Issued: June 1990

Accidental Release Information Program

Implementation Guide

US Environmental Protection Agency

Chemical Emergency Preparedness and Prevention Office
Washington, DC 20460

Issued: June 1990

Accidental Release Information Program

Implementation Guide

US Environmental Protection Agency

Chemical Emergency Preparedness and Prevention Office
Washington, DC 20460

TABLE OF CONTENTS

I. INTRODUCTION

A. Purpose of this Guidebook

This guidebook is designed to describe the purpose and specific responsibilities to implement the Accidental Release Information Program (ARIP). The steps detailed in this guidebook will help in the collection of accidental release information and promote the use of this information by headquarters, the regions, and others.

B. Why was ARIP Developed?

In recent years, industrial accidents and the potential threats posed to local communities by accidental chemical releases have attracted more public attention. In 1985, EPA created an intra-agency task force to conduct an analysis of federal release prevention and response initiatives. The task force concluded that EPA needed to establish a database on accidental releases to support guidance, training, and other prevention activities. The ARIP database thus has an emphasis on prevention (such as facility management practices, hazard assessments, and training) unique among databases concerned with chemical accidents and releases, such as the National Response Center (NRC) database and the Acute Hazardous Events Database. In addition, no other database is designed to document, in detail, all of the causal factors contributing to an accident, and the steps taken to prevent a re-occurrence. The ARIP initiative also serves to promote industry examination of health and safety practices, and the introduction of more effective techniques and technologies.

C. What is ARIP?

EPA's Chemical Emergency Preparedness and Prevention (CEPP) office instituted ARIP to collect information on the causes and consequences of accidental releases, release prevention procedures and equipment, and release mitigation techniques. In cooperation with the regional offices, EPA headquarters designed the ARIP questionnaire (see Attachment A) to serve as the instrument for collecting this information. The information is assembled from facilities selected by EPA under authority granted by section 104(b)(1) and 104(e) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA or "Superfund") and other statutory provisions. The survey allows both multiple choice and open-ended responses, and its forty-two questions are separated into three sections:

- A facility profile, which provides the location and other background information on the facility to integrate ARIP with other EPA information collection efforts;
- A hazardous substance release profile, which provides a detailed description of the circumstances and causes of the release; and
- A clean-up and prevention profile, which focuses on the facility's prevention and preparedness practices prior to the release and the changes implemented in response to the release incident.

EPA conducted a pilot test of the ARIP survey in early 1987 before instituting the program on a national basis later that year. In response to the experience of processing over 350 questionnaires during the initial phase of ARIP, the questionnaire and the criteria for selecting facilities were revised in the fall of 1988. The survey questions were refined and expanded to emphasize prevention and improve accuracy, while the selection criteria were modified to target facilities better. The questionnaire has been approved by the Office of Management and Budget through January 31, 1991 (OMB #2050-0065), and the process will then require renewal.

D. Uses of the ARIP Information

ARIP activities support a range of chemical accident prevention and preparedness efforts involving industry, local and state government, and EPA regions and headquarters.

At the headquarters level, ARIP will continue to serve as a national database on accidental releases, detailing patterns of the underlying causes, industry response, and prevention practices. As the ARIP database grows, the information will help EPA to improve prevention program activities by identifying: (1) the types of facilities most likely to experience an accidental release, (2) the chemicals most frequently released, (3) the facility techniques and engineering practices used prior to a release, and (4) the techniques and practices instituted to prevent a re-occurrence. ARIP data have already been used to augment the study of prevention practices mandated by Congress under section 305(b) of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA).

The results of headquarters ARIP analyses also provide the basis for the development of guidance materials and outreach programs. Headquarters has prepared an ARIP Technical Assistance Bulletin to assist State Emergency Response Commissions (SERCs) and Local Emergency Planning Committees (LEPCs) in preparing emergency response plans and in conducting safety audits and inspections. Dissemination of this bulletin provides local planners with data and direction for their contact with facilities and thus support the informed dialogue essential for developing emergency plans. In addition, headquarters is examining release patterns at facilities with the regional offices and will issue letters, as needed, to the chief executive officers of facilities experiencing serious or potentially serious releases.

At the regional level, ARIP can assist in the monitoring of industry compliance with SARA reporting requirements, Resource Conservation and Recovery Act-permitted emissions and waste disposal, and sound engineering practices. ARIP survey information is used to target Chemical Safety Audits, and recent investigations of major releases by regional personnel were supported by ARIP survey information on facility operations and management practices. Coordination with SERCs and LEPCs using ARIP information will help to promote information transfer on special regional release concerns and the development of emergency response plans.

Finally, at the facility level, the ARIP questionnaire serves as a catalyst for industry to re-examine its chemical safety practices and initiate engineering and managerial steps related to accident preparedness and prevention. For example, EPA can use ARIP to identify patterns of serious releases from single facilities and send facility CEOs or corporate management a letter describing any serious or potentially threatening releases. These letters are intended to promote greater management awareness of the importance of prevention efforts.

II. ARIP PROCESS OVERVIEW

A. ARIP Participants

The successful development of the ARIP database depends upon the effective involvement of six participants in the data collection process. These participants and a brief description of their roles are:

- The National Response Center (NRC) receives notifications of accidental releases from facilities as required by CERCLA section 103(a) and develops a database of release report information.

- The Transportation Systems Center (TSC) of the Department of Transportation maintains the NRC database, screens NRC reports for releases that meet certain ARIP criteria, and provides these reports to EPA headquarters for distribution to the regions.

- Support contractor staff check the accuracy and quality of the selected NRC reports, code and computerize the completed ARIP surveys, and perform analyses and generate reports based on the ARIP data collection.

- Facility Representatives notify the NRC of accidental releases and complete the ARIP questionnaire at the request of the region.

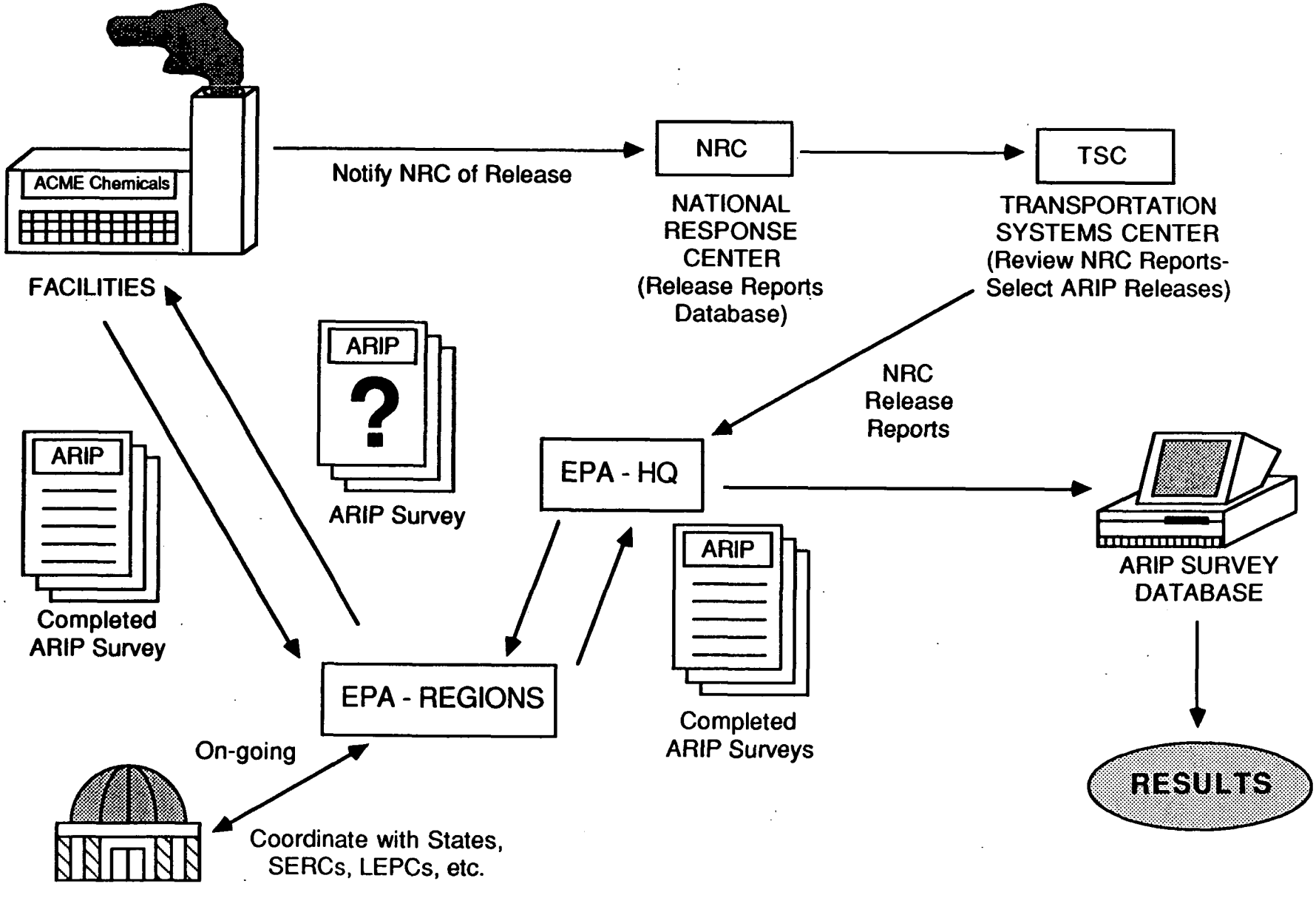
- The EPA Headquarters Coordinator directs the ARIP program, serves as the information clearinghouse for logistics questions from all ARIP participants, approves significant program changes, and supervises data analysis.

- EPA Regional Coordinators receive NRC reports from headquarters, verify the release with the facility, maintain the flow of ARIP questionnaires between EPA and the facilities, support dialogue on prevention issues between SERCs, LEPCs, and facilities, and coordinate ARIP activities with state and local agencies. Regional Coordinators may also initiate an ARIP survey of a particular release event in their region without, or prior to, receipt of NRC release reports.

Exhibit 1 illustrates the participants and interactions in the ARIP process.

EXHIBIT 1

ARIP SURVEY PARTICIPANTS



B. Criteria for Selecting Releases

EPA headquarters establishes the criteria by which release reports are selected from the NRC notifications. The release must be from a fixed facility and involve a hazardous substance as defined by CERCLA section 102. Furthermore, release incidents must satisfy one or more of the following ARIP selection criteria (triggers):

- The quantity released was 1,000 pounds or more for a hazardous substance with a CERCLA Reportable Quantity (RQ) of 1, 10, or 100 pounds, or the quantity released was 10,000 pounds or more for hazardous substances with a CERCLA RQ of 1,000 or 5,000 pounds;
- The release resulted in a death or an injury;
- The release was one in a trend of frequent releases from the same facility (only the fourth through tenth releases within a twelve month period are surveyed); or
- The release involved a chemical listed by EPA as an extremely hazardous substance (EHS) under SARA section 302.

The first criterion was designed to address the potential dangers of large-scale releases, while the second trigger identifies releases that pose a significant human health impact. EPA developed the third criterion to gather information about patterns of multiple releases at a facility that could indicate the possibility of an upcoming catastrophic release. (An ARIP workgroup consisting of headquarters and regional staff decided to reduce the scope of this criterion -- surveying only the fourth through the tenth release -- to reduce the overall volume of NRC reports to the regions without sacrificing valuable information on repeat releases.) The fourth trigger was created to focus attention on the extremely hazardous substances (EHSs), for which emergency response plans must be developed under SARA Title III.

C. The ARIP Survey Process

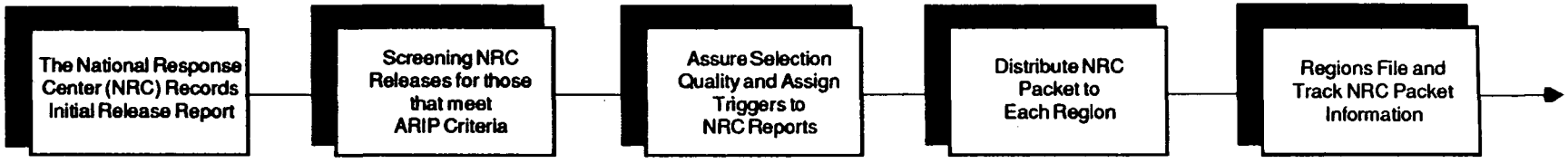
There are many steps in the ARIP survey process, as illustrated in Exhibit 2. A facility that accidentally releases a hazardous substance in excess of the statutorily-established CERCLA Reportable Quantity (RQ) must report the incident to the NRC. These notifications are compiled by TSC in a database, which provides a list of incidents from which ARIP releases are selected. **Every two months**, TSC reviews the NRC release reports (see Attachment B) and selects those that satisfy one or more of the release selection criteria.

Headquarters receives a computer list of these selected releases. The release reports are quality checked by headquarters' support contractor to verify the accuracy of their selection; volume conversions of the release quantity, facility information, and triggers are reviewed. In addition, the support contractor assigns each report a trigger classification number from

EXHIBIT 2

THE ARIP SURVEY PROCESS

Continued on next page



- Facilities are required to report to the NRC releases of CERCLA hazardous substances above the chemical's RQ.

- Transportation Systems Center (TSC) maintains NRC database.
- Every two months, TSC applies ARIP triggers to select ARIP releases from NRC database.
- Releases must be of a hazardous substance at a fixed facility and satisfy at least one of the following:
  - death/injury
  - exceeds RQ multiple
  - repeat release
  - extremely hazardous substance
- TSC sends a list of reports that meet ARIP criteria to headquarters.

- HQ support contractor verifies that each NRC report satisfies a trigger, and assigns the trigger number.
- HQ support contractor generates statistical summaries about the releases.
- HQ support contractor adds NRC reports into tracking database.
- HQ support contractor sorts NRC Release Reports into regional packets and sends packets to HQ ARIP Coordinator.

- HQ ARIP Coordinator sends NRC reports to each Regional ARIP Coordinator.
- HQ ARIP Coordinator keeps track of the number of NRC releases issued to each region.

- Regions track ARIP releases using the NRC Record Identification number and the date of the release.

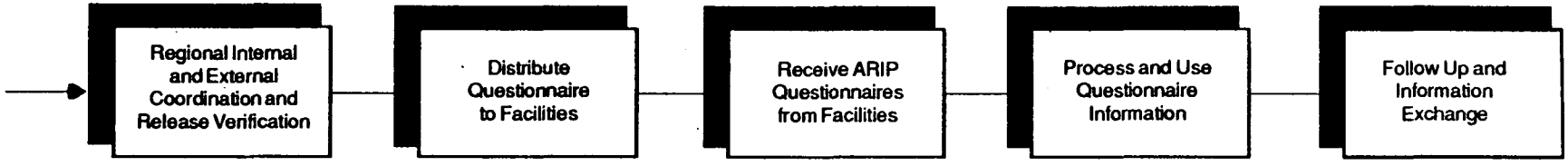
Participants:

Facilities, NRC Staff	TSC	HQ, Support Contractor	HQ	Regions

EXHIBIT 2

THE ARIP SURVEY PROCESS

(continued)



- Regions review release reports for any reason to refrain from sending an ARIP questionnaire (e.g., enforcement actions pending or other regional office objections).
- Region coordinates with states to eliminate interference with with enforcement actions and to maximize use of release information.
- Region may want to contact facility to verify release and to notify of pending survey.
- Regions may elect to send a survey to a facility for a particular release in their region without, or prior to, NRC release reports.

- Regions send ARIP questionnaire and cover letter to facility.
- Regions send follow-up letter if a questionnaire is not returned within 30 days.
- Regions answer questions from the facility and grant time extensions. If warranted, commence enforcement action if ARIP questionnaire if not completed.

- Regions log receipt of returned questionnaire and note NRC ID number on form.
- Regions must repond to and resolve confidentiality claims raised on questionnaire information.
- Regions review completed questionnaires, copy them and forward them to HQ.

- HQ codes the questionnaires and enters data into ARIP database.
- HQ performs analyses on the data and generates reports and bulletins for dissemination.
- Regions can use questionnaires for enforcement actions, audits/ inspections, and aggregate analyses.
- HQ distributes ARIP database to regions on a per request basis for regional use and analysis.

- Regions and HQ provide feedback on survey process and value of ARIP data.
- Regions coordinate and share information with air/water/land regional offices.
- Regions exchange ARIP information with states and local governments.
- HQ generates reports, bulletins, and updates for technical transfer.
- HQ and region alert facility Chief Executive Officers concerning particularly serious or potentially threatening releases.

Participants:

Regions	Regions	Regions, HQ	Regions, HQ	Regions, HQ

one to fifteen, which indicates the trigger or combination of triggers (e.g., EHS and Repeat Release) for which the release was selected (see Attachment C). Each release falls into one of these fifteen classifications, so there is no double counting. The contractor prepares a frequency count of the release reports in each trigger category and region (see Attachment D). NRC release report information is then added to a tracking database. The contractor sorts the NRC release reports into packets for each region. Approximately 1,400 NRC release reports will be selected to survey annually.

The Headquarters ARIP Coordinator distributes the packets to the Regional Coordinators, who verify the release information and then issue questionnaires to the specified facilities. Regional Coordinators ensure that the facilities complete the survey, evaluate claims of confidential information, and then forward groups of completed questionnaires to headquarters at regular intervals -- it is recommended that the regions maintain a tracking file on each ARIP survey that they receive. Headquarters is responsible for entering questionnaire information into the ARIP database, performing analyses upon the aggregated survey data, and making the results of its analysis available to the regions and state and local agencies.

III. REGIONAL RESPONSIBILITIES

The active participation of the regions is key to the success of the ARIP survey. The Regional ARIP Coordinator has the primary responsibility of insuring that the flow of ARIP questionnaires from EPA to the facilities and back to EPA is maintained. The following paragraphs outline in more detail the specific duties of the Regional Coordinator in the ARIP survey process.

A. Receipt of NRC Release Report Packet

The ARIP Regional Coordinator receives a packet of NRC release reports from the EPA Headquarters Coordinator. The packet will contain NRC release reports that meet the RQ multiple, EHS, repeat release, or death and injury criteria, as well as a cover sheet that indexes the reports by their Record Identification Number (see Attachment E). Separate cover sheets will document facilities with significant repeat release histories (see Attachment F) and will be the primary source for identifying facilities with potential operating problems.

B. Maintaining an ARIP Release Record System

The region should maintain a record of all relevant information and correspondence concerning each NRC release report and the associated ARIP questionnaire. This procedure is necessary for several purposes: to track the general progress of the survey effort, to identify overdue questionnaires, and to respond to specific inquiries from EPA headquarters, states, and the facilities. Exhibit 3 is a suggested information checklist that can be tailored to each regions needs. Information can be recorded either in hard-copy or computerized files. The Emergency Response Notification System

EXHIBIT 3

CHECKLIST AND ARIP TRACKING FORM FOR REGIONAL ARIP COORDINATOR

NRC Record Identification # (ID):_____ Release Date:_____

Shipment #:_____ for Release Period _____ - _____, 19____

1.	NRC release report received from HQ	_____ date done and initials
2.	Create correspondence file	_____ date done and initials
3.	Enter release report into tracking system	_____ date done and initials
4.	Decision to issue ARIP survey to facility (details in file as necessary, also note in tracking system)	_____ yes or no
5.	Contact facility to verify release, confirm address, and indicate survey is forthcoming (note in tracking system)	_____ date done and initials
6.	Survey sent to facility (note in tracking system)	_____ date done and initials
7.	Facility request for extension (note in tracking system)	_____ date extension request received _____ new date requested
8.	Follow-up contact with facility for non-completed surveys (note in tracking system)	_____ date done and initials
9.	Completed survey received from facility (note in tracking system)	_____ date received
10.	Review survey for completeness	_____ date done and initials
11.	Facility confidentiality claims (note details in file)	_____ yes or no
12.	Note NRC ID # on survey. Make copies for distribution to HQ and others. File original.	_____ date done and initials
13.	Completed survey forwarded to HQ (note in tracking system)	_____ date done
14.	Regional follow-up activities:	

_____

_____

_____

(ERNS), a computerized database of accidental releases available to the regions, provides a convenient structure for entering and updating release tracking information because much of the ARIP identifier information is already contained in ERNS. Each region should develop its own system, one which is best suited to its particular needs.

Regardless of the storage medium, each file should be identified by a combination of the NRC Record Identification number (ID) and the date of the release. When communicating with EPA headquarters about a specific release, the region should use the Record Identification number; refer to the "Record Identification(ID)" field specified on the release report (Attachment B). The cover sheets supplied with the NRC packet are useful for referencing releases.The release information contained in the tracking file can also provide documentation of ARIP activity to simplify the response to STAR and SCAP requests (see Attachment G).

C. Distributing the ARIP Questionnaire to Facilities

Before sending a survey questionnaire, the region should ensure that the survey will not interfere with any other regional, state, or local enforcement actions related to the release. If the region decides not to issue the ARIP questionnaire to a specific facility, this decision should be indicated in the tracking file. Reason(s) for the determination - improper trigger selection, continuous release, pending enforcement action, or inadequate quantity information - as well as the source of the decision should be included.

The region should establish specific procedures for distribution of the ARIP questionnaire to facilities. The Regional Coordinator has the option of contacting the facility to verify the release, the address, and alerting the facility that the survey will be forthcoming. The cover letter to the facility should follow the content and style of the model in Attachment H; the format of the letter covers certain legal requirements that cannot be changed. EPA's legal authority to collect this information must be correctly referenced. The primary authority is CERCLA section 104 (b)(1) and (e), although other authorities such as RCRA section 3007, Clean Water Act section 308(a), and Clean Air Act section 114(a) may be added or substituted if they are more applicable (e.g., if the facility is a RCRA facility, then RCRA section 3007 authority would be cited).

The cover letter should specify the details of the incident (e.g., the date of the release, the chemical(s) involved, and the quantity spilled) and indicate that the completed questionnaire is expected 30 days after receipt of the letter. It is of particular importance to indicate that the facility can claim any of its responses as confidential business information. The Regional ARIP Coordinator may need to coordinate with other regional offices for the proper signature on the cover letter, depending on the legal authorities used to collect the survey information. Finally, although there can be no modifications to the questionnaire because the form has received official OMB approval, the region may request supplemental information pertaining to the release.

D. Coordinating within the Regional Office

Regional staff should coordinate ARIP activities with other regional personnel before, during, and after the distribution of ARIP questionnaires to facilities. By notifying regional SARA section 313 staff, as well as the enforcement, air, and water offices prior to issuing the questionnaires, program confusion and conflict can be avoided, and the questionnaire will not disrupt other regional activities (i.e., enforcement or sensitive situations). In addition, some offices within the region may wish to request further information from ARIP facilities. To facilitate such communication but avoid unnecessary delays, the Regional Coordinator should consider sending out a written notice simultaneously to all appropriate offices, explaining that unless a response is given within the pre-determined time frame, the ARIP questionnaire will be issued.

E. Coordinating with State and Local Agencies

Maintaining coordination with the states and communities in the region is also important. The coordination approach can parallel the coordination within the region, particularly in confirming, by way of a written notice, that ARIP activities will not interfere with state and local enforcement or other efforts. Regular communication will allow states the opportunity to request that additional facilities be surveyed, to request that more detailed information be supplied, or to suggest additional uses for ARIP information.

F. Answering Facility Questions

The Regional Coordinator should expect to receive both general ARIP questions and specific inquiries about completing the survey from facility representatives. These requests will be aided by providing a telephone number for inquiries from facilities to the regional office in the cover letter (Attachment H). The Regional Coordinator should contact the Headquarters Coordinator or other regional staff if further assistance is required. If the questionnaire is not completed and returned within 30 days, the region should draft and send a follow-up letter (see Attachment I) containing a warning of impending administrative orders, which may result in the facility's being fined. Once again, the region should maintain a record of all correspondence.

G. Processing Completed Questionnaires

The Regional Coordinator should log the receipt of the completed ARIP questionnaire in the tracking system. The questionnaires should be reviewed in coordination with the regional Office of General Counsel to make determinations on any claims for confidentiality of survey data or any supplemental information that has been provided. All information claimed as confidential should be treated as confidential (e.g., restricting access to this information to unauthorized personnel, using locked files and/or computer passwords) until determined otherwise. Thus, this information should not be distributed outside of the Agency, either to the public or to LEPCs and SERCs. regional personnel should be trained in the procedures and regulations for

handling confidential information to prevent improper distribution (i.e., 40 CFR Part 2 Subpart B). The tracking system should be amended to indicate the existence and status of confidential materials in the file.

The ARIP questionnaire can be a valuable source of information for ongoing regional efforts, and copies should be available for all interested regional office personnel. Enforcement programs and facility inspections and audits can be augmented by ARIP data; in addition, the region may choose to perform analyses on the surveys received -- perhaps in conjunction with the states or other entities. Headquarters is developing a computerized database of survey information which will be made available to each regional office. Each region may elect to develop its own system for tracking, analysis, or follow-up.

H. Forwarding the Questionnaire to Headquarters

Finally, the region should forward completed questionnaires to the Headquarters ARIP Coordinator. The package must include a simple cover letter which lists the surveys enclosed and any problems or comments on the questionnaires. Each survey should have the Record Identification (ID) number from the NRC report written on the first page (the initial report page). If the region initiated the survey and there is no corresponding ID number, the region should indicate this action on the first page. The region should retain as many copies as it needs and send one copy to headquarters, being sure to remove the instruction pages and any attachments (e.g., process diagrams and facility drawings that do not pertain to a specific ARIP question) before copying -- these pages should not be sent to headquarters. The schedule for delivery of questionnaires is dependant upon the number of surveys processed, but bi-weekly or monthly intervals are suggested as most appropriate.

IV. FOLLOW-UP ACTIVITIES

EPA developed ARIP to establish a national database on the causes of chemical accidents, to promote safety initiatives by industry, and to identify methods used by facilities to prevent a release from re-occurring. As the database grows, ARIP's prominence in developing and supporting release prevention activities increases. Regional ARIP personnel are crucial to the ARIP process because of their knowledge and working relationships with the surveyed facilities, as well as the state and local agencies that share responsibilities and concerns about accidental chemical releases. As a result, headquarters appreciates feedback from the regions on the logistics of the ARIP survey process, the benefits of ARIP for regional release prevention efforts, and any requests for further analyses and technical assistance.

Sharing ARIP information within the regional office by distributing completed surveys or by providing access to a computerized tracking system will help coordinate and stimulate regional release prevention and preparedness activities. Regional Coordinators should also anticipate the eventual integration of ERNS with other regional computer systems and plan to develop appropriate links to ARIP tracking and survey information. Regions may also wish to exchange ARIP data with state and local agencies on a regular

or formal basis to promote the discussion of special release concerns and the development of emergency response plans. Headquarters reports and technical assistance bulletins will be made available, as well as periodic reports summarizing the interim results of ARIP analysis. This dissemination of ARIP information will support state and local initiatives such as facility inspections, enforcement, and the development and refinement of emergency planning. Regions may also wish to analyze the ARIP data to identify problem areas, such as chemicals frequently involved in accidents, common causes of accidents, and actions facilities have taken to prevent further releases.

ATTACHMENT A

OMB #: 2050-0065
Expires: January 31, 1991

U.S. Environmental Protection Agency
Accidental Release Prevention Questionnaire
Instructions

General Instructions

This questionnaire requests information to supplement reports you may have submitted to the National Response Center and other federal, state, or local authorities. The instructions below explain the questionnaire organization, define key words used in the questions, and give specific examples of responses to each type of question.

Please read the instructions and examples before you answer the questions. When you complete the questionnaire, place the completed form in the addressed envelope. If you need further assistance, please contact the person identified in the cover letter.

Organization

The questionnaire is divided into three sections. All questions must be answered.

Section I - Facility Profile: This section asks several general questions about your facility: location, ownership and current status of operations.

Section II - Hazardous Substance Release Profile: This section asks several key questions concerning the reported release. It is important that you respond as accurately as you can based on the information available to you. If additional comments would clarify your response, please note your comments on additional sheets of paper.

Section III - Cleanup and Prevention Profile: This section concludes the questionnaire with several questions concerning your efforts to respond to the release. These questions ask you to provide an assessment of prevention plans and equipment at your facility and any changes that will be initiated because releases occurred. The questions have multiple choice responses, plus additional space for alternate answers and details. Please attach additional pages if necessary.

Agency Disclosure of Estimated Burden

Public reporting burden for this collection of information is estimated to average 27 hours, including time for reviewing instructions, searching existing data sources, gathering and maintaining data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimates or any other aspects of this collection of information, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M St., S.W., Washington, D.C. 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Paperwork Reduction Project (2050 -0065), Washington, D.C. 20503.

Definitions

Please refer to the definitions below to clarify the precise meaning and use of the terms in the questionnaire.

Section I

Owner: The legally designated individual, partnership, corporation, or parties that own the facility.

Standard Industrial Classification: The federal government categories of business activity. See Standard Industrial Classification Manual, Office of Management and Budget, U.S. Government Printing Office, Washington, D.C.

Section II

Federal authority: Any federal government official delegated responsibility under the Superfund statute for activities related to hazardous substance releases (e.g., National Response Center, Environmental Protection Agency and it's regional offices).

General public: Persons not present within the facility boundaries at the time the release occurred (e.g., residents near the facility).

Hazardous substance: Any element, compound, mixture, solution, or substance designated under section 102 of the Comprehensive Environmental Response, Compensation, and Liability Act or section 3001 of the Solid Waste Disposal Act.

Local authority: Any local government official with some responsibility for activities related to hazardous substance releases (e.g., Local Emergency Response Committee (LEPC), fire department).

Process vessel: A tank, vat, or other container in which substances are either blended to form a mixture or reacted to convert them to some other final product or form.

Release: Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment.

State authority: Any state government official responsible for remedial or related activities connected with a hazardous substance release (e.g., State Emergency Response Commission (SERC), state transportation office).

Storage vessel: Any container (e.g., tank, drum, bottle, tank car, cylinder)used to hold a raw or input material, a product, or a by-product at ambient conditions or at an elevated or reduced temperature or pressure.

Equipment failure: Failure of equipment which allows a situation where substances may be released from the equipment.

Operator error: A mistake (e.g., leaving a valve open, failure to respond to process alarms, failure to maintain process variables or conditions at set point) made during operation of a process by the operator resulting in a potential release of feed stocks, by-products, or products.

Bypass: A pipe or channel providing an alternate pathway for gas or liquid streams that avoids the main pathway by detouring around it.

Upset: A malfunction or failure of process controls, alarms, or backup systems due to operator error, mechanical or equipment failure, or impingement by unexpected events such as fire, explosion, power loss, or water loss.

Spill: The unintentional or accidental release or flow of a substance from a container causing a loss of the substance.

Vapor release: Escape of a gas from a storage or process vessel or from the vaporization of volatile liquids.

Migration: The movement of a substance from one place to another in air,water, soil, or other media.

Facility boundary: Fence line or property line marking the perimeter of a facility.

Containment system: A series of curbs, vaults, ponds, and the like which serve to collect and temporarily hold spilled materials until such time as they are removed or transferred to a secure storage vessel.

POTW: Publically owned treatment works.

Section III*

Cause - Consequence Analysis: A blend of fault tree and event tree analysis. The cause - consequence diagram displays the interrelationships between accident outcomes and their basic causes.

Dow and Mond Index: Provides a method for relative ranking of the risks in a chemical process plant. The method assigns penalties to process materials and conditions that can contribute to an accident. Credits are assigned to plant safety procedures that can mitigate the effects of an accident.

Event Tree Analysis: Considers operator response or safety system response to an initiating event in determining accident outcome. The results are accident sequences.

Failure Modes, Effects, and Criticality Analysis: A tabulation of the system/plant equipment, their failure modes, each failure mode's effect on the system/plant, and a criticality ranking for each failure mode. The failure mode is a description of how equipment fails.

Fault Tree Analysis: A deductive technique that focuses on one particular accident event and provides a method for determining causes of the event. The fault tree is a graphic model that displays the various combinations of equipment faults and failures that can result in the accident event.

Hazard Assessment: Formal procedures employed to identify potential risks that could lead to an accidental release (i.e., fault tree analysis)

Hazard and Operability Studies: HAZOP is conducted by teams that brainstorm to systematically identify hazards or operability problems throughout an entire facility through the use of certain guidewords such as "no flow" and "no cooling". The consequences of the deviation associated with the guidewords are assessed and credible deviations are identified and addressed.

Human Error Analysis: A systematic evaluation of the factors that influence the performance of human operators, maintenance staff, techniques, and other personnel. It will identify error likely situations that can cause an accident.

Pre-Release Technologies: Technologies designed to reduce the probability that the primary containment (i.e., tanks, transfer piping, reactor vessel) of the chemical will be breached.

Probabilistic Risk Assessment: Overall measure of risk determined through numerical evaluation of both accidental consequences and probabilities. Used to assess comparative risk where alternative designs exist, also for assessment of acceptability of a risk and to suggest risk reduction strategies.

Process Design: Design of process equipment and systems to limit accident potential (i.e., redundant systems).

Process Control and Monitoring: Controls and detection equipment to provide information on possible or imminent releases (i.e., pressure sensor, temperature sensor, chemical detector on process line).

Protection: Application of equipment, systems, and procedures to capture, neutralize, or destroy a toxic chemical before it is released to the environment (i.e., scrubber).

Post-Release Mitigation: Application of equipment, systems, and procedures to capture, neutralize, or destroy a toxic chemical after it is released to the environment.

Siting and Facility Layout: Facility layout based on risks posed to the surrounding community and on widely accepted safety standards for equipment, procedures, and systems.

What-if Analysis: Considers the consequences associated with events that occur as a result of failures involving equipment, design or procedures. All possible system failures may be collected in checklist form and evaluated: for example, "what if the feedpump fails". Compiling a list of failures requires a basic understanding of what is intended and the ability to combine or synthesize possible deviations and reject incredible situations.

** The definitions in this section are derived from Guidelines for Hazard Evaluation Procedures, AIChE, 1985, and the Review of Emergency Systems, EPA, June 1988.*

Examples of Questions:

Example A

Several questions require a simple marked response to a precoded answer. The example below shows a correct response.

11a.Check the item below that best describes the status of facility operations at the time of release.

a. X In operation
b. _ Temporarily inactive
c. _ New construction

Example B

Several questions require you to answer with data. A correct response is shown in the example below.

9. Indicate the date release began.

06 - 11 - 86
(month) (day) (year)

Example C

Some questions require you to describe an answer because the available answers to the question do not cover your situation.

19. Please check the one item below that best describes the location of the release within your facility.

_ Process vessel
_ Storage vessel
_ Valves
_ Piping
_ Unknown
X Other (please describe)

Secondary containment vault

Example D

A few questions require you to fill in tables with data or information from your facility. One example is shown below. Other tables are similar.

24.a. Identify in the table below the name of each hazardous substance released, the quantity released, and the concentration and physical state at the time of release.

	NAME	QUANTITY	UNIT	PHYSICAL STATE	CONCENTRATION
1.	Anhydrous Ammonia	50	lbs	gas	100%
2.					
3.					
4.					

Example E

19. Briefly describe the circumstances that led up to the release.

At 11 a.m., two operators began to transfer hydrofluoric acid from a rail tank car to a facility storage vessel. All proper transfer connections were made but the operators left the vessels unattended during the chemical transfer. Both the automatic cutoff switch and the overfill warning alarm failed to function. Within 25 minutes, 250 gallons of hydrofluoric acid had spilled onto the lined concrete pad before operators noticed the release and closed the feed to the storage vessel. Meanwhile, the hydrofluoric acid spilled through a cracked section of the secondary containment and flowed into an adjoining field. Also, a vapor cloud began to form which hampered efforts to contain and neutralize the free liquid in the release area. Over the facility loudspeaker, all personnel were alerted to clear the area.

U.S. ENVIRONMENTAL PROTECTION AGENCY
ACCIDENTAL RELEASE PREVENTION QUESTIONNAIRE

INITIAL REPORT

SECTION I. FACILITY PROFILE

1. FACILITY NAME:

2. Dun & Bradstreet Number: |_|_|-|_|_|_|-|_|_|_|_|

3a. FACILITY MAILING ADDRESS:

_____ Street

_____ City

_____ State

_____ Zip Code

b.Facility physical address:

_____ Street

_____ City

_____ State

_____ Zip Code

	Latitude		Longitude	
4.	DEG	MIN	DEG	MIN

5. NAME AND ADDRESS OF OWNER OR CHIEF EXECUTIVE OFFICER: _____
Name
_____
Street
_____
City
_____
State
_____
Zip Code

6a. RESPONDENT:

_____
Name
_____
Title
_____
Street
_____
City
_____
State
_____
Zip Code
( ) _____
Telephone

b. DATE QUESTIONNAIRE COMPLETED: _____

7. Indicate the total number of employees typically at the facility (include all full-time and part-time employees, all employees on paid sick leave, paid holidays, paid vacations, managers and corporate officers at the facility). _____

8. Identify the four-digit Standard Industrial Classification (SIC) that best describes your facility operations and the primary product or service of this facility.

   a. SIC code: _ _ _ _

   b. Primary product or service: _____
   _____
   _____

   c. For facilities with multiple SIC codes, please identify the additional SIC codes.
   _ _ _ _, _ _ _ _

SECTION II. HAZARDOUS SUBSTANCE RELEASE PROFILE

The following section asks several questions concerning the accidental release of hazardous substances. If exact responses cannot be provided, please provide estimates using your best professional judgment.

9. Indicate the date release began.

__ __ - __ __ - __ __
(month) (day) (year)

Indicate date release ceased.

__ __ - __ __ - __ __
(month) (day) (year)

10. Indicate time of day release began.

__ __ : __ __
__ A.M.
__ P.M.

Indicate the time of day release ceased.

__ __ : __ __
__ A.M.
__ P.M.

11a. Check the item below that best describes the status of the process line where the event occurred at the time of release.

1. __ In operation
2. __ Temporarily inactive
3. __ Testing/Trial Run
4. __ Scheduled startup
5. __ Scheduled shutdown
6. __ New construction
7. __ During Maintenance
8. __ Production Changeover

b. Check the item below that best describes the current status of the process line where the event occurred.

1. __ In operation
2. __ Temporarily inactive
3. __ Permanently closed

If item 2 or 3 is marked, answer Question 11c; otherwise go to question 12.

c. Is the shut down of operations at the process line related to the accidental release of hazardous substances?

__ Yes
__ No

12a. Were federal authorities notified?

__ Yes
__ No

b. If yes, please indicate which federal authorities were notified:

1. __ National Response Center telephone number called (___) _____

2. __ Coast Guard telephone number called (___) _____

3. __ EPA telephone number called (___) _____

4. __ Other (specify) _____

c. Indicate the date and time of day federal authorities were notified.

__ __ - __ __ - __ __ (Date)
(month) (day) (year)

__ __ : __ __ (Time)
__ A.M.
__ P.M.

13a. Were state authorities notified?

__ Yes
__ No

b. If yes, identify all state authorities notified concerning the release. (If more than one, please attach list on separate page)

_____
(Name) (Title)

_____
(Agency)

_____
(City)

_____
(State)

(___) _____
(Telephone)

c. Indicate the date and time of day state authorities were notified.

__ __ - __ __ - __ __ (Date)
(month) (day) (year)

__ __ : __ __ (Time)
__ A.M.
__ P.M.

14a. Were local authorities notified?

__ Yes
__ No

b. If yes, identify all local authorities notified concerning the release. (If more than one, please attach list on separate page)

(Name) (Title)

(Agency)

(City)

(State)

(___) _____
(Telephone)

c. Indicate the date and time of day local authorities were notified.

__ __ - __ __ - __ __ (Date)
(month) (day) (year)

__ __ : __ __ (Time)
__ A.M.
__ P.M.

15a. Was the general public notified?

__ Yes
__ No

b. If yes, indicate the person that notified the general public of the release. (If more than one, please attach list on separate page)

(Name) (Title)

(Agency)

(City)

(State)

( ) (Telephone)

16. For this particular release, what type(s) of communication technologies were used by the facility to alert and notify the public to evacuate or take other safety measures?

a. __ Door-to-door notification
b. __ Loudspeakers/public address system
c. __ Tone alert radio/pagers
d. __ Siren/alarms
e. __ Modulated power lines
f. __ Aircraft
g. __ Radio
h. __ Television
i. __ Cable override
j. __ Telephone
k. __ None
l. __ Other (please describe)

17a. Were members of the general public evacuated?

__ Yes
__ No

If yes, please indicate number evacuated.

__ __ __ __ __

b. Were members of the general public sheltered in place?

__ Yes
__ No

If yes, please indicate number sheltered in place.

__ __ __ __ __

18. To the best of your ability, indicate the weather conditions at the time of release for each item below. Approximations are acceptable.

a. Wind Speed (miles per hour) __ __ __
b. Wind Direction __ __
c. Humidity (percent) __ __ __
d. Temperature (Fahrenheit) __ __ __
e. Precipitation? __ Yes __ No

19. Briefly describe the circumstances that led up to the release (if helpful include a sketch).

20. Please check the one item below that best describes the location of the release within your facility.

a. __ Process vessel
b. __ Storage vessel
c. __ Valves on process vessel
d. __ Valves on storage vessel
e. __ Piping on process vessel
f. __ Piping on storage vessel
g. __ Pumps
h. __ Joints
i. __ Unknown
j. __ Other (please describe)

21. How was the release first discovered? (check as many as apply)

a. __ Indication by process control device (gauge or monitor)
b. __ Chemical specific detector
c. __ General operator observation
d. __ Observation by foreman or supervisor
e. __ Injury/death
f. __ Explosion/fire
g. __ Major environmental damage
h. __ Third party notification (i.e., POTW, community, other facility)
i. __ Other (describe below)

22. Please check the one item below that best describes the **primary cause** of the release event. (please check one item only)

a. __ Equipment failure
b. __ Operator error
c. __ Bypass condition
d. __ Upset condition (explain below)
e. __ Fire
f. __ Maintenance activity
g. __ Unknown
h. __ Other (Please describe)

_____

_____

23. Please check any items below that describe **additional causes** of the release event. (check as many items as apply)

a. __ Equipment failure
b. __ Operator error
c. __ Bypass condition
d. __ Upset condition (elaborate below)
e. __ Fire
f. __ Maintenance activity
g. __ Unknown
h. __ Other (Please describe)

_____

_____

24. Check the items that describe the end effects of the release event. (check as many as apply)

a. __ Spill
b. __ Vapor release
c. __ Explosion
d. __ Fire
e. __ Other (describe)

_____

_____

25a. In the table below, please estimate the quantity of each substance released to each media. Be sure to specify the measurement unit.

Chemical	Media	Quantity	Unit
1a. Name _____	Air	_____	_____
b. CAS # _____	Surface Water	_____	_____
c. Physical State _____	Land	_____	_____
	Sewer to Treatment Facility	_____	_____
d. Concentration _____			
2a. Name _____	Air	_____	_____
b.CAS # _____	Surface Water	_____	_____
c. Physical State _____	Land	_____	_____
	Sewer to Treatment Facility	_____	_____
d. Concentration _____			
3a.Name _____	Air	_____	_____
b.CAS # _____	Surface Water	_____	_____
c. Physical State _____	Land	_____	_____
	Sewer to Treatment Facility	_____	_____
d. Concentration _____			
4a. Name _____	Air	_____	_____
b.CAS # _____	Surface Water	_____	_____
c. Physical State _____	Land	_____	_____
	Sewer to Treatment Facility	_____	_____
d. Concentration _____			

b. Please check the items below that describe your methods or source of information for your responses in Question 25a. (check as many as apply)

__ physical properties and ambient conditions
__ on-line instrument
__ engineering estimate
__ tank/system inventory
__ chemical analysis
__ effluent measured
__ inventory check
__ computer simulation
__ process records
__ no release to media
__ other (please describe)

_____

_____

26a. Did any substances identified in Question 25, **migrate beyond the legal boundaries** of your facility (for example, a vapor release was carried by prevailing wind beyond the fence line of your facility)?

__ Yes (If yes, please answer Question 26.b and c)
__ No (If no, skip Question 26.b and answer Question 26c)

b. In the table below specify the quantities of substances that **migrated beyond your facility boundaries.**

Chemical	Media	Quantity	Unit
1. Name:_____	Air	_____	_____
	Surface Water	_____	_____
	Land	_____	_____
Physical state: _____	POTW	_____	_____
2. Name:_____	Air	_____	_____
	Surface Water	_____	_____
	Land	_____	_____
Physical state: _____	POTW	_____	_____
3. Name:_____	Air	_____	_____
	Surface Water	_____	_____
	Land	_____	_____
Physical state: _____	POTW	_____	_____
4. Name:_____	Air	_____	_____
	Surface Water	_____	_____
	Land	_____	_____
Physical state: _____	POTW	_____	_____

c. Please check the items below that describe your methods or source of information for your responses in question 26b.

__ physical properties and ambient conditions
__ on-line instrument
__ engineering estimate
__ tank system inventory
__ chemical analysis
__ effluent measured
__ computer simulation
__ inventory check
__ process records
__ assumed
__ other (please describe)

_____

_____

27. Did injuries occur among facility employees or contractors as a result of the event?

__ Yes
__ No

a. If yes, please indicate number of injuries.

— — — — — —

b. How many of these received hospital treatment?

— — — —

__ Number treated unknown

c. Did deaths occur among facility employees or contractors as a result of the event?

__ Yes
__ No

If yes, please indicate number of deaths.

— — — — — —

28. Did injuries occur among the general public as a result of the event?

__ Yes
__ No
__ Don't know

a. If yes, please indicate number of injuries.

— — — — — —

b. How many of these received hospital treatment?

— — — — — —

__Number treated unknown

c. Did deaths occur among the general public as a result of the event?

__ Yes
__ No
__ Don't know

If yes, please indicate number of deaths.

— — — — — —

29. Please indicate the environmental effects that occurred as a result of the release:

a. __ Fish kills
b. __ Vegetation damage
c. __ Soil contamination
d. __ Groundwater contamination
e. __ Wildlife kills
f. __ None
g. __ Other (please specify)

_____
_____

SECTION III. CLEANUP AND PREVENTION PROFILE

30. Please describe the immediate response activities taken to contain or minimize the release.

_____
_____
_____
_____

31. Did your facility undertake cleanup of the release?

__ Yes (If yes, skip Question 32a.)
__ No

32a. Please supply the name and address of the party responsible for cleanup.

_____
(Name) (Title)

_____
(Agency)

_____
(City)

_____
(State)

(___)_____
(Telephone)

b. Has cleanup of the release been completed?

__ Yes (If yes, please answer Questions 32c.)
__ No (If no, please answer Question 32d.)

c. Indicate the date cleanup activity ceased.

__ __ - __ __ - __ __
(month) (day) (year)

d. Please indicate the approximate date completion of cleanup activity is expected.

__ __ - __ __ - __ __
(month) (day) (year)

33. How did you dispose of the waste generated during the spill and cleanup?
On site_____
_____
_____
_____

Off site_____
_____
_____
_____

34a. Prior to this release event, which types of **formalized hazard assessments** were performed? (Check as many items as apply). For those items checked, please indicate the frequency performed (i.e., quarterly, annually, one time, or on occasion).

	Frequency
__ Cause–consequence analysis	_____
__ Dow and Mond Hazard Indices	_____
__ Event tree analysis	_____
__ Failure modes, effects, and criticality analysis	_____
__ Fault tree analysis	_____
__ HAZOP/hazard and operability studies	_____
__ Human error analysis	_____
__ Probabalistic risk assessment	_____
__ What if analyses	_____
__ None	_____
__ Other (please describe)	_____

_____

_____

_____

b. What is your opinion of the effectiveness of each of the assessment techniques used?

_____

_____

_____

_____

_____

_____

35. Prior to this release event, which of the following **pre–release controls** have been employed specifically to identify/prevent the type of release that occurred? (Check as many items as apply)

a. __ Preventative maintenance
b. __ Regular equipment inspections and testing
c. __ Hazard assessment
d. __ Comprehensive audit
e. __ Regular assessment of equipment designs
f. __ Process controls for operations monitoring and/or warning
g. __ Regular upgrading of equipment
h. __ Comprehensive investigation on similar equipment failure
i. __ Standard operating procedures
j. __ Release prevention equipment
k. __ Equipment installation checks
l. __ Other (please describe)

_____

_____

_____

36. Prior to this release, what **management activities** related to safety and loss prevention have been employed? (Check as many as apply)

a. __ Employee safety training (e.g., OSHA training programs)
b. __ Emergency Response training
c. __ Employee testing
d. __ Certification of operators on equipment/system
e. __ Membership in CAER or other similar programs
f. __ Release control program
g. __ Accident investigation reports
h. __ Research/conferences
i. __ Safety loss prevention office/officer
j. __ Corrective action process for deviation from rules
k. __ Program to improve system design
l. __ None
m. __ Other (please describe)

_____

_____

37. For this particular release, what method(s) of **pre-release protection equipment** (systems to capture, neutralize, or destroy a toxic chemical before it is released into the environment) is used by the facility? (Check as many items as apply)

a. __ Containment (i.e., diking, dump tank - explain below)
b. __ Neutralization
c. __ Scrubber
d. __ Flares/incineration
e. __ Adsorbers
f. __ Spray curtain
g. __ Emergency Equipment (i.e., fire fighting)
h. __ None
i. __ Other (please describe)

_____

_____

38. For this particular release, what **systems or procedures** were employed by the facility to minimize accident potential? (Check all that apply)

a. __ Backup systems
b. __ Redundant systems
c. __ Minimize inventory
d. __ Valve lock out
e. __ Automatic shut off
f. __ Bypass and surge systems
g. __ Manual override
h. __ Limit capacity of equipment
i. __ Standard Operating Procedures (logs, checklists)
j. __ Alarms
k. __ Interlocks
l. __ None
m. __ Other (please describe)

_____

_____

39. In response to this release, which of the following pre-release controls have been implemented or modified to identify/prevent **future** potential releases? (Check as many as apply)

a. __ Preventative maintenance
b. __ Regular equipment inspections and testing
c. __ Hazard assessment
d. __ Comprehensive audit
e. __ Regular evaluation of equipment designs
f. __ Increased process controls for operations monitoring and/or warning
g. __ Upgrading equipment
h. __ Revised standard operating procedures
i. __ Follow accident report investigation recommendations
j. __ Develop or refine emergency response planning
k. __ Other (please describe)

_____
_____
_____

40. Describe the changes in the content of your training programs as a result of this release.

_____
_____
_____
_____
_____
_____

41. Describe the **immediate** equipment repairs and/or replacements, management practices, operational changes, etc. made as a result of the release.

_____
_____
_____
_____
_____
_____

42. What additional **long term** preventative measure(s) will be taken to minimize the possibility of recurrence?

_____
_____
_____
_____
_____
_____

ATTACHMENT B

SUBJECT: CONFIDENTIAL RECORD PRINTOUT TRIGGER: 12--> REPEAT RELEASE & EHS
DATE: 02/16/89

RECORD IDENTIFICATION(ID): 20744 REPORT NUMBER(RNO): 16237
CODE DAY TO NRC(RDATE): 12/03/1988
CODE TIME TO NRC(RTIME): 1549
SPILL STATE(SST): LA
TRANSPORT MODE: F
DUTY OFFICER(DO): JPM

	1.	2.	3.
CHRIS CODE(CC):	CLX		
MATERIAL SPILLED(MATSP):	CHLORINE GAS		
CHRIS NAME:	Chlorine		
QUANTITY SPILLED(QUA):	800.00	0.00	0.00
UNITS:	LBS		
QUANTITY IN WATER(QUAW):	0.00	0.00	0.00
UNITS IN WATER(UNITSW):	NON		

SPILLER'S COMPANY(CORG/DORG): PPG INDUSTRIES
SPILLER ADDRESS (CADD, CCITY, CST, CZIP): POB 1000, LAKE CHARLES, LA, 70602
SPILL CITY, COUNTY(SCITY,SCOUNTY): WESTLAKE CALCASIEU
SPILL LOCATION 1(LOC1): COLUMBIA SOUTHERN ROAD
SPILL LOCATION 2(LOC2): PPG IND
DAY SPILLED(DASPI): 12/03/1988
TIME SPILLED(TMSPI): 1305
MEDIUM: AIR? T LAND? F WATER? F GROUNDWATER? F FAC? F
WATERWAY AFFECTED(WWY): AIR
CAUSE: TRANS_ACC? F EQUIP? F OP_ERROR? F NATL PHENOM? F DUMP? F UNK? F OTHER? F
DESCRIPTION OF CAUSE(DESC1): CHLORINE NEUTRALIZER/MECHANICAL FAILURE
DESCRIPTION OF CAUSE(DESC2):
VEHICLE ID(VID):
DEATHS(DEA):
INJURED(INJ):
EVACUATIONS?(EVAC): F DAMAGES?(DAM): F
PROPERTY DAMAGE(PROP):
REMEDIAL ACTION(ACT1): SHUT DOWN CHLORINE CIRCUITS
REMEDIAL ACTION(ACT2):
NOTIFIED: EPA? F REGION(EPAR): 6 TIME: 1553 USCG? F UNIT(CGU): TIME: OTHER? F OTHERS TIME:
STATE_LOC? T DISCHR? F NTSB_PIPE? F NTSB_RAIL? F RSPA_OHM? F RSPA_OPS? F DOT_FRA? F DOT_FAA? F
DOT_OMCS F MISC_NRC? FMISC_DOE? F MISC_FEMA? F MISC_DOD? F CHEMTREC? F UNKNOWN? F
NOTIFIED BY CALLER(CNOTIF): LA STATE POLICE,DEQ
OTHERS NOTIFIED(AGENC):
MISCELLANEOUS INFORMATION(M1):
MISCELLANEOUS INFORMATION(M2):
MISCELLANEOUS INFORMATION(M3):
MISCELLANEOUS INFORMATION(M4):
DATE HARDCOPY(DHC): DATE CANCELLATION LETTER(DCANL):
JURISDICTION(JURI): REPORTABLE(RPT):
DATE OF ENTRY(DE): 12/05/1988 DATE OF CHANGE(DC):

ATTACHMENT C

Exhibit 1

ARIP Trigger Codes and Descriptions

Code	Trigger Description
1	Death/Injury
2	Exceeds RQ Multiple
3	Death/Injury and Exceeds RQ Multiple
4	Repeat Release
5	Repeat Release and Death/Injury
6	Exceeds RQ Multiple and Repeat Release
7	Death/Injury and Exceeds RQ Multiple and Repeat Release
8	Extremely Hazardous Substance (EHS)
9	EHS and Death/Injury
10	EHS and Exceeds RQ Multiple
11	EHS and Exceeds RQ Multiple and Death/Injury
12	EHS and Repeat Release
13	EHS and Repeat Release and Death/Injury
14	EHS and Repeat Release and Exceeds RQ Multiple
15	All Triggers

ATTACHMENT D

Exhibit 3

Number of ARIP Release Reports by Trigger

Trigger Code	Number of Release Reports	Percentage of Total	Trigger Description
1	9	4.0%	Death/Injury
2	47	19.5%	Exceeds RQ Multiple
3	1	.5%	Death/Injury and Exceeds RQ Multiple
4	11	5.0%	Repeat Release
6	5	2.0%	Exceeds RQ Multiple and Repeat Release
8	95	39.0%	Extremely Hazardous Substance (EHS)
9	3	1.0%	Death/Injury and EHS
10	24	10.0%	Exceeds RQ Multiple and EHS
11	3	1.0%	Exceeds RQ Multiple and EHS and Death/Injury
12	39	16.0%	Repeat Release and EHS
13	1	.5%	EHS and Repeat Release and Death/Injury
14	4	1.5%	Exceeds RQ Multiple and Repeat Release and EHS
	243	100%	

Exhibit 2

Number of ARIP Triggered Release Reports by Region

	Regions										
	1	2	3	4	5	6	7	8	9	10	Total
Triggered Release Reports May-June	8	10	28	50	20	60	12	6	37	12	243
Triggered Release Reports Cumulative 10/88 - 6/89	34	45	89	159	122	281	40	18	119	48	955

ATTACHMENT E

Region IV
Number of ARIP Release Reports by Trigger

Trigger Code	Number of Releases	Record Identification Numbers	Percentage of Total
1	1	13192	2%
2	17	7538, 8811, 9056, 9178, 9460, 10009, 10538, 11014, 11197, 11693, 11698, 12132, 12465	26%
4	3	10660, 10711, 11062	6%
6	1	10008	2%
8	22	7351, 8834, 8902, 8966, 9280, 9663, 10020, 10030, 10055, 10368, 10374, 10850, 11022, 11243, 11268, 11321, 11655, 11767, 12233, 12274, 12451, 13184	44%
10	2	7549, 12052	4%
11	1	10021	2%
12	7	9158, 10335, 11249, 11641, 11782, 11965, 12042	14%
Total	50		100%

Region VI

The following facility has a release that falls into the Repeat Release trigger category. The ARIP program requires a questionnaire to be sent to facilities that have repeat releases of CERCLA substances above the RQ. The facility should begin receiving questionnaires once it has had its fourth release and will continue to receive a questionnaire for each subsequent release with a cap at the tenth release. Listed here are the first three releases at a facility plus the additional releases that qualify as ARIP triggered releases.

Facility	Address	Record ID #	Dates of Releases	Chemicals	Amounts
Vulcan Chemicals Inc.	P.O. Box 227 Ashland Road Geismer, LA 70734	20488	11/27/1988	Methyl Chloride	27.0
		21105	12/12/1989	Methyl Chloride	25.0
		21181	12/14/1988	Methyl Chloroform	1000.0
		388	01/07/1989	Methyl Chloride	18.0
		663	01/14/1989	Mixed Hydrogen Chloride and Methyl Chloride	2.0
		4315	03/21/1989	Methyl Chloride	80 lbs.
		6816	04/23/1989	Chlorine	20 lbs.
		*9120	05/16/1989	Methyl Chloride	2 lbs.
		*9101	05/16/1989	Methyl Chloride	70 lbs.
		*11408	06/14/1989	Chlorine	10 lbs.

* The NRC report for the release to be surveyed is included in this data set.

ATTACHMENT F

CEP-4 (OSWER #43)

Report number of Accidental Release Information Program (ARIP) triggered letters/questionnaires sent to facilities having releases. (This includes both those releases identified by the National Response Center as well as any additional releases identified by the Region.)

NRC Record Number (RNO)	Date Questionnaire Sent	NRC Record Number (RNO)	Date Questionnaire Sent
Total Sent from Headquarters		Total Sent Out This Quarter	

ATTACHMENT H

-> **Initial Facility Notification** <-

Certified Mail #_____
Return Receipt Requested

<Date or Date Stamp>

<Facility Name>
<Facility Address>

Dear **<Named Individual>**:

The United States Environmental Protection Agency (EPA) is presently undertaking an initiative called the Accidental Release Information Program (ARIP). The purpose of this program is to learn more about the causes of accidental releases of hazardous substances from certain fixed facilities, and the actions which could be taken to prevent them from reoccurring.

We are currently investigating the circumstances surrounding the following hazardous substance release(s):

DATE	NRC ID#	Substance	Quantity

Our investigation concerns the actions that have been taken as a result of the release(s) and the potential for future releases from this facility which may endanger public health, welfare or the environment.

Pursuant to the authority of Section 104(b)(1) and (e), of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. Sections 9604(b)(1) and (e), you are requested to respond to the questions in the enclosed Accidental Release Prevention Questionnaire as they releate to the above-referenced release of a hazardous substance. Your response shall include all information requested which is in your possession, custody or control, or which is in the possession, custody, or control of any of your employees, officers, or agents.

A separate questionnaire should be submitted for each release event identified above. You may reproduce the questionnaire locally, or you may submit a computer printout that provides the requested information in the identical format. Your response

should be sent to EPA within thirty (30) calendar days of your receipt of this letter. Requests for a reasonable extension of time can be discussed with the Agency.

You are entitled to assert a claim of business confidentiality, in accordance with 40 CFR §2.203(b), for any confidential business or trade secret information produced. Information subject to a claim of business confidentiality will be made available to the public only in accordance with the procedures set forth in 40 CFR Part 2, Subpart B. Unless a business confidentiality claim is asserted at the time the requested information is submitted, EPA may make this information available to the public without further notice to you.

Your completed response should be sent to:

<Name, Title>
<Section/Division>
<U.S. EPA, Region _>
<Mailing Address>

If you have any questions concerning this matter, please contact **<Name>** at **<area code + phone number>**.

Sincerely yours,

<Regional Delegated Authority>

Enclosure

cc.

ATTACHMENT I

-> Second Facility Notification <-

Certified Mail #_____
Return Receipt Requested

<Date or Date Stamp>

<Facility Name>
<Facility Address>

Dear <Named Individual>:

On <Date of first notification> you were sent a multi-page Accidental Release Information Program (ARIP) questionnaire regarding the following release event(s):

DATE	NRC ID#	Substance	Quantity

A copy of that <Letter date> notification is attached for your information.

As of this date, our office has no record of your reply to that letter. If you have indeed submitted the information requested, please provide this office with another copy of your response. If you have not yet submitted your reply, you have <10 or 20> days from the receipt of this letter to submit that information. A blank copy of the ARIP questionnaire is enclosed for your use.

Please note that the failure to submit the requested information in the alloted time may constitute violations of a number of Federal pollution statutes, including CERCLA Section 104(e)(5), and will be referred to our <Regional enforcement office title> for further action.

If you have any questions regarding this letter or the ARIP questionnaire, please contact <Name> of my staff at <area code + phone number>.

Sincerely yours,

<Regional Delegated Authority>

Enclosure

cc.