Department of Energy
TOXIC CHEMICAL RELEASE INVENTORY REPORTING
"Qs&As"

MARCH 1994

U.S. DEPARTMENT OF ENERGY
OFFICE OF ENVIRONMENTAL GUIDANCE
RCRA/CERCLA DIVISION
EH-231

MARCH 1994
This report can be obtained from the
U.S. Department of Energy
Office of Scientific and Technical Information
P.O. Box 62
Oak Ridge, Tennessee 37831
DATE: April 7, 1994
REPLY TO: Office of Environmental Guidance (EH-231): Powers: 7301
ATTN OF: Toxic Chemical Release Inventory (TRI) Reporting - Guidance Update

TO: Distribution

On September 22, 1992, the Secretary of Energy directed the Department to participate in the Environmental Protection Agency's (EPA) 33/50 Pollution Prevention Program and to initiate Toxic Chemical Release Inventory (TRI) reporting, pursuant to Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA), at Department of Energy (DOE) sites. The Office of Environmental Guidance, RCRA/CERCLA Division (EH-231) issued interim guidance on March 4, 1993, entitled "Toxic Chemical Release Inventory and 33/50 Pollution Prevention Program" that provided instructions on implementing the Secretarial directive. As stated in the interim guidance, all DOE sites not currently reporting under EPCRA Section 313, which meet the criteria for DOE TRI reporting, will initiate reporting of all TRI chemical releases and transfers for the 1993 calendar year with the annual report due to EPA, States and a courtesy copy to EH-20 by July 1, 1994. All other DOE sites which currently report under EPCRA Section 313 will also follow the criteria for DOE TRI reporting.

Based on discussions between the EPA Office of Pollution Prevention and Toxics and EH-231, several outstanding issues identified in the interim guidance regarding DOE TRI reporting have been resolved. The guidance provided at attachment 1 updates the relevant sections of the 1993 interim guidance and sets out the actions each DOE site will need to conduct for successful DOE TRI reporting. Also, attached for your use in preparing the TRI reports for 1993, is a questions and answers document (attachment 2). The questions came from DOE TRI Workshops conducted during 1993, and both the questions and answers have undergone extensive review by EPA and DOE Headquarters and Field staff responsible for TRI reporting.

Since preparation of the attached guidance was initiated, Executive Order 12856 "Federal Compliance with Right-to-Know Laws and Pollution Prevention Requirements" has been signed by the President of the United States. This Executive Order (EO) requires, among other things, that all Federal agencies comply with EPCRA, including notification and reporting provisions. The EPA is in the final stages of developing guidance for implementation of this EO by Federal agencies. While both of the attached documents are valid for use in preparation and submission of the 1993 TRI reports due July 1, 1994, the EO and accompanying final EPA guidance may necessitate some changes for the 1994 TRI reports due July 1, 1995. The Office of Environmental Guidance will continue to update you as the TRI reporting procedures evolve.

1EH-231 Memorandum, dated August 12, 1993, subject: "Executive Order 12856, "Federal Compliance with Right-To-Know Laws and Pollution Prevention Requirements."
If you have any questions on either of the attached guidance documents, or DOE TRI reporting in general, please contact Carolyn Thompson-Walder or Ann Walzer of my staff at (202) 586-8248 or (202) 586-7301, respectively.

Raymond F. Pelletier  
Director  
Office of Environmental Guidance

Attachments (2)
Program Offices

Al Knight, CI-20
Henry Garson, DP-3.2
Dan Rhoades, DP-6.2
Charles Halsted, DP-27
Donald Knuth, DP-60
Fritz Wolff, DP-624
John Ford, DP-63
Carl Goodwin, DP-636
Richard Hahn, DP-64
Randy Lynch, DP-643
Ralph Hagan, DP-644
Ken Ferlitz, DP-62
O.J. Lawrence, EE-64
Mike Whakera, EH-6
Joe Fitzgerald, EH-30
Harry Pettengill, EH-40
Rick Jones, EH-41
Paul Steller, EI-23.1
Jim Disbrow, EM-523
Richard Grimond, EM-2
Jim Werner, EM-4
Ellen Livingston-Behan, EM-5
Don Donaldson, EM-121
Randal Scott, EM-20
Mike Kleinrock, EM-22
Jill Lytle, EM-30
Jim Turi, EM-33
Lee Stevens, EM-331
Mark Frei, EM-34
Joseph Coleman, EM-35
Jay Rhoderick, EM-351
Kent Hancock, EM-352
John Tseng, EM-36
Jack Baublitz, EM-40
Jim Fiero, EM-42
Bill Wisenbaker, EM-43
Sally Mann, EM-44
Mark Stahr, EM-441
Ralph Lightner, EM-45
Clyde Frank, EM-50
Tom T. Evans, EM-533
Larry Weiner, EM-60
Kitty Gandee, EM-62
James Farley, ER-8.2
Frederick Koommanoff, ER-10
Albert Evans, ER-13
Sat Goel, ER-14
David Goodwin, ER-20
Omer Goktepe, ER-22
Joseph McGrory, ER-23
Steven Rossi, EM-54
Robert Wood, EM-73
James Carney, ER-912
Craig Zamuda, FE-6
N. L. Johnson, FE-33
Mark Matarrace, FE-64
Phoebe Hamill, FE-222
Hai Delaplane, FE-423
William Denison, GC-11
Jim Fairbaim, IS-60
Charles Bradley, NE-33
Raj Sharma, NE-443
Robert Osch, NE-60
Joanna Stancil, PA-3
David Moses, PG-60
Steve Brocoun, RW-22
Dwight Shelor, RW-30
Gerald Parker, RW-333

A.G. Joseph, LM-1
John Yates, LM-1
Rodney Adelman, PML [8G-027]

Field Offices

N. S. Dienes, Albuquerque Operations Office
P.M. Ramey, Albuquerque Operations Office
Rich Sena, Albuquerque Operations Office
C. L. Soden, Albuquerque Operations Office
R. E. Sabre, Albuquerque Operations Office
Mike Butler, Brookhaven Area Office
D.J. Cook, Central Training Academy, AL
M. Flannigan, Chicago Operations Office
Joel Haugen, Chicago Operations Office
J. Hunze, Chicago Operations Office
G. Westerbeck, Fernald Office
Jerry Lyle, Idaho Operations Office
Gerald C Bowman, Idaho Operations Office
Donald MacDonald, Idaho Operations Office
Alice Williams, Idaho Operations Office
Wait Sato, Idaho Operations Office
Peggy Hinman, Idaho Operations Office
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Don Elle, Nevada Operations Office
Joe Fiero, Nevada Operations Office
Steve Mellington, Nevada Operations Office
J. D. Ross, Nevada Operations Office
Rodney R. Nelson, Oak Ridge Operations Office
H. Wayne Hibbitts, Oak Ridge Operations Office
Robert Sleeman, Oak Ridge Operations Office
Peter Gross, Oak Ridge Operations Office
L.K. Price, Oak Ridge Operations Office
Larry Radcliff, Oak Ridge Operations Office
Don Alexander, Richland Operations Office
J. Bauer, Richland Operations Office
Rudy Guerica, Richland Operations Office
R.D. Izat, Richland Operations Office
Bob Holt, Richland Operations Office
Leo Little, Richland Operations Office
David Brockman, Rocky Flats Office
Jessie Robertson, Rocky Flats Office
David Ruscutto, Rocky Flats Office
Mark Silverman, Rocky Flats Office
E. Ballard, San Francisco Operations Office
J. Cullen, San Francisco Operations Office
Jim Davis, San Francisco Operations Office
Alex Dong, San Francisco Operations Office
Joe Jueiten, San Francisco Operations Office
Terry Vaeth, San Francisco Operations Office
Thomas Heenan, Savannah River Operations Office
Lou Goidell, Savannah River Operations Office
A.B. Gould, Savannah River Operations Office
Lenard Sjostrom, Savannah Operations Office
M.G. O’Rear, Savannah River Operations Office
Steve Wright, Savannah River Operations Office
R. B. Provencher, West Valley Project Office
T.J. Rowlund, West Valley Project Office
Rob Waldman, Alaska Power Administration
Alex Crowley, Bartlesville Project Office
Thomas Wesson, Bartlesville Project Office
Alexandra Smith, Bonneville Power Administration, AJ

Andrew Seepo, Schenectady Naval Reactors Office,
Thru: NE-60
Jim Lloyd, Southeast Power Administration
Don Hayes, Southwestern Power Administration
Melissa Smith, Strategic Petroleum Reserve Project Management Office
Vicki Ponce, Western Power Administration
Gerald Johnson, Manager, Amarillo Area Office
(-AAO-
Larry D. Kirkman, Manager, Dayton Area Office (DAO)
Earl Bean, Manager, Kansas City Area Office (KCAO)
Kathleen Carlson, Manager, Kirtland Area Office (KAO)
Jerry Bellows, Acting Manager, Los Alamos Area Office (LAAO)
Richard E. Glass, Manager, Pinellas Area Office (PAO)
J. E. Soletti, Manager, Grand Junction Project Office
George E. Dials, Waste Isolation Pilot Plant Project Office (WIPP-AL)
James Mewhinney, WIPP Project Office (WIPP-AL)
A. R. Chernoff, Jr., Project Manager, Uranium Mill Tailings Remedial Action Project Office
Kathleen Grassmeir, Yucca Mountain Project Office
Paul K. Kears, Manager, NREL, Golden Office
Jeff Baker, NREL, Golden Office
Nat Brown, SSCPO

cc: Other Organizations

Remedial Action Program Information Center
Center for Environmental Management Information
DISTRIBUTION:

Waste Reduction Steering Committee

Kent Hancock, Chair, EM-352
Donald Trost, FM-21
Don Walter, EE-22
John Marchetti, DP-64
Bob Vallario, PO-63
Arnie Edelman, ER-8.2
John Lum, FE-6
Steve Miller, GC-11
Connie Fournier, HR-521
Raj Sharma, NE-47
Imam Jafar, RW-33
Terry Tyborowski, CR-145
Bob Fleming, EM-431
George Klipa, EM-323
Douglas Smith, EM-62
Miles Dionisio, EM-552

Waste Minimization Operations Office Coordinators

Wade Whitaker/Maxcine Miles, Savannah River Operations Office
Angela Colarusso, Nevada Test Site
Karen Catlett, Oak Ridge Operations Office
Ellen Dagan, Richland Operations Office
Laura Bingham, Idaho Operations Office
Beth Bennington, WIPP
Karin King, Oakland Operations Office
Oren Critchfield, Albuquerque Operations Office
Bill Prymak, Rocky Flats Office
Ray Lang, Chicago Operations Office
Behram Shroff, Fernald Office
Becky Redeker, Bonneville Power Administration
DOE Toxic Chemical Release Inventory Workshop Attendees

DENVER:

L. Bingham, ID
D. Tolle, ANL
K. Beshai, SAIC
K.S. Lewis, Babcock & Wilcox, ID
L. Brown, Westinghouse Idaho Nuclear Co.
J. Wong, EG&G RFP
M. Starck, EG&G RFP
D. Adloms, EG&G RFP
D. Schilling, Westinghouse, NRF
P. Kegley, Johnson Controls
D. Dietzel, CH
R. Barnett, EG&G RFP
D. Dossett, SWPA
D. Klingler, EG&G ID
R. Summers, MM Utility Services
L. Soehn, NPR
L. Holland, EG&G ID
G. Barrett, ANL
H. Wilson, EG&G RFP
T. Trout, EG&G RFP
N. Steward, ANL
K. Atencio, EPA RO 8
J. Bridgees, WAPA
D. Skene, EG&G RFP
T. Leininger, EG&G ID
J. Vozella, LAAO
D. Kunz, EG&G RFP
B. Leonard EG&G RFP
D. Nix, SSCPO
S. George, Weston
T. Wompey, EG&G RFP
D. Trenkle, NREL
M. Bailey, DOE, DP
J. Beck, NREL

WASHINGTON, DC:

W. Anderson, Weldon Springs
R. Cameron, AL/WQD
A. Dasti, DP-644
T. DuPlessis, Westinghouse Electric Corp.
R.A. Evans, Y-12
M. Gitt, WASTREN
T. Hard, MMES
R. Hernon, EM-424
L. Howard, Westinghouse SRC
R. Maraj, ARTECH, Inc.
R. Martin, ORO
L. Megargle, NE-60
P. Milolaycik, ANL
H. Northrop, NE-60
E. Ogilvie, FERMCO
K. Patel, EG&G ID
J. Puckett, EG&G-Mound
D. Reynolds, ORNL
J. Short, EM-352
H. Vega, EG&G ID

OAKLAND:

R. Amar, Rockwell
D. Armstrong, LLNL
J. Baldwin, LLNL
B. Brewster, SSCPO
N. Brown, SSCPO
M. Brynildson, SNL/CA
W. Burks-Houck, LLNL
R. Cellamare, SLAC
C.F. Chang, SNL
G. Cobb, SSCPO
R. Cullerman, SLAC
A. Eversole, Battelle-Pantex
T. Goldman, Berkeley SO
S. Harris, LLNL
K. Hartnett, OAK
T. Holmes, REECO
M. Hug, SLAC
G. Lavagnino, OF
L. Marik, OAK
M. McNear, SLA
E. Munyak, LLNL
D. Nichols, WHC
T. Olin, MMES
D. Punch, SSCPO
S. Raubloael, SNL/CA
J. Salazer, LBL/EHIS
D. Trump, REECO
P. Duc Tu, WSRC
D. Walkeer, Bechtel
P. Westendorf, Bechtel
S. Worshom, LBL
K. Zahn, LLNL
GUIDANCE FOR DOE TOXIC CHEMICAL RELEASE INVENTORY REPORTING
UPDATE TO MARCH 1993 INTERIM GUIDANCE

The Office of Environmental Guidance, RCRA/CERCLA Division (EH-231) distributed interim guidance on March 4, 1993, entitled "Toxic Chemical Release Inventory and 33/50 Pollution Prevention Program." This guidance memorandum updates the relevant sections of that guidance.

A. DOE will be responsible for the following actions:

1. DOE Sites Subject to TRI Reporting:

   a. DOE will begin comprehensive TRI reporting at all of its sites -- regardless of Standard Industrial Classification (SIC) codes -- that meet or exceed TRI reporting thresholds beginning calendar year 1993, with the first reports due July 1, 1994. For 1993 reporting only, DOE sites are requested to submit a brief negative report to EH-20 if they do not meet the TRI reporting thresholds for that reporting year.

   b. All operations conducted for DOE at a DOE site will report as one EPCRA "facility." Thus, the DOE report will include both government-owned, government-operated and government-owned, contractor-operated activities at the "facility." The DOE "facility" or site will aggregate the toxic chemicals for all of its DOE operations for both reporting threshold determinations and release calculations. For example, the Oak Ridge Reservation (ORR) will aggregate the manufacture, process or otherwise use quantities for threshold determinations for the Y-12, K-25 and ORNL operations. ORR may then submit Form Rs for the Reservation or separate Form Rs (identified as "partial" site reports) for these operations based on the aggregate site threshold.

   c. DOE is only responsible for reporting on DOE activities conducted for, by, or in support of, DOE. If a DOE site has operations that are conducted by another Federal agency, DOE will only report on the other Federal agency's activities if a reporting agreement or memorandum of understanding has been signed.
d. Private corporations who are operators of government facilities (GOCOs) and meet the definition of "persons" required to comply with EPCRA (i.e., "covered" facilities), continue to have a legal obligation to submit TRI reports to Federal and State regulators for their activities at the government facility, if they meet the TRI reporting criteria found in EPCRA.

2. TRI Facility ID Number:

   a) For 1993 only, DOE Form Rs will have "new facility" in the facility ID space and EPA will assign a new ID number, even if the DOE facility currently has a TRI ID number.

   b) For 1993, GOCOs should use the TRI facility ID number currently assigned to the DOE site for which they are reporting their activities. EPA may assign them a new ID number in the future.

3. To avoid duplicate entry into EPA's TRI databases and TOXNET of a DOE Form R and a GOCO Form R for the same DOE site, several steps will be followed by DOE and contractors for 1993:

   a) The DOE Form R will have "U.S. DOE" before the facility name in section 4.1 of Form R (e.g., U.S. DOE Kansas City Plant).

   The DOE Form R will have "U.S. Department of Energy" as the parent company in Section 5.1 of Form R.

   b) The GOCOs will be asked to put "U.S. DOE" and their company name before the facility name in section 4.1 of their Form R (e.g., U.S. DOE Allied Signal Kansas City Plant).

   The GOCOs should enter their corporate name (i.e., Allied Signal) as the parent company in Section 5.1 of their Form R.

   c) The DOE Form Rs should be sent to a separate federal address from the private sector Form Rs so they can be handled separately:

   Chief, TRI Information Management Branch
   U.S. EPA, OPPT (Mail Code 7407)
   401 M Street, SW
   Washington, D.C. 20460
   ATTN: Federal Facility Report
d) DOE sites will send copies of the "covered" GOCO facility's Form Rs along with the DOE report for the site to EPA. The DOE cover memo should explain that the information in the "covered" GOCO reports for that site are included in the DOE report and they should not be double counted.

4. The procedures in 3 (c) and (d) should also be followed for submitting Form Rs to the States (i.e., submit to the State TRI Reporting Center address, ATTN: Federal Facility Report).

5. DOE sites will enter the most appropriate four digit SIC code(s) (outside the 20-39 SIC codes, if applicable) that best describe the activities being conducted on-site. This will allow users of the TRI data to compare DOE facilities with other facilities with similar activities or operations.

6. Classified information should not be submitted on the Form Rs. Executive Order 12856 provides for national security exemptions (i.e., the exemption provided under CERCLA 120(j)). Each DOE site will be responsible for exercising the national security exemption.

7. DOE encourages reporters to use the magnetic media for reporting. DOE(EH) will distribute diskettes, along with instructions, to the DOE sites for the DOE TRI reporting.

8. If the GOCOs also submit reports on magnetic media to EPA and to DOE, DOE may submit magnetic media copies of the GOCO TRI reports to EPA. Magnetic media reports must be accompanied by a cover letter which includes:

- the required Form R certification statement by the GOCO;

- a list of the chemicals reported on the DOE TRI Form R disk; and

- a list identifying the contractor(s) by name and by TRI Facility ID number (if they have an assigned number), and the chemicals reported on the GOCO Form R (which are on the contractor's disk).

9. Any TRI Form R submitter may voluntarily revise their submission if they find errors after their reports have been sent to EPA. If DOE receives a copy of a revision from a GOCO, DOE should revise its DOE Form R report and submit the revised report to EPA and the appropriate State, along with an exact copy of the GOCO's revision. If the revision is to a hardcopy report, DOE should photocopy its original form, use a red pen to mark out the incorrect value, and write in the corrected value. The revised DOE Form R report should be submitted to EPA with an "X" in the revision block on page 1 of the Form R. If the revision is on diskette, the DOE cover letter must indicate that the submission is a revision. The diskette should only contain data for the revised submission, not all the chemicals originally reported.
B. EPA will be responsible for the following actions:

1. To avoid duplicative entry of DOE and GOCO data for the same DOE site, EPA will only enter the aggregated information on the DOE Form Rs into its TRI databases and TOXNET (e.g., for the Savannah River site, the DOE Form Rs will be entered, not Westinghouse Corporation’s Form Rs). The individual covered GOCO reports from the DOE facilities will not be entered into the databases but will be available in paper form to the States, EPA personnel and the public.

2. a) EPA will provide diskettes to DOE(EH) in March 1994, for distribution to the sites for the DOE TRI reporting.

b) EPA will continue to provide GOCOs with diskettes.
DOE TRI REPORTING AND 33/50 PROGRAM: QUESTIONS AND ANSWERS

1. **DOE TRI -- 33/50 Program Policy**

1. **Should contracted and/or subcontracted work off-site be included in DOE TRI reporting?**

   No. Work conducted for DOE at a privately-owned facility is not included in DOE TRI reporting, (e.g., parts manufactured at a private facility where DOE is one of many customers). DOE is only responsible for reporting on manufacturing, processing, or otherwise use (i.e., "covered") activities conducted by, or solely for, DOE. For example, some FUSRAP sites are privately owned but DOE is statutorily mandated to remediate these sites; thus, DOE is responsible for TRI reporting of its activities at these sites.

2. **A DOE site has operations that are operated by or for other federal agencies. Is DOE responsible for reporting on these non-DOE uses and releases of toxic chemicals for threshold determinations and release calculations for DOE TRI reporting?**

   No. DOE is not responsible for reporting non-DOE activities conducted on DOE sites by other federal agencies or private companies unless a reporting agreement is made. However, DOE is responsible for reporting activities conducted on DOE sites by DOE for other federal agencies. Activities conducted by other federal agencies or private companies on DOE sites for DOE must also be reported by DOE.

3. **Some DOE sites, especially the national laboratories, send chemicals off-site for research conducted by others, such as their contractors or universities. Does DOE include the use of those chemicals in determining TRI reporting thresholds?**

   No. DOE sites are not required to report the manufacturing, processing, or otherwise use of toxic chemicals that occur off the DOE site. The off-site owner or operator has its own legal obligation to determine its reporting responsibility.

4. **Many DOE sites conduct activities that are fully or co-funded by others, such as universities and other federal agencies. Does DOE include those activities when determining TRI reporting thresholds, and if appropriate, calculating release of toxic chemicals from those activities?**

   Yes. The source of funding for DOE activities is irrelevant in determining if a site should report. If DOE or its contractors are conducting activities that involve the use of toxic chemicals, then those activities must be included in threshold determinations, regardless of who funds the activities.

5. **Who is responsible for DOE TRI reporting?**

   The responsibility for DOE TRI reporting is site-specific. The Operations Office that has jurisdiction over the DOE site should determine the best qualified groups or individuals to complete Form R reports.
6. DOE's Portsmouth, New Hampshire facility is located in one state, yet the only means of access to the facility is through a bordering state. Does this facility report to the state in which it is located?

Yes. The facility must report to the state in which it is actually located.

7. Some portions of the Rocky Flats facilities are going to be leased out to private industry. Will DOE's TRI reporting cover those facilities?

If, as landlord, DOE's only interest in the private industry's operation is ownership of the real estate, DOE is not subject to reporting on those uses and releases/transfers under EPCRA section 313 [40 CFR 372.38(e)].

8. Is DOE Headquarters going to follow up on the data quality of the DOE TRI forms?

DOE Headquarters will not be responsible for data validation of DOE sites' Form R reports. The responsibility for quality control of DOE site documents remains with the Operations Offices. In preparing the annual 33/50 progress reports, the Office of Environment, Safety, and Health (EH) will coordinate with the sites and Operations Offices to verify the accuracy of the data entered into the TRI database, publicly available on the National Library of Medicine's TOXNET system, with the actual Form R reports submitted by the DOE sites.

9. A DOE site that has previously reported under EPCRA section 313, reports for the first time on a 33/50 chemical in reporting year 1993. Is the 33/50 baseline for that chemical based on the releases and transfers in reporting year 1993 or on reporting year 1988? The facility has used the toxic chemical since before 1987 but never in quantities that exceed a reporting threshold.

The baseline for reporting under DOE's 33/50 Program is the first year in which a Form R is submitted by the facility for any of 17 reportable 33/50 chemicals. Therefore, the baseline for the site's 33/50 Program will be the total releases and off-site transfers for disposal and waste treatment of all 33/50 chemicals reported in 1993.

10. Is the quantity of a toxic chemical, which is exempt from section 313 reporting because of the laboratory use exemption, included in 33/50 Program calculations?

No. Only quantities of the toxic chemical which are reportable on Form R are incorporated into DOE's 33/50 Program calculations.
If a DOE site is not submitting a Form R report because it does not meet reporting thresholds for any toxic chemical, is it required to submit a DOE Laboratory Activity Toxic Chemical Usage Report to the Office of Environment, Safety, and Health (EH)?

Yes. The site shall submit a completed DOE Laboratory Activity Toxic Chemical Usage Report (if the total laboratory exempt usage of any listed toxic chemical or category exceeds 1,000 pounds), regardless of whether a Form R is required to be submitted for those toxic chemicals. The Laboratory Activity Toxic Chemical Usage Report should be submitted only to EH and the appropriate Cognizant Secretarial Office. Also, if you have no laboratory exempt usage above 1,000 pounds for any toxic chemical, a negative report must be submitted to EH and the appropriate Cognizant Secretarial Office.

Determining Whether or Not to Report: Facility

Types of Facilities That Must Report

What facilities are subject to DOE TRI reporting, i.e., "covered" DOE facilities?

According to Executive Order 12856, section 313 reporting applies to all DOE facilities, both government-owned and government-operated and government-owned and contractor-operated that meet two criteria: have 10 or more full-time employees (including contractor personnel); and meet or exceed the manufacture (25,000 lbs/yr), process (25,000 lbs/yr), or otherwise use (10,000 lbs/yr) reporting thresholds codified at 40 CFR 372.22 and 372.25.

What is the definition of "facility" for purposes of Executive Order 12856?

A facility is defined under EPCRA section 329(4) 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 (or by any person which controls, is controlled by, or under common control with, such person)." Under section 2-201 of Executive Order 12856, the definition of "person" in EPCRA section 329(7) is expanded for the purposes of this order to include federal agencies, as defined in 5 U.S.C. 105.

Is a facility meeting the criteria described above required to report if they had no releases of the toxic chemicals during the calendar year?

Yes. The requirements for reporting under section 313 are based only upon the number of employees and what quantity of a toxic chemical was manufactured, processed, or otherwise used during the calendar year. The amount of toxic chemical released does not affect the reporting requirements (except in the case of exemptions for articles). The facility described would report zeros or, NA, not applicable, in the release estimate sections of the form.
**B. Employee Threshold**

*15. Does the full-time employee determination include the hours worked by clerical staff whose office is included in the same building as the production staff?*

Yes. All employees at a facility, regardless of function or location in a building, count toward the employee threshold determination.

**C. Persons Responsible for Reporting**

16. For government-owned, contractor-operated (GOCO) facilities, is the owner or the operator responsible for reporting?

Under EPCRA, the person or persons who are either the owner or the operator is subject to the section 313 reporting requirements. If no report is received from a covered facility, both persons are liable for penalties. As a practical matter, EPA believes that the operator is more likely to have the information necessary for reporting. Because DOE is not defined as a person under EPCRA, DOE is not legally responsible for complying with section 313. While DOE is reporting under section 313 as required under Executive Order 12856, privately owned companies operating DOE sites still have a legal responsibility to comply with EPCRA if they meet all of the applicable reporting criteria.

17. If an operating contractor has to submit a TRI report as a "person" under EPCRA to EPA and the state, and also has to submit its TRI data for DOE to include in its DOE TRI report, is this work included in the costs of the contract with DOE?

Yes. Because the firm is conducting activities involving the use of toxic chemicals under the direction of DOE, DOE is responsible for the costs of environmental reporting required to support services conducted under a contract with DOE.

18. In addition to manufacturing activities operated by DOE personnel, a cleaning operation has been established at a DOE facility to clean uniforms. The industrial cleaning operations are operated by a contractor. Is DOE responsible for reporting on the use of toxic chemicals for the cleaning activities as well as manufacturing?

Yes. Even though the contractor is performing functions under a separate Standard Industrial Classification (SIC) Code, DOE is responsible for reporting on all of the covered activities involving toxic chemicals at the facility. The contractor, however, would not be subject to EPCRA section 313 because these operations (SIC code 7218 (i.e., non-manufacturing)) are not in SIC codes 20-39 (i.e., manufacturing).
D. DOE Comprehensive Reporting

19. Can the Oak Ridge Reservation be divided into multiple sites for the purpose of TRI reporting? For example, could Oak Ridge divide into 3 sites representing K-25, ORNL, and Y-12 to conform with how the sites are administratively managed and operated?

No. While the Oak Ridge Reservation contains operations (e.g., K-25, ORNL, Y-12) which are administratively managed separately and are not located in close proximity to each other, because the operations are located on contiguous and adjacent properties owned by DOE, they are considered one site under EPCRA. As long as threshold determinations and release calculations are made based on the aggregate amount of toxic chemicals used at all of the contiguous DOE sites, separate Form R reports may be submitted to conform with how the sites are administratively managed. For DOE TRI reporting, contiguous sites submitting separate Form R reports, must ensure that all toxic chemicals are covered and avoid multiple reporting on chemicals involved in intrasite transfers. For example, if Y-12 transferred a toxic chemical to K-25 for on-site disposal, only K-25 would report on the disposal of the toxic chemical. Y-12 would not report the on-site transfer of that toxic chemical.

20. Oak Ridge Reservation has three operations, ORNL, Y-12, and K-25, which are considered one site for threshold determinations, but are submitting separate Form R reports to report their releases and off-site transfers. A waste containing tetrachloroethylene (TCE) is produced at Y-12 and transferred to K-25 for waste treatment in a TSCA incinerator. How should the tetrachloroethylene be reported if two Form R's are submitted?

Y-12 should report all releases of the TCE up to the point at which the waste TCE was transferred to K-25. It would not, however, report the transfer of the TCE. K-25 should report all incineration and releases of the TCE after the transfer. K-25 would report any releases or on-site disposal in Part II, Section 5 of the Form R and the waste treatment activity would be reported in Part II, Section 7. The quantity released or disposed would be reported in Part II, Section 8.1 and the quantity destroyed in the incinerator in Section 8.6 of K-25’s Form R.

21. Each operation of a multi-operation site (e.g., Oak Ridge Reservation) files its own Form R for a toxic chemical. The waste that this multi-operation site ships off-site is inventoried on an entire site basis. To report this waste, does each operation estimate their percentage of the total waste or can one operation report the entire waste?

If individual operations or groups of operations report separately for one chemical, they must report separately all releases of that chemical. Therefore, in the case cited above one operation cannot report the off-site transport quantity of a chemical in waste from the entire site. Each operation would have to report their percentage of the transfer quantity.
E. Form R Requirements

22. If a DOE site already has a facility identification number, should it use this number for DOE TRI reporting in 1993?

No. In reporting year 1993, DOE sites should enter "New Facility" for the TRI facility identification number. EPA will assign a new TRI facility identification number for each DOE site that submits a comprehensive DOE TRI Form R report.

23. In determining the latitude and longitude coordinates for a large DOE site, such as Savannah River, do you use the center of the entire site or location of the majority of the site's operations and activities?

Report the latitude and longitude for a location central to the operations for which you are reporting. For a large site, with several major points of activity, the facility should choose a location equidistant from all of the major activity points to determine the latitude and longitude of the site. Appendix E of U.S. EPA's Toxic Chemical Release Inventory Reporting Form R and Instructions: Revised 1992 Version provides specific guidance on determining the latitude and longitude coordinates of a site.

F. Chemical Activity Threshold Determinations

24. How do you conduct threshold determinations on toxic chemical usage at a facility, when 300+ TRI chemicals and chemical categories are reportable?

To determine if any of the more than 300 toxic chemicals and chemical categories exceed usage thresholds, the facility should begin by identifying those activities that use large quantities of the chemicals (e.g., 5,000-10,000 pounds). Once those activities have been identified using purchasing and inventory records, the facility can determine if usage thresholds for the chemicals have been met (i.e., 25,000 pounds for manufacturing or processing, and 10,000 pounds for otherwise use) or are close to being met. For those that are close, the facility should focus its efforts to identify other smaller uses of the chemical that may be added to threshold calculations to determine if a Form R must be submitted. The facility is required to report for any toxic chemicals that meet or exceed an applicable activity threshold.

25. If a facility buys 10,000 pounds of a listed chemical in the reporting year and creates a mixture, for example a metal cleaning bath, and then uses the bath that year and the next calendar year, how do they determine thresholds for each year?

The threshold applies to the total amount of the chemical otherwise used during the calendar year. The facility would count the entire 10,000 pounds and any amount added to the bath during that year toward the otherwise use threshold the first year. The use of this bath during the second year is not applied towards threshold determinations. Therefore, only the amount of the chemical added to the bath during the second year would be counted toward the threshold determination for the second year.
26. As part of an ongoing environmental restoration project being conducted at a DOE site, contaminated soil is being excavated and sent off-site for disposal. The contaminated soil contains a listed toxic chemical. Does the facility have to include this quantity of toxic chemical in its threshold determinations?

No. Disposal of toxic chemicals does not constitute manufacturing, processing, or otherwise use activity. However, if other activities involving the same toxic chemical meet or exceed an activity threshold, the releases and off-site transfers associated with this environmental restoration project must be reported on the Form R report as appropriate.

III. Determining Whether or Not to Report: Listed Chemicals

A. General Questions

* 27. What list of chemicals is subject to reporting under section 313?

The law defined the list of toxic chemicals. The initial list (with certain technical modifications and revisions) appears in the final rule and in the instruction guide for completing EPA Form R. EPA, from time to time, has been revising the list. To obtain information on the latest additions or deletion from the list of toxic chemicals, contact the Emergency Planning and Community Right-to-Know Information Hotline at (800) 535-0202. Facilities must report on the current list of chemicals listed in the Form R instruction guide for the reporting year being addressed.

* 28. How are chemical categories handled under section 313 threshold determinations and release reporting?

All chemicals in the category that are manufactured, processed or otherwise used at a facility must be totaled and compared to the appropriate thresholds. Threshold determination for chemical categories is based on the total weight of the compound. Releases of metal compounds are reported as releases of the parent metal portion of the compounds. If the metal and corresponding metal compounds exceed their applicable thresholds, a joint report for the metal and metal compounds, including all releases and transfers of the parent metal, can cover both reporting obligations.

* 29. Can common or trade names other than those listed in the rule be used for submissions?

No. EPA has provided a list of standard chemical names and CAS numbers for all chemicals which must be reported. The rule requires the use of these standard names. Many Form R reports, submitted previously, could not be processed because unlisted CAS numbers or names were used.
B. Chemical-Specific Questions

30. Are releases of asbestos from the decontaminating and decommissioning of an old plant reportable?

No. In this case, the asbestos is not being manufactured, processed, or otherwise used. Therefore, no releases of asbestos must be reported unless there are other covered activities involving asbestos at the facility which meet or exceed an activity threshold.

31. At many DOE sites, transformers that contain PCBs are currently in use or being taken out of service. No PCBs are added to, or released from, these transformers. Once these transformers go into maintenance, the PCBs are drained, treated, disposed, and usually replaced with fluids containing no PCBs. Are the PCBs in the transformers used in the threshold determinations for PCBs?

No. Transformers that undergo maintenance, and that have not previously released PCBs, do not lose their article status and are exempt from threshold determinations. Further, disposal activities (i.e., removing PCBs) are not a manufacture, process, or otherwise use activity as defined under EPCRA section 313. Therefore, PCBs that are removed from transformers, treated and disposed, are also not included in threshold determinations.

32. PCBs are removed and stored while the transformer undergoes routine maintenance, and then put back into the transformer. Is returning the removed PCBs back into the transformer considered a reportable activity?

Yes. Because of the possibility of releases occurring during this operation, the returned amounts of PCBs would be considered equivalent to new amounts added to the transformers. Therefore, the amounts of PCBs that are returned to the transformer during the reporting year would be included in threshold determinations and release calculations.

33. A facility uses transformers that contain 60,000 pounds of PCBs. During routine maintenance, the transformers are occasionally "topped off" with fluids containing PCBs. In the reporting year, 15,000 pounds of PCBs were added to "top off" the transformers. Is the facility subject to section 313 reporting for PCBs?

Yes. The threshold is determined by calculating the quantity of PCBs added to the transformers during the reporting year. Because the facility exceeded the 10,000-pound otherwise use threshold, Form R reporting is required for PCBs.
34. Lead shielding was used in the transportation of nuclear warheads. The lead shields are being recycled into containers for radioactive waste storage. Would the lead from the shields be exempt from TRI reporting under the article exemption?

No. Melting and reforming the lead shields to form storage containers would constitute manufacturing of an article, which negates the article exemption for the lead shield. Because the lead is intentionally incorporated into the radioactive waste storage containers, the lead is processed and subject to the 25,000 pound threshold.

IV. Mixtures

* 35. What is the difference between a mixture and a compound?

When a compound is formed, the identities of the reactant chemicals are lost, but in a mixture, the individual components retain their own identity and could be separated again. For example, polyethylene is a compound, not a mixture (and is not subject to reporting under section 313). Steel fabricated into its solid form is considered a mixture because the individual metals retain their chemical identity.

36. For a mixture containing a metal compound that is part of a listed metal compound category, should only the weight of the parent metal be used in threshold determinations?

No. The total weight of the chemical compound is used in making threshold determinations.

V. Activities and Uses of the Chemical at the Facility

37. What is the difference between "process" and "otherwise use"?

"Process" implies incorporation; the chemical added is intended to become part of a product further distributed. "Otherwise use" implies non-incorporation; the chemical is not intended to become part of a product (e.g., use of toxic chemicals in the remediation of wastes is an "otherwise use" activity).

* 38. Do chemicals produced coincidentally to manufacturing, processing, or otherwise using have to be reported?

Yes. Chemicals produced coincidentally are subject to reporting. In the case of coincidental production of an impurity, however, the de minimis limitation applies. An impurity is the residual amount of chemical remaining in a final product for distribution in commerce.
39. A facility has explosives containing reportable toxic chemicals on-site that it is no longer using. The facility plans to detonate the explosives on-site as a preparatory step for safely disposing of the toxic chemical components. Is this detonation considered manufacture, process, or otherwise use of the toxic chemicals, for the purposes of TRI reporting?

Preparation of explosives for disposal through detonation is not considered manufacture, process, or otherwise use of the toxic chemicals and would not be reportable. However, any releases or transfers of the toxic chemicals that occur during or after detonation are reportable if the manufacture, process, or otherwise use thresholds are met for the toxic chemicals because of other uses of the chemicals at the facility.

40. DOE sites have firing ranges for their security personnel. The bullets used by the security personnel are made out of lead, release trace amounts of lead during firing, and often disintegrate upon impact with the target. Is the firing of lead bullets in a practice range a reportable activity under EPCRA section 313?

Yes. Because firing of the bullets causes releases of lead and changes the shape and diameter of the bullet, lead bullets do not retain their article status and, therefore, are subject to threshold determinations. The firing of lead bullets would be considered "otherwise used" and subject to the 10,000 pound threshold.

41. An ion exchange column is used to produce process water for use in a reactor. The ion exchange is backwashed with nitric acid -- a listed toxic chemical. A similar ion exchange column uses nitric acid to treat radioactive wastewater. In neither case is the product containing nitric acid distributed further. Is the use of nitric acid in either case considered manufacturing, processing, or otherwise use activities for the purposes of DOE TRI reporting? What is the reporting threshold for the nitric acid?

In both cases, the nitric acid is used to remove impurities from waste streams and is not distributed outside the facility for further use. Toxic chemicals used to treat wastes and/or perform environmental restoration and decontamination and/or decommission activities would be included in otherwise use threshold calculations for those chemicals. The reporting threshold for otherwise use activities is 10,000 pounds.

* 42. If a solvent is used in a process and 85 percent evaporates but 15 percent stays with the product, is the toxic chemical processed or otherwise used? The 15 percent was not necessarily intended to stay with the product.

In this case, the entire quantity of the solvent should be considered "otherwise used" and subject to the 10,000 pound threshold. If the solvent was intended to remain in the product, this would be processing, and subject to the 25,000 pound threshold.
43. A site uses sulfuric acid to etch chips, then the sulfuric acid is neutralized with ammonia, forming ammonium sulfate. Which thresholds apply to each chemical?

Chemicals not incorporated into a product for distribution in commerce are otherwise used. A 10,000 pound threshold applies separately to the sulfuric acid and ammonia because neither is intended to be distributed further. The 25,000 pound manufacturing threshold applies to ammonium sulfate because it is manufactured coincidentally as a result of the neutralization process.

VI. Exemptions

A. General, Personal Use, and Intake Water or Air

44. A facility uses ammonia in gas cylinders in their blueprint machines. The facility uses a total of 12,000 pounds of ammonia per year in this operation, and does not use or process any other quantities of ammonia. Is this use exempt from reporting under 313?

No. Even though EPA interprets that typical office items (e.g., photocopy fluids) are exempt under the personal use exemption (40 CFR 372.38(c)(3), see Question #47), blueprint machines are not considered typical office supply items. The reason that blueprint machines are not considered typical office items is that they are used for process-related activities. Because the 10,000 pound otherwise use threshold is exceeded, the facility must report for the ammonia.

45. Would toxic chemicals used as a refrigerant in a facility's air conditioning unit be exempt from EPCRA section 313 reporting under the personal use exemption [40 CFR 372.38(c)(3)]?

If the air conditioning unit is used solely for the purpose of maintaining employee comfort, the toxic chemicals used in the unit would be exempt from EPCRA section 313 reporting under the personal use exemption. However, if the air conditioning unit is integral to the facility's operations or activities (e.g., maintaining specific temperatures and/or humidity for equipment or storage areas), the toxic chemicals used in these type of units would not be exempt from EPCRA section 313 reporting.

If the air conditioning unit is used for both employee comfort and operational activities and the facility is able to determine the amount of toxic chemical used for each purpose, then the amount used for employee comfort would be exempt as a personal use. However, if the facility is unable to distinguish between the two activities, the entire amount of toxic chemical must be applied to threshold determinations and release calculations.

46. Is the use of chemicals in office fax or copier machines exempted under the personal use exemption?

Yes. The use of chemicals in office fax and copier machines is exempted under the personal use exemption. Although not specifically exempt in the regulation, EPA interprets the chemicals in these machines to be equivalent to personal use items.
B. Routine Facility Maintenance and Structural Components

47. A waste treatment unit is presently under construction at a DOE site where no other activities have been conducted during the reporting year. Toxic chemicals are present in the construction materials used to fabricate the structure (e.g., steel) and used to aid in the construction (e.g., cleaning solvents). Is the use of toxic chemicals during construction activities exempt from DOE TR1 Form R reporting?

Because the SIC code restriction under EPCRA section 313 has been waived under Executive Order 12856, federal facilities are required to consider all activities, including construction, in determining reporting obligations under section 313. Toxic chemicals that are contained in materials used to fabricate structures (e.g., steel, paints, cement) used to construct the site are exempt as structural components and do not need to be included in threshold determinations or release calculations. Materials containing toxic chemicals that are used to support the construction activities (e.g., cleaning solvents) would not be exempt as structural components.

* 48. The "structural component" exemption from section 313 reporting covers the small amounts of abraded/corroded metals from pipes and other facility equipment. Would the structural component exemption apply to equipment which regularly suffers abrasion, such as grinding wheels and metal working tools? What criteria can a facility use to decide which pieces of equipment are structural components and which are not?

The section 313 structural components exemption would not apply to grinding wheels and metal working tools. These items are intended to wear down and to be replaced because of the nature of their use. The structural component exemption applies to passive structures and equipment such as pipes. The abrasion/corrosion includes normal or natural degradation, such as occurs in pipes, but not active degradation, such as occurs in a grinding wheel.

* 49. How is the routine maintenance exemption defined in 40 CFR 372.38(c)(2)? Is equipment maintenance included?

The routine maintenance exemption is intended to cover janitorial or other custodial or plant grounds maintenance activities using such substances as bathroom cleaners, or fertilizers and pesticides used to maintain lawns, in the same form and concentration commonly distributed to consumers. Routine painting of equipment is exempt because the paint becomes part of the structure of the facility. Equipment maintenance such as the use of oil or grease is not exempt.

* 50. Are solvents and other listed chemicals in paint used to maintain a facility exempt?

Yes. Painting to maintain the physical integrity of the facility is consistent with the "structural component" exemptions. Even though the solvents in the paint do not become part of the structure, they are still exempt from threshold determinations and release calculations.
C. Vehicle Maintenance

* 51. In the process of maintaining fork lift truck batteries, they are opened to add sulfuric acid as needed. Is this sulfuric acid reportable under section 313?

No. Rules implementing section 313 exempts the "use of products containing toxic chemicals for the purpose of maintaining motor vehicles operated by the facility" (40 CFR Part 372.38). That amount would not be included in the threshold determination.

D. Laboratory Activities

* 52. Section 372.38 lists uses of chemicals in laboratories which are exempt from threshold determination and release reporting. It states, "If a toxic chemical is manufactured, processed, or otherwise used in a laboratory at a covered facility under the supervision of a technically qualified individual, as defined in Section 720.3(ee) of this title," it is excluded from 313 reporting requirements. What is that reference?

Section 720.3(ee) is found in the Toxic Substances Control Act (TSCA) regulations (40 CFR 720.3(ee)) and defines "technically qualified individual" as "a person or persons who, because of education, training or experience, or a combination of these factors, is capable of understanding and minimizing risks associated with the substance, and is responsible for safe procurement, storage, use, and disposal within the scope of research."

53. Is the Argonne National Laboratory exempt from DOE TRI reporting because of the laboratory activities exemption?

No. The laboratory activities exemption applies to specific laboratory activities conducted on-site under the supervision of a technically-qualified individual, not to the site as a whole.

54. A laboratory uses nitric acid throughout the laboratory for housekeeping purposes (e.g., cleaning up experiments). Over the course of the reporting year, more than 10,000 pounds of nitric acid is used. Is this amount reportable?

Yes. The amount of nitric acid is reportable because the primary use of the chemical is a support function within the laboratory, not in actual research and development, quality assurance/quality control, or analytical activities under the supervision of a technically qualified individual. Because the nitric acid is used as a non-incorporative manner, it is classified as "otherwise use."

* 55. What is meant by "specialty chemical production" as an exception to the laboratory activities exemption?

Specially chemical production refers to chemicals produced in a laboratory setting that are distributed in commerce, and therefore are not exempt from reporting under the laboratory activities exemption.
A DOE site produces a specialty chemical, which is a listed toxic chemical but is not available on the market, for use in on-site experiments. Is the site required to submit a Form R for this chemical?

If a specialty chemical is produced and used entirely on-site in an experiment under the supervision of a technically qualified individual and is not further distributed, then it is exempt from DOE TRI reporting. If, however, the chemical is used in non-experimental processing, manufacture, or otherwise use activity, or it is distributed outside of the DOE site for further use, it must be considered for DOE TRI reporting.

A facility tests specific components of a machinery line. Its functions include testing for durability of engines, hydraulic systems, power trains, electrical systems and transmissions; building prototypes of products; and qualitative and quantitative analytical testing of materials in a chemical laboratory. Since these activities are test, development, and research oriented, is the facility eligible for the laboratory exemption?

Equipment and component testing are interpreted as the equivalent of a laboratory activity and thus are subject to the laboratory activity exemption.

De Minimis

How do we determine whether the de minimis level for a section 313 listed chemical should be 1 percent or 0.1 percent?

The instructions for completing Form R contain a list of covered toxic chemicals with the de minimis level for each.

Articles

A facility uses a product that is in pellet form in its manufacturing operations as a catalyst. No releases of a toxic chemical occur during the use of the pellets. Is this product considered an article and therefore exempt from reporting under section 313?

Under 40 CFR 372.3, article is defined as "a manufactured item: (1) which is formed to a specific shape or design during manufacture; (2) which has end use functions dependent in whole or in part upon its shape or design during end use; and (3) which does not release a toxic chemical ...." If the catalyst, containing a toxic chemical, is in a pelletized form because such form is convenient for further use by the facility but the shape or design of the pellet is not crucial to its use, then the pellet is not an article and its otherwise use is subject to threshold determinations. If the end use of the pellets is not dependent on the pellet's shape or design, the article exemption cannot apply.
60. Is the sulfuric acid contained in batteries exempt from threshold determinations and release calculations under EPCRA section 313?

If a battery containing sulfuric acid is used as an article and there are no releases of sulfuric acid from the battery (e.g., the battery is maintenance free), then the sulfuric acid would be exempt under the article exemption (40 CFR 372.38(a)) from threshold determinations and release calculations.

61. Are metal "articles" exempt from threshold determinations in normal processing, use, or disposal?

Metal "articles" are exempt from threshold determinations if, during their normal processing or use no toxic chemical is released and no substantial change in form occurs. Disposal of solid materials that are recognizable as the processed article is not a release that negates the article status.

*62. Please clarify EPA's policy on releases of less than 0.5 pounds per year.

EPA has adopted a "round to the nearest pound policy". Therefore, releases or off-site transfers of less than 0.5 pounds per year of a chemical to any environmental media could be rounded down to zero. For purposes of the exemption for articles, if the processing or use of an article(s) results in a release less than 0.5 pounds in a year, the release could be considered zero and the article status would be maintained.

*63. We take copper wire, cut it, and wind it around smaller spools. Is the wire still an article?

If there is no release of a toxic chemical during normal processing of the copper wire (i.e., cutting and winding), then the wire remains an article.

*64. A facility uses PCB transformers. Are these considered to be articles, and therefore exempt from reporting under section 313?

PCB transformers are considered to be articles, as long as they do not release PCBs during normal use or if the facility does not service the transformer by replacing the fluid with other PCB containing fluid.

VII. Releases of the Chemical

65. Because you are required to report the amount of a listed toxic chemical in storm water, how do you know if the chemical is associated with current releases from that year's production or is from legacy waste?

There is no definitive way to determine if a chemical in stormwater is associated with that year's production or is from legacy wastes. You should use your best engineering judgement, based on available monitoring data and knowledge of conditions at the facility, to estimate the amount of a listed toxic chemical in stormwater resulting from that year's production. In the absence of documentation, listed toxic chemicals found in storm water should be reported as current releases.
66. Does a facility need to make any special effort to measure or monitor releases for section 313 reporting or can it use information that is on hand?

The law states that covered facilities need not conduct monitoring or other activities beyond that required by other statutory or regulatory requirements. Congress included this language to limit the burden on the affected industry for development of release and other required data. Without measurement or monitoring data, the facility is required to make reasonable estimates.

* 67. When reporting release estimates on Form R, release estimates are required to be rounded to no more than two significant digits. Should release estimates always be reported in whole numbers, or should decimal places be reported in certain instances?

When reporting release estimates on Form R, always report using whole numbers (i.e., round to the nearest pound).

68. Is the disposal of solid materials such as dusts, shavings, or turnings that result from grinding or drilling of metal items considered "releases of toxic chemicals"?

Yes, such releases of "non-recognizable" solid materials such as dusts, shavings, or turnings are considered releases of toxic chemicals.

69. DOE sites have firing ranges for their security personnel. The bullets used by the security personnel are made out of lead, release trace amounts of lead during firing, and often disintegrate upon impact with the target. How would lead released from the use of bullets in a firing range be reported on the Form R?

Emissions from the firing of the bullets would be reported as fugitive releases to air -- Part II, Section 5.1 of Form R. Lead in unrecovered bullets would be reported as releases to land: other disposal -- Part II, Section 5.5.4 of Form R. Lead in bullets that are recovered and sent off-site for disposal or recycling would be reported in the appropriate sections of the Form R. According to the EPA document, Compilation of Air Emission Factors (AP 42), approximately 1.2 pounds of lead is released as a fugitive air emission for every 2,000 pounds of lead bullets fired. (See Chapter 11, Section 3: Explosives Detonation).

* 70. A waste stream containing hydrochloric acid is neutralized to a pH of 5.5 and then released to a river. How does one calculate the amount of hydrochloric acid that is released to the river?

Under EPCRA section 313, EPA considers an acid waste stream that has been neutralized to a pH above 6 to be completely neutralized. However, if the pH is below this level (e.g., 5.5), calculate the amount of acid released based on the amount of base it would take to raise the pH of the stream to 7 (not 6). It should be noted that releases to surface water must be between pH 6-9 as mandated by the Clean Water Act. For more information on pH measurements, EPA has published Estimating Releases and Waste Treatment Efficiencies for Mineral Acid Discharges Using pH Measurements. For a copy of this document, call EPA's EPCRA Hotline at 1-800-535-0202.
71. A manufacturing facility that produces electricity by burning coal stores the coal in an on-site stockpile that is exposed to the outside atmosphere. The facility meets the threshold criteria [40 CFR 372.22] for filing a Form R for the toxic chemical benzene. Since the stockpiled coal contains benzene and is exposed to the outside atmosphere, would all the benzene in the coal need to be reported on EPCRA section 313 Form R as released to land on-site?

No. A facility does not have to report toxic chemicals contained in an on-site stockpile of material that is intended for processing or use as a release to land on-site. However, any toxic chemical that escapes to air or remains in the soil from the stockpiled material (e.g., evaporative losses to air, material leached to the ground, etc.) must be reported as released to the environment on-site. Once a facility meets the criteria for filing a Form R under EPCRA section 313 for a particular toxic chemical (e.g., benzene), all releases of that chemical at the facility are to be reported.

72. Through natural migration, toxic chemicals, released in prior years, may shift between environmental media. How is the migration of a toxic chemical between environmental media considered for Form R reporting?

Natural migration between environmental media of toxic chemicals previously released into the environment is not reportable on Form R. The initial release of the chemical to the environment during the reporting year is reportable on Form R, however the subsequent natural migration of the chemical between environmental media is not reportable. For example, a release from a landfill does not have to be reported because the amount of toxic chemical in the landfill was already reported as a release when the chemical was initially disposed.

73. A DOE site is reporting on a toxic chemical. During a remediation project, the same toxic chemical is transferred from one media to another. For example, soil excavation during groundwater remediation causes a toxic chemical to be released to the air. How is this release considered for Form R reporting?

Releases of toxic chemicals from one media to another due to remediation activities are reportable on Form R, unlike toxic chemicals that transfer media as a result of natural migration. Toxic chemicals from contamination in previous years that are released as a result of remediation activities during the reporting year are reportable in the appropriate sections of Part II, Sections 5, 6 and 8 of Form R.

74. A site is required to submit Form R reports for several toxic chemicals. If a site has not characterized its hazardous waste yet, does it need to report on disposition of those toxic chemicals in the waste?

If a facility has not yet characterized its hazardous waste but knows that reportable toxic chemicals are present in the waste, it should make a best estimate of the reportable toxic chemical(s) contained in the hazardous wastes. A reasonable estimate should be calculated based on the best available information at the facility; for instance, mass balance calculations could be used to calculate the quantity of toxic chemical(s) in the wastes.
VIII. Transfers to Off-Site Locations

75. At some DOE sites, waste is sent off-site in lab packs or 55-gallon drums. How do you estimate the amount of a toxic chemical in the lab packs or 55-gallon drums?

A facility should make a best engineering estimate of the amount of toxic chemical contained in the lab packs or 55-gallon drums based on available information on the number and type of materials contained in the lab packs (e.g., 150 contaminated rags and 300 rubber gloves). When making a best engineering estimate, a facility should assume that a 55-gallon drum or lab pack is full, unless otherwise known.

76. DOE's Y-12 facility sent 80 transformers, containing a total of 1.5 million pounds of PCBs, off-site for disposal during the year. Are these off-site transfers reportable?

No. Because the off-site transfer of PCBs for disposal is not considered a reportable activity for threshold determinations, if no reportable activities involving PCBs occur at the Oak Ridge Reservation then no Form R is required to be submitted. If the Oak Ridge Reservation uses PCBs in other activities and meets or exceeds an activity threshold, a Form R would be required; however, these off-site transfers of PCBs would be exempt because the toxic chemical is contained in an article and subject to the article exemption under 40 CFR 372.83(a).

77. A facility continually places waste material containing a toxic chemical on the land in a pile during a calendar year. The facility is intending to have the pile sent off-site for disposal during the next calendar year. Must the facility report the toxic chemical in the pile as released to land for the calendar year in which it places the waste material on the pile?

Toxic chemicals contained in the waste material added to a pile during a calendar year do not have to be reported, for that calendar year, as a release to land if the pile was used only for temporary storage. EPA will consider that the pile was used for temporary storage if the facility routinely made off-site transfers of waste materials from the pile during that calendar year. The facility should be able to demonstrate that such routine transfers occur. If a facility did not make such routine transfers during a calendar year in which waste material was added to the pile, EPA will consider the quantity of toxic chemical placed on the pile during that calendar year and present at the end of that year a reportable release to land (Section 5.5.4 of Form R), regardless of the facility's intention to transfer the waste material off-site for disposal in an ensuing year. If, in an ensuing year, such waste material is transferred off-site, the movement would be counted as an off-site transfer even though this entails double counting.
IX. Section 8 of Form R: Source Reduction and Recycling Activities

78. What is "source reduction"?

Source reduction includes any practice that "reduces the amount of any hazardous substance, pollutant, or contaminant entering any waste stream or otherwise released into the environment prior to recycling, treatment, or disposal." [Pollution Prevention Act section 6603(5)(A)]. It does not include any practice that alters the characteristics or volume of a hazardous substance, pollutant, or contaminant "through a process or activity that is not integral to and necessary for the production of a product or providing of a service."

79. For the purposes of reporting, what is the difference between "reportable recycling activities" and DOE's definition of "in-process recycling"?

DOE defines in-process recycling as "the reuse or recirculation of a toxic chemical within a production process(es) at a facility, and may involve recovery or reclamation." For DOE TRI reporting purposes, in-process recycling is considered a source reduction activity if it is physically integrated with a production process by means of piping or other comparable means of conveyance. The primary difference between reportable recycling activities and in-process recycling is that, for the purposes of DOE TRI reporting, reportable recycling activities are not considered source reduction activities.

80. How does a facility determine if an activity is considered in-process recycling or reportable recycling?

Under DOE guidance, if a system for reclaiming and/or reusing a chemical stream containing a toxic chemical is physically integrated with a production process by means of piping or other comparable means of conveyance, it is considered in-process recycling. If a toxic chemical is returned to an on-site process through a non-physically integrated means of conveyance (e.g., collected in drums and brought by hand cart to a distillation unit), it is considered a reportable recycling activity.

81. In the reporting year, an operation was started to capture ammonia produced as a byproduct that was previously released as a stack air emission. During the reporting year, approximately 12,000 pounds of ammonia was produced as a byproduct, which was then filtered and piped to a cold storage unit where it was used as a refrigerant. The use of ammonia as a refrigerant exceeds the otherwise use threshold and a Form R report is required. Would this be a source reduction activity for the purposes of DOE TRI reporting? How should it be reported in Part II, Section 8 of Form R?

Yes. The reuse of ammonia is not reported as on-site recycling in Part II, Section 8.4 of Form R because it is considered in-process recycling (i.e., physically integrated), which is a source reduction activity. Because this physically integrated system for capturing and reusing ammonia was implemented during the reporting year, this type of source reduction activity and how the source reduction technique was identified by the facility would be included in Part II, Section 8.10 of Form R.
82. Sulfuric acid that is the waste product of a production process is collected in 55-gallon drums. The drums are transferred by truck to a different process where the sulfuric acid is used as a reactant. Is this use of sulfuric acid considered a source reduction activity for the purposes of DOE TRI reporting? If so, how should it be reported in Part II, Section 8 of Form R?

No. Under DOE guidance, because the transfer of sulfuric acid from one production process to another is not physically integrated into the processes, it is not considered a source reduction activity for the purposes of DOE TRI reporting. The amount of sulfuric acid collected in the drums and transferred from one production process to another should be reported in Part II, Section 8.4, "Quantity recycled on-site."

83. One of the production processes at a DOE facility uses a pipe loop that returns a solvent containing a reportable chemical to the process. Prior to being returned to the process, the solvent is distilled to remove impurities. Should the quantity of the toxic chemical that passes through this distillation system be reported in Part II, Section 8.4, "Quantity recycled on-site," of Form R?

No. Because the recirculation system for the solvent is physically integrated with the production process, it is considered to be in-process recycling, and for the purposes of DOE TRI reporting is not reportable on Form R unless the recirculation system was installed during the reporting year. If the recirculation system was installed during the reporting year, this source reduction activity and how the source reduction technique was identified by the facility would be included in Part II, Section 8.10 of Form R.

84. Dust collectors remove copper particulate from the air. When four 55-gallon drums of copper dust are generated, each drum is moved by a hand truck, emptied into a smelter, and refined on-site. The resulting copper ingots are reused in the manufacturing process. Is this activity considered reportable recycling and reportable on Form R?

Yes. Copper dust collected in drums and hand carted to a smelter for refining is an example of recycling that involves the recovery and reuse of a toxic chemical. Because the systems used to reuse and reclaim the copper dust are not physically integrated into the production process, they would be considered, under DOE guidance, reportable recycling and would be reported in Part II, Section 8.4, "Quantity recycled on-site" of Form R. The code "M29" -- Metals Recovery -- Secondary Smelting, would be entered in Part II, Section 7C of Form R, "On-site recycling processes."

85. A DOE facility molds plastic parts that contain a reportable toxic chemical. Off-spec parts are collected by hand, ground, and sent off-site where the plastic chips are used to mold park benches. Is this considered off-site or on-site recycling?

This is an example off-site recycling. The grinding of off-spec parts prepares the material containing the toxic chemical for shipment off-site and is not considered recycling. Reuse/recycling does not take place until the plastic is molded into park benches. The volume of the reportable toxic chemical sent off-site is reportable in Part II, Section 8.5, "Quantity recycled off-site." The quantity is also reportable in Part II, Section 6.2, "Transfers to other off-site locations," using the code "M26" -- Other Reuse or Recovery.
86. A DOE facility sends a spent cleaner containing lead particulates off-site for energy recovery. Lead already has been identified as a reportable chemical for the facility. Should the quantity of lead contained in the spent cleaner be reported in Part II, Section 8.3 of Form R, "Quantity used for energy recovery off-site?"

No. The quantity of lead sent off-site for energy recovery should not be reported in Part II, Section 8.3 of Form R. Because lead is a heavy metal and does not have a heating value high enough to sustain combustion, it does not meet the criteria for energy recovery. When a toxic chemical, such as lead, is not combustible, it is presumed that the quantity of that toxic chemical sent to the boiler or industrial furnace will remain in the ash. Assuming that the ash will eventually be disposed of, unless information identifies that the metal is recovered (i.e., recycled), the quantity of lead should be reported in Part II, Section 8.1 of Form R, "Quantity released." Also, the quantity of lead contained in the spent cleaner shipped off-site is reportable as an off-site transfer for disposal (or recycling, if recovered) in Part II, Section 6.2 of Form R.

87. Is the use of a toxic chemical in a combustion engine considered energy recovery under EPCRA section 313? The toxic chemical has a heat value sufficient to sustain combustion and the energy produced is used to propel a motor vehicle.

Under DOE guidance, the use of a toxic chemical in a combustion engine is considered energy recovery under EPCRA section 313, and ordinarily would be reportable. However, because the energy is being used to propel a motor vehicle, it is exempt from Form R reporting under the motor vehicle exemption [40 CFR 372.38(c)(4)].

88. Would clean-up of legacy waste containing toxic chemicals be included in remedial actions reported in Part II, Section 8.8 of Form R?

A toxic chemical contained in legacy waste that is undergoing remediation is reported in Part II, Sections 5, 6, and 8.8 of Form R only if the DOE site exceeds an activity threshold through some other activity involving the same toxic chemical. A toxic chemical being used to remediate legacy waste is considered "otherwise used," and if an activity threshold is met for that toxic chemical, all releases and off-site transfers are reported in Part II, Sections 5, 6, and 8.1 - 8.7 of Form R.
A DOE site has determined that it must submit a Form R for benzene. The site also conducts remediation activities that involve digging up old drums containing benzene. The process of digging caused some of the drums to leak benzene into the ground. Benzene still contained in the drums is sent off-site for disposal. The contaminated soil is treated on-site in an incinerator. How should the release, treatment, and disposal of benzene generated from remedial activities be reported on Form R?

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

A DOE site stores contaminated toluene in its long-term waste storage. Other uses of toluene at the site require that a Form R be submitted for toluene. During the reporting year, 2,000 pounds of toluene are added to the existing 10,000 pounds of toluene in long-term storage. During the same reporting year, all 12,000 pounds of toluene are removed from long-term storage and treated on-site. How should the toluene be reported in Part II, Section 8 of Form R?

Only the amount of a toxic chemical generated during a given reporting year is considered amenable to source reduction and can be reported in Part II, Sections 8.1 - 8.7 of Form R. In this case, only the 2,000 pounds of toluene added during the reporting year would be reported in the appropriate sections of Part II, Sections 8.1 - 8.7. Although the other 10,000 pounds of toluene underwent treatment on-site, because it was generated prior to the current reporting year, it would be reported in Part II, Section 8.8, "Quantity released to the environment as a result of remedial actions, catastrophic events, or one-time events not associated with production processes."

A reportable chemical is used to clean machinery once a month, every month. Activity involving this chemical would not appear to change from year to year if this is the only activity for which the chemical is used. Is it possible to have an Activity Ratio of 1?

Yes. It is possible that the activity ratio for a chemical equal 1 if the frequency of the activity for which it is used does not change. The activity index is the measure of an operation at a facility, a production index is the measure of the plant's actual productivity in relation to chemical usage.
92. A DOE facility is reporting on its three major uses of toluene at the facility. The first application is the use of 6,000 pounds to clean the surface of manufacturing equipment. This must be performed after every 100 units of Product X produced. Because this is a process and not a product, an activity index would be calculated for the cleaning process. In the second application, approximately 20,000 pounds of toluene are used in a mixture to clean chips -- the product itself. A production ratio would be calculated because the product is a direct measure of this portion of the use of toluene at the facility. Finally, 13,000 pounds of toluene are otherwise used in a painting operation for a completely different Product Y at the facility. Again, a production ratio should be used. How does one determine the combined activity index/production ratio at a facility with completely different processes?

One must calculate the overall activity index production ratio of the facility by weighing each process in relation to the others. The processes are given their weight by determining what fraction of the toxic chemical is used in each operation. This is called a weighted average. First determine each process' importance by taking the amount of toxic chemical used in the process divided by the total amount of toxic chemical used at the site.

Total toluene use = 6,000 + 20,000 + 13,000 = 39,000 pounds

Weight of Process 1 = 6,000/39,000 = .154

Weight of Process 2 = 20,000/39,000 = .513

Weight of Process 3 = 13,000/39,000 = .333

Next, calculate the activity index/production ratio for each process separately. To calculate the activity index for the first process, relate the number of cleanings in one year to the number of cleanings in the previous year by comparing the amount of Product X produced in each year. The other two processes can be calculated by comparing the number of parts produced in one year to the number produced in the previous year. Using 1993 as the current year:

Process 1 Activity Index = [(Product X in 1993 - 1 cleaning/100 parts)/(Product X in 1992 - 1 cleaning/100 parts)]

Process 2 Production Ratio = (# of chips in 1993 # of chips in 1992)

Process 3 Production Ratio = (# of Product Y in 1993 # of Product Y in 1992)

Finally, using the weight calculated above multiply the weight of each process by its corresponding activity index/production ratio and sum.

Overall Activity = .154 (Process 1 Activity Index) + .513 (Process 2 Production Ratio) + .333 (Process 3 Production Ratio).

X. Trade Secrets

93. A DOE site processes a toxic chemical that is deemed classified. Is the site required to file a sanitized version of the Form R, or does the site have to file at all?

No. If the manufacture, process, otherwise use, and/or release of a toxic chemical is classified, the DOE site needs to apply for a national security exemption for that activity(ies) or release(s) involving the toxic chemical. Executive Order 12856 provides for a national security exemption from TRI reporting by following the procedures defined in section 120(j)(1) of CERCLA. The DOE site security office will need to coordinate the use of the national security exemption with DOE Headquarters security office to ensure that the necessary information is provided to the Secretary to apply for such an exemption.
XI. Certification and Substantiation

94. The DOE guidance recommends that DOE sites use the Form R diskettes for reporting to EPA. How can the diskettes be obtained?

Electronic diskettes will be sent out by EPA to sites which have reported in the previous year along with the EPA Form R and Instructions document. If you have not received a diskette, copies of EPA's Automated Form R software can be obtained by writing or calling Jane Powers, DOE Headquarters EH-231, Washington, DC 20585, (202) 586-7301.

95. Should the state and DOE Headquarters be sent the Form R diskette?

You need to contact your state to see what format they would like. DOE Headquarters (EH-1) would like a hard copy of the Form R reports.

XII. EPA's Section 313 Program and General Information

96. Is the Common Synonyms document available on a database, or electronically in any form?

No. The Common Synonyms document (EPA 744-B-92-001) currently is only available in the hard copy form from the Government Printing Office. There is a possibility that it will be available electronically in the future.
END

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