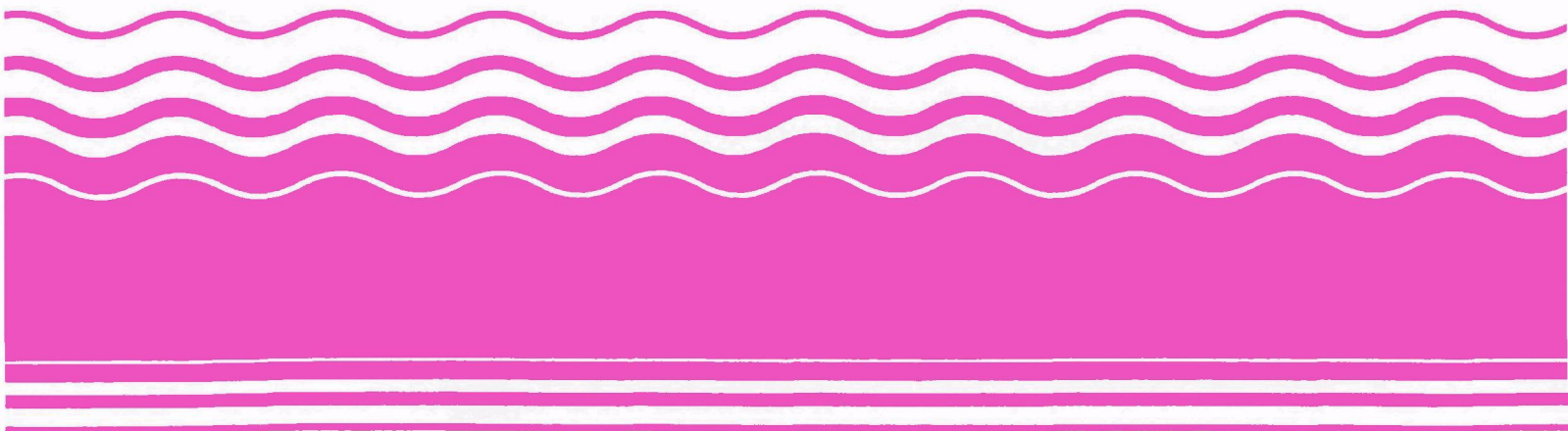

Superfund



Assessing Reports of Continuous Releases of Hazardous Substances

A Guide for EPA Regions



United States
Environmental Protection Agency

Office of Emergency and
Remedial Response
Washington, DC 20460

Superfund



EPA

Assessing Reports of Continuous Releases of Hazardous Substances

A Guide for EPA Regions

38749552

The policies and procedures set forth here are intended as guidance to Agency and other Government employees. They may not be relied on to create a substantive or procedural right enforceable by any other person. The Government may take action that is at variance with the policies and procedures in this manual. This 1997 revised edition of "Assessing Reports of Continuous Releases of Hazardous Substances - A Guide for EPA Regions" replaces and updates the October 1990 edition.

TABLE OF CONTENTS

	<u>Page</u>
BACKGROUND	iii
PART 1: THE CONTINUOUS RELEASE PROGRAM	1
1.0 Introduction	1
1.1 Overview of Continuous Release Reporting	2
PART 2: REPORTING REQUIREMENTS FOR CONTINUOUS RELEASES OF HAZARDOUS SUBSTANCES	3
2.0 Introduction	3
2.1 Initial Telephone Notification	4
2.2 Initial Written Report	4
2.3 Follow-up Written Report	8
2.4 Statistically Significant Increase (SSI) Reports	9
2.5 Notification of Changes	9
2.6 Additional Assistance for EPA Regions	10
APPENDICES	
Appendix A: Acronyms	
Appendix B: Suggested Continuous Release Reporting Format	
Appendix C: Suggested CR-ERNS Reporting Format -- Addendum to TRI Form R	
Appendix D: Missing Information Cover Letters and Missing Information Checklist	

LIST OF EXHIBITS

EXHIBITS	<u>Page</u>
Exhibit 2-1: Reporting Requirements	3
Exhibit 2-2: Referral to the NRC	4
Exhibit 2-3: Requests for Additional Information	7

BACKGROUND

The purpose of this document, "Assessing Reports of Continuous Releases of Hazardous Substances A Guide for EPA Regions" (Guide), is to help you understand the definitions and requirements contained in the U.S. Environmental Protection Agency's (EPA's) Final Rule on "Reporting Continuous Releases of Hazardous Substances" (55 Federal Register 30166) published on July 24, 1990, which amended 40 Code of Federal Regulations Parts 302 and 355. The Continuous Release Rule provides a reduced reporting option for facilities that release hazardous substances in a manner that is continuous, and stable in quantity and rate. This Guide has been designed to provide EPA Regional personnel with information about this reduced reporting option and the Continuous Release Rule.

The Guide is divided into two parts. Part 1 provides general information regarding the Continuous Release Rule. Part 2 contains detailed information regarding specific portions of the Rule. Although the Rule applies to both facilities and vessels, because the reporting elements from vessels are somewhat different from those of facilities (e.g., vessels by their nature do not have a location), this Guide will only address the reporting requirements for facilities. Much of the information in this Guide is applicable to vessels, however, persons in charge of vessels who wish to report under the Continuous Release Rule should contact EPA Headquarters to discuss vessel-specific requirements in detail.

PART 1: THE CONTINUOUS RELEASE PROGRAM

1.0 Introduction

Since the enactment of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) in 1980, facilities have been required to report releases of hazardous substances that equal or exceed a reportable quantity (RQ). Section 103(f)(2) of CERCLA provides that releases of hazardous substances that are "continuous" and "stable in quantity and rate" may qualify for reduced reporting (notification) requirements.

Releases that qualify as "Continuous Releases" are not federally permitted, and they are not necessarily risk-free. Government response officials are required to be notified of hazardous substance releases that equal or exceed their RQs on a continuous basis in order to evaluate the need for a federal response action. However, because of the repetitive nature of these releases, response officials do not need to be notified each time a "continuous" release occurs in order to determine whether a response action is warranted. A primary purpose of the reduced reporting provisions for continuous releases under CERCLA Section 103(f)(2) is to eliminate unnecessary redundant reporting.

The Final Rule on Reporting Continuous Releases of Hazardous Substances was published on July 24, 1990 (55 Federal Register (FR) 30166). The Rule became effective on September 24, 1990, and is codified at 40 Code of Federal Regulations (CFR) 302.8 and 355.40. In the Final Rule, EPA clarifies the key terms in Section 103(f)(2) (i.e., "continuous" and "stable"), and the reporting requirements for such releases. As a result of this Final Rule, EPA Regions have received a substantial number of continuous release reports from facilities. It is important that these reports receive attention as part of the overall release assessment process. Each continuous release notification must be reviewed, and the government or responsible party should respond to those releases that do pose a risk to human health and the environment.

The purpose of this guidance document is to assist EPA Regions by reviewing the continuous release reporting process and the options available for

reevaluating and responding to reports of continuous releases. The effective implementation of the Continuous Release Rule depends largely on whether EPA Regions fully and efficiently evaluate the risks associated with the continuous release reports they receive.

To minimize the burden on limited Regional resources, and to facilitate implementation of the Continuous Release Rule, some valuable resource tools have been developed to assist the Regions.

Information Tracking

In the preamble to the Final Rule, the Agency stated that it intended to maintain the continuous release information submitted in the **Continuous Release-Emergency Response Notification System (CR-ERNS)** database. CR-ERNS is a stand-alone system with a database management component that stores information supplied to the EPA Regions by facilities that have reported continuous releases of hazardous substances. CR-ERNS was designed as an information management system that groups together all of the information submitted by a given facility.

Through CR-ERNS, telephone notifications from the National Response Center (NRC) are transmitted to the EPA Regions, via the John A. Volpe National Transportation Systems Center (VNTSC) in Cambridge, Massachusetts. These notifications are automatically loaded and stored in CR-ERNS. When EPA Regional personnel receive corresponding initial written reports from facilities, they enter these reports into a tracking matrix. They then transfer any reports submitted in letter form to the **Suggested Continuous Release Reporting Format** (see **Appendix B**) and enter the information into CR-ERNS. If any important information is missing from a continuous release report, the EPA Region to which the report was submitted sends a letter to the facility requesting the missing information. (See **Appendix D** for two **Missing Information Cover Letters** and a **Missing Information Checklist** for requesting additional information.) Once all of the information is received and entered into CR-ERNS, EPA Regional personnel are able to evaluate all of the continuous releases from a particular facility using the risk assessment model.

Risk Assessment Model

An important component of CR-ERNS is the **Priority Assessment Model (PAM)**. PAM is a chronic risk assessment model that contains Region-specific soil and climate data, as well as fate and transport modes. PAM can be used by Regions to quickly identify which continuous releases may pose a significant risk to human health, welfare, or the environment. PAM evaluates the information submitted in the written continuous release reports and estimates risk for three exposure pathways: air, surface water, and ground water.

PAM reduces the burden associated with reviewing continuous release notifications submitted to each Regional Office. Using the PAM results, Regional response personnel are able to make a rapid, systematic initial evaluation of the potential threats to human health and the environment posed by the reported hazardous substance releases. The initial review will facilitate establishing priorities for closer evaluation of releases posing the greatest risk. PAM model documentation is available to the Regions in another publication in this series "Continuous Release Emergency Response Notification System and Priority Assessment Model - Model Documentation." The documentation presents the fate and transport modeling assumptions incorporated into PAM and explains how to interpret the PAM reports.

Additional Materials

The following materials also are available for the regulated community:

- A **Fact Sheet** describing the notification requirements for continuous releases of hazardous substances; and
- A **Guidance Document** for the regulated community on complying with the continuous release reporting requirements. This document, A Guide for Facilities on Compliance, provides specific guidance on filing a continuous release report and includes a copy of the Suggested Continuous Release Reporting Format for submitting written continuous release information for the initial and follow-up reports. The Guide also includes a checklist of the information required in the written reports and tables illustrating where facilities must submit each type of continuous release report.

The preamble and Final Rule for reporting continuous releases have been distributed to each Regional Office. For convenience, some of the core information from the guidance document for facilities has been included in this Guide. Copies of the complete guidance package are available by calling the CR-ERNS Operational Support HelpLine at 703-934-3765 or the RCRA/Superfund/EPCRA Hotline at 1-800-424-9346 (in Washington, DC, 703-412-9810), 1-800-553-7672 (TDD-hearing impaired).

It is likely that the regulated community will continue to ask EPA Regional personnel questions about the continuous release reporting requirements. To minimize the burden on Regions, callers also may be referred to the CR-ERNS Operational Support HelpLine at 703-934-3765.

Regions can also receive assistance with CR-ERNS technical questions through the CR-ERNS User Support HelpLine at 703-934-3455.

1.1 Overview of Continuous Release Reporting

Under CERCLA Section 103(f)(2), a release of a hazardous substance, at or above an RQ, that is "continuous" and "stable in quantity and rate" may qualify for reduced reporting. The Rule defines "continuous" as a release that occurs without interruption or abatement or that is routine, anticipated, intermittent, and incidental to normal operations or treatment processes. According to the Final Rule, a release is "stable in quantity and rate" if it is predictable and regular in the amount and rate of emission.

Some examples of releases that may qualify as continuous include: releases from batch production of a substance every week or series of weeks; start-up of a machine on a regular schedule; and the release of a hazardous substance in some predictable manner during a production or treatment process. Some examples of releases that are not continuous may include: unanticipated, episodic releases such as spills or pipe ruptures; equipment failures; emergency shutdowns; or accidents. These episodic releases must be reported per-occurrence to the NRC if they occur at or above their RQ. The following Section of this Guide, Part 2, discusses the reporting requirements for continuous releases of hazardous substances.

PART 2: REPORTING REQUIREMENTS FOR CONTINUOUS RELEASES OF HAZARDOUS SUBSTANCES

2.0 Introduction

Although CERCLA Section 103(f)(2) provides for reduced reporting of continuous releases, it does not eliminate the requirement to report such releases. The reporting requirements for continuous releases of CERCLA hazardous substances are outlined in **Exhibit 2-1** below, and then explained more fully in the following text.

Please note that for releases of CERCLA hazardous substances, Federal authorities (i.e., the NRC and the appropriate EPA Region) and the State Emergency Response Commission (SERC), and the Local Emergency Planning Committee (LEPC) must be notified. However, non-CERCLA extremely hazardous substances (EHSs) do not require federal notification and so need only be reported to the appropriate SERC and LEPC. The requirements for non-CERCLA EHSs are outlined fully in the "Reporting Requirements for Continuous Releases of Hazardous Substances A Guide for Facilities on Compliance." Since EPA officials will receive only reports of CERCLA hazardous substances, the requirements for non-CERCLA EHSs will not be addressed in this Guide for EPA Regions. For the purposes of this Guide, it should be assumed that all releases are releases of CERCLA hazardous substances.

In addition, please note that if the release is located on Tribal lands and a Tribal Emergency Response Commission (TERC) exists, notification must be given to the appropriate TERC. For the purposes of this Guide, all references to requirements for reporting to SERCs and LEPCs under EPCRA should be construed to include the same requirements for reporting to TERCs if appropriate.

To qualify as a continuous release, a facility must report a release under CERCLA Section 103(a) for a "period sufficient" to establish the release as continuous and stable in quantity and rate. This requires an initial telephone call to the NRC. However, as long as the

EXHIBIT 2-1: REPORTING REQUIREMENTS

- **Standard Reporting Requirements**

Initial telephone call to the NRC, SERC, and LEPC.

Initial written report to the EPA Region, SERC, and LEPC within 30 days of the telephone call.

One-time, first anniversary written follow-up report to the EPA Region one year later.

- **Circumstantial Reporting Requirements**

Immediate reporting to the NRC, SERC, and LEPC of statistically significant increases (SSIs).

Notification of a change in previously submitted release information. Either:

- For any changes in source or composition, treatment as if it were a "new" release under the "old" CR-ERNS number (i.e., new initial telephone call, initial written, and first anniversary follow-up report); or
- For other changes, written notification to the EPA Region within 30 days of the change.

person in charge of the facility has a sufficient basis to determine that the release is continuous and stable, there is no need for multiple calls. The determination of whether a release is continuous and stable in quantity and rate may also be based on past release data, engineering judgment, historical knowledge of the operating processes, or some other sound technical basis.

2.1 Initial Telephone Notification

The main purpose of the initial telephone call is to alert government authorities that the release will be reported under the provisions of the Continuous Release Rule. The initial telephone notification must be made to three government authorities: the NRC, SERC, and LEPC. Any initial telephone calls made to the Regions should be referred to the NRC (see **Exhibit 2-2**).

EXHIBIT 2-2: REFERRAL TO THE NRC

- Q. What if the person in charge at the facility places the initial telephone call to the Region rather than to the NRC?
- A. The Region should direct the person to call the NRC. The NRC must assign the facility a CR-ERNS number that will be used to track the continuous release reports.

In the initial telephone call, the person in charge of the facility must identify the release as a report of a continuous release at or above the RQ, and must provide: the name and location of the facility; the name and address of its corporate affiliation; the name of the person in charge of the facility; and the name of each hazardous substance released. When the initial telephone call is received, the NRC will assign the facility a CR-ERNS number that will be used to track all continuous release information reported by the facility.

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) provides that a telephone notification of a release to the NRC must be relayed immediately to the appropriate OSC. However,

in the case of continuous release notifications, EPA and the NRC have agreed that given the nature of the initial telephone calls and the information they contain, the number of potential calls the NRC may receive, and the usual character of continuous releases as part of normal operations at a facility, the NRC will transmit these notifications electronically through batch transmissions to the EPA Regions via the John A. Volpe National Transportation Center (VNTSC).

2.2 Initial Written Report

Responsibilities of the Regulated Community

Within 30 days of the initial telephone notification, the person in charge of the facility is required to submit an initial written report to the appropriate EPA Region, SERC, and LEPC. The Continuous Release Rule requires the person in charge to provide:

- General information on the facility, including the location and size of surrounding sensitive populations and ecosystems;
- Information on each individual release source, including the names and quantities of hazardous substances released from each source, the normal range and frequency of the release from the source, and the environmental medium affected by the release;
- Information on each hazardous substance released, including information about mixtures containing hazardous substances, an estimate of the total annual amount of the hazardous substance released from all sources during the previous year, and a brief statement describing the basis for stating that the release is continuous and stable in quantity and rate.

Data and other information substantiating that the release is continuous and stable in quantity and rate need not be included in the report; such information should be kept on file at the facility.

The Suggested Continuous Release Reporting Format for initial written and follow-up reports, **Appendix B**, outlines all of the pieces of information that are required by the Continuous Release Rule and CR-ERNS. Regional personnel should encourage facilities to use this format. Use of the format greatly facilitates both reporting and report processing and ensures that all of the key elements required by the Rule are included in each report.

Regional Report Processing Under CR-ERNS

Following receipt of a letter or suggested reporting format containing the required information for the initial written report, the data should be entered into CR-ERNS under the facility CR-ERNS number assigned by the NRC during the initial telephone notification. Entering the release data into CR-ERNS will provide other Agency program offices and the public with access to the information. If the information is submitted in letter form, the information may first have to be extracted and put onto the Suggested Continuous Release Reporting Format to facilitate report processing. The Region may wish to use contractor support to extract information onto the Suggested Reporting Format and to enter data into CR-ERNS.

When reviewing the initial report, the Region should evaluate whether the information submitted is complete. In particular, the release data should be sufficient to enable Regional personnel to evaluate the risks to human health and the environment.

If the information submitted is incomplete, there are two **Missing Information Cover Letters** and a **Missing Information Checklist** included in **Appendix D** of this Guide that you may find useful in corresponding with individual facilities to request additional information concerning their continuous release reports. **Sample Letters #1 and #2** can be used to request missing information from facilities. **Sample Letter #1 should be used when the most recent report received is less than a year old or is a follow-up report.** **Sample Letter #2 should be used when the most recent report received is an initial written report or change notification that is more than one year old.** Regardless of which sample letter is used, the **Missing Information Checklist** should be attached.

The CR-ERNS Suggested Reporting Format may also be used to identify precisely the information that is missing from the facility's written submission. It is possible to input partial information into the suggested format. The blank areas in the format can then be

circled or highlighted and attached to the Sample Letters to assist in requesting the missing information from the facility.

Reporting by the Toxic Release Inventory Form

Owners or operators of facilities subject to the requirements of Superfund Amendments and Reauthorization Act (SARA) Title III Section 313 may submit a copy of the Toxic Release Inventory (TRI) form required under EPCRA Section 313 (along with certain additional information) in lieu of an initial written or follow-up report.

If facilities submit a TRI form in lieu of the initial written or follow-up report, Regions can extract the following information from it:

General information

- The complete name of the facility (Part 1 Section 4.1);
- The location of the facility, including latitude and longitude (Part 1 - Sections 4.1 and 4.6);
- The Dun and Bradstreet number (Part 1 Section 4.7); and,
- The name and telephone number of the person in charge (Part 1 - Sections 3 and 4).

Hazardous substance information

- The name and identity of the hazardous substance (Part 2 - Sections 1.2 and 1.3);
- The Chemical Abstracts Service Registry Number (CASRN) (Part 2 - Section 1.1);
- An estimate of the total annual amount of the hazardous substance or mixture released from all sources during the previous year (Part 2 - Section 5).

Source-specific information

- The source(s) of the release (Part 2 Sections 5.1 - 5.5).
- The environmental medium affected by the release (Part 2 - Section 5).

In addition to the information on the TRI Form, some supplemental information is necessary to make a continuous release report complete under the Rule. EPA Regions should verify that all of the required supplemental information is supplied by the facility with the completed TRI Form. EPA has developed a suggested reporting form for TRI reports titled **Suggested CR-ERNS Reporting Format -- Addendum to TRI Form R** and appears as **Appendix C** of this document. It is recommended that TRI reporters use this supplemental form.

If facilities choose not to use this form, they must still provide the complete information. The Continuous Release Rule requires the following supplemental information in addition to that which appears on a TRI Form:

- The population density within a one-mile radius of the facility;
- The identity and location of sensitive populations and ecosystems within a one-mile radius of the facility;
- The upper and lower bounds of the normal range of each hazardous substance release (in pounds or kilograms) over the previous year;
- The frequency of the release and the fraction of the release from each release source and the specific period over which it occurs (i.e., the number of releases per year and the months during which the release occurs);
- A brief statement describing the basis for stating that the release is continuous and stable in quantity and rate; and
- A signed statement that the hazardous substance described is continuous and stable in quantity and rate and that all reported information is both accurate and current.

In addition to the above information, the following additional information on the source of the hazardous substance release and the environmental medium affected by the release also appears on the Suggested Reporting Format and is needed to run the PAM. This information must be submitted by the

facility if EPA elects to use PAM to assess the risks associated with the continuous release:

- If the source of the release is a stack, the stack height in feet or meters;
- If the source is a waste pile, landfill, valve, tank vent, or other area source, the surface area or area of the release source in square feet or meters;
- If the release affects a stream, the stream order or average flow rate in cubic feet per second;
- If the release affects a lake, the surface area of the lake in acres and the average depth of the lake in feet or meters; and
- If the release is on or under ground, the location of any public water supply wells within a two-mile radius of the site.

Regional personnel also may want to ensure that the most recent TRI report has been submitted so that the evaluation of the continuous release is not based upon outdated and inaccurate information.

Priority Assessment Model (PAM) Processing

Using the data entered into CR-ERNS from each initial written or follow-up report, Regional personnel can use PAM to generate the risk-screening information for each written continuous release report. PAM is a screening level model that simulates contaminant fate and transport in three environmental pathways: air, surface water, and ground water. This multimedia approach accounts for the wide variety of release mechanisms that may be encountered in continuous release reports. PAM screening will help Regions set priorities for addressing the most significant releases first.

PAM produces four reports: a Summary Facility Evaluation Report; an Input Parameters Report; a Detailed Evaluation Report; and an Execution Log. These four PAM reports and the CR-ERNS Facility Printout will assist Regional personnel in identifying continuous releases that may need further investigation or response first. See the CR-ERNS/PAM Model Documentation Report for additional information on fate and transport simulation in the three pathways and for an explanation of how the results from PAM will be reported and can be interpreted.

Regional Review of Continuous Release Data and PAMs

There is no specified deadline for Regional review of initial written or follow-up reports. The Regions have discretion to decide when each continuous release written report should be reviewed and the associated risks assessed. The Region may decide, for example, to review written reports from facilities in a specific geographical area concurrently. In this way, the Region may do a comparative analysis of releases from different facilities and perhaps even determine the cumulative risks to persons living within a specific area.

When reviewing the initial report, the EPA Region should evaluate whether the information submitted is clear and appears sufficient to establish the release as continuous and stable. In particular, the release data should be sufficient to enable Regional personnel to evaluate the risks to human health and the environment. Regional personnel can use PAM reports to assist in continuous release report review, however, Regions should remain mindful that PAM is a screening level tool.

It is permissible for the Region to seek clarification of information in a written report, to inspect a facility, or to take any other action if any submitted information causes concern. The EPA Region is not obligated to respond to a facility's continuous release written report. However, under the Continuous Release Rule, a facility may assume that it can continue to report on the reduced reporting basis authorized in CERCLA 103(f)(2) unless a Region or some other cognizant government agency contacts the facility about the continuous release reports.

Response Options

The response options available to EPA Regional response personnel for continuous releases include all actions that may be taken in response to episodic releases. They include, but are not limited to, the following:

- Regional response personnel may decide that no action is appropriate.
- Regional response personnel may seek clarification of information in a written report or request additional information if there are doubts or questions about the report or about the basis reported for establishing a release as continuous (see **Exhibit 2-3**).

EXHIBIT 2-3: REQUESTS FOR ADDITIONAL INFORMATION

- Q. What if the information provided is insufficient to properly evaluate the release or is confusing or unclear?
 - A. The Region may request additional information or clarification of the submitted information.
- Q. What if the person in charge of a facility does not submit the written report when due or does not submit the report at all?
 - A. If the facility fails to submit the initial written report within 30 days of the initial telephone notification to the NRC (or the follow-up report within a year of the submitted initial report), the EPA Region may require the information pursuant to the authority of CERCLA Section 104(e). The Region also has access to all of the other enforcement tools under CERCLA.
- If the facility has not already done so, Regional response personnel may request that the facility establish a release as continuous and stable by reporting it for some period on a per-occurrence basis under CERCLA Section 103(a).
- Regional response personnel may review the release information and decide that the quantity released is potentially hazardous and, despite its continuity and stability, the release should be reported on a per-occurrence basis to ensure opportunity for evaluation of each release event.
- Regional response personnel may determine that there is no need for a response, but that the upper bound of the normal range is too high given, for example, the characteristics of the substance being released, the frequency of the release, or the sensitivity of the location of the release. Response personnel could decide that a specified level below the reported upper bound of the normal range may minimize the risk to human health and the environment, and may require the reporting of

any releases above a somewhat lower upper bound on a per-occurrence basis.

- Regional response personnel may decide to perform a site inspection or field response at the facility.
- Regional response personnel may alert a permit program office or other office that a release from the facility merits further evaluation.
- Regional response personnel may decide that a government response action at the facility is necessary.
- Regional response personnel may utilize the enforcement tools provided under CERCLA for obtaining a response action by the facility.

Releases into the Coastal Zone

The Continuous Release Rule requires that the person in charge of the facility submit an initial written report and a one-time follow-up report to the appropriate EPA Region. To date there have been few continuous release reports from vessels. Therefore, the "Reporting Requirements for Continuous Releases of Hazardous Substances - Guide for Facilities on Compliance" refers persons in charge of vessels, who wish to report continuous releases, to EPA for details on reporting requirements for vessels. Regions may feel free to refer these questions to the CR-ERNS Operational Support HelpLine.

In addition, it is possible that an EPA Region will receive some continuous release written reports from facilities or vessels discharging hazardous substances into the coastal zone. Primary responsibility for evaluating releases into the coastal zone belongs to the U.S. Coast Guard (USCG). Copies of written reports describing releases into the coastal zone, therefore, should be forwarded to the appropriate USCG District Office. This is particularly important because the NRC will notify the USCG directly about any SSI reports or other episodic release reports from facilities and vessels within the USCG's jurisdiction.

2.3 Follow-up Written Report

Responsibilities of the Regulated Community

Within 30 days of the first anniversary date of the initial written report, the person in charge of the facility is required to reassess all reported continuous releases and submit a one-time, written first anniversary follow-up report to the EPA Regional Office. Unlike the initial telephone notifications to the NRC or the initial written reports which are submitted to the EPA and to state and local authorities (the SERC and LEPC), the one-time, written follow-up report is submitted only to the EPA Regional Office. It is possible, therefore, that SERCs or LEPCs may call the EPA Regions to request copies of follow-up written notifications.

The information required in the written follow-up report is identical to the information required in the initial written report, but the follow-up report should be based on release data gathered over the year. Because the initial written report is required within 30 days of the initial telephone call, the information contained in the initial written report may not be conclusive. During the period between the initial report and the follow-up report, the facility will be aware of what must be reported in the follow-up report and can be expected to gather more accurate information about the release. Although actual monitoring by the facility is not necessarily required to satisfy the conditions for reduced reporting under the Continuous Release Rule, the follow-up report will probably be more accurate.

After the first anniversary follow-up report has been submitted to the EPA Regional Office, the person in charge of the facility is responsible for reassessing the release annually, but is not required to notify EPA unless there is a change in the release information previously reported. The person in charge, however, must maintain documentation of each annual evaluation, even if there are no changes in the information previously submitted.

Regional Report Processing

After the follow-up report is received, the information should be entered into CR-ERNS and the risks assessed using PAM. Unless there are changes in the release, the Region is not expected to receive any reports from the facility once the written follow-up report has been submitted. If the Region for any reason suspects that annual evaluations are not occurring, or that previously submitted information is not being updated properly, the Region may request documentation from the person in charge indicating that annual evaluations have been performed at the facility.

It may be useful to check or verify continuous release supporting documentation, including documentation on the annual assessments, during ad hoc facility inspections or during program reviews or permit development negotiations. Facilities must provide this documentation upon request. CR-ERNS also can be a useful enforcement tool. Because each report submitted by a facility will be numbered, CR-ERNS can be used to identify facilities that have not submitted required reports. For example, CR-ERNS can be used to identify facilities that have not submitted their initial written report within 30 days after making their initial telephone notification.

2.4 Statistically Significant Increase (SSI) Reports

After the standard reporting requirements of the initial telephone notification, initial written report, and follow-up report have been met, a facility is only required to notify government authorities if certain circumstances occur (i.e., there is an SSI or any changes in the information previously submitted). If these circumstances occur, there are additional circumstantial reporting requirements. These reporting requirements are covered in Sections 2.4 and 2.5 of this Guide.

If a change at a facility results in an increase in the quantity of a release above the reported normal range, and other reported characteristics of the release remain unchanged, the release must be reported immediately to the NRC, SERC, and LEPC as an SSI report. An SSI should be treated like an episodic release.

In accordance with § 300.125 of the NCP, the NRC will notify the appropriate federal OSC by telephone immediately following the telephone call from the facility reporting the SSI. The SSI should be evaluated in a manner similar to other episodic releases. The difference is, however, that baseline data are available about the hazardous substance release from previously submitted written reports. Like other episodic releases, the OSC should evaluate the SSI to determine whether it poses a risk to human health and the environment, and whether a response action should be taken.

If the release at the facility exceeds the normal range several times, the person in charge of the facility may want to amend the normal range to more accurately reflect current releases. To modify the normal range, the person in charge of the facility must report at least one release as an SSI, and at the same time may inform the NRC, SERC, and LEPC that the normal range is being modified. Within 30 days of this telephone notification, the person in charge of the facility must submit a written report to the EPA Region specifying the new range for the release, the reason for the change, and the basis for asserting that the release is continuous and stable at the increased quantity. The person in charge of the facility must also submit a first anniversary follow-up report for a modification of the normal range, as they would for any other change in source or composition of the release.

2.5 Notification of Changes

Another circumstantial reporting requirement is a report of a change in release information previously submitted. There are two types of changes to a continuous release report. The first type is a change in the source or composition of the release. The second type includes all other kinds of changes. Actions appropriate for each type of change are outlined below.

Changes in Source or Composition

If there is a change in the sources or composition of a continuous release, the release is considered a "new" release. The new release may pose a hazard that warrants timely evaluation and, therefore, to report this new release under CERCLA Section 103(f)(2), the facility must establish that it is continuous and stable in quantity and rate. To do this, the facility should call the NRC, SERC, and LEPC and submit a new initial

written report and follow-up report for the facility taking into consideration the change.

Upon receipt of a changed release report, the Region should evaluate the new information by accessing CR-ERNS and comparing the information included in the changed release report with the information previously reported by the facility. Regions should be alert to the need to identify the new or changed information in the report and follow-up with the facility as needed to clarify any unclear elements. Once this evaluation is completed, the Region should access PAM to generate new risk estimates based on the revised information.

Changes Other Than a Change in Source or Composition

Notification of any changes in the reported information, other than a change in the source or composition of the release, must be submitted in writing to the EPA Region by the person in charge within 30 days of determining that the previously submitted information is no longer valid. These changes do not require resubmission of the report, only a signed letter outlining the changes. Examples of changes other than a change in the source or composition are: a change in the frequency of the release; a change in the facility ownership; or a change in the name and telephone number of the person in charge. These changes do not require reassessment of the risks posed by the release from PAM.

In addition, EPA Headquarters provides the Regions with assistance on questions about continuous releases or CR-ERNS through the CR-ERNS Operational Support HelpLine at 703-934-3765. For answers to technical questions concerning the operation of CR-ERNS, Regions can call the CR-ERNS Users Supports HelpLine at 703-934-3484.

2.6 Additional Assistance for EPA Regions

Details on the continuous release reporting requirements are outlined in the "Reporting Requirements for Continuous Releases of Hazardous Substances - A Guide for Facilities on Compliance," which provides specific instructions on completing a continuous release report. Appendix D of the Guide for Facilities on Compliance provides an example of a properly completed Suggested Continuous Release Reporting Format. Appendix E of the Guide for Facilities on Compliance provides an example of a properly completed Suggested CR-ERNS Reporting Format -- Addendum to TRI Form R. These formats, as well as the rest of the Guide, should prove helpful to both EPA Regional personnel and reporting facilities.

APPENDIX A

ACRONYMS

ACRONYMS

CASRN	Chemical Abstracts Service Registry Number
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CFR	Code of Federal Regulations
CR-ERNS	Continuous Release Emergency Response Notification System
EHS	Extremely Hazardous Substance
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
FR	Federal Register
LEPC	Local Emergency Planning Committee
NCP	National Contingency Plan
NRC	National Response Center
OSC	On-Scene Coordinator
RQ	Reportable Quantity
SARA	Superfund Amendments and Reauthorization Act of 1986
SERC	State Emergency Response Commission
SSI	- Statistically Significant Increase
TERC	Tribal Emergency Response Commission
TRI	- Toxic Release Inventory
VNTSC	- John A. Volpe National Transportation Center

APPENDIX B

SUGGESTED CONTINUOUS RELEASE REPORTING FORMAT

**SECTION I: GENERAL
INFORMATION****CR-ERNS Number:****Date of Initial Release:****Date of Initial Call to NRC:****Type of Report:** Indicate below the type of report you are submitting.☐

Initial Written Notification

☐First Anniversary
Follow-up
Report☐Written Notification
of a Change to
Initial Notification☐Written Notification
of a Change to
Follow-up Report**Signed Statement:** I certify that the hazardous substances releases described herein are continuous and stable in quantity and rate under the definitions in 40 CFR 302.8(a) or 355.4(a)(2)(iii) and that all submitted information is accurate and current to the best of my knowledge._____
*Name and Position*_____
*Date*_____
*Signature***Part A. Facility or Vessel Information****Name of Facility or Vessel****Person
in Charge
of Facility
or Vessel**

Name of Person in Charge

Position

Telephone No. ()

Alternate Telephone No. ()

**Facility
Address or
Vessel
Port of
Registration**

Street

County

City

State

Zip Code

Dun and Bradstreet Number for Facility**Facility/Vessel
Location**

Latitude

Deg _____

Min _____

Sec _____

Longitude

Deg _____

Min _____

Sec _____

Vessel LORAN Coordinates**Part B. Population Information****Population
Density**Choose the range that describes the population density within a one-mile radius of your facility or vessel
(Indicate by placing an "X" in the appropriate blank below).

____ 0 - 50 persons

____ 101 - 500 persons

____ more than 1000 persons

____ 51 - 100 persons

____ 501 - 1000 persons

**Sensitive
Populations
and
Ecosystems
Within One
Mile Radius**Sensitive Populations or Ecosystems
(e.g., schools, hospitals, wetlands, wildlife preserves, etc.)

Distance and direction from facility

**SECTION II: SOURCE
INFORMATION**

CR-ERNS Number:

Part A: Basis for Asserting the Release is Continuous and Stable in Quantity and Rate.

For EACH source of a release of a hazardous substance or mixture from your facility or vessel, provide the following information on a SEPARATE sheet. Photocopy this page if necessary.

Name of Source:

1. Indicate whether the release from this source is either:

continuous without interruption _____ OR routine, anticipated, intermittent _____.

2. Identify the activity(ies) that results in the release from this source (e.g., batch process, filling of a storage tank). If malfunction, describe the malfunction and explain why the release from the malfunction should be considered continuous and stable in quantity and rate.*

3. Identify below how you established the pattern of release and calculated release estimates.

____ Past release data	____ Knowledge of the facility/vessel's operations and release history	____ Engineering estimate
____ AP-42	____ Best professional judgment	____ Other (explain)

* Note that unanticipated events, such as spills, pipe ruptures, equipment failures, emergency shutdowns, or accidents, do not qualify for reduced reporting under CERCLA section 103(f)(2). Unanticipated events are not incidental to normal operations and, by definition, are not continuous or anticipated, and are not sufficiently predictable or regular to be considered stable in quantity and rate.

**SECTION II: SOURCE
INFORMATION
(continued)**

CR-ERNS Number:

Name of Source:

Part B: Specific Information on the Source

For the source identified above, provide the following information. Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.

AFFECTED MEDIUM. Identify the environmental medium (i.e., air, surface water, soil, or ground water) that is affected by the release from this source. If your source releases hazardous substances to more than one medium (e.g., a wastepile releasing to air and ground water), treat the release to **EACH** medium as a separate source and complete Section II, Parts A, B, and C, of this format for **EACH** medium affected.

☐ **AIR** ____ (stack ____ or area ____) If the medium affected is air, please also specify whether the source is a stack or a ground-based area source.

- If identified source is a **stack**, indicate stack height: ____ feet or meters; **OR**
- If identified source is an **area source** (e.g., waste pile, landfill, valves, tank vents, pump seals, fugitive emissions), indicate surface area: ____ square feet or square meters.

☐ **SURFACE WATER** ____ (stream ____, lake ____, or other _____)

- If the release affects any **surface water body**, give the name of the water body.

- If the release affects a **stream**, give the stream order or average flow rate, in cubic feet per second.
stream order: ____ or average flow rate: ____ cubic feet/second; **OR**
- If the release affects a **lake**, give the surface area of the lake in acres and the average depth in meters.
surface area of lake: ____ acres and average depth of lake: ____ meters.

☐ **SOIL OR GROUND WATER** ____

If the release is on or under ground, indicate the distance to the closest water well.

Optional Information

The following information is not required in the final rule; however, such information will assist EPA in evaluating the risks associated with the continuous release. **If this information is not provided, EPA will make conservative assumptions about the appropriate values.** Please note that the units specified below are suggested units. You may use other units; however, be certain that the units are clearly identified.

For a stack release to air, provide the following information, if available:

Inside diameter ____ feet or meters

Gas Exit Velocity ____ feet/second or
meters/second

Gas Temperature ____ degrees Fahrenheit,
Kelvin, or Celsius

For a release to surface water, provide the following information, if available:

Average Velocity ____ feet/second
of Surface Water

SECTION II: SOURCE INFORMATION
(continued)

CR-ERNS Number:

Part C. Identity and Quantity of Each Hazardous Substance or Mixture Released From Each Source

Please provide a SEPARATE sheet for EACH source. Photocopy this page if necessary.

Name of Source:

List each hazardous substance released from the source identified above and provide the following information. (For an example, see Table 1 of Reporting Requirements for Continuous Releases of Hazardous Substances - A Guide for Facilities and Vessels on Compliance.)

<u>Name of Hazardous Substance</u>	<u>CASRN #</u>	<u>Normal Range</u> (in lbs. or kg per day)*		<u>Number of Days</u> <u>Release Occurs</u> (per year)	<u>Total Quantity</u> <u>Released in Previous Year</u> (in lbs. or kg)*	<u>Months of the</u> <u>Release</u>
		<u>Upper Bound</u>	<u>Lower Bound</u>			

List each mixture released from the source identified above and provide the following information. (For an example, see Table 2 of Reporting Requirements for Continuous Releases of Hazardous Substances - A Guide for Facilities and Vessels on Compliance.)

<u>Name of Mixture</u>	<u>Name of</u> <u>Hazardous</u> <u>Substance</u> <u>Components</u>	<u>CASRN#</u>	<u>Weight</u> <u>Percentage</u>	<u>Normal Range of</u> <u>Components</u> (in lbs. or kg per day)*		<u>Normal Range of</u> <u>Mixture</u> (in lbs. or kg per day)*		<u>Number of</u> <u>Days Release</u> <u>Occurs</u> (per year)	<u>Total Quantity of</u> <u>Mixture Released</u> <u>in Previous Year</u> (in lbs. or kg)	<u>Months</u> <u>of the</u> <u>Release</u>
				<u>Upper</u> <u>Bound</u>	<u>Lower</u> <u>Bound</u>	<u>Upper</u> <u>Bound</u>	<u>Lower</u> <u>Bound</u>			

* Please be sure to include units where appropriate. Also, if the release is a radionuclide, units of curies (CI) are appropriate.

**SECTION III: SUBSTANCE
INFORMATION**

CR-ERNS Number:

Calculation of the SSI Trigger

For EACH hazardous substance or hazardous substance component of a mixture indicated in Section II, Part C, list the names of the releasing sources and their upper bounds. Please use a SEPARATE sheet for EACH hazardous substance. Photocopy this page if necessary.

Name of Hazardous Substance:

To calculate the SSI trigger (i.e., the upper bound of the normal range of a release) for the hazardous substance identified above, aggregate the upper bounds of the normal range of the identified hazardous substance across all sources identified in Section II, Part C. If the hazardous substance is also a component of a mixture, be certain to include the upper bound of the component as calculated in Section II, Part C, in your calculation of the SSI trigger.

Name of Source(s)

Upper Bound of the Normal Range of
the Release (specify lbs., kg, or Ci)

TOTAL - SSI trigger for this hazardous substance release* : _____

** This method for calculating the SSI trigger for the hazardous substance assumes that all releases of the same hazardous substance or mixture occur simultaneously. To the extent that a hazardous substance is released from your facility from different sources and at different frequencies, you may adjust the SSI trigger as appropriate, so that it more accurately reflects the frequency and quantity of the release. The SSI trigger in the final analysis must reflect the upper bound of the normal range of the release, taking into consideration all sources of the release at the facility or vessel. The normal range of the release includes all releases previously reported or occurring over a 24-hour period during the previous year.*

APPENDIX C

SUGGESTED CR-ERNS REPORTING FORMAT -- ADDENDUM TO TRI FORM R

CR-ERNS Report -- Addendum to Form R

This Form serves as an addendum to EPCRA Section 313 Toxic Release Inventory (TRI) Form R. This along with EPCRA 313 Form R will provide EPA with the required information for reporting continuous releases.

Name of Facility:

CR-ERNS #:

Type of Report: Indicate below the type of report you are submitting.

☐ Initial Written Report ☐ First Anniversary Follow-up Report ☐ Written Notification of a Change to Initial Written Report ☐ Written Notification of a Change to Follow-up Report

Signed Statement: I certify that the hazardous substances releases described herein are continuous and stable in quantity and rate under the definitions in 40 CFR 302.8(a) or 355.4(a)(2)(iii) and that all submitted information is accurate and current to the best of my knowledge.

Name and Position

Date

Signature

Population Density: Choose the range that describes the population density within a one-mile radius of your facility.

_____ 0 - 50 people _____ 101 - 500 people _____ Over 1000 people
_____ 51-100 people _____ 501- 1000 people

Sensitive Populations and Ecosystems: Indicate all sensitive populations and ecosystems within a one-mile radius include the distance and direction from the facility.

Sensitive Population or Ecosystems	Distance and direction from facility

CR-ERNS Report -- Addendum to Form R

CR-ERNS #:

Source Information: For EACH source of a release from your facility, provide the following information on a SEPARATE sheet.

Name of Source:

Indicate whether the release from this source is either:
continuous without interruption _____ OR routine, anticipated, intermittent _____

Pattern of the Release: Identify below how you established the pattern of release and calculated release estimates.

_____ Past release data _____ Knowledge of the facility's operations and release history _____ Engineering Estimates
_____ AP-42 _____ Best professional judgement _____ Other (explain)

Environmental Medium affected by the release from this source:

_____ Air _____ Surface Water _____ Soil or Ground Water

Air

If release is to air, please indicate stack height OR surface area of the release.

_____ Stack Height OR _____ Surface Area

Surface Water

If release is to Surface Water, please indicate name, type and specific information of the water body:

Name of water body _____

If stream: _____ Stream Order OR _____ Average flow rate (ft³/sec)

If lake: _____ Surface area (ac) AND _____ Average Depth (m)

Soil or Ground Water

Indicate distance of closest water well: _____

Hazardous Substance Information:

Name of Hazardous Substance:

CASRN#

Upper Bound Lower Bound
(in lbs. or kg per day)

Number of Days Release Occurs (per year)

Months of the Release

APPENDIX D

MISSING INFORMATION COVER LETTERS AND MISSING INFORMATION CHECKLIST

MISSING INFORMATION COVER LETTER #1

Most recent report received is less than a year old.

[Name of Person in Charge]
[Title]
[Facility Name, Division]
[Street Address]
[City, State Zip Code]

Dear [Name of Person in Charge]:

The purpose of this letter is to verify the accuracy and adequacy of your report of a continuous release of a hazardous substance that equals or exceeds a reportable quantity (RQ), under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

CERCLA provides that releases of hazardous substances that are continuous and stable in quantity and rate may be reported less frequently than on a per-occurrence basis if certain criteria are met. Continuous Release Rules were published on July 24, 1990 (55 FR 30166) effective September 24, 1990, and are codified at 40 C.F.R. section 302.8.

According to our records, your facility filed with the Environmental Protection Agency (EPA) **[a(n) initial written or change]** notification of a continuous release of a hazardous substance on **[Date of most recent correspondence]**. To properly evaluate your facility's continuous release, EPA needs complete and accurate information. In your latest correspondence, several pieces of information were missing. These have been identified on the enclosed "Missing Information Checklist."

To assist you in submitting the required information, EPA has developed a sample reporting format for initial, change notification, and follow-up reports. Adequate review of your continuous release report cannot be complete unless all the information on the format is supplied for each source.

EPA has transferred your facility's continuous release information onto a copy of this reporting format (enclosed). Please review it for accuracy. In addition, please complete the highlighted missing information. Send this format and the information requested, within 30 days of your receipt of this letter to: Mr. C.R. Erns, Regional Continuous Release Coordinator, 401 M Street, Washington, DC 20202.

Please note that EPA has no record of receiving your first anniversary follow-up report for this reported release. According to the Continuous Release Rule, you must submit a follow-up report within 30 days of the first anniversary date of your initial written or change notification report. The follow-up report is based on actual release data gathered since the initial written report or change notification. Follow-up reports that are due can be submitted onto the enclosed blank format and should be sent to the above address.

Please feel free to copy the blank reporting format for your use in submitting future continuous release reports. Thank you for your prompt attention to this matter. If you have any questions, please call Mr. C.R. Erns Regional Continuous Release Coordinator, at (999) 999-9999.

Sincerely,

C.R. Erns
Regional CR-ERNS Coordinator
Enclosures

MISSING INFORMATION COVER LETTER #2

Most recent report received is more than a year old.

[Name of Person in Charge]

[Title]

[Facility Name, Division]

[Street Address]

[City, State Zip Code]

Dear [Name of Person in Charge]:

The purpose of this letter is to verify the accuracy and adequacy of your report of a continuous release of a hazardous substance that equals or exceeds a reportable quantity (RQ), under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

CERCLA provides that releases of hazardous substances that are continuous and stable in quantity and rate may be reported less frequently than on a per-occurrence basis if certain criteria are met. Continuous Release Rules were published on July 24, 1990 (55 FR 30166) effective September 24, 1990, and are codified at 40 C.F.R. section 302.8.

According to our records, your facility filed with the Environmental Protection Agency (EPA) **[a(n) initial written, follow-up, or change]** notification of a continuous release of a hazardous substance on **[Date of most recent correspondence]**. To properly evaluate your facility's continuous release, EPA needs complete and accurate information. In your latest correspondence, several pieces of information were missing. These have been identified on the enclosed "Missing Information Checklist."

To assist you in submitting the required information, EPA has developed a sample reporting format for initial, change notification, and follow-up reports. Adequate review of your continuous release report cannot be completed unless all the information on the format is supplied for each source.

EPA has transferred your facility's continuous release information onto a copy of this reporting format (enclosed). Please review it for accuracy. In addition, please complete the highlighted missing information. Send this format and the information requested, within 30 days of your receipt of this letter to: Mr. C.R. Erns, Regional Continuous Release Coordinator, 401 M Street, Washington, DC 20202.

We have included a new blank reporting format for your use in submitting future continuous release reports. Thank you for your prompt attention to this matter. If you have questions, please call Mr. C.R. Erns Regional Continuous Release Coordinator, at (999) 999-9999.

Sincerely,

C.R. Erns
Regional CR-ERNS Coordinator
Enclosures

MISSING INFORMATION CHECKLIST

As submitted, your continuous release report (# _____) was missing the information indicated below. Please provide the information indicated by the check marks.

- ☐ **A signed statement.** A signed statement is required to verify your continuous release. Although this information is not vital to evaluating the risks of your release, it is required by CR-ERNS Rule. Though variations in wording are acceptable, a standard signed statement reads as follows: "The hazardous substance release(s) described is/are continuous and stable in quantity and rate under the definitions in 40 C.F.R. section 302.8(b) and all reported information is accurate and current to the best of our knowledge." Please provide such a statement.
- ☐ **The facility address.** The facility address submitted in the report was incomplete. Information regarding the location of the facility is essential to processing the report. If the actual location of the facility is different from the mailing address of the company, please submit both addresses. Please remember to include the county in which the facility is located.
- ☐ **The county.** The county where the facility is located is important information used in processing a facility's continuous release report. Please submit this information as it was not included in your report.
- ☐ **The Dun and Bradstreet Number.** The Dun and Bradstreet number provides additional information about a facility. Please submit this information. If your facility does not have a Dun and Bradstreet Number, please write "not applicable."
- ☐ **Facility location.** Facility location is delineated by the latitude and longitude. Please give the full coordinates to indicate your facility's location.
- ☐ **The sensitive populations and ecosystems within a one-mile radius.** Each sensitive population or ecosystem within a one-mile radius of your facility should be identified. Schools, hospitals, and nursing homes are examples of sensitive populations. Ecosystems are areas containing wildlife (i.e., reserves or wetlands) that are threatened by potential releases. Please describe the location of each such sensitive area in relation to the facility (e.g., "Little Flower Elementary School is located 400 yards southwest of the facility"). Exact addresses are not required.
- ☐ **Specific source information.** To make accurate risk assessments, it is essential that EPA have detailed information for each releasing source. Detailed information for each specific source should include: the hazardous substances released; the volume of the substances released; the affected media (e.g., air or surface water); and the method of dispersion (e.g., stack or area source). Please also include the individual heights of all stacks or, in the case of fugitive or area sources, the surface area. It is not sufficient to report that your facility is releasing from southwestern stacks; instead, you must define each of these stacks' specifications individually. Please provide this more detailed information for each of your releasing sources.
- ☐ **The source activity.** For the purposes of risk assessment, it is important that your facility indicate the activity causing the release of a hazardous substance from each source. Please provide a brief description of the activity that causes a continuous release for each specific source.

- ☐ **The pattern of the release.** The CR-ERNS Rules require a description of how the "pattern of the release" was established for each releasing source. Such patterns may have been established through use of previous data, engineering estimates, knowledge of the facility's operations and release history, best professional judgment, or another means. Please indicate how your facility established its pattern of release for each source.
- ☐ **The affected media.** The media affected by each source is an important piece of information for risk assessment. EPA needs to know the type of media affected (i.e., air, surface water). In addition, EPA needs the specifications for each source affecting the medium. For example, in the case of an air release, EPA asks that you provide an estimated stack height or surface area (even if the source is defined as fugitive) so that a risk assessment can be properly made.
- ☐ **Volume definition.** Sources are/are not defined, and therefore volumes are not allocated to each source. Please indicate the volume of each hazardous substance released from each individual source by providing either actual volumes or percentage values.
- ☐ **The upper and lower bound of the release.** The upper and lower bounds represent the range of the amount of a hazardous substance emitted over a 24 hour period from each source. These figures are required to determine both the facility's statistically significant increase (SSI) trigger and the allowable emission rate per substance per day. Please provide an upper and lower bound for each hazardous substance from each individual source.
- ☐ **The number of releases per year.** The number of releases per year for each source is not specifically defined in your report. Please determine the number of days per year each source releases the hazardous substance, not the number of days that the facility operates. Stating "continuous" is not sufficient as one source may be continuously operating 365 days a year, while another source may also be continuous, but only operating 350 days a year.
- ☐ **Total annual quantity released.** For each source, please indicate the total annual quantity of each hazardous substance released.
- ☐ **Months of the release.** For each source, please indicate the exact months during which each hazardous substance is released. (i.e., For Source A, NO_x is released in Feb. and May, and H₂S is released Jan. through Dec.)
- ☐ **SSI Trigger.** Please calculate the Statistically Significant Increase Trigger by aggregating the upper bound amounts over all sources for each hazardous substance.
- ☐ **Optional information.** In addition, it would be helpful if you could provide the optional information requested. This information is not required, but will make the preliminary risk evaluation much more accurate. Additional information may be provided for the following: for release to air through stacks - inside diameter, gas exit velocity, and gas temperature; for release to surface water - average velocity of the surface water.
- ☐ **Other.** Please provide the following additional missing information.
