

**U.S. DEPARTMENT OF ENERGY
THOMAS JEFFERSON SITE OFFICE**

**EMERGENCY PLANNING AND COMMUNITY RIGHT TO
KNOW (EPCRA) REPORTING AND OVERSIGHT**

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TABLE OF CONTENTS

| | | |
|-----|--|----|
| 1.0 | OBJECTIVE..... | 3 |
| 2.0 | SCOPE..... | 3 |
| 3.0 | REFERENCES..... | 4 |
| 4.0 | RESPONSIBILITIES | 4 |
| | 4.1 TJSO Manager/ Deputy Manager | 4 |
| | 4.2 TJSO Environmental Program Manager (EM) | 4 |
| | 4.3 TJSO Office Manager..... | 5 |
| 5.0 | PROCEDURE | 5 |
| 6.0 | RECORDS..... | 8 |
| | ATTACHMENT 2: Checklist for EPCRA Tier II Report Compliance | 10 |
| | ATTACHMENT 3: Sample EPCRA Annual Schedule..... | 11 |
| | ATTACHMENT 4: Schedule for Reporting Unplanned Releases | 12 |
| | ATTACHMENT 5: Instructions for SERC(VERC) and LEPC Notification | 13 |
| | ATTACHMENT 6: Instructions For Notification Of The National Response Center..... | 14 |

Emergency Planning and Community Right to Know Act (EPCRA) Reporting and Oversight

1.0 OBJECTIVE

The objective of this procedure is to detail the actions necessary for U.S. Department of Energy (DOE) Thomas Jefferson Site Office (TJSO) to ensure compliance with the Emergency Planning and Community Right-To-Know Act (EPCRA) for operations at the Thomas Jefferson National Accelerator Facility (TJNAF).

EPCRA applies to the functional areas of environmental and emergency management. It establishes requirements for industry regarding emergency planning and "Community Right-to-Know" reporting on hazardous and toxic substances. This Act, also known as SARA Title III, has provisions that help facilitate emergency planning at the state and local levels, and increase the public's knowledge and access to information on hazardous substances at individual facilities, their uses, and releases into the environment. In order to comply with the Act, planning documents, annual inventory reports, and notifications to state and local emergency response agencies of accidental releases of hazardous substances are required. Additionally, hazardous substances listed by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), if accidentally released, trigger federal notification requirements.

2.0 SCOPE

The Commonwealth of Virginia Department of Environmental Quality (DEQ) is the lead agency for SARA Title III Program Emergency Planning and Community Right to Know Act reporting. There are four sections of the act that require action on the part of the TJSO. The sections are:

1. Section 302: Emergency Planning: Notification is required when threshold quantities of extremely hazardous substances are in the TJNAF chemical inventory.
2. Section 304: Release Notification: Notification is required when reportable quantities of unplanned releases of certain hazardous chemicals occur that can have impact offsite.
3. Sections 311/312: Hazardous Chemical Inventory Reporting: An annual report is required when certain quantities of extremely hazardous substances (EHS), determined from a regulatory "list" referred to as the EPCRA EHS list, and hazardous chemicals in quantities greater than 10,000 lbs are in the TJNAF chemical inventory. Material Safety Data Sheets must also be provided whenever a change to the inventory occurs.
4. Section 313: An annual report is required when threshold quantities of planned emissions of hazardous chemicals and extremely hazardous substances are exceeded.

Notifications and reports are required for the Virginia Emergency Response Council (VERC), the Local Emergency Planning Committee (LEPC), and the local fire department. The National Response Center must be notified for Section 304 when the unplanned release is a CERCLA listed hazardous substance.

TJSO adopts the Office of Science Management System (SCMS) Environmental Authorization procedures with supplements to define TJNAF site specific components for authorizing, reviewing, and tracking EPCRA compliance.

3.0 REFERENCES

1. SARA Title III Program Emergency Planning and Community Right-to-Know Act.
2. DOE Order 450.1, Change 2 (12/07/2005) Environmental Protection Program
3. SCMS Environmental Safety and Health Procedures 1 through 4, dated 3/11/2008: Environmental Authorization Management System Description

4.0 RESPONSIBILITIES

4.1 TJSO Manager/ Deputy Manager

- 4.1.1 Ensures that TJNAF is operated in a manner that minimizes the release of toxic chemicals or other undesirable effluents to the environment.
- 4.1.2 Ensures that the contractor assist the Site Office to maintain compliance with the requirements of SARA Title III Emergency Planning and Right to Know Act.
- 4.1.3 Serves as the DOE interface for federal, state and local regulatory agencies.
- 4.1.4 Ensures that any required compliance reporting is submitted to agencies and committees in a timely manner.

4.2 TJSO Environmental Program Manager (EM)

- 4.2.1 Ensures that EPCRA Reporting and notifications are completed according to this procedure.
- 4.2.2 Conducts periodic meetings, reviews, and walkthroughs of the facility with the contractor environmental engineer to ensure that:
 - 4.2.2.1 Operations minimize release of toxic chemicals or other undesirable effluents to the environment.
 - 4.2.2.2 Changes in operations have been reviewed by the contractor for additional EPCRA notification.
- 4.2.3 Reviews this procedure on an annual basis for:
 - 4.2.3.1 Improvement opportunities for the procedure
 - 4.2.3.2 Consistency with annual changes in reporting mechanisms such as updates to software and address changes of report recipients.
 - 4.2.3.3 Maintains easy access to:

- 4.2.3.3.1 The list of reportable quantities (RQ) and threshold planning quantities (TPQ) of:
 - 4.2.3.3.1.1 EPCRA extremely hazardous substances
 - 4.2.3.3.1.2 CERCLA hazardous substances
- 4.2.3.3.2 Reporting Addresses (Appendix 5) for:
 - 4.2.3.3.2.1 SERC
 - 4.2.3.3.2.2 LEPC
 - 4.2.3.3.2.3 DEQ
- 4.2.3.3.3 Emergency Phone Contact for the National Response Center (Attachment 6)

4.3 TJSO Office Manager

- 4.3.1 Prepares EPCRA required documentation for TJSO Manager approval and signature.
- 4.3.2 Mails required reports and associated documentation for receipt by prescribed due dates.
- 4.3.3 Files all contractor correspondence to the TJSO regarding EPCRA reports and notifications in the SARA files.

5.0 PROCEDURE

- 5.1 Section 302 Emergency Planning: The Emergency Planning section requires that a written notification be submitted by the TJSO Manager for extremely hazardous substances whose inventory exceed threshold planning quantities (specified in the definitions section of this procedure).
 - 5.1.1 The TJSO Environmental Program Manager (EM) reviews the contractor's status annually:
 - 5.1.1.1 Requests a status letter re: EPCRA 302 compliance from the contractor environmental engineer in March of each year.
 - 5.1.1.2 Reviews the status letter for changes.
 - 5.1.1.3 If there are changes, prepares a 302 revision notification letter. The letter must contain:
 - 5.1.1.3.1 The reason for the revision
 - 5.1.1.3.2 An updated list of all chemicals that are extremely hazardous substances (EHS) that meet inventory threshold for notification.
 - 5.1.1.3.3 An updated list of emergency contacts.
 - 5.1.1.4 EM notifies the TJSO Manager when the report is complete, accurate, and ready for review.

- 5.1.1.5 TJSO Manager reviews and signs the report.
- 5.1.1.6 TJSO Office Manager submits the report to the VERC, LEPC, and the local fire department.

5.2 Section 304 Release Notification: TJSO is required to make correct and timely emergency release notification to the applicable response organizations whenever a reportable quantity of an extremely hazardous substance (EHS) or hazardous substance (HS) is released to the environment and there is potential for the release to migrate over the facility boundary. To ensure that the contractor complies with the release notification, the EM must:

5.2.1 Coordinate with the TJSO Manager to make a verbal release notification as soon as possible after notification from the contractor if unplanned releases:

- 5.2.1.1 Exceed the reportable quantity for the chemical(s) involved.
- 5.2.1.2 Have the potential to cause health effects outside of the site boundary.

5.2.2 TJSO Manager will make the verbal release notification to:

- 5.2.2.1 National Response Center if the release is a CERCLA –listed hazardous substance (HS) (defined in Attachment 1)
- 5.2.2.2 The VERC, LEPC, and the local fire department

5.2.3 TJSO Manager will provide a written notice to the VERC, LEPC, and the local fire department as soon as practicable after the initial notification.

5.3 Section 311/312 Chemical Inventory Reporting:

5.3.1 Section 311 MSDS reporting: The Site Office is responsible for ensuring that the contractor has an updated list of MSDS on file with the LEPC, the VERC, and the local fire department. The EM will request an update in March of each year to the contractor environmental engineer. The update will be reviewed to ensure it includes:

5.3.1.1 MSDSs or a list of MSDSs for the TJNAF hazardous chemical inventory, listed according to hazard category inventory that meets the following criteria:

- 5.3.1.1.1 All extremely hazardous substances in amounts equal to 500 lb or the TPQ.
- 5.3.1.1.2 All hazardous chemicals in amounts equal to 10,000 lb or more.

5.3.2 Section 312 Hazardous Chemical Inventory Reporting: An annual EPCRA Tier II Report is due to the LEPC, the VERC, and the local fire department before the first day of March. The Tier II Report is in two formats: An electronic format that is submitted and a follow-up hard copy report. Both

formats must include a copy of the site map, and must be certified by the TJSO Manager. Typically, the inventory reported consists of less than 15 substances, four to five of which are extremely hazardous substances (EHS).

5.3.2.1 Pre-Planning

5.3.2.1.1 Third week of January, the EM contacts the Contractor environmental engineer for the EPCRA Tier II preparation schedule.

5.3.2.1.2 The EM reviews the previous year's report.

5.3.2.1.3 The EM reviews the Tier II checklist (Attachment 2) for any changes to the reporting requirements in the past year.

5.3.1.1 Chemical Inventory Review

5.3.1.1.1 When the contractor has submitted the draft Tier II report, (normally by second week of February) the EM reviews the report for accuracy, using the contractor's online chemical inventory system and the EPCRA chemical quantity thresholds for reporting.

5.3.1.1.2 The EM then performs quality control checks:

5.3.1.1.2.1 Accuracy check of the contractor's hazardous chemical inventory database against the report.

5.3.1.1.2.2 Facility walkthrough of selected inventory areas listed in the report.

5.3.1.2 Tier II Report Review and Approval

5.3.1.2.1 EM notifies the TJSO Manager when the report is complete, accurate, and ready for review.

5.3.1.2.2 The TJSO Manager reviews and approves the report for electronic submission to the DEQ.

5.3.2 Submission

5.3.2.1 The contractor ESH Associate Director provides the written copy of the report to the TJSO Office Manager who:

5.3.2.1.1 Time stamps the copy.

5.3.2.1.2 Prepares the cover letter.

5.3.2.1.3 Routes the report and cover letter to the TJSO Manager for signature.

- 5.3.2.2 The TJSO Manager reviews, edits and approves, signs the cover letter certification and the written report.
- 5.3.2.3 The TJSO Office Manager sends the original report to the DEQ and copies to the Fire Department and the Local Emergency Planning Committee representative.
- 5.3.2.4 The TJSO Office Manager files the report and associated correspondence in the TJSO SARA Compliance file (section 610).

5.4 Section 313 Toxic Release Inventory (TRI): The Toxics Release Inventory report is submitted annually by July 1 each year, if applicable, for the preceding calendar year. It is required only for toxic chemicals (see Attachment 1 definitions) used or processed above the reporting threshold. To date TJSO has not been required to submit a report for TJNAF. In the event that a report would have to be submitted, an electronic format and a follow-up hard copy report would be prepared by the contractor, much like the Section 312 reporting requirements. Both formats must be certified by the TJSO Manager.

5.4.1 Preplanning

- 5.4.1.1 In order to ensure compliance with section 313, the EM shall, by May 1 of each year:
 - 5.4.1.1.1 Request from the contractor to report on any chemical use in excess of the reporting requirements of 313.
 - 5.4.1.1.2 Review the report.
 - 5.4.1.1.3 Conduct a walkthrough of toxic chemical usage areas for TRI applicability.
 - 5.4.1.1.4 Document the applicability status.

5.4.2 If a TRI is required, the EM shall:

- 5.4.2.1 Notify the TJSO Manager
- 5.4.2.2 Review and modify this EPCRA compliance procedure to include additional TRI requirements

5.4.3 The TJSO Administrative Manager files the applicability status in the SARA files.

6.0 RECORDS

Records are maintained in accordance with this procedure and SOPP 4.7, *Records Management*.

Attachment 1: Acronyms/Definitions

CERCLA: The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund)

CERCLA Hazardous Substance (HS): For purposes of emergency planning and reporting, a substance is considered to be a CERCLA hazardous substance if it appears on the list defined in section 101(14) of CERCLA. Listed CERCLA hazardous substances appear in table 302.4 of 40 CFR 355.20.

EM: TJSO Environmental Program Manager

Extremely Hazardous Substance (EHS): For purposes of emergency planning and reporting, a substance is considered to be an EPCRA extremely hazardous substance if it is listed in Appendix A and B of 40 CFR 335.20.

Local Emergency Planning Committee (LEPC): The local emergency planning committee that is appointed by the state emergency response commission.

Reportable Quantity (RQ) for a CERCLA hazardous substance: For purposes of reporting accidental releases of HS, the RQ is an amount in pounds found listed in 40 CFR 302.8b.

Reportable Quantity (RQ) for an EPCRA extremely hazardous substance: For purposes of reporting accidental releases of EHS, the RQ is an amount in pounds found listed in 40 CFR 302 Table 302.4.

SARA Title III: The Emergency Planning and Community Right to Know Act

Threshold Planning Quantity (TPQ): A quantity in pounds above which inventory reporting is required. The TPQs are listed in 40 CFR 355.20 and 370.2

Toxic chemical: Toxic chemicals, for the purpose of compiling a TRI, are those chemicals listed in CFR 372.65 whose inventory exceeds a threshold quantity, also listed in that CFR.

Tier I and Tier II Inventory Forms: Forms, either of which can be used to report hazardous chemical inventory according to section 312 of SARA Title III. Tier II forms are more complete, and may be required by the LEPC after review of a Tier I report request. Tier II reports are often prepared in light of this possibility.

Attachment 2: Checklist for EPCRA Tier II Report Compliance

Completed by Site Office Environmental Program Specialist: _____
Date: _____

| Item | Initials | Comments |
|--|----------|----------|
| Reviewed the chemical inventory using the Contractor chemical inventory database for accuracy and completeness | | |
| Conducted a site spot check to verify chemical inventory | | |
| Checked Tier2 Submit software to ensure it is most current version | | |
| Ensured that all required fields are completed correctly (container codes, quantities) | | |
| Facility SIC code correct | | |
| Emergency Contact phone number is current | | |
| Owner phone number is current | | |
| State specific fields are completed | | |
| Ensure EHS (environmentally hazardous substance) status is indicated where appropriate | | |
| Ensure that all CAS numbers are correct | | |
| Ensure that Electronic Form has been validated and validation passed | | |
| Verify correct address and phone number for VERC | | |
| Verify correct address and phone number for LEPC | | |
| Verify correct address and phone number for local fire department | | |
| Check that the cover letter follows the format recommended by State DEQ | | |
| Site plan is attached to cover letter | | |

Attachment 3: Sample EPCRA Annual Schedule

| Activity | POC | Start Date | Due Date |
|--|-----------------|------------|----------|
| EPCRA 312 Annual Report | | | |
| Send request to contractor to provide preliminary hazardous chemical inventory | EM | 1/14 | 1/31 |
| Receive and review contractor's draft report | EM | 2/14 | 2/17 |
| Conduct walkthrough of hazardous chemical inventory areas | | 2/17 | 2/21 |
| Give final report to TJSO Manager for review | EM | 2/21 | 2/23 |
| TJSO manager gives approval to send electronic copy given to contractor | TJSO Mgr | 2/23 | 2/24 |
| Ensure electronic copy is submitted to SERC | EM | 2/22 | 2/22 |
| Hardcopy signed and certified | TJSO Mgr | 2/22 | 2/23 |
| Hardcopy is submitted to SERC, LEPC, and local fire department | TJSO Office Mgr | 2/23 | 2/25 |
| EPCRA 311 MSDS | | | |
| Review copy of contractor's list of MSDS information that has been submitted. | EM | 3/1 | 3/5 |
| Ensure that list is complete, and MSDS information is current revision (within 90 days) | EM | 3/1 | 3/5 |
| EPCRA Section 302: Notification of changes to hazardous chemical inventory that trip threshold quantities | | | |
| Send request to contractor to assess need for any changes that require section 302 notification | EM | 3/10 | 3/15 |
| Receive and review contractor's assessment | EM | 3/15 | 3/18 |
| Provide notification update letter if needed to TJSO Manager for review and approval | EM | 3/20 | 3/22 |
| Notification letter update sent to DEQ and copies to all recipients | TJSO Office Mgr | 3/25 | 3/28 |
| EPCRA Section 313 Toxic Release Inventory | | | |
| Request from the contractor the inventory of toxic chemical use in excess of reporting requirement | EM | 5/7 | 5/7 |
| Review the inventory | EM | 5/7 | 5/14 |
| Conduct a walkthrough with the contractor to spot check chemical inventory to ensure non-applicable status | EM | 5/14 | 5/28 |
| Document Section 313 applicability status | EM | 5/28 | 5/28 |
| If status changes to applicable (not anticipated): | | | |
| Receive draft EPCRA 312 report from Contractor and provide feedback | EM | 6/18 | 6/20 |
| Approve any modifications to Report | EM | 6/21 | 6/23 |
| Report reviewed and approved | TJSO Mgr | 6/23 | 6/24 |
| Electronic copy submitted to DEQ | EM | 6/24 | 6/25 |
| Final report sent to DEQ and copies to required recipients | TJSO Office Mgr | 6/26 | 6/26 |

Attachment 4: Schedule for Reporting Unplanned Releases

| EPCRA Section 304 Notification of Unplanned Release | POC | Due Date |
|--|----------------|---------------------------------|
| Receive notification from contractor of an unplanned release | EM | Immediately after release |
| Determine if unplanned release meets 304 reporting requirements | EM | Immediately after notification |
| Determine if unplanned release meets CERCLA 103 reporting requirements | EM | Immediately after notification |
| Notify the TJSO Manager of the release | EM | Immediately after notification |
| Make verbal Notifications affected SERCs, and LEPCs and National Response Center if applicable | TJSO Site Mgr | Immediately after determination |
| Review contractor's follow up report | EM | Within 72 hours |
| Submit follow up report to TJSO Site Manager for Approval | EM | Within 5 days |
| Approve and sign follow up report | TJSO Site Mgr | Within 5 days |
| Send follow up report to SERC, LEPC, and local fire department | TJSO Admin Mgr | Within 10 days |

Attachment 5: Instructions for SERC (VERC) and LEPC Notification

Conditions for notification must meet all of the following:

- Chemical release is an EHS
- Chemical is NOT an HS
- Quantity released exceeds the RQ
- Potential for offsite impact

| SERC(VERC) Contact | LEPC Contact | Local Fire Department Contact |
|---|--|---|
| 804-698-4159 Nichelle McDaniel Virginia Emergency Response Committee c/o Virginia Department of Environmental Quality SARA Title III Program Office 629 East Main Street Richmond, VA 23219 | 757- 269-2900 Jack Williamson Peninsula Local Emergency Planning Committee c/o Office of Emergency Management 513 Oyster Point Road Newport News, VA 23602 | 911 Mr. Tim Minga Newport News Fire Department 2400 Washington Avenue, 6 th Flr Newport News VA 23607 |

This report shall include the following information to the extent known at the time of the notice and so long as no delay in notice or emergency response results:

- A. The chemical name or identity of any substance involved in the release.
- B. An indication of whether the substance is an EHS.
- C. An estimate of the quantity of any such substance that was released into the environment.
- D. The time and duration of the release.
- E. The medium or media into which the release occurred.
- F. Any known or anticipated acute or chronic health risks associated with the emergency and, when appropriate, advice regarding medical attention necessary for exposed individuals.
- G. Proper precautions to take as result of the release, including evacuation (unless such information is readily available to the community emergency coordination pursuant to the emergency plan).
- H. The names and telephone number of the person or persons to be contacted for further information.

A written follow up report must include:

- Actions taken to respond to and contain the release
- Any known or anticipated acute or chronic health risks associated with the release, and
- Where appropriate, advice regarding medical attention necessary for exposed individuals

Attachment 6: Instructions For Notification Of The National Response Center

Conditions: **Release of a CERCLA HS in excess of RQ**

Contact phone number: 1-800-424-8802

Provide the following information to the extent known at the time of the notice and so long as no delay in notice or emergency response results:

- A. The chemical name or identity of any substance involved in the release,
- B. An indication of whether the substance is an EHS,
- C. An estimate of the quantity of any such substance that was released into the environment,
- D. The time and duration of the release,
- E. The medium or media into which the release occurred,
- F. Any known or anticipated acute or chronic health risks associated with the emergency and, when appropriate, advice regarding medical attention necessary for exposed individuals,
- G. Proper precautions to take as result of the release, including evacuation (unless such information is readily available to the community emergency coordination pursuant to the emergency plan), and
- H. The names and telephone number of the person or persons to be contacted for further information.

Follow up written reports to the NRC are not required.