO</td>
</tr>
<tr>
<td>Barium/BaO</td>
</tr>
<tr>
<td>Manganese/MnO</td>
</tr>
<tr>
<td>Lead/PbO</td>
</tr>
<tr>
<td>Copper/Cu₂O</td>
</tr>
<tr>
<td>Arsenic/As₂O₃</td>
</tr>
</tbody>
</table>
### Section 313 Metal Constituents of Coal and the Estimated Tons of Coal Needed to Manufacture 25,000 Lbs. of the Corresponding Metal Oxide

<table>
<thead>
<tr>
<th>Section 313 Metal/ Lowest Weight Metal Oxide That May Be Manufactured from the Metal</th>
<th>Metal Concentration in Coal in Units of Micrograms/Gram</th>
<th>Calculated Micrograms of Metal Oxide Produced Per Gram of Coal</th>
<th>Approximate Tons of Coal Needed To Be Consumed to Manufacture 25,000 Lbs. of the Metal Oxide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nickel/NiO</td>
<td>104</td>
<td>132.3</td>
<td>94,500</td>
</tr>
<tr>
<td>Antimony/Sb₂O₃</td>
<td>14</td>
<td>16.8</td>
<td>744.100</td>
</tr>
<tr>
<td>Selenium/SeO₂</td>
<td>8</td>
<td>11.2</td>
<td>1,116.100</td>
</tr>
<tr>
<td>Beryllium/BeO</td>
<td>1.7</td>
<td>4.72</td>
<td>2,647.500</td>
</tr>
<tr>
<td>Cadmium/CdO</td>
<td>6.5</td>
<td>7.43</td>
<td>1,682,400</td>
</tr>
<tr>
<td>Mercury/Hg₂O*</td>
<td>1.6</td>
<td>1.66</td>
<td>7,530,200</td>
</tr>
<tr>
<td>Cobalt/CoO</td>
<td>0.15</td>
<td>0.19</td>
<td>65,791,000</td>
</tr>
<tr>
<td>Silver/Ag₂O</td>
<td>0.08</td>
<td>0.09</td>
<td>138,889,700</td>
</tr>
</tbody>
</table>

*Note: The table consists of the lowest weight oxide per unit metal possible for the particular metal. The metal concentration for amounts in coal were adapted from Economic Analysis of the Final Rule to Add Certain Industry Groups to EPCRA section 313, Appendix D, Table D-2. based on high end concentration values and Appendix E. Table E-3. Quantities are given in short tons, where 1 short ton = 2,000 lbs.

*EPA estimates that most if not all of the mercury in the coal is converted to elemental mercury not to a mercury compound. Mercury produced from the combustion of coal would therefore be counted towards the threshold determination for mercury using the weight of mercury not its lowest weight oxide.
### Section 313 Metal Constituents of Coal and the Estimated Tons of Coal Needed to Manufacture 25,000 Lbs. of the Corresponding Metal Oxide

<table>
<thead>
<tr>
<th>Section 313 Metal/ Lowest Weight Metal Oxide That May Be Manufactured from the Metal</th>
<th>Metal Concentration in Coal in Units of Micrograms/Gram</th>
<th>Calculated Micrograms of Metal Oxide Produced Per Gram of Coal</th>
<th>Approximate Tons of Coal Needed To Be Consumed to Manufacture 25,000 Lbs. of the Metal Oxide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copper/Cu₂O</td>
<td>185</td>
<td>208.3</td>
<td>60,000</td>
</tr>
<tr>
<td>Arsenic/As₂O₃</td>
<td>106</td>
<td>140.0</td>
<td>89,300</td>
</tr>
<tr>
<td>Nickel/NiO</td>
<td>104</td>
<td>132.3</td>
<td>94,500</td>
</tr>
<tr>
<td>Antimony/Sb₂O₃</td>
<td>14</td>
<td>16.8</td>
<td>744,100</td>
</tr>
<tr>
<td>Selenium/SeO₂</td>
<td>8</td>
<td>11.2</td>
<td>1,116,100</td>
</tr>
<tr>
<td>Beryllium/BeO</td>
<td>1.7</td>
<td>4.72</td>
<td>2,647,500</td>
</tr>
<tr>
<td>Cadmium/CdO</td>
<td>6.5</td>
<td>7.43</td>
<td>1,682,400</td>
</tr>
<tr>
<td>Mercury/Hg₂O*</td>
<td>1.6</td>
<td>1.66</td>
<td>7,530,200</td>
</tr>
<tr>
<td>Cobalt/CoO</td>
<td>0.15</td>
<td>0.19</td>
<td>65,791,000</td>
</tr>
<tr>
<td>Silver/Ag₂O</td>
<td>0.08</td>
<td>0.09</td>
<td>138,889,700</td>
</tr>
</tbody>
</table>

Note: The table consists of the lowest weight oxide per unit metal possible for the particular metal. The metal concentration for amounts in coal were adapted from *Economic Analysis of the Final Rule to Add Certain Industry Groups to EPCRA section 313*, Appendix D, Table D-2, based on high end concentration values and Appendix E, Table E-3. Quantities are given in short tons, where 1 short ton = 2,000 lbs.

*EPA estimates that most if not all of the mercury in the coal is converted to elemental mercury not to a mercury compound. Mercury produced from the combustion of coal would therefore be counted towards the threshold determination for mercury using the weight of mercury not its lowest weight oxide.*