APPENDIX A

IMPLEMENTING TITLE III: EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW:

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986

This appendix includes a detailed summary of Title III of SARA. The material printed in italics indicates how information generated by compliance with Title III can be of use to local emergency planning committees. Exhibit 5 is a list of key dates relative to Title III implementation. Exhibit 6 is a graphic representation of the flow of information required by Title III. Exhibit 7 summarizes ways in which Title III information can be used by local emergency planning committees. Exhibit 8 identifies various lists of chemicals mentioned in Title III and indicates the purpose(s) of each list.

On October 17, 1986, the President signed the "Superfund Amendments and Reauthorization Act of 1986" (SARA) into law. One part of the new SARA provisions is Title III: the "Emergency Planning and Community Right-to-Know Act of 1986." Title III establishes requirements for Federal, State, and local governments, and industry regarding emergency planning and community right-to-know reporting on hazardous chemicals. This legislation builds upon the Environmental Protection Agency's (EPA's) Chemical Emergency Preparedness Program (CEPP) and numerous State and local programs aimed at helping communities to meet their responsibilities in regard to potential chemical emergencies.

Title III has four major sections: emergency planning (§ 301-303), emergency notification (§ 304), community right-to-know reporting requirements (§ 311, 312), and toxic chemical release reporting -- emissions inventory (§ 313). The sections are interrelated in a way that unifies the emergency planning and community right-to-know provisions of Title III. (See Exhibit 6.)

In addition to increasing the public's knowledge and access to information on the presence of hazardous chemicals in their communities and releases of these chemicals into the environment, the community right-to-know provisions of Title III will be important in preparing emergency plans.

This appendix includes a summary of these four major sections, followed by a discussion of other Title III topics of interest to emergency planners.

Sections 301-303: Emergency Planning

The emergency planning sections are designed to develop State and local government emergency preparedness and response capabilities through better coordination and planning, especially at the local level.

Title III requires that the Governor of each State designate a State emergency response commission (SERC) by April 17, 1987. While existing State organizations can be designated as the SERC, the commission should have broad-based representation. Public agencies and departments concerned with issues relating to the environment, natural resources, emergency management, public health, occupational safety, and transportation all have important roles in Title III activities.

Various public and private sector groups and associations with interest and expertise in Title III issues can also be included on the SERC.

The SERC must designate local emergency planning districts by July 17, 1987, and appoint local emergency planning committees (LEPCs) within one month after a district is designated. The SERC is responsible for supervising and coordinating the activities of the LEPCs, for establishing procedures for receiving and processing public requests for information collected under other sections of Title III, and for reviewing local emergency plans.

The LEPC must include elected State and local officials, police, fire, civil defense, public health professionals, environmental, hospital, and transportation officials as well as representatives of facilities, community groups, and the media. Interested persons may petition the SERC to modify the membership of an LEPC.

No later than September 17, 1987, facilities subject to the emergency planning requirements must notify the LEPC of a representative who will participate in the planning process as a facility emergency coordinator.

Facility emergency coordinators will be of great service to LEPCs. For example, they can provide technical assistance, an understanding of facility response procedures, information about chemicals and their potential effects on nearby persons and the environment, and response training opportunities. CEPP experience revealed that, as a result of CMA's CAER initiative, there already exist a large number of plant managers and other facility personnel who want to cooperate with local community planners.

The LEPC must establish rules, give public notice of its activities, and establish procedures for handling public requests for information.

The LEPC's primary responsibility will be to develop an emergency response plan by October 17, 1988. In developing this plan, the local committee will evaluate available resources for preparing for and responding to a potential chemical accident. The plan must include:

- Identification of facilities and extremely hazardous substances transportation routes;
- Emergency response procedures, on site and off site;
- Designation of a community coordinator and facility coordinator(s) to implement the plan;
- Emergency notification procedures;
- Methods for determining the occurrence of a release and the probable affected area and population;
- Description of community and industry emergency equipment and facilities, and the identity of persons responsible for them;
- Evacuation plans;
- Description and schedules of a training program for emergency response to chemical emergencies; and
- Methods and schedules for exercising emergency response plans.

To assist the LEPC in preparing and reviewing plans, Congress required the National Response Team (NRT), composed of 14 Federal agencies with emergency preparedness and response responsibilities, to publish guidance on emergency planning. This Hazardous Materials Emergency Planning Guide is being published by the NRT to fulfill this requirement.

The emergency plan must be reviewed by the SERC upon completion and reviewed annually by the LEPC. The Regional Response Teams (RRTs), composed of Federal Regional officials and State representatives, may review the plans and provide assistance if the LEPC so requests.

The emergency planning activities of the LEPC and facilities should initially be focused on, but not limited to, the extremely hazardous substances published as an interim final rule in the November 17, 1986, *Federal Register.* The list included the threshold planning quantity (TPQ) for each substance. EPA can revise the list and TPQs but must take into account the toxicity, reactivity, volatility, dispersability, combustibility, or flammability of a substance. Consult EPA Regional offices for a copy of the Title III (Section 302) list of extremely hazardous substances.

Any facility that produces, uses, or stores any of the listed chemicals in a quantity greater than the TPQ must meet all emergency planning requirements. In addition, the SERC or the Governor can designate additional facilities, after public comment, to be subject to these requirements. By May 17, 1987, facilities must notify the SERC that they are subject to these requirements. If, after that time, a facility first begins to produce, use, or store an extremely hazardous substance in an amount exceeding the threshold planning quantity, it must notify the SERC and LEPC within 60 days.

Each SERC must notify EPA Regional offices of all facilities subject to Title III planning requirements.

In order to complete information on many sections of the emergency plan, the LEPC will require data from the facilities covered under the plan. Title III provides authority for the LEPC to secure from a facility information that it needs for emergency planning and response. This is provided by Section 303 (d)(3), which states that:

"Upon request from the emergency planning committee, the owner or operator of the facility shall promptly provide information to such committee necessary for developing and implementing the emergency plan."

Within the trade secret restrictions contained in Section 322, LEPCs should be able to use this authority to secure from any facility subject to the planning provisions of the law information needed for such mandatory plan contents as: facility equipment and emergency response capabilities, facility emergency response personnel, and facility evacuation plans.

Some of the facilities subject to Section 302 planning requirements may not be subject to Sections 311–12 reporting requirements, which are currently limited to manufacturers and importers in SIC codes 20–39. LEPCs may use Section 303(d)(3) authority to gain information such as name(s), MSDSs, and quantity and location of chemicals present at facilities subject to Section 302.

Section 304: Emergency Notification

If a facility produces, uses, or stores one or more hazardous chemical, it must immediately notify the LEPC and the SERC if there is a release of a listed hazardous substance that exceeds the reportable quantity for that substance. Substances subject to this notification requirement include substances on the list of extremely hazardous substances published in the *Federal Register* on November 17, 1986, and substances subject to the emergency notification requirements of CERCLA Section 103(a).

Information included in this initial notification (as well as the additional information in the follow-up written notice described below) can be used by the LEPC to prepare and/or revise the emergency plan. This information should be especially helpful in meeting the requirement to list methods for determining if a release has occurred and identifying the area and population most likely to be affected.

The initial notification of a release can be by telephone, radio, or in person. Emergency notification requirements involving transportation incidents may be satisfied by dialing 911 or, in the absence of a 911 emergency number, calling the operator.

This emergency notification needs to include: the chemical name; an indication of whether the substance is an extremely hazardous substance; an estimate of the quantity released into the environment; the time and duration of the release; the medium into which the release occurred; any known or anticipated acute or chronic health risks associated with the emergency and, where appropriate, advice regarding medical attention necessary for exposed individuals; proper precautions, such as evacuation; and the name and telephone number of a contact person.

Section 304 also requires a follow-up written emergency notice after the release. The follow-up notice or notices shall update information included in the initial notice and provide additional information on actual response actions taken, any known or anticipated data on chronic health risks associated with the release, and advice regarding medical attention necessary for exposed individuals.

The requirement for emergency notification comes into effect with the establishment of the SERC and LEPC. If no SERC is established by April 17, 1987, the Governor becomes the SERC and notification should be made to him/her. If no LEPC is established by August 17, 1987, local notification must be made to the appropriate local emergency response personnel, such as the fire department.

Sections 311-312: Community Right-to-Know Reporting Requirements

As noted above, Section 303(d)(3) gives LEPCs access to information from facilities subject to Title III planning requirements. Sections 311-12 provide information about the nature, quantity, and location of chemicals at many facilities not subject to the Section 303(d)(3) requirement. For this reason, LEPCs will find Sections 311-12 information especially helpful when preparing a comprehensive plan for the entire planning district.

There are two community right-to-know reporting requirements. Section 311 requires a facility which must prepare or have available material safety data sheets (MSDSs) under the Occupational Safety and Health Administration (OSHA) hazard communications regulations to submit either copies of its MSDSs or a list of MSDS chemicals to the LEPC, the SERC, and the local fire department. Currently, only facilities in Standard Industrial Classification (SIC) Codes 20-39 (manufacturers and importers) are subject to these OSHA regulations.

The initial submission of the MSDSs or list is required no later than October 17, 1987, or 3 months after the facility is required to prepare or have available an MSDS under OSHA regulations. A revised MSDS must be provided to update an MSDS which was originally submitted if significant new information regarding a chemical is discovered.

EPA encourages LEPCs and fire departments seriously to consider contacting

facilities prior to the deadline of October 17, 1987 to request the submission of lists rather than MSDS forms. In communities with a large number of facilities, handling large numbers of chemicals, and in communities with limited capabilities to store and manage the MSDSs, the list of MSDS chemicals from the facility would be more useful than the forms themselves, and likely to be more easily produced.

LEPCs also have the option of using the chemical names provided to develop additional data on each of the chemicals, using a variety of data sources, including several on-line data bases maintained by agencies of the Federal government.

Specific MSDSs could be requested on chemicals that are of particular concern. In general every MSDS will provide the LEPC and the fire departments in each community with the following information on each of the chemicals covered:

- *The chemical name;*
- *Its basic characteristics, for example:*
  - *toxicity, corrosivity, reactivity,*
  - *known health effects, including chronic effects from exposure,*
  - *basic precautions in handling, storage, and use,*
  - *basic countermeasures to take in the event of a fire, explosion, leak, and*
  - *basic protective equipment to minimize exposure.*

In any case, these data should be useful for the planning to be accomplished by the LEPC and first responders, especially fire departments and hazmat teams. Both hazards analysis and the development of emergency countermeasures should be facilitated by the availability of MSDS information.

If the facility owner or operator chooses to submit a list of MSDS chemicals, the list must include the chemical name or common name of each substance and any hazardous component as provided on the MSDS. This list must be organized in categories of health and physical hazards as set forth in OSHA regulations or as modified by EPA.

If a list is submitted, the facility must provide the MSDS for any chemical on the list upon the request of the LEPC. Under Section 311, EPA may establish threshold quantities for hazardous chemicals below which no facility must report.

The reporting requirement of Section 312 requires facilities to submit an emergency and hazardous chemical inventory form to the LEPC, the SERC, and the local fire department. The hazardous chemicals covered by Section 312 are the same chemicals for which facilities are required to submit MSDS forms or the list for Section 311.

Under Sections 311-12, EPA may establish threshold quantities for hazardous chemicals below which no facility is subject to this requirement. See the proposed rule in the January 27, 1987 *Federal Register*. The Final Rule will be published before October 1987.

The inventory form incorporates a two-tier approach. Under Tier I, facilities must submit the following aggregate information for each applicable OSHA category of health and physical hazard:

- An estimate (in ranges) of the maximum amount of chemicals for each category present at the facility at any time during the preceding calendar year;
- An estimate (in ranges) of the average daily amount of chemicals in each category; and
- The general location of hazardous chemicals in each category.

Tier I information shall be submitted on or before March 1, 1988 and annually thereafter on March 1.

The public may also request additional information for specific facilities from the SERC and LEPC. Upon the request of the LEPC, the SERC, or the local fire department, the facility must provide the following Tier II information for each covered substance to the organization making the request:

- The chemical name or the common name as indicated on the MSDS;
- An estimate (in ranges) of the maximum amount of the chemical present at any time during the preceding calendar year;
- A brief description of the manner of storage of the chemical;
- The location of the chemical at the facility; and
- An indication of whether the owner elects to withhold information from disclosure to the public.

The information submitted by facilities under Sections 311 and 312 must generally be made available to the public by local and State governments during normal working hours.

As in the case of the MSDS data, this Section 312 information may be useful for LEPCs interested in extending the scope of their planning beyond the facilities covered by Section 302, and for reviewing and updating existing plans. Section 312 information about the quantity and location of chemicals can be of use to fire departments in the development of pre-fire plans. Section 312 data may be of limited use in the initial planning process, given the fact that initial emergency plans are to be completed by October 17, 1988, but they will be useful for the subsequent review and update of plans. Facility owners or operators, at the request of the fire department, must allow the fire department to conduct an on-site inspection and provide specific information about the location of hazardous chemicals.

Section 313: Toxic Chemical Release Reporting

Section 313 of Title III requires EPA to establish an inventory of toxic chemical emissions from certain facilities. Facilities subject to this reporting requirement must complete a toxic chemical release form (to be prepared by EPA by June 1987) for specified chemicals. The form must be submitted to EPA and those State officials designated by the Governor on or before July 1, 1988, and annually thereafter on July 1, reflecting releases during each preceding calendar year.

The purpose of this reporting requirement is to inform government officials and the public about releases of toxic chemicals into the environment. It will also assist in research and the development of regulations, guidelines, and standards.

The reporting requirement applies to owners and operators of facilities that have 10 or more full-time employees, that are in Standard Industrial Classification (SIC) Codes 20 through 39, and that manufactured, processed, or otherwise used a listed toxic chemical in excess of specified threshold quantities. The SIC Codes mentioned cover basically all manufacturing industries.

Facilities using listed toxic chemicals in quantities over 10,000 pounds in a calendar year are required to submit toxic chemical release forms by July 1 of the following year. Facilities manufacturing or processing any of these chemicals in excess of 75,000 pounds in 1987 must report by July 1, 1988. Facilities manufacturing or processing in excess of 50,000 pounds in 1988 must report by July

1, 1989. Thereafter, facilities manufacturing or processing more than 25,000 pounds in a year are required to submit the form. EPA can revise these threshold quantities and the SIC categories involved.

The list of toxic chemicals subject to reporting consists initially of chemicals listed for similar reporting purposes by the States of New Jersey and Maryland. There are over 300 chemicals and categories on these lists. EPA can modify this combined list. In adding a chemical to the combined Maryland and New Jersey lists, EPA must consider the following factors:

(1) Is the substance known to cause cancer or serious reproductive or neurological disorders, genetic mutations, or other chronic health effects?

(2) Can the substance cause significant adverse acute health effects as a result of continuous or frequently recurring releases?

(3) Can the substance cause an adverse effect on the environment because of its toxicity, persistence, or tendency to bioaccumulate?

Chemicals can be deleted if there is not sufficient evidence to establish any of these factors. State Governors or any other person may petition the EPA Administrator to add or delete a chemical from the list for any of the above reasons. EPA must either publish its reasons for denying the petition, or initiate action to implement the petition within 180 days.

Through early consultation with States or EPA Regions, petitioners can avoid duplicating previous petitions and be assisted in locating sources of data already collected on the problem of concern and data sources to support their petitions. EPA will conduct information searches on chemicals contained in a petition, focusing on the effects the petitioners believes warrant addition or deletion.

The toxic chemical release form includes the following information for released chemicals:

- The name, location, and type of business;
- Whether the chemical is manufactured, processed, or otherwise used and the general categories of use of the chemical;
- An estimate (in ranges) of the maximum amounts of the toxic chemical present at the facility at any time during the preceding year;
- Waste treatment and disposal methods and the efficiency of methods for each wastestream;
- The quantity of the chemical entering each environmental medium annually; and
- A certification by a senior official that the report is complete and accurate.

EPA must establish and maintain a national toxic chemical inventory based on the data submitted. This information must be computer accessible on a national database.

In general these Section 313 reports appear to be of limited value in emergency planning. Over time, however they may contain information that can be used by local planners in developing a more complete understanding of the total spectrum of hazards that a given facility may pose to a community. These reports will not be available to States until July 1, 1988. These reports do not go to the LEPCs directly but they are likely to become available if the LEPCs request them from the States.

Other Title III Provisions

In addition to these four major sections of Title III, there are other provisions of interest to local communities.

Preemption

Section 321 stipulates that (with the exception of the MSDS format and content required by Section 311) Title III does not preempt any State and local laws. In effect, Title III imposes minimum planning and reporting standards where no such standards (or less stringent standards) exist, while permitting States and localities to pursue more stringent requirements as they deem appropriate.

Trade Secrets

Section 322 of Title III addresses trade secrets and applies to Section 303 emergency planning and Sections 311, 312, 313 regarding planning information, community right-to-know reporting requirements, and toxic chemical release reporting. Any person may withhold the specific chemical identity of an extremely hazardous substance or toxic chemical for specific reasons. Even if the chemical identity is withheld, the generic class or category of the chemical must be provided. Such information may be withheld if the facility submits the withheld information to EPA along with an explanation of why the information is a trade secret. The information may not be withheld as a trade secret unless the facility shows each of the following:

- The information has not been disclosed to any other person other than a member of the LEPC, a government official, an employee of such person or someone bound by a confidentiality agreement, and that measures have been taken to protect the confidentiality;
- The information is not required to be disclosed to the public under any other Federal or State law;
- The information is likely to cause substantial harm to the competitive position of the person; and
- The chemical identity could not reasonably be discovered by anyone in the absence of disclosure.

Even if information can be legally withheld from the public, Section 323 requires it not to be withheld from health professionals who require the information for diagnostic purposes or from local health officials who require the information for assessment activities. In these cases, the person receiving the information must be willing to sign a confidentiality agreement with the facility.

Information claimed as trade secret and substantiation for that claim must be submitted to EPA. People may challenge trade secret claims by petitioning EPA, which must then review the claim and rule on its validity.

EPA will publish regulations governing trade secret claims. The regulations will cover the process for submission of claims, petitions for disclosure, and a review process for these petitions.

Enforcement

Section 325 identifies the following enforcement procedures:

- Civil penalties for facility owners or operators who fail to comply with emergency planning requirements;
- Civil, administrative, and criminal penalties for owners or operators who fail to comply with the emergency notification requirements of Section 304;

- Civil and administrative penalties for owners or operators who fail to comply with the reporting requirements in Sections 311-313;

- Civil and administrative penalties for frivolous trade secret claims; and

- Criminal penalties for the disclosure of trade secret information.

In addition to the Federal government, State and local governments and individual citizens may enforce the provisions of Title III through the citizen suit authority provided in Section 326.

Training

Section 305 mandates that Federal emergency training programs must emphasize hazardous chemicals. It also authorizes the Federal Emergency Management Agency (FEMA) to provide $5 million for each of fiscal years 1987, 1988, 1989, and 1990 for training grants to support State and local governments. These training grants are designed to improve emergency planning, preparedness, mitigation, response, and recovery capabilities. Such programs must give special emphasis to hazardous chemical emergencies. The training grants may not exceed 80 percent of the cost of any such programs. The remaining 20 percent must come from non-Federal sources. Consult FEMA and/or EPA Regional offices for a list of training courses.

Review of Emergency Systems

Under Section 305, EPA has initiated a review of emergency systems for monitoring, detecting, and preventing releases of extremely hazardous substances at representative facilities that produce, use, or store these substances. It also is examining public alert systems. EPA will report interim findings to the Congress no later than May 17, 1987 and issue a final report of findings and recommendations to the Congress by April 17, 1988.

The report must include EPA's findings regarding each of the following:

- Status of current technological capabilities to 1) monitor, detect, and prevent significant releases of extremely hazardous substances; 2) determine the magnitude and direction of the hazard posed by each release; 3) identify specific substances; 4) provide data on the specific chemical composition of such releases; and 5) determine relative concentrations of the constituent substances;

- Status of public emergency alert devices or systems for effective public warning of accidental releases of extremely hazardous substances into any media; and

- The technical and economic feasibility of establishing, maintaining, and operating alert systems for detecting releases.

The report must also include EPA's recommendations for the following:

- Initiatives to support development of new or improved technologies or systems that would assist the timely monitoring, detection, and prevention of releases of extremely hazardous substances; and

- Improving devices or systems for effectively alerting the public in the event of an accidental release.

EXHIBIT 5

KEY TITLE III DATES

The following is a list of some key dates relative to the implementation of the "Emergency Planning and Community Right-to-Know Act of 1986."

November 17, 1986	• EPA publishes interim final List of Extremely Hazardous Substances and their Threshold Planning Quantities in *Federal Register* (§ 302(a)(2-3))
November 17, 1986	• EPA initiates comprehensive review of emergency systems (§ 305(b))
January 27, 1987	• EPA publishes proposed formats for emergency inventory forms and reporting requirements in *Federal Register* (§ 311-12)
March 17, 1987	• National Response Team publishes guidance for preparation and implementation of emergency plans (§ 303(f))
April 17, 1987	• State Governors appoint SERCs (§ 301(a))
May 17, 1987	• Facilities subject to Section 302 planning requirements notify SERC (§ 302(c))
June 1, 1987	• EPA publishes toxic chemicals release (i.e., emissions inventory) form (§ 302(c))
July 17, 1987	• SERC designates emergency planning districts (§ 301(b))
August 17, 1987 (or 30 days after designation of districts, whichever is sooner)	• SERC appoints members of LEPCs (§ 301(c))
September 17, 1987 (or 30 days after local committee is formed, whichever is earlier)	• Facility notifies LEPC of selection of a facility representative to serve as facility emergency coordinator (§ 303(d)(1))
October 17, 1987	• MSDSs or list of MSDS chemicals submitted to SERC, LEPC, and local fire department (§ 311(d))
March 1, 1988	• Facilities submit their initial emergency inventory forms to SERC, LEPC, and local fire department (§ 312(a)(2))
April 17, 1988	• Final report on emergency systems study due to Congress (§ 305(b))
July 1, 1988 (and annually hereafter)	• Facilities to submit initial toxic chemical release forms to EPA and designated State officials (§ 313(a))
October 17, 1988	• LEPCs complete preparation of an emergency plan (§ 303(a))

EXHIBIT 6

TITLE III – MAJOR INFORMATION FLOW/REQUIREMENTS

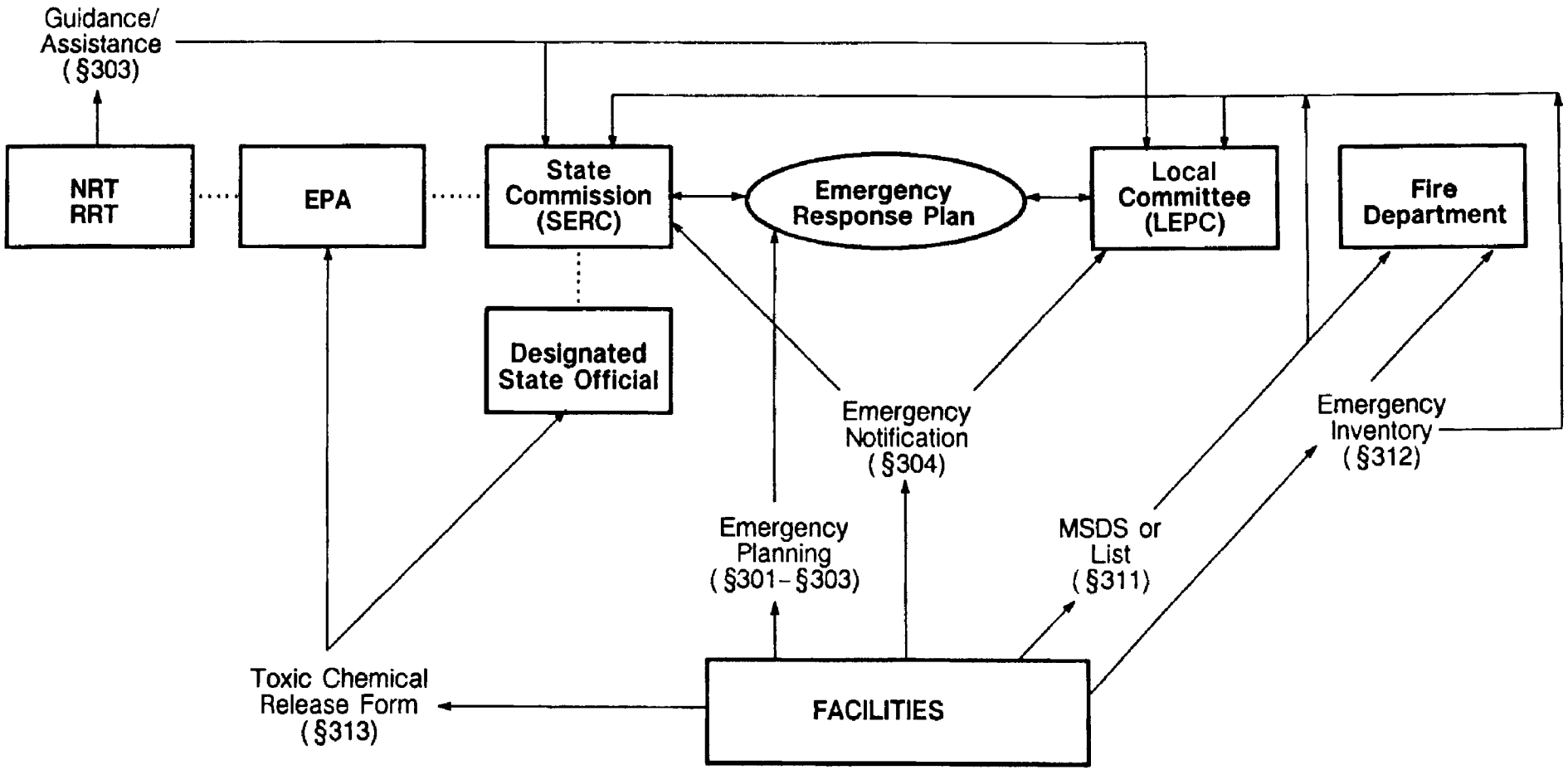

EXHIBIT 7

INFORMATION FROM FACILITIES PROVIDED BY TITLE III IN SUPPORT OF LEPC PLAN DEVELOPMENT

Information Generated by Title III Compliance	Authority	How LEPC Can Use the Information
Facilities subject to Title III planning requirements (including those designated by the Governor or SERC)	Section 302; Notice from Governor/SERC	Hazards analysis -- Hazards identification (see p. 64)
Additional facilities near subject facilities (such as hospitals, natural gas facilities, etc.)	Sections 302(b)(2); 303 (c)(1)	Hazards analysis -- Vulnerability analysis (see p. 64)
Transportation routes	Sections 303 (c)(1); 303(d)(3)	Hazards analysis -- Hazards identification (see p. 64)
Major chemical hazards (chemical name, properties, location, and quantity)	Section 303(d)(3) for extremely hazardous substances used, produced, stored Section 311 MSDSs for chemicals manufactured or imported Section 312 inventories for chemicals manufactured or imported	Hazards analysis -- Hazards identification (see p. 64)
Facility and community response methods, procedures, and personnel	Sections 303(c)(2); 303(d)(3)	Response functions (see pp. 49ff)
Facility and community emergency coordinators	Sections 303(c)(3); 303(d)(1)	Assistance in preparing and implementing the plan (see p. 11)
Release detection and notification procedures	Sections 303(c)(4); 303(d)(3)	Initial notification (see p. 50) Warning systems (see p. 53)
Methods for determining release occurrence and population affected	Sections 303(c)(5); 303(d)(3)	Hazards analysis -- Vulnerability analysis and risk analysis (see p. 64)
Facility equipment and emergency facilities; persons responsible for such equipment and facilities	Sections 303(c)(6); 303(d)(3)	Resource management (see p. 54)
Evacuation plans	Sections 303(c)(7); 303(d)(3)	Evacuation planning (see p. 57)
Training programs	Sections 303(c)(8); 303(d)(3)	Resource management (see p. 54)
Exercise methods and schedules	Sections 303(c)(9); 303(d)(3)	Testing and updating (see p. 63)

EXHIBIT 8

TITLE III CHEMICAL LISTS AND THEIR PURPOSES

List	Required in Section	Purpose
Extremely Hazardous Substances (*Federal Register* 11/17/86 -- initially 402 chemicals listed in CEPP Interim Guidance)	Section 302: Emergency Planning	• Facilities with more than established planning quantities of these substances must notify the SERC. • Initial focus for preparation of emergency plans by LEPCs
	Section 304: Emergency Notification	• Certain releases of these chemicals trigger Section 304 notification to SERC and LEPC.
Substance requiring notification under Section 103(a) of CERCLA (717 chemicals)	Section 304: Emergency Notification	• Certain releases of these chemicals trigger Section 304 notification to SERC and LEPC as well as CERCLA Section 103(a) requirement to notify National Response Center.
Hazardous Chemicals considered physical or health hazards under OSHA's Hazard Communication Standard (This is a performance standard, there is no specific list of chemicals.)	Section 304: Emergency Notification	• Identifies facilities subject to emergency notification requirements
	Section 311: Material Safety Data Sheets	• MSDS or list of MSDS chemicals provided by facilities to SERC, LEPC, and local fire department
	Section 312: Emergency and Hazardous Chemical Inventory	• Covered facilities provide site-specific information on the quantity and location of chemicals to SERC, LEPC, and local fire departments to inform the community and assist in plan preparation.
Toxic Chemicals identified as chemicals of concern by States of New Jersey and Maryland (329 chemicals/chemical categories)	Section 313: Toxic Chemical Release Reporting	• These chemicals are reported on an emissions inventory to inform government officials and the public about releases of toxic chemicals in the environment.

APPENDIX B

LIST OF ACRONYMS AND RECOGNIZED ABBREVIATIONS

AAR/BOE	Association of American Railroads/Bureau of Explosives
AIChE	American Institute of Chemical Engineers
ASCS	Agricultural Stabilization and Conservation Service
ASME	American Society of Mechanical Engineers
ASSE	American Society of Safety Engineers
ATSDR	Agency for Toxic Substances and Disease Registry (HHS)
CAER	Community Awareness and Emergency Response (CMA)
CDC	Centers for Disease Control (HHS)
CEPP	Chemical Emergency Preparedness Program
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (PL 96-510)
CFR	Code of Federal Regulations
CHEMNET	A mutual aid network of chemical shippers and contractors.
CHEMTREC	Chemical Transportation Emergency Center
CHLOREP	A mutual aid group comprised of shippers and carriers of chlorine.
CHRIS/HACS	Chemical Hazards Response Information System/Hazard Assessment Computer System
CMA	Chemical Manufacturers Association
CPG 1-3	Federal Assistance Handbook: Emergency Management. Direction and Control Programs
CPG 1-8	Guide for Development of State and Local Emergency Operations Plans
CPG 1-8A	Guide for the Review of State and Local Emergency Operations Plans
CWA	Clean Water Act
DOC	U.S. Department of Commerce
DOD	U.S. Department of Defense
DOE	U.S. Department of Energy
DOI	U.S. Department of the Interior
DOJ	U.S. Department of Justice
DOL	U.S. Department of Labor
DOS	U.S. Department of State
DOT	U.S. Department of Transportation

LIST OF ACRONYMS AND RECOGNIZED ABBREVIATIONS

EENET	Emergency Education Network (FEMA)
EMA	Emergency Management Agency
EMI	Emergency Management Institute
EOC	Emergency Operating Center
EOP	Emergency Operations Plan
EPA	U.S. Environmental Protection Agency
ERD	Emergency Response Division (EPA)
FEMA	Federal Emergency Management Agency
FEMA-REP-5	Guidance for Developing State and Local Radiological Emergency Response Plans and Preparedness for Transportation Accidents
FWPCA	Federal Water Pollution Control Act
HAZMAT	Hazardous Materials
HAZOP	Hazard and Operability Study
HHS	U.S. Department of Health and Human Services
ICS	Incident Command System
IEMS	Integrated Emergency Management System
LEPC	Local Emergency Planning Committee
MSDS	Material Safety Data Sheet
NACA	National Agricultural Chemicals Association
NCP	National Contingency Plan
NCRIC	National Chemical Response and Information Center (CMA)
NETC	National Emergency Training Center
NFA	National Fire Academy
NFPA	National Fire Protection Association
NIOSH	National Institute of Occupational Safety and Health
NOAA	National Oceanic and Atmospheric Administration
NRC	U.S. Nuclear Regulatory Commission; National Response Center
NRT	National Response Team
NUREG 0654/ FEMA-REP-1	Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants
OHMTADS	Oil and Hazardous Materials Technical Assistance Data System

LIST OF ACRONYMS AND RECOGNIZED ABBREVIATIONS

OSC	On-Scene Coordinator
OSHA	Occupational Safety and Health Administration (DOL)
PSTN	Pesticide Safety Team Network
RCRA	Resource Conservation and Recovery Act
RQs	Reportable Quantities
RRT	Regional Response Team
RSPA	Research and Special Programs Administration (DOT)
SARA	Superfund Amendments and Reauthorization Act of 1986 (PL 99-499)
SCBA	Self-Contained Breathing Apparatus
SERC	State Emergency Response Commission
SPCC	Spill Prevention Control and Countermeasures
TSD	Treatment, Storage, and Disposal Facilities
USCG	U.S. Coast Guard (DOT)
USDA	U.S. Department of Agriculture
USGS	U.S. Geological Survey
USNRC	U.S. Nuclear Regulatory Commission

APPENDIX C

GLOSSARY

CAER -- Community Awareness and Emergency Response program developed by the Chemical Manufacturers Association. Guidance for chemical plant managers to assist them in taking the initiative in cooperating with local communities to develop integrated (community/industry) hazardous materials response plans.

CEPP -- Chemical Emergency Preparedness Program developed by EPA to address accidental releases of acutely toxic chemicals.

CERCLA -- Comprehensive Environmental Response. Compensation, and Liability Act regarding hazardous substance releases into the environment and the cleanup of inactive hazardous waste disposal sites.

CHEMNET -- A mutual aid network of chemical shippers and contractors. CHEMNET has more than fifty participating companies with emergency teams, twenty-three subscribers (who receive services in an incident from a participant and then reimburse response and cleanup costs), and several emergency response contractors. CHEMNET is activated when a member shipper cannot respond promptly to an incident involving that company's product(s) and requiring the presence of a chemical expert. If a member company cannot go the scene of the incident, the shipper will authorize a CHEMNET-contracted emergency response company to go. Communications for the network are provided by CHEMTREC, with the shipper receiving notification and details about the incident from the CHEMTREC communicator.

CHEMTREC -- Chemical Transportation Emergency Center operated by the Chemical Manufacturers Association. Provides information and/or assistance to emergency responders. CHEMTREC contacts the shipper or producer of the material for more detailed information, including on-scene assistance when feasible. Can be reached 24 hours a day by calling 800-424-9300. (Also see "HIT.")

CHLOREP -- Chlorine Emergency Plan operated by the Chlorine Institute. A 24-hour mutual aid program. Response is activated by a CHEMTREC call to the designated CHLOREP contact, who notifies the appropriate team leader, based upon CHLOREP's geographical sector assignments for teams. The team leader in turn calls the emergency caller at the incident scene and determines what advice and assistance are needed. The team leader then decides whether or not to dispatch his team to the scene.

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CHRIS/HACS -- Chemical Hazards Response Information System/Hazard Assessment Computer System developed by the U.S. Coast Guard. HACS is a computerized model of the four CHRIS manuals that contain chemical-specific data. Federal OSCs use HACS to find answers to specific questions during a chemical spill/response. State and local officials and industry representatives may ask an OSC to request a HACS run for contingency planning purposes.

CPG 1-3 -- Federal Assistance Handbook: Emergency Management, Direction and Control Programs, prepared by FEMA. Provides States with guidance on administrative and programmatic requirements associated with FEMA funds.

CPG 1-5 -- Objectives for Local Emergency Management, prepared by FEMA. Describes and explains functional objectives that represent a comprehensive and integrated emergency management program. Includes recommended activities for each objective.

CPG 1-8 -- Guide for Development of State and Local Emergency Operations Plans, prepared by FEMA (see EOP below).

CPG 1-8A -- Guide for the Review of State and Local Emergency Operations Plans, prepared by FEMA. Provides FEMA staff with a standard instrument for assessing EOPs that are developed to satisfy the eligibility requirement to receive Emergency Management Assistance funding.

CPG 1-35 -- Hazard Identification, Capability Assessment, and Multi-Year Development Plan for Local Governments, prepared by FEMA. As a planning tool, it can guide local jurisdictions through a logical sequence for identifying hazards, assessing capabilities, setting priorities, and scheduling activities to improve capability over time.

EBS -- Emergency Broadcasting System to be used to inform the public about the nature of a hazardous materials incident and what safety steps they should take.

EMI -- The Emergency Management Institute is a component of FEMA's National Emergency Training Center located in Emmitsburg, Maryland. It conducts resident and nonresident training activities for Federal, State, and local government officials, managers in the private economic sector, and members of professional and volunteer organizations on subjects that range from civil nuclear preparedness systems to domestic emergencies caused by natural and technological hazards. Nonresident training activities are also conducted by State Emergency Management Training Offices under cooperative agreements that offer financial and technical assistance to establish annual training programs that fulfill emergency management training requirements in communities throughout the nation.

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ERT -- Environmental Response Team, a group of highly specialized experts available through EPA 24 hours a day.

EOP -- Emergency Operations Plan developed in accord with the guidance in CPG 1-8. EOPs are multi-hazard, functional plans that treat emergency management activities generically. EOPs provide for as much generally applicable capability as possible without reference to any particular hazard; then they address the unique aspects of individual disasters in hazard-specific appendices.

FAULT-TREE ANALYSIS -- A means of analyzing hazards. Hazardous events are first identified by other techniques such as HAZOP. Then all combinations of individual failures that can lead to that hazardous event are shown in the logical format of the fault tree. By estimating the individual failure probabilities, and then using the appropriate arithmetical expressions, the top-event frequency can be calculated.

FEMA-REP-5 -- Guidance for Developing State and Local Radiological Emergency Response Plans and Preparedness for Transportation Accidents, prepared by FEMA. Provides a basis for State and local governments to develop emergency plans and improve emergency preparedness for transportation accidents involving radioactive materials.

HAZARDOUS MATERIALS -- Refers generally to hazardous substances, petroleum, natural gas, synthetic gas, acutely toxic chemicals, and other toxic chemicals.

HAZOP -- Hazard and operability study, a systematic technique for identifying hazards or operability problems throughout an entire facility. One examines each segment of a process and lists all possible deviations for normal operating conditions and how they might occur. The consequences on the process are assessed, and the means available to detect and correct the deviations are examined.

HIT -- Hazard Information Transmission program provides a digital transmission of the CHEMTREC emergency chemical report to first responders at the scene of a hazardous materials incident. The report advises the responder on the hazards of the materials, the level of protective clothing required, mitigating action to take in the event of a spill, leak or fire, and first aid for victims. HIT is a free public service provided by the Chemical Manufacturers Association. Reports are sent in emergency situations only to organizations that have pre-registered with HIT. Brochures and registration forms may be obtained by writing: Manager, CHEMTREC/CHEMNET, 2501 M Street, N.W., Washington, DC, 20037.

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ICS -- Incident Command System, the combination of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure with responsibility for management of assigned resources to effectively accomplish stated objectives at the scene of an incident.

IEMS -- Integrated Emergency Management System, developed by FEMA in recognition of the economies realized in planning for all hazards on a generic functional basis as opposed to developing independent structures and resources to deal with each type of hazard.

NCP -- National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 300), prepared by EPA to put into effect the response powers and responsibilities created by CERCLA and the authorities established by Section 311 of the Clean Water Act.

NFA -- The National Fire Academy is a component of FEMA's National Emergency Training Center located in Emmitsburg, Maryland. It provides fire prevention and control training for the fire service and allied services. Courses on campus are offered in technical, management, and prevention subject areas. A growing off-campus course delivery system is operated in conjunction with State fire training program offices.

NHMIE -- National Hazardous Materials Information Exchange, provides information on hazmat training courses, planning techniques, events and conferences, and emergency response experiences and lessons learned. Call toll-free 1-800-752-6367 (in Illinois, 1-800-367-9592). Planners with personal computer capabilities can access NHMIE by dialing FTS 972-3275 or (312) 972-3275.

NRC -- National Response Center, a communications center for activities related to response actions, is located at Coast Guard headquarters in Washington, DC. The NRC receives and relays notices of discharges or releases to the appropriate OSC, disseminates OSC and RRT reports to the NRT when appropriate, and provides facilities for the NRT to use in coordinating a national response action when required. The toll-free number (800-424-8802, or 202-426-2675 or 202-267-2675 in the Washington, DC area) can be reached 24 hours a day for reporting actual or potential pollution incidents.

NRT -- National Response Team, consisting of representatives of 14 government agencies (DOD, DOI, DOT/RSPA, DOT/USCG, EPA, DOC, FEMA, DOS, USDA, DOJ, HHS, DOL, Nuclear Regulatory Commission, and DOE), is the principal organization for implementing the NCP. When the NRT is not activated for a response action, it serves as a standing committee to develop and maintain preparedness, to evaluate methods of responding to discharges or releases, to recommend needed changes in the re-

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sponse organization, and to recommend revisions to the NCP. The NRT may consider and make recommendations to appropriate agencies on the training, equipping, and protection of response teams; and necessary research, development, demonstration, and evaluation to improve response capabilities.

NSF -- National Strike Force, made up of three Strike Teams. The USCG counterpart to the EPA ERTs.

NUREG 0654/ FEMA-REP-1 -- Criteria for Preparation and Evaluation of Radiological Emergency Response Plans and Preparedness in Support of Nuclear Power Plants, prepared by NRC and FEMA. Provides a basis for State and local government and nuclear facility operators to develop radiological emergency plans and improve emergency preparedness. The criteria also will be used by Federal agency reviewers in determining the adequacy of State, local, and nuclear facility emergency plans and preparedness.

OHMTADS -- Oil and Hazardous Materials Technical Assistance Data System, a computerized data base containing chemical, biological, and toxicological information about hazardous substances. OSCs use OHMTADS to identify unknown chemicals and to learn how to best handle known chemicals.

OSC -- On-Scene Coordinator, the Federal official predesignated by EPA or USCG to coordinate and direct Federal responses and removals under the NCP; or the DOD official designated to coordinate and direct the removal actions from releases of hazardous substances, pollutants, or contaminants from DOD vessels and facilities. When the NRC receives notification of a pollution incident, the NRC Duty Officer notifies the appropriate OSC, depending on the location of an incident. Based on this initial report and any other information that can be obtained, the OSC makes a preliminary assessment of the need for a Federal response. If an on-scene response is required, the OSC will go to the scene and monitor the response of the responsible party or State or local government. If the responsible party is unknown or not taking appropriate action, and the response is beyond the capability of State and local governments, the OSC may initiate Federal actions, using funding from the FWPCA Pollution Fund for oil discharges and the CERCLA Trust Fund (Superfund) for hazardous substance releases.

PSTN -- Pesticide Safety Team Network operated by the National Agricultural Chemicals Association to minimize environmental damage and injury arising from accidental pesticide spills or leaks. PSTN area coordinators in ten regions nationwide are available 24 hours a day to receive pesticide incident notifications from CHEMTREC.

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RCRA — Resource Conservation and Recovery Act (of 1976) established a framework for the proper management and disposal of all wastes. RCRA directed EPA to identify hazardous wastes, both generically and by listing specific wastes and industrial process waste streams. Generators and transporters are required to use good management practices and to track the movement of wastes with a manifest system. Owners and operators of treatment, storage, and disposal facilities also must comply with standards, which are generally implemented through permits issued by EPA or authorized States.

RRT — Regional Response Teams composed of representatives of Federal agencies and a representative from each State in the Federal region. During a response to a major hazardous materials incident involving transportation or a fixed facility, the OSC may request that the RRT be convened to provide advice or recommendations in specific issues requiring resolution. Under the NCP, RRTs may be convened by the chairman when a hazardous materials discharge or release exceeds the response capability available to the OSC in the place where it occurs; crosses regional boundaries; or may pose a substantial threat to the public health, welfare, or environment, or to regionally significant amounts of property. Regional contingency plans specify detailed criteria for activation of RRTs. RRTs may review plans developed in compliance with Title III, if the local emergency planning committee so requests.

SARA — The "Superfund Amendments and Reauthorization Act of 1986." Title III of SARA includes detailed provisions for community planning.

Superfund — The trust fund established under CERCLA to provide money the OSC can use during a cleanup.

Title III — The "Emergency Planning and Community Right-to-Know Act of 1986." Specifies requirements for organizing the planning process at the State and local levels for specified extremely hazardous substances; minimum plan content; requirements for fixed facility owners and operators to inform officials about extremely hazardous substances present at the facilities; and mechanisms for making information about extremely hazardous substances available to citizens. (See Appendix A.)