

**TSCA GUIDANCE MANUAL FOR
COMMERCIAL PCB STORAGE
FACILITY APPLICATIONS**

October 18, 1989

**Office of Toxic Substances
U.S. Environmental Protection Agency**

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CHAPTER 1

APPROVAL OF COMMERCIAL PCB STORAGE FACILITIES

1.1 INTRODUCTION, ORGANIZATION, AND USE OF THE MANUAL

This guidance manual focuses on the application process for PCB commercial storage facility approvals. The manual establishes guidelines to be used by EPA reviewers in evaluating the completeness of applicants' closure plans, closure cost estimates, and financial responsibility mechanisms. The manual may also be used by commercial storers of PCB waste as guidance in preparing their storage approval applications.

The manual accompanies revisions to the regulations governing handling and use of PCBs at 40 CFR 761. These regulations establish additional components of the PCB regulatory program covering notification to EPA by all PCB waste handlers, a tracking system similar to the RCRA "cradle-to-grave" tracking system, and an approval requirement for all commercial storers of PCB wastes. These requirements are found in 40 CFR 761.3, 761.65, and 761.180. Requirements pertaining to PCB waste disposal records and reports are found in 40 CFR 761.202, 761.205, 761.207-211, 761.215, and 761.218.

Under the application and review process, EPA ensures that PCB commercial storage facilities meet requirements in four areas:

- Owner or operator and key employee qualifications and facility design (Chapter 3);
- Closure Plan (Chapter 4);
- Closure Cost Estimate (Chapter 5); and
- Financial Responsibility (Chapter 6).

This manual is organized into six chapters. Chapter 2 discusses the applicability and process of the approval requirements. Chapters 3 through 6 provide specific guidance for meeting EPA requirements in the four areas listed above. Chapter 6 describes each allowable financial assurance mechanism in detail so that the reviewer or applicant may use sections of the chapter selectively, referring to a complete set of instructions only for the mechanism of interest. In addition, some chapters include checklists, worksheets, lists of references, and lists of relevant source materials.

Because the closure plan and cost estimates are site-specific and must closely reflect the individual facility's description and projected operations, the guidance cannot answer every question or identify every element of an adequate application. Therefore, several appendices are included at the end of the manual and will be referenced throughout the manual:

- A. EPA Regional Contacts for PCB Commercial Storage Facility Approval
- B. Facility-Specific Information Sources

- C. State RCRA Program Contacts
- D. Federal Regulatory Authorities for Financial Institutions and Financial Markets
- E. State Regulatory Authorities for Financial Institutions
- F. Glossary

Exhibits 1-1 and 1-2 illustrate the steps involved in the application and review process for PCB commercial storage facility approval. EPA Regions and Headquarters share responsibility for the review of each application for storage approval. Regional offices will receive applications from commercial PCB storage facilities and will review each application for completeness. Exhibit 1-3 presents a checklist of items that should be included in each application. Incomplete applications will be returned to applicants. Complete applications will be forwarded to Headquarters for further evaluation.

EPA Headquarters will review complete commercial storage applications and develop a report evaluating the applicant's closure plan, financial assurance, and history of environmental violations. In evaluating a facility's environmental violations history, the Agency's review will include the following data bases:

- FINDS - Facility Index System;
- CERCLIS - Comprehensive Environmental Response, Compensation and Liability Information System;
- PRP - Principal Responsible Party;
- Docket - Consolidated Docket Enforcement System
- Consent Decree Tracking System
- HWDMS - Hazardous Waste Data Management System
- PCS Facility Report
- CDS - Compliance Data System
- FTTS - FIFRA/TSCA Tracking System
- Dun and Bradstreet
- LEXIS/NEXIS

EPA Headquarters will also publish in the Federal Register a list of applicants for approval and provide back-up guidance to Regional Offices on problems as they arise.

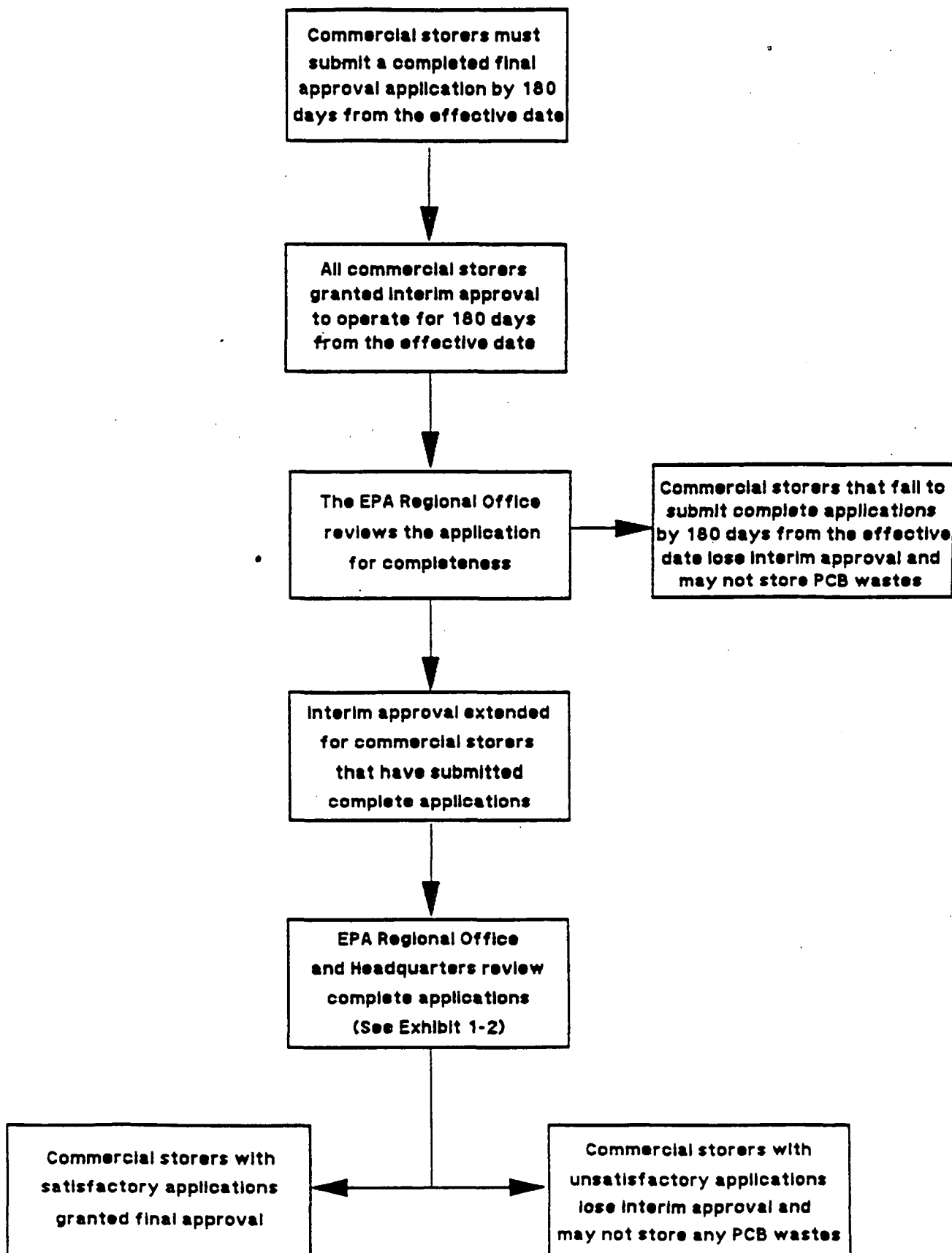
1.2 RELATIONSHIP AMONG THE CLOSURE PLAN, COST ESTIMATES, AND FINANCIAL RESPONSIBILITY

Understanding the relationship among the closure plan, cost estimates, and financial responsibility demonstration is key to ensuring that the approval system works effectively. The purpose of the closure plan is to ensure that all PCB wastes remaining in the facility when it ceases operation are properly disposed of and that all contamination is cleaned up, so that no further cleanup will be needed in the future. The closure plan must be detailed and complete. Every aspect of the facility's operational activities, design, and use of equipment in the storage operation must be accounted for, as well as proper disposition of all remaining PCB wastes.

The closure cost estimates must be equally detailed and complete. They must be as accurate (in terms of actual cost) as is feasible to ensure that the owner or operator is anticipating all costs of completing an adequate closure of the facility. The purpose of the financial responsibility requirement is to ensure that the owner or operator has made provisions to pay for the costs of completing closure.

Although this guidance discusses each of these three components of the application separately (Chapters 4, 5, and 6), the closure plan, cost estimate, and financial responsibility demonstration must be consistent with each other.

EXHIBIT 1-1 THE APPLICATION PROCESS



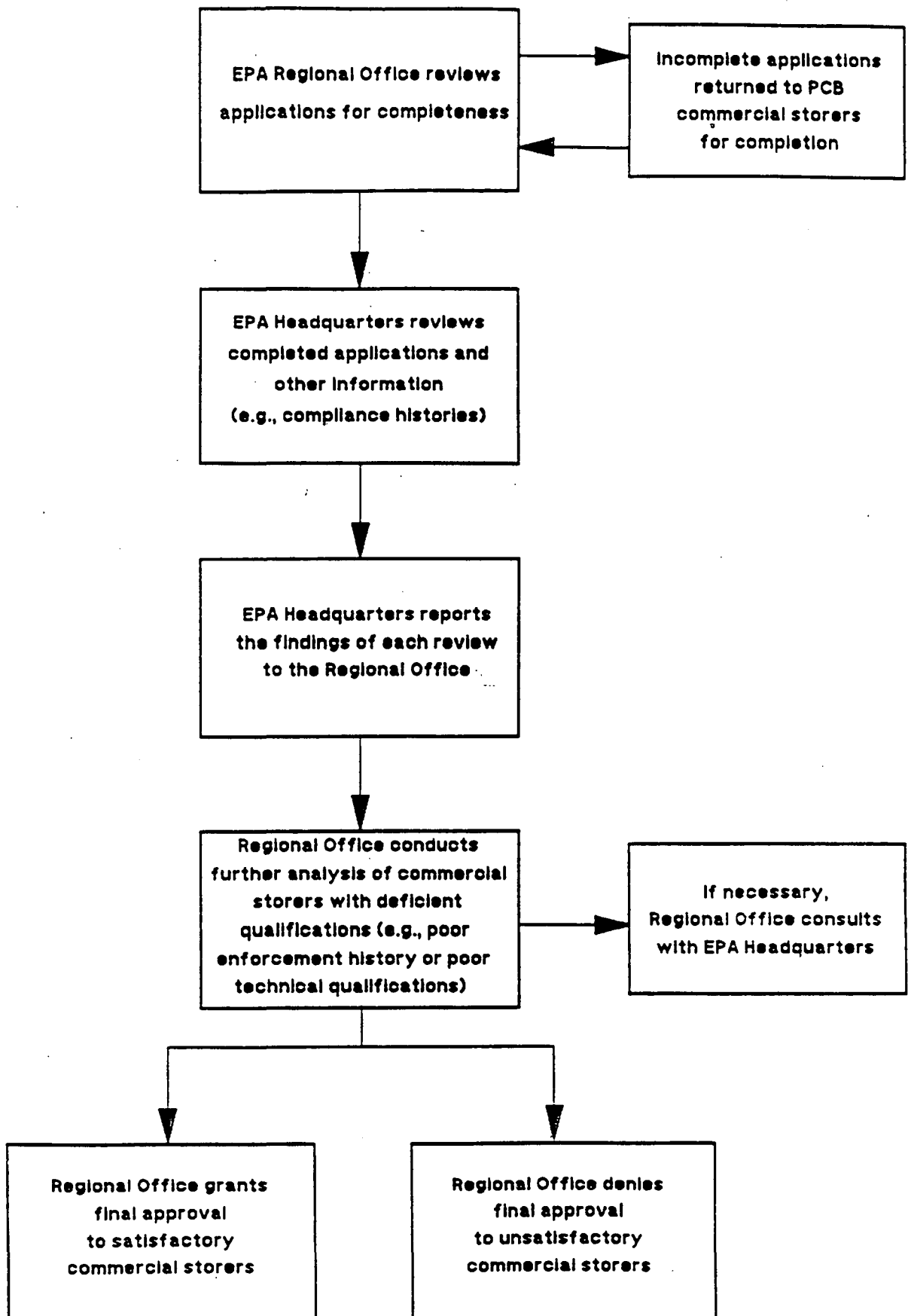


EXHIBIT 1-3

**APPLICATION FOR COMMERCIAL STORAGE FACILITY APPROVAL
COMPLETENESS CHECKLIST**

- ___ Facility name and address (address must identify physical location)
- ___ Identification (names and positions) of owner(s) and/or operator(s)
- ___ Identification (name and position) of the responsible party
- ___ Identification of the technical qualifications for the facility owner, operator, or responsible party
- ___ Listing of State or Federal environmental violations (past five years)
- ___ Listing of affiliates in which the owner, operator, or key employees had/have an interest (past five years)
- ___ Estimate of the maximum amount of PCBs to be stored at the facility
- ___ Certification of compliance for the facility indicating compliance with all applicable requirements, including a map of the facility indicating its location in relation to the 100-year flood plain elevation
- ___ Closure plan
- ___ Closure cost estimate
- ___ Financial assurance for closure
 - Closure Trust Fund
 - Surety Bond (guaranteeing payment into closure trust fund)
 - Surety Bond (guaranteeing performance of closure)
 - Closure Letter of Credit
 - Financial Test and Corporate Guarantee for Closure
 - Other (multiple financial mechanisms)

CHAPTER 2

APPLICABILITY

2.1 GENERAL APPLICABILITY AND APPROVAL

The requirement to obtain approval from EPA is applicable to all commercial storers (as defined in 40 CFR 761.3) of PCB waste. A commercial storer is the owner or operator of a facility that engages in storage activities involving PCB wastes generated by others. The receipt of a fee or other compensation for storage services is not necessary to qualify as a commercial storer of PCB wastes.

All commercial storage facilities are subject to the PCB storage facility standards at 40 CFR 761.65(b) and 40 CFR 761.65(c), recordkeeping and reporting requirements at 40 CFR 761.180, and approval requirements of 40 CFR 761.65(d)-(h). Existing facilities must obtain approval in order to continue operation. New facilities must obtain approval prior to accepting PCB waste. Storage areas at transfer facilities are not required to obtain final approvals provided they do not store the same PCB waste for more than ten consecutive days.

All commercial storers of PCB wastes have interim approval to operate until 180 days after the effective date of the final rule. They are prohibited from storing any PCB wastes at their facilities after 180 days after the effective date of the rule unless they have submitted a complete application for a storage approval under 40 CFR 761.65(d)(2) by that date. Commercial storers who submit a complete application within 180 days after promulgation of the rule have interim approval to operate during the period that EPA considers their application.

The initial application must be complete if it is to be considered for review. If any portions are missing, EPA will send the owner or operator a deficiency notice requesting submission of any missing components. The notice may contain:

- A statement that the Agency has done only a completeness check of the application, not a substantive review, and that the notice does not imply any determination on the adequacy of information provided in the submission.
- A list of any components of the application that must be submitted.

The regulations state that an owner or operator must submit a complete application within 180 days after the effective date of the final rule. If the application remains incomplete by the scheduled due date, the owner or operator loses interim status and must cease operation.

When the Agency has determined that the application is complete and acceptable, approval to operate must be issued in writing to the commercial facility for the storage of PCB wastes. EPA may grant approval based on a review of application materials submitted by the owner or operator of the facility and described in 40 CFR 761.65(d)(3) as well as other facility-specific information reviewed by the Agency.

2.2 FACILITIES SUBJECT TO COMMERCIAL PCB STORAGE AND RCRA SUBTITLE C REGULATIONS

Some facilities that apply for approval to operate as commercial PCB storage facilities may also be subject to regulation under RCRA Subtitle C as hazardous waste treatment, storage, or disposal (TSD) facilities because they store hazardous waste as well as PCB waste. TSCA approval requirements for commercial PCB storage facilities are independent of RCRA requirements. Thus, the fact that a facility may have a RCRA permit or RCRA interim status would not necessarily excuse the facility from the requirement to obtain federal approval to store PCB wastes commercially under TSCA. Likewise, the fact that such a facility is already covered by a RCRA closure plan and financial responsibility requirements would not necessarily excuse the facility from the new TSCA requirements to develop closure plans and demonstrate financial responsibility for closure if the existing RCRA permit does not adequately cover PCB inventories in its closure plan and financial assurance mechanisms.

PCB commercial storage facilities may be subject to RCRA requirements for two different reasons:

1. The facility also stores, treats, or disposes of RCRA hazardous wastes, in addition to PCB wastes. In this case, PCB storage areas may be separate from hazardous waste storage units, or they may be combined, as long as the area meets the PCB storage facility requirements in 40 CFR 761.65(b).
2. The facility is located in a state that has designated PCB wastes as hazardous under the state hazardous waste management program. In this case, the facility is subject to state requirements for hazardous waste storage facilities in addition to the requirements addressed here for commercial storers of PCB wastes. In such cases, the facility must at least meet the standards for PCB storage facilities, unless the state standards are more stringent.

EPA encourages the submission of an integrated closure plan and financial assurance demonstration for PCB commercial storage facilities that are also subject to RCRA permitting requirements. PCB storage areas at RCRA-permitted facilities may be exempt from obtaining a separate TSCA storage approval upon a showing to the Regional Administrator's satisfaction that the existing RCRA closure plan and financial assurance demonstration account for their PCB inventories. The closure plan must meet the spirit of TSCA closure requirements, even if they are not exactly the same as those required under TSCA. However, the technical qualifications and backgrounds of principals and key employees and closure plan as integral parts of the plan must be addressed and deemed acceptable by the Regional Administrator.

In addition, EPA may waive any technical differences between financial responsibility requirements in a RCRA permit and those in the TSCA rule if the cost estimates clearly take PCB costs into account and the financial demonstration is already approved under RCRA. For example, EPA would accept a RCRA permit with a 10-year pay-in period, rather than the 3-year pay-in period unless the RCRA pay-in period were due to expire in less than 3 years, in which case, the 3-year pay-in period would apply. EPA would also accept the longer pay-in

period under RCRA in cases where the RCRA approval did not include financial assurance for PCB inventories and such assurance is now required under this rule.

There are important differences in the definitions that apply to facilities under the PCB regulatory program and under the RCRA Subtitle C regulatory program, as discussed below.

PCB Facility Definition

In the PCB program, "facility" generally refers to a building, including any associated outside areas for temporary storage on pallets of non-leaking and undamaged large capacitors and undrained PCB contaminated electrical equipment. An associated area is any clearly defined space within or next to the building used for storage of PCB wastes.

RCRA Facility Definition

Under Subtitle C, 40 CFR 260.10 defines a "facility" as all contiguous land and structures or other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste. A facility may consist of several treatment, storage, or disposal operational units (e.g. one or more landfills, surface impoundments, or combinations of such units).

Hazardous waste management units within a RCRA facility are the areas where hazardous waste is managed. 40 CFR 260.10 also defines a "hazardous waste management unit" as a "contiguous area of land on or in which hazardous waste is placed, or the largest area in which there is a significant likelihood of mixing hazardous waste constituents in the same area." Examples include a surface impoundment, landfill cell, and a container storage area.

These differences in definition are important to recognize because a PCB storage facility may be located within a RCRA treatment, storage, or disposal (TSD) facility. However, the PCB waste storage facility is not a hazardous waste management unit under RCRA unless hazardous wastes are stored together with PCB wastes or the state has designated PCBs as a hazardous waste. The significance of this distinction in terms of an application for commercial PCB waste storage approval is as follows:

- **If the PCB storage facility is located within a hazardous waste storage unit**, there should be a RCRA closure plan, cost estimates, and financial assurance for the unit. The RCRA closure plan, cost estimates, and financial assurance should include PCB units.

The RCRA closure plan should meet all the requirements in 40 CFR 761.65(e) (see Chapter 4). If the closure plan does not meet the requirements in 40 CFR 761.65(e), it must be revised. Closure plan adequacy will be determined by whether:

- The RCRA storage unit meets TSCA standards in 40 CFR 761.65(b);
- PCB wastes are included in the waste inventory, closure plan, cost estimate, and disposal plans for closure (and the decontamination

and cleanup activities comply with the requirements of the PCB Spill Cleanup Policy); and

- The cost estimate and demonstration of financial responsibility include all costs for closing the PCB storage facility. If the closure plan requires revision, the cost estimates must also be revised and the amount of financial assurance must be adjusted.
- **If the PCB waste storage facility is located within a hazardous waste TSD facility, but no hazardous waste is stored in the PCB waste storage areas, the RCRA closure plan will not necessarily cover PCB waste storage.**

The owner or operator may have to submit a separate closure plan, cost estimate, and financial assurance mechanism for the PCB waste storage facility in compliance with 40 CFR 761.65(e).

Note, however, that many RCRA facilities are now undertaking corrective action to clean up releases of hazardous constituents (which include PCBs). A PCB storage unit with existing contamination at a RCRA TSD facility, whether it is a hazardous waste management unit or a solid waste management unit, is subject to RCRA corrective action requirements under RCRA Sections 3004(u) and 3008(h). The facility may be scheduled to clean up existing PCB contamination either under a permit schedule of compliance or a compliance action order.

The following chapters discuss in more detail the specific components of the approval application and the relationship between these requirements and the RCRA Subtitle C requirements.

CHAPTER 3

GENERAL APPROVAL APPLICATION REQUIREMENTS

This chapter provides guidance for the completion and review of the general requirements of an owner or operator's approval application. It contains the following sections:

- 3.1 Qualifications of the Owner or Operator and Key Employees
- 3.2 Facility Design Qualifications
- 3.3 Information Sources

3.1 QUALIFICATIONS OF THE OWNER OR OPERATOR AND KEY EMPLOYEES

An application for final storage approval must include any relevant information regarding the qualifications of the facility's owner or operator and key employees¹ to engage in commercial storage of PCB wastes in a manner protective of human health and the environment. This information shall include, but not be limited to, the following (40 CFR 761.65(d)(3)):

- Identification of the principals or key employees who are or will be responsible for the operation of the facility.
- Information concerning the principals' or key employees' technical qualifications and experience² in handling PCB wastes or other wastes in compliance with regulatory requirements (e.g., a demonstration of a history of adequate recordkeeping).
- A list of all companies owned or operated currently or in the past by the principals or key employees.
- Information concerning any past State, Federal, or local environmental violations³ involving the same business or another business with which the principals or key employees were affiliated during the five years prior to the date the application was submitted.

¹ Key employees include, but are not limited to, the manager of operations at the facility, persons responsible for environmental compliance, and other supervisors or foremen.

² Including education and work experience.

³ Environmental violations may involve waste handling, including transport, storage for disposal, disposal, and processing. Violations may also include recurrent problems with storage of PCB wastes for more than one year, as reflected in operating records, and non-compliance with the Spill Cleanup Policy as reflected in certification and cleanup records.

3.2 FACILITY DESIGN QUALIFICATIONS

Applications must also include any relevant information bearing on the design qualifications of a facility to engage in commercial storage of PCB wastes in a manner protective of human health and the environment. This information shall include, but not be limited to, the following (40 CFR 761.65(d)(2)):

- A written statement certifying compliance with facility design and construction standards in 40 CFR 761.65(b) (the certification must follow the format defined in 40 CFR 761.3, see Exhibit 5-4 of this manual).
- A demonstration that the facility has the capacity to handle the quantities of PCB wastes that the owner or operator estimates will be the maximum quantities of PCB waste handled at any one time.

The facility's design and construction standards include the requirements of 40 CFR 761.65(b) that:

- The roof and walls are adequate to prevent rain from reaching the stored "PCBs and PCB items" [PCB Articles, Items, Containers and Equipment defined in 40 CFR 761.3]; and
- The floor is designed to meet these criteria:
 - (1) Flooring must have continuous curbing to provide containment, with a minimum 6-inch high curb;
 - (2) The floor and curbing must provide a containment volume equal to at least two times the internal volume of the largest PCB article or PCB container stored there, or 25 percent of the total internal volume of all PCB articles or PCB containers stored there, whichever is greater (The maximum inventory projected for the facility cannot exceed this design capacity.);
 - (3) No drain valves, floor drains, expansion joints, sewer lines, or other openings that would permit liquids to flow from the curbed area are allowed; and
 - (4) The floors and curbing must be constructed from smooth and impervious materials, such as Portland cement, concrete, or steel, to prevent or minimize the penetration of PCBs.
- The facility's location is not below the 100-year flood water elevation.

The owner/operator should include engineering drawings illustrating the requirements listed above.

If the facility is a bulk storage tank as referenced in 40 CFR 761.65(c)(7), then it must meet the requirements of that section:

- Containers must be designed, constructed, and operated in compliance with Occupational Safety and Health Standards at 29 CFR 1910.106.
- Owners or operators must prepare and implement a Spill Prevention Control and Countermeasure (SPCC) Plan as described in 40 CFR 112.

Non-leaking, undamaged PCB high-voltage capacitors and undrained PCB contaminated electrical equipment may be stored on pallets next to storage facilities, provided the facility meets the following requirements:

- All leaking PCB articles and equipment must be stored in non-leaking PCB containers with sufficient sorbent materials to absorb any liquid PCBs remaining in the PCB items.
- The facility must have unfilled storage space immediately available inside the facility equal to at least 10 percent of the PCB items stored outside (40 CFR 761.65(c)(2)).
- The location and numbers of existing or planned bulk tanks must be identified (any facility using the bulk storage tanks must also prepare and implement a Spill Prevention Control and Countermeasures (SPCC) plan) (40 CFR 761.65(c)(7)).

PCB storage capacity information should include two elements:

- Estimate of maximum capacity and
- Estimate of maximum inventory that will be stored.

Maximum inventory may be lower than maximum capacity. However, in no case should maximum inventory exceed maximum capacity.

Other information may be required to demonstrate any other conditions deemed necessary by the Agency to ensure that the facility poses no unreasonable risks to human health and the environment.

3.3 INFORMATION SOURCES

EPA and applicants for approval may use several sources of information to assist in completing and reviewing the general application (facility-specific data sources are described in Appendix A):

- Facility operating records. All PCB storage facilities in operation on the effective date of the application requirements must have facility operating records.⁴
- Documentation for PCB spills. Records of cleanup and certification are required by the Spill Cleanup Policy (40 CFR 761.125(b)(3) and (c)(5)).
- Special records. All PCB storage facilities in operation on the effective date of the final rule must maintain special records (e.g., State and local approvals maintained under 40 CFR 761.180(f)).
- The Hazardous Waste Data Management System (HWDMS), maintained by EPA Regional Offices and states for all RCRA Subtitle C TSD facilities, contains the permitting and compliance history for each facility. Any commercial PCB storage facility that is also a RCRA TSD facility has an EPA ID number and is entered in this system.

⁴ Facility operating records may include annual summaries of PCB waste activities including weights, types, quantities, and disposal dates of PCBs and PCB items (40 CFR Part 760.180(b)).

CHAPTER 4

THE CLOSURE PLAN

EPA reviews closure plans to ensure that the facility has planned closure in a manner that eliminates or minimizes post-closure escape of PCBs to the environment. The program requires that commercial PCB storage facilities must submit facility closure plans to receive operating approval from EPA. Closure must include removal and proper disposal of PCB waste residues, PCB solids and liquids, and PCB-contaminated materials, and decontamination of all PCB-contaminated equipment, containers, structures, and floors. In addition, the closure plan should describe the design and operation of the facility so that the reviewer can determine the adequacy of the plan and the accuracy of the corresponding cost estimates.

The reviewer must ensure that the closure plan is complete and technically adequate. The closure plan included in the Agency's written approval must meet several requirements:

- The closure plan is a self-sufficient document that does not reference other materials; and
- The closure plan fully incorporates the changes made during the closure plan approval process either by redrafting the plan and incorporating all changes, or the final plan may be the initial plan with attachments indicating the changes agreed upon during the review process and a table of contents or introduction that clearly identifies all components of the approved closure plan.

This chapter provides guidance on the contents of the closure plan. These components are:

Section 4.1 Facility Description;

Section 4.2 Disposal of PCB Waste Inventory;

Section 4.3 Closure Plan Sampling, Decontamination, and Compliance with the Spill Cleanup Policy;

Section 4.4 Other Closure Activities;

Section 4.5 Closure Schedule;

Section 4.6 Modifications to the Closure Plan; and

Section 4.7 Closure Plan Checklist

4.1 FACILITY DESCRIPTION

A facility description provides background information necessary to evaluate the adequacy of the closure plan. Site-specific information will help EPA to ascertain the consistency of the closure plan with facility operations. For example, the closure activities in the plan, including disposal, decontamination, and other closure activities, should closely track the facility description and operations to ensure that closure adequately addresses all waste inventories and potential areas of contamination at the facility. Examples of facility information is described below.

Site Location and Boundaries

The owner/operator should describe the site location as well as illustrate it on a map. The facility description should include:

- Identification of the jurisdiction in which the facility is located;
- A topographic map of the site showing the location of:
 - PCB storage facilities;
 - PCB treatment and disposal facilities;
 - Hazardous waste management units;
 - Other buildings;
 - Any 100-year floodplain;⁵
 - Adjacent surface waters;
 - Surrounding land uses;
 - Other key topographic features; and
 - Location of any underground storage tanks;
- Identification of traffic patterns within the facility boundaries;
- The location and nature of security systems; and
- Closed PCB or hazardous waste management units.

If the PCB storage facility is located within a RCRA facility (including all contiguous land and structures), this information should already be assembled as part of the RCRA permit application.

Environmental Conditions of the Site

In the facility description, the owner/operator should highlight those environmental conditions surrounding the facility that may be affected by PCB spills and which could be the basis for requiring cleanup levels more stringent than those required in the Spill Cleanup Policy. Such conditions include:

⁵ PCB storage facilities may not be located below the 100-year flood water elevation.

- Proximity to surface waters, including ponds, lagoons, wetlands, and storage reservoirs;
- Proximity to any private or public drinking water sources or distribution systems;
- Sewer location (including storm drains or other wastewater collection systems) and design that could result in the direct contamination of sewers or sewage treatment systems from PCB spills;
- Location of any nearby animal grazing lands, agricultural lands, or vegetable gardens; and
- The presence of a shallow well, ground water near the surface, or a soil type that poses a high potential for ground-water contamination.

PCB Waste Storage Facility Design

The owner/operator should describe the PCB waste storage facility in detail, including the size and dimensions of the storage areas, design capacity, and types of monitoring and containment systems. Any proposed areas to be brought on-line in the future should be included in this detailed description.

The facility description in the closure plan should detail the design aspects described in 40 CFR Section 761.65(b) and/or (c)(7) and in Section 3.2 of this document. Engineering specifications and maps of storage facility construction should be included, such as floor plans, curbing, design specifications of building roof and walls, drainage systems, and the estimated available unfilled storage space in the facility.

The plan should describe and provide engineering drawings of any storage areas outside of storage buildings where PCB articles and equipment may be temporarily stored on pallets. In addition, any existing or planned bulk tank locations and numbers should be described.

4.2 DISPOSAL OF PCB WASTE INVENTORY (40 CFR 761.65(e)(1)(iii))

Maximum Inventory

The closure plan must provide for disposal of the maximum inventory, including all undisposed PCBs and PCB residues on-site at any time over the life of the facility, and any planned expansion of the facility that has been accounted for in a modification to the closure plan.

In estimating the maximum inventory on-site, an owner or operator must take into account expected periodic accumulations of inventory that occur when predictable events affect operating procedures during the life of the facility (e.g., down-time for incinerators or periodic pick-ups from haulers). The estimate of maximum inventory should identify the types and quantities of different PCB wastes. This estimate must still remain less than or equal to the

design capacity and within the containment design criteria noted in 40 CFR 761.65(b). The actual inventory of PCB wastes must not exceed the rated capacity of the facility.

Disposal of Inventory

This portion of the closure plan should describe the process for removal of all PCB wastes stored at the facility at the time of closure. This disposal must be carried out within 90 days from final receipt of PCB waste in accordance with requirements for the disposal of PCB wastes in 40 CFR 761.60. A storage facility owner or operator becomes a PCB waste generator during closure, and therefore must comply with PCB waste generator requirements (e.g., preparation of manifests, recordkeeping, and tracking the delivery and disposal of PCB wastes).

The closure plan should include:

- An estimate of the quantity of PCB waste to be disposed of or sent off-site for storage for disposal;
- A description of any treatment of PCB wastes to be performed prior to transport, if applicable;
- The methods and arrangements that will be used during closure, including on-site disposal (if an approved PCB disposal facility) or removal to off-site approved PCB commercial storage or disposal facilities; and
- A detailed description of treatment or disposal methods and capacities at the final treatment or disposal facilities -- (e.g., incineration or landfilling) as well as the identity of the specific TSCA-approved disposal facility to be used.
- Detailed information on the removal, transport, tracking, and off-site disposal of bulk storage tanks larger than those specified in the shipping container specifications of the DOT regulations (noted in 40 CFR 761.65(c)(7)).

Allowable disposal methods for PCB wastes include incineration, landfilling, and other technologies that have been approved and are the equivalent of incineration. Landfilling of PCB wastes is restricted to stabilized liquids containing less than 500 ppm PCBs, and certain non-liquid wastes when properly containerized such as soils, rags, and other debris from spill cleanups and excavations of old disposal sites.

The Agency allows on-site disposal during closure if an approved PCB disposal facility with sufficient capacity at the time of closure exists on-site. Applicants should cite disposal capacity information from the PCB disposal approval.

4.3 CLOSURE PLAN SAMPLING, DECONTAMINATION, AND COMPLIANCE WITH THE SPILL CLEANUP POLICY

The closure plan must contain a detailed description of the activities that will be carried out to remove or decontaminate PCB waste residues and contaminated containment system components, equipment, building structures, soils, and other environmental media, if necessary, during closure in accordance with the PCB Spill Cleanup Policy (40 CFR 761, Subpart G). The decontamination section of the closure plan must address the following:

- **Equipment and Area Classification:** This classification should describe all areas and equipment in a PCB waste storage facility according to their level of use, access, possible exposure, and type of material construction (Section 4.3.1).
- **Numerical Cleanup Levels:** The closure plan should rely on numerical clean-up levels listed in the Spill Cleanup Policy (40 CFR 761.125(c)(3) and (4)) that are applicable to each facility area, equipment, and soils (Section 4.3.2).
- **Statistical Sampling Program:** The closure plan should include a statistical sampling program that determines levels of contamination of facility areas, structures, equipment and soils (40 CFR 761.130) (Section 4.3.3).
- **Decontamination Procedures:** The closure plan should describe decontamination procedures for equipment, structures and goods in accordance with the Spill Cleanup Policy (40 CFR 761.125(b) and (c)) (Section 4.3.4).
- **Post-Cleanup Verification Procedures:** The closure plan's post-cleanup verification will describe post-cleanup sampling as well as waste management associated with the decontamination process. The closure plan must specify that all rags, equipment and solvents used in the cleanup process be properly disposed of as PCB wastes (40 CFR 761.125(a)(4)) (Section 4.3.5).

All sources of PCB contamination in a facility are subject to the Spill Cleanup policy at closure, even if the contamination occurred before May 4, 1987 (i.e., the date the Spill Cleanup Policy became effective). Commercial PCB storers must include cleanup of all PCB contamination at the facility in the closure plan (including contamination from a pre-1978 release of PCBs) in order to receive approval to operate. At PCB storage facilities that are also RCRA Subtitle C facilities, RCRA corrective action authorities (e.g., under RCRA Sections 3004(u) and 3008(h)) also require the cleanup of old PCB spills.

For facilities that are also RCRA facilities with closure plans that cover the PCB waste storage area, EPA will review the plan carefully to determine whether:

- **The storage facility complies with the facility design requirements of 40 CFR 761.65(b);**
- **The plan includes PCBs as well as general waste inventories; and**
- **The cleanup and decontamination components of the plan are specific and demonstrate compliance with the numeric standards in the Spill Cleanup Policy.**

If the RCRA closure plan does not comply with these requirements, it must be amended to include PCB inventories. The closure cost estimate and financial responsibility mechanism must also be reviewed carefully and may require adjustments to reflect changes in the closure plan due to PCB storage facility closure.

4.3.1 Equipment and Area Classification

To ensure a thorough cleanup of the entire facility, the closure plan should include a complete itemization of each structure, containment system, and equipment unit. The size and dimensions of each unit should be recorded. In addition, each unit should be classified according to the Spill Cleanup Policy restricted/non-restricted access and surface contact criteria. These are:

- **Other restricted access areas** -- Areas that are not electrical substation areas, but are at least 0.1 kilometer away from a residential/commercial area and limited by manmade barriers, or substantially limited by naturally occurring physical barriers.
- **Non-restricted access areas** -- any area other than outdoor electrical substations or other restricted access locations.
- **High-contact residential/commercial surface** -- a surface in a commercial area which is touched frequently. This surface may include doors, wall areas (below 6 feet), uncovered flooring, windowsills, and banisters;
- **Low-contact commercial surface** -- includes such surfaces as interior ceilings, wall areas above 6 feet, roofs, exterior structural building components, unmanned machinery, and pipes;
- **High-contact industrial surface** -- is a surface in an industrial setting which is touched frequently for relatively long periods of time. These include manned machinery and control panels;
- **Low-contact industrial surface** -- include the same items as in low contact commercial surfaces;
- **Impervious solid surface** -- nonporous solid surfaces such as metals, glass, aluminum siding, and enameled or laminated surfaces;

- **The storage facility complies with the facility design requirements of 40 CFR 761.65(b);**
- **The plan includes PCBs as well as general waste inventories; and**
- **The cleanup and decontamination components of the plan are specific and demonstrate compliance with the numeric standards in the Spill Cleanup Policy.**

If the RCRA closure plan does not comply with these requirements, it must be amended to include PCB inventories. The closure cost estimate and financial responsibility mechanism must also be reviewed carefully and may require adjustments to reflect changes in the closure plan due to PCB storage facility closure.

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- **Non-restricted access areas -- any area other than outdoor electrical substations or other restricted access locations.**
- **High-contact residential/commercial surface -- a surface in a commercial area which is touched frequently. This surface may include doors, wall areas (below 6 feet), uncovered flooring, windowsills, and banisters;**
- **Low-contact commercial surface -- includes such surfaces as interior ceilings, wall areas above 6 feet, roofs, exterior structural building components, unmanned machinery, and pipes;**
- **High-contact industrial surface -- is a surface in an industrial setting which is touched frequently for relatively long periods of time. These include manned machinery and control panels;**
- **Low-contact industrial surface -- include the same items as in low contact commercial surfaces;**
- **Impervious solid surface -- nonporous solid surfaces such as metals, glass, aluminum siding, and enameled or laminated surfaces;**

- Nonimpervious solid surface -- porous solid surfaces such as wood, concrete, asphalt, and plasterboard.

Classification of surfaces is the basis for determining numerical cleanup standards.

4.3.2 Numerical Standards

Numerical standards designate the cleanup levels of all areas, structures, and equipment in the facility and must be included in the closure plan. The numerical standards set forth in the Spill Cleanup Policy are based upon the classifications described in the section above (40 CFR 761.125(c)(3) and (4)).

Unless the owner or operator demonstrates that access to the facility will be restricted after closure, EPA will assume that these areas may allow unrestricted access to the local population. Therefore, these facilities must meet the decontamination requirements for non-restricted access areas described in the Spill Cleanup Policy. At such times as restricted access areas are converted to another use, the site shall be cleaned up to the nonrestricted areas requirements (40 CFR 761.125(c)(3)).

The Spill Cleanup Policy fully describes the numerical decontamination levels for non-restricted access areas. These levels are generally more stringent because buildings, structures, or equipment may be unrestricted after closure and thus pose a higher exposure risk than restricted access areas. State and local standards may also be applicable if they are more stringent than the Spill Cleanup Policy requirements. The rule briefly outlines target decontamination concentration levels for non-restricted access areas:

- High contact outdoor solid surface should be cleaned to 10 micrograms/100 cm² (as measured by standard wipe test⁶);
- Low contact, outdoor, impervious solid surfaces should be cleaned to 10 micrograms/100 cm² (standard wipe test);
- Low contact, outdoor, nonimpervious solid surfaces should be cleaned to (1) 10 micrograms/100 cm² or (2) 100 micrograms/cm² and encapsulated (though two options are available, EPA retains final authority to disallow the encapsulation option);
- PCB contaminated soil should be removed to 10 ppm, provided that soil is excavated to a minimum depth of 10 inches. The excavated soil should be replaced with clean soil (less than 1 ppm PCBs).

There may be unique circumstances where cleanup to the numerical values in the Spill Cleanup Policy may be impracticable. For such cases, EPA retains the flexibility to establish cleanup levels based on site-specific risk factors.

⁶ The standard wipe test is a PCB sampling method in which an area (10 cm x 10 cm) is quickly wiped with a solvent-saturated gauze pad or glass wool and analyzed.

4.3.3 Statistical Sampling Program

The closure plan should include a detailed section on the precleanup and post cleanup sampling that will ensure the facility will be properly decontaminated upon closure. Reference materials for developing sampling, survey, and safety plans are provided in Appendix B.

Pre-Cleanup Survey and Sampling

The closure plan should include a description of the pre-cleanup site survey and sampling plan. The survey assesses the amount of contamination at an existing facility and consequently the extent of cleanup required to bring the facility into compliance with the numerical standards set forth in the Spill Cleanup Policy.

This portion of the closure plan should include:

- A safety plan for the sampling team;
- A plan for the initial, visual inspection of the facility; and
- A plan for the sampling visit.

The Spill Cleanup Policy discusses two types of sampling: an initial, visual inspection that determines areas of apparent PCB contamination (40 CFR 761.125(c)(1)(iii)), and a statistically-based sampling scheme that establishes the boundaries and quantifies levels of contamination. Requirements for the sampling survey are discussed in the Spill Cleanup Policy (40 CFR 761.125(a)(3)).

The Safety Plan. The safety plan details precautions required to minimize the risk to personnel performing the on-site inspection and sampling. The safety plan should:

- Include a list of the PCBs on-site against which the sampling crew should be protected. This list should cross reference with the inventory in the closure plan to ensure the accuracy of the safety plan. If the facility treats, stores, or disposes of non-PCB hazardous wastes (e.g., under RCRA), the facility owner/operator should include such constituents in the safety plan, unless there is no chance of exposure to the constituents during the site inspection and sampling.
- Describe sampling activities for the site, and discuss known hazards and risks involved during any of the sampling procedures.
- Include emergency information (e.g., phone numbers for the project health and safety officer, police, fire, ambulance, and hospital).
- Include a history of the facility's activities, a facility description, and a facility map.
- Describe the necessary protection required by personnel on-site (e.g., protective clothing, respirators).

- Discuss decontamination procedures necessary for site visits.
- Document any environmental quality monitoring (e.g., soil, ground water) required during sampling to ensure sampling personnel protection, and identify action levels for different levels of protection (e.g., dermal, respiratory).
- Describe access control procedures in effect. Access control procedures may indicate areas requiring more stringent safety precautions than the rest of the facility (e.g., hotspots on the premises).
- Document special training required for sampling.
- Describe any weather-related precautions (e.g., rain, snow).

Initial Inspection of the Facility. The facility owner/operator or a contractor performs the initial (visual) inspection of the facility. The initial inspection locates apparent areas of PCB contamination requiring intensive sampling, including visually contaminated areas, along with areas suspected of contamination due to operating patterns or locations of stored wastes. The inspection should cover the entire site, including tanks, valves, equipment, containment areas, and the site's property boundaries. Potential off-site contamination should also be investigated. A record review and interviews with site personnel can also locate areas of potential contamination.

The initial inspection verifies the necessary sampling methods required for the sampling visit. EPA will study the following items in the visual inspection plan:

- The methodology used when conducting the visual inspection;
- A list of additional media other than soil (e.g., surface water, ground water) that should be sampled. The facility description included in the closure plan should verify the need for ground-water testing (i.e., pallet storage, highly permeable soils, and a shallow depth to the water table may indicate the need for ground-water sampling);
- All structures, soils, items, equipment, and off-site areas to be inspected;
- The means of documenting visible signs of PCB contamination including photographs, documentation on facility maps, and written accounts;
- A description of any methods necessary to assess safety precautions for the sampling inspection; and
- Methods used to determine and document the facility's structural integrity.

The Sampling Plan. The sampling plan reviews the types of sampling necessary, the facility's characteristics, and its location. Sampling should encompass contaminated areas

identified during the visual inspection, as well as randomly selected areas that show no obvious evidence of PCB contamination. The media sampled should include soil, aqueous materials, building materials, and equipment. In addition to determining the location and concentration of PCBs at the facility, sampling should determine the depth of penetration of PCBs in permeable surfaces and soils. Sampling may take place in more than one step. Taking screening samples may help determine locations for subsequent samples. EPA will consider the following issues when evaluating a PCB storage facility's pre-cleanup sampling plan:

- Statistical and technical review: Sampling and visual inspection plans must be valid and must ensure that the results will accurately represent the extent of PCB contamination at the facility. The plan must also be technically feasible and effective.
- Compatibility with Analytical Considerations: The sampling methodology should maintain sample integrity and prevent adverse effects during analysis. In addition, the sampling team should collect proper materials for the analyses performed.
- Practicality and Simplicity: The methods chosen should be simple, proven procedures capable of use or easily adapted to a variety of situations. Sampling methods should be easy, even while wearing protective clothing. Equipment should be rugged and reliable.
- Safety: The pre-cleanup sampling plan should incorporate the safety precautions contained in the safety plan.

The sampling survey portion of the closure plan should include the following items:

- Sampling locations and their rationale;
- Sampling activities required (e.g., standard wipe tests, soil cores);
- Analytical requirements for each sampling method;
- Sample handling requirements;
- Quality Assurance and Quality Control (QA/QC) measures (e.g., the number of blanks used per number of samples);
- Sampling equipment decontamination methods; and
- Chain of custody for samples retrieved, including the necessary shipping, and standard operating procedures for handling the samples.

Sampling locations and their rationale, sampling methods, and QA/QC procedures are particularly important features of the sampling plan.

Sampling Locations. The pre-cleanup survey of the closure plan should involve two types of sampling. Judgmental sampling will be performed by the owner/operator where the visual inspection found evidence of a release or where use patterns indicate a high probability of PCB contamination. Random or systematic sampling will be performed on the rest of the site, taking into account the lower probability of contamination.

Judgmental sampling involves collecting a set of samples based on best professional judgment to determine the extent of PCB contamination and concentrations at a specific area. The plan should propose judgmental sampling in areas that will indicate potential contamination due to site layout or unit characteristics. This type of sampling defines the locations and boundaries of PCB contamination. EPA may request that judgmental sampling use a coordinate (grid) system to help locate the contamination on a site plan.

Random and systematic sampling involves collecting statistically unbiased samples for the site and should uncover any other contaminated areas. This sampling technique divides a sampling area into a grid-like pattern and takes representative samples from each grid. The random method samples random spots among the cells of the grid, while the systematic method samples from each node of the grid (see Exhibit 4-1).

Establishing a coordinate (or grid) system for the site better describes locations of contamination, and links areas of visible contamination to the random or systematic sampling occurring on-site. The sampling plan should set up sampling grids for homogeneous areas on-site (e.g. walls, floors, soils). The plan should describe the sampling grid, including grid size, and sampling frequency for each part of the facility. EPA and the owner/operator must ensure that the grid covers an area greater than any suspected contamination, that spacing is relevant to the needs of an investigation, and that the grid proposed will easily transfer to the study area.

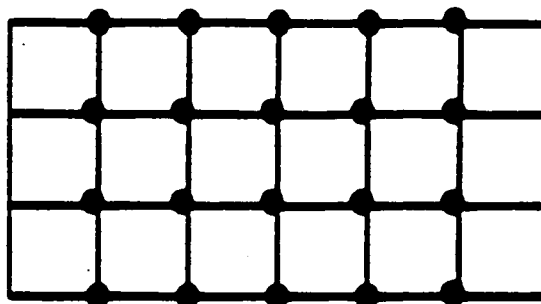
EPA may review the sampling scheme using statistical analysis to ensure that sampling results could be duplicated, and that sampling results accurately represent all contamination at the facility. Statistical analyses proposed by the owner/operator should ensure proper sampling frequency when EPA performs relevant statistical tests on the sampling plans.

Sampling Methods. Sampling a PCB storage facility involves several media, including soil, concrete, metal, and other impervious and non-impervious surfaces. Grab samples are sufficient for sampling at most locations at the facility due to the low mobility of PCBs. Sampling techniques include determining the depth of penetration of PCBs on pervious surfaces and soils, using the Standard Wipe Test for surfaces as required in the Spill Cleanup Policy (40 CFR 761.123), sampling soil with soil boring, and sampling other media if judged at risk (e.g., ground water, vegetation, or surface waters).

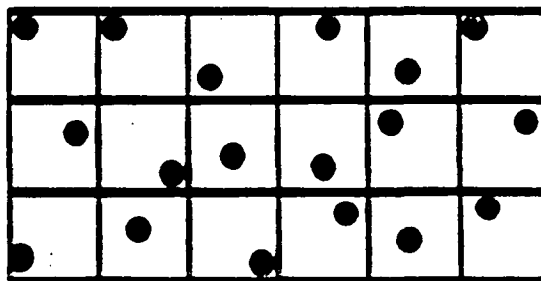
Quality Assurance and Quality Control (QA/QC). The sampling plan should describe measures that will ensure adequate data quality. The sampling plan's QA/QC should cover:

- Experimental measurement objectives; and
- Quality control methodology.

EXHIBIT 4-1
GRID SAMPLING



a) SYSTEMATIC GRID SAMPLING



b) RANDOM GRID SAMPLING

The sampling plan's experimental measurement portions should describe the constituents to be sampled, sampling procedures, and activities required to avoid sample contamination. The sampling plan should clearly state measurement objectives for each constituent, and include measurement parameters, the expected frequency, reliability, and required equipment calibrations. The plan should describe laboratory operations and equipment, standard operating procedures, and sample custody. Sample custody details the procedures used for reagent preparation, sample recording, and sample preservation.

The sampling plan should include controls for validating data (e.g., replicates, blanks, internal standards, calibration standards, and spiked samples). The plan should describe the data reduction scheme planned for collected data, and the methods used for outliers. Statistical tests proposed in the plan should include: central tendency and dispersion tests (e.g., means, range, standard deviation), measurements of variability (e.g., accuracy, bias, precision within and between laboratories), confidence limit tests, and significance tests (e.g., u-tests, t-tests, F-tests, chi-square tests). The plan should describe system audits to be performed during sampling. System audits monitor the capability and performance of measurement systems once the systems are operational by evaluating field and laboratory control procedures.

4.3.4 Decontamination Procedures

Appropriate cleanup method(s) are key elements of the closure plan. The plan should include an evaluation of the methods chosen for decontamination of the facility building, structures, soils, and equipment. Selection should be based on effectiveness, equipment and support facilities needed, time and safety requirements, the amount of wastes generated from the process, and costs.

Details of decontamination procedures must be in compliance with 40 CFR 761.125 for every portion of the facility and grounds. The "double wash/rinse" method described in the Spill Cleanup Policy should be used for cleanup of PCB contaminated hard surfaces (40 CFR 761.123). The plan's description of the double-wash rinse method should include the solvents used for washing, the number of rinses, and the estimated volume of rinsewater. The plan should include descriptions of required equipment and activities involved in the excavation of all contaminated soils and clean soil backfilling. The plan should also estimate items and activities involved in the decontamination of non-impervious surfaces as required by 40 CFR 761.125(c)(4)(vi). The plan should also estimate items and activities involved in the decontamination of cleanup equipment including the containerization and disposal of contaminated items as PCB wastes as required by 40 CFR 761.60.

Worker protection should also be addressed in decontamination procedures. Proposed provisions for personnel training, medical surveillance, personal protective equipment, and site safety must be included in the description of decontamination procedures. (Contaminant concentration and decontamination methods must be defined before worker health and safety plans are developed.) A reference material on developing a decontamination plan for a facility is provided in Appendix B.

4.3.5 Post-Cleanup Verification Procedures

Post-cleanup sampling (40 CFR 761.125(c)(5)(viii)) to ensure complete decontamination is required for closure certification. The owner/operator should include a description of the sampling methods and analytical techniques that will be used during the post-cleanup sampling in the closure plan.

Owners/operators should describe the decontamination and containerization activities required for the contaminated solvents, rags and equipment used for post-cleanup verification. The closure plan should describe their decontamination or containerization as PCB wastes according to the requirements in 40 CFR 761.60 and 40 CFR 761.125(a)(2). The owner/operator should detail the amount of estimated wastes resulting from the decontamination of the facility's equipment, grounds, and structures, as well as transportation and disposal facilities that will remove and dispose of the wastes.

4.4 OTHER CLOSURE ACTIVITIES

The owner/operator should provide a description of other closure activities necessary to ensure that risks to the environment will be eliminated in the closure plan. These activities may include but are not limited to (40 CFR 761.65(e)(1)(v)):

- Ground-water monitoring -- the closure plan should provide results, or a description of why there is no foreseeable possibility of ground-water contamination;
- The plan should include methods to treat, remove, or dispose of run-on and run-off due to decontamination water, rain, or melting snow;
- The plan should include the use of security devices such as signs, fences, or guards that would prevent unpermitted or unintentional access to the site.

4.5 SCHEDULE FOR CLOSURE

The closure plan must include a schedule for closing each area within the facility where PCB wastes are stored or handled, and the time required to complete each phase of the closure process. An estimate for the expected year of closure is required in the closure plan. Factors to consider when estimating the expected year of closure include but are not limited to:

- The remaining capacity of the units;
- Projected shutdown of related industrial plants;
- Expiration date of contracts with customers who currently send PCB waste to the facility; and
- Expected retirement date for the facility.

Notification to EPA should occur 60 days prior to closure, and no longer than 30 days after the facility's receipt of its last wastes (40 CFR 761.65(e)(1)(vi) and (vii)). All wastes should be sent off-site to other facilities within 90 days after final receipt of PCB wastes, and closure should be completed within 180 days after final receipt of PCB wastes. Within 60 days of completion of closure, the facility owner or operator must certify completion of closure in a written notice to EPA. The certification of completion of closure must be signed by an independent professional engineer and by the owner/operator. The closure schedule requirements are listed in Exhibit 4-2. Exhibit 4-3 gives a general timeline for the activities required for closure, based on these regulatory requirements.

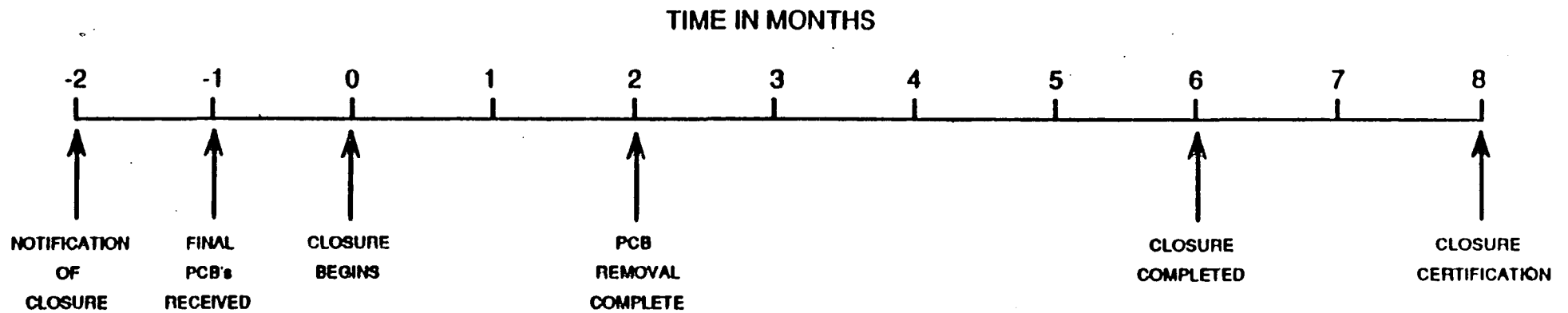
EPA may grant an extension to the date for commencement of closure for an additional 30-day period if the owner or operator can demonstrate good cause for the delay (40 CFR 761.65(e)(6)(ii)). In addition, EPA may grant extensions to the period for removal of wastes and the closure period if the owner/operator shows good cause (40 CFR 761.65(e)(6)(iii) and (iv)). The Agency may consider granting an extension only if the owner or operator will continue to take steps to prevent threats to human health and the environment including compliance with all applicable regulations, and that closure of necessity will take longer than the allowed time.

EXHIBIT 4-2

REQUIREMENTS	DEADLINES
• Notification	• 60 days before closure starts as determined in the closure plan
• Start of Closure	• 30 days after final PCBs are received (30 day extension allowed)*
• Removal of PCBs from Facility	• 90 days after final PCBs are received*
• Completion of Closure	• 180 days after closure begins*
• Closure Certification	• 60 days after closure has been completed

*Deadlines may be extended by EPA with good cause.

TIMELINE OF PCB STORAGE FACILITY CLOSURE REQUIREMENTS



4.6 MODIFICATION TO CLOSURE PLANS

Owners or operators must amend closure plans and then submit them to the Agency for approval if:

- A change in operating plans or facility design affects the closure plan, for example:
 - Increases in facility size and/or capacity;
 - Increases in the estimate of maximum inventory;
 - Changes in regulatory requirements that affect closure activities;
 - Changes in surrounding land use (e.g. drinking water wells are installed in close proximity to the facility or sewer extensions increase the possibility of contaminating sewage treatment plant operations in the event of a spill);
- An unexpected event occurs while conducting final closure activities that affects the closure plan;
- There is a change in the expected year of closure; or
- Financial status changes which may result in an inability to adequately pay for closure.

4.7 CLOSURE PLAN CHECKLIST

Exhibit 4-4 provides a closure plan checklist that lists items that should be discussed and included in the closure plan. Spaces are available to check when an item is included, and some portions of the checklist provide room for comments.

EXHIBIT 4-4

CLOSURE PLAN CHECKLIST FOR COMMERCIAL PCB STORAGE FACILITIES

		<u>Provided</u>	<u>Not Applicable</u>	<u>Comments</u>
1.0	<u>Facility Description:</u>			
1.1	General description	_____	_____	_____
1.2	Jurisdiction in which facility is located	_____	_____	_____
1.3	Written description as well as topographic map detailing information on:			
	• PCB storage facilities	_____	_____	_____
	• PCB treatment and disposal facilities	_____	_____	_____
	• Hazardous waste management units (if RCRA permitted also)	_____	_____	_____
	• All buildings and structures	_____	_____	_____
	• Any 100-year floodplain	_____	_____	_____
	• Adjacent surface waters or wetlands	_____	_____	_____
	• Surrounding land uses	_____	_____	_____
	• Other key topographic features	_____	_____	_____
	• Traffic patterns	_____	_____	_____
	• Location and status of underground storage tanks	_____	_____	_____
	• Location and nature of security systems	_____	_____	_____
	• Closed PCB Units (or hazardous waste management units if RCRA permitted)	_____	_____	_____
1.4	Description of environmental conditions on-site:			
	• Proximity to surface waters including ponds, lagoons, wetlands and storage reservoirs	_____	_____	_____
	• Proximity to public or private drinking water sources	_____	_____	_____
	• Sewer location and design which could result in contamination of sewers or sewage treatment systems from PCB spills	_____	_____	_____
	• Location of nearby grazing lands, farms, and vegetable gardens	_____	_____	_____
	• Presence of a shallow well, ground water near the surface, or which poses a high potential for ground-water contamination	_____	_____	_____

EXHIBIT 4-4 (continued)

CLOSURE PLAN CHECKLIST FOR COMMERCIAL PCB STORAGE FACILITIES

1.5 Detailed description with engineering drawings of facility design:

	Design Capacity	Monitoring	Containment System
• Roof and walls	_____	_____	_____
• Flooring	_____	_____	_____
• Curbing and its containment volume	_____	_____	_____
• Drain valves, floor drain, etc.	_____	_____	_____
• Storage pallets outside of storage buildings (including locations and numbers)	_____	_____	_____
• Bulk tanks	_____	_____	_____

EXHIBIT 4-4 (continued)

CLOSURE PLAN CHECKLIST FOR COMMERCIAL PCB STORAGE FACILITIES

2.0	<u>Disposal of PCB Waste Inventory:</u>	<u>Provided</u>	<u>Not Applicable</u>	<u>Comments</u>
2.1	Maximum inventory			
	• Provide design capacity	_____	_____	_____
	• Estimate of maximum types and quantities of:			
	PCB Articles	_____	_____	_____
	PCB Article Containers	_____	_____	_____
	PCB liquids in Bulk Tanks	_____	_____	_____
	PCB Containers	_____	_____	_____
	PCB Capacitors	_____	_____	_____
	PCB Transformers	_____	_____	_____
	PCB Contaminated Electrical Equipment	_____	_____	_____
	Other PCBs	_____	_____	_____
	Total PCB Inventory	_____	_____	_____
2.2	Disposal of inventory:			
	• Details to ensure compliance as a PCB waste generator	_____	_____	_____
	• Estimate of maximum inventory to be sent off-site	_____	_____	_____
	• Description of any treatment prior to transport, if applicable	_____	_____	_____
	• Methods and arrangements used for PCB waste removal and transportation off-site to approved storage and disposal facilities	_____	_____	_____
	• Description of treatment or disposal methods at the final treatment or disposal facilities	_____	_____	_____
	• Bulk tank removal, transport, tracking, and off-site disposal of tank capacity	_____	_____	_____
	• Proposed schedule to complete disposal within 90 days from closure commencement	_____	_____	_____

EXHIBIT 4-4 (continued)

CLOSURE PLAN CHECKLIST FOR COMMERCIAL PCB STORAGE FACILITIES

4.0 Closure Plan Sampling, Decontamination, and Compliance with the Spill Cleanup Policy

4.1 Identification and classification of items to be decontaminated

	<u>Use</u>	<u>Structures/Equipment Construction Materials</u>	<u>Spill Cleanup Policy Classification of Materials, Structures, and Equipment</u>	<u>Numerical Cleanup Levels Applicable from the Spill Cleanup Policy</u>
Facility structure components (roof, walls etc.)	_____	_____	_____	_____
Surrounding soil, pavement and vegetation	_____	_____	_____	_____
Containment systems and piping	_____	_____	_____	_____
Equipment	_____	_____	_____	_____
Pallets	_____	_____	_____	_____
Bulk tanks	_____	_____	_____	_____
OTHER	_____	_____	_____	_____

4.2 Pre-cleanup survey and sampling

- a) Visual inspection to ascertain sampling boundaries includes detailed discussion of inspection for PCB contaminated residues or particulate matter on:

	<u>Provided</u>	<u>Not Applicable</u>	<u>Comments</u>
• Tanks	_____	_____	_____
• Valves and piping	_____	_____	_____
• Equipment	_____	_____	_____
• Containment areas	_____	_____	_____
• Soil	_____	_____	_____
• OTHER	_____	_____	_____

- b) Sampling survey should include:

• Discussion of methods for soil and aqueous materials	_____	_____	_____
• Discussion and maps of proposed grid sampling	_____	_____	_____
• Sampling plan for solid surfaces	_____	_____	_____
• Sampling for the penetration and contamination of PCBs into solid surfaces	_____	_____	_____
• Discussion of validity of statistical sampling plan	_____	_____	_____
• QA/QC	_____	_____	_____

EXHIBIT 4-4 (continued)

CLOSURE PLAN CHECKLIST FOR COMMERCIAL PCB STORAGE FACILITIES

5.0 Decontamination

5.1 Cleanup methods for each contaminated component should be described in detail

	Description of Decontamination Method	Description of Worker Protection Measures
• Facility walls	_____	_____
floors	_____	_____
roof	_____	_____
• Soil	_____	_____
• Containment systems and valves	_____	_____
• Equipment	_____	_____
• Pallets	_____	_____
• Bulk tanks	_____	_____
• OTHER	_____	_____

5.2 A description of the criteria used to choose each decontamination method for the components listed below:

	Effec- tiveness	Equipment	Support Facilities Needed	Time Require- ments	Safety Require- ments	Amounts of Wastes Generated
• Facility walls	_____	_____	_____	_____	_____	_____
floors	_____	_____	_____	_____	_____	_____
roof	_____	_____	_____	_____	_____	_____
• Soil	_____	_____	_____	_____	_____	_____
• Containment systems and valves	_____	_____	_____	_____	_____	_____
• Equipment	_____	_____	_____	_____	_____	_____
• Pallets	_____	_____	_____	_____	_____	_____
• Bulk tanks	_____	_____	_____	_____	_____	_____
• OTHER	_____	_____	_____	_____	_____	_____

EXHIBIT 4-4 (continued)

CLOSURE PLAN CHECKLIST FOR COMMERCIAL PCB STORAGE FACILITIES

5.3 Decontamination should also detail post cleanup verification sampling -- especially visually contaminated areas:

<u>Provided</u>	<u>Not Applicable</u>	<u>Comments</u>
_____	_____	_____

5.4 Decontamination, containerization and disposal of both PCB and non-PCB wastes produced in facility decontamination, including solvents, rags and equipment

- Estimates of wastes produced from:
 - decontamination of equipment _____
 - decontamination of structures _____
 - decontamination of grounds _____
 - post cleanup verification _____
- Estimates of transportation of above wastes _____
- Estimates of disposal facilities that would take these wastes _____

6.0 Other Activities Covered in the Closure Plan:

- | | | | | |
|-----|--|-------|-------|-------|
| 6.1 | Ground-water monitoring plan | _____ | _____ | _____ |
| 6.2 | Treatment, removal, and disposal of run-on and run-off due to decontamination procedures | _____ | _____ | _____ |
| 6.3 | Security measures to prevent unintentional or unpermitted access to the site | _____ | _____ | _____ |

7.0 Schedule for Closure Detailing the Above Activities

_____	_____	_____
-------	-------	-------

CHAPTER 5

CLOSURE COST ESTIMATES

Closure cost estimates must cover the costs of carrying out all the activities described in the closure plan. The total amount of the cost estimate then becomes the basis for the required level of financial responsibility.

All commercial storers (other than those that are State or Federal government entities) are required to submit a closure cost estimate when applying for EPA approval to operate. Storers are also required to adjust their cost estimates annually for inflation, and whenever a modification to the closure plan that would increase the costs of closure is approved by the Regional Administrator. A facility's most recent cost estimate must be kept on-site during the operating life of the facility, and the Regional Office may request a copy of the most recent cost estimate from the owner or operator at any time.

This chapter addresses:

- The closure cost estimate at the time of the initial applications;
- Cost estimate adjustments to account for modifications to the closure plan or annual adjustments for inflation.

5.1 REVIEW OF THE INITIAL COST ESTIMATE

A complete review of the initial cost estimate consists of the following steps. Exhibit 5-1 summarizes these steps in a checklist form.

Step 1: Verify that the written closure cost estimate is certified by the person who prepared the estimate. The certification should be worded as defined in 40 CFR 761.3 (see Exhibit 5-4).

Step 2: Ensure that the estimate is in accordance with the approved closure plan for the facility, and that it reflects the costs of conducting closure in the year the estimate is prepared.

The closure cost estimate must:

- be based on the activities described in the closure plan;
- include a cost for each activity or sub-activity outlined in the closure plan; and
- contain enough detail to evaluate their accuracy relative to the activities specified in the closure plan (see Chapter 4 and Exhibit 4-4).

Cost estimates should include all components of the costs of closing a facility, including direct costs (materials, labor, transport and disposal of PCB waste inventories, equipment), and indirect costs (engineering and supervision fees, contractor fees, and contingency fees). Indirect costs may be a significant portion of the costs of closure. For example, typical contingency fees charged by contractors range from 10% to 25% of the direct costs.

Several sources that might be useful in reviewing cost estimates for the activities listed in the closure plan are:

- Owner or operator experience. In many cases, the most readily available source of cost information for existing facilities will be operating records and contractor invoices.
- Contractor estimates. Many cost estimates may be obtained from the contractors themselves. It is not necessary for documentation purposes to have written and validated cost estimates; a record of the party contacted, the date of the contact, and the estimates given is sufficient.
- Worksheets and workups. Detailed workups of the costs should include an estimate of labor, equipment, energy, and material needs; the basis for these assumptions and the total time required for each activity should be included in the workup. Costs for supervision and administration should be added and adjustments made to account for fully loaded labor and equipment costs.

Step 3: Confirm that the cost estimate addresses the most expensive closure that may be necessary. The estimate should be high enough so that no matter when closure occurs, the costs will not exceed the estimate. The conditions on which the cost estimate is predicated are likely to differ from those which may actually be present at the time of closure. For example, the estimate should account for managing the maximum inventory of PCB wastes. Also, the estimate should cover closure costs of the maximum storage area that will ever be operating at one time.

Step 4: Determine whether the estimate includes costs of off-site commercial disposal of the maximum estimated inventory, unless on-site disposal capacity will exist throughout the facility's operating life.

PCBs may be disposed of on-site or off-site. However, if an owner or operator chooses on-site management, he must demonstrate that on-site capabilities will be available at all times over the life of the facility. For example, if an owner or operator intends to dispose of PCBs by incinerating them on-site, the closure plan must indicate that incinerators will be open and operating and that sufficient capacity will be available on-site at all times over the life of the facility. **If on-site capacity is not sufficient, then current market prices for off-site commercial disposal must be used.**

Step 5: Verify that the estimate is based on the costs that a third party would charge to conduct the closure activities.

The cost estimates must incorporate the costs of a third party (i.e., a party that is not employed or related to the storer) conducting all closure activities including managing PCBs on-site, if applicable. For example, the estimate must include the costs of hiring a third party to remove PCBs or dispose of them on-site or off-site. Corporate parents or subsidiaries of the owner or operator cannot be considered third parties.⁷ The regulations do not require that the estimates be prepared by a third party, or that closure be conducted by a third party, but only that the cost estimate account for the possibility that a third party may be required to conduct closure. The owner or operator (or corporate parent or subsidiary) may eventually conduct the activities specified in the closure plan.

Step 6: Confirm that the estimate does not incorporate any salvage value for wastes, equipment, land, facility structures, or other assets associated with the facility at the time of closure.

An owner or operator may not deduct the potential salvage value from recycling or sale of equipment, land, or PCBs from the closure cost estimate. Similarly, owners or operators may not assign a zero value to the costs of disposing of PCBs, even if the PCBs are expected to have economic value at closure.

5.2 REVIEW OF COST ESTIMATE ADJUSTMENTS

Adjustments to the cost estimate are required in two situations: (1) after certain modifications to the closure plan, and (2) annually to account for inflation. These situations are described below.

Adjusting the Cost Estimate for Closure Plan Modifications

Owners or operators are required to revise their cost estimates within 30 days of Regional Administrator approval of any closure plan modification that increases the costs of closure. Although the owner or operator is not required to submit an updated cost estimate when the closure plan is modified, the updated cost estimate should be requested when the owner or operator is notified that a change in the closure plan has been approved. The modified cost estimate should be prepared and reviewed in the same way as the initial cost estimate was reviewed.

The following changes in facility conditions or activities could increase the closure cost estimate:

⁷ A parent is a corporation that directly owns 50 percent or more of the voting stock of the firm that owns or operates the facility. A corporation is considered a subsidiary of the owner or operator if 50 percent or more of its stock is owned by the owner or operator.

- An increase in facility size and/or capacity;
- An increase in the estimate of maximum inventory;
- Changes in regulatory requirements that affect the costs of closure activities;
- Contingencies over the operating life of the facility which affect the types of activities that will be required at closure (e.g., the occurrence of a spill necessitates additional closure activities); or
- Changes in surrounding land use (e.g., an increase in population density surrounding the facility warrants increased security provisions).

An owner or operator also may request that a reduction in the cost estimate be allowed if costs decrease. A reduced closure cost estimate is allowable only if the new estimate still accounts for the maximum costs of closing units at any time over the life of the facility. The following changes in facility conditions may justify a decrease in the closure cost estimate:

- Reductions in the size of the facility remaining to be closed over the remaining life of the facility;
- Changes in operating processes reduce the quantities of PCBs to be handled at the time of maximum estimated inventory.

Adjusting the Cost Estimate for Annual Inflation Adjustments

The cost estimate must be revised annually to account for inflation (40 CFR 761.65((f)(2))). Because the updated cost estimate is the basis for the level of financial assurance required, owners or operators must update their closure cost estimates within 60 days prior to the anniversary date of the establishment of the current financial assurance instruments. However, owners or operators using the financial test or corporate guarantee to demonstrate financial assurance must update their cost estimates for inflation within 30 days after the end of the firm's fiscal year and prior to the submission of financial test documentation to the Regional Office (see Chapter 6).

Inflation-adjusted cost estimates should be requested from the owner or operator to review annually the adjustment for inflation, and to verify that the storer has either:

- (1) Recalculated the estimate using that year's current prices (for example, if the storer prepared the initial cost estimates in 1988 using the prevailing prices in 1988, in 1989 he may recalculate the estimates using the prices prevailing in 1989);

or

- (2) Multiplied the previous estimate by an inflation factor that measures the general trend in prices in the economy. The inflation factor must be

derived from the most recent annual implicit price deflator for Gross National Product (GNP) and the annual implicit price deflator of the previous year. The implicit price deflator is an index that reflects the increase or decrease in the general price level over the past year.

If the owner or operator has adjusted the estimate using the first method, then the estimate should be reviewed just like the initial cost estimate was reviewed.

If the storer uses the second method, then the estimate may be reviewed by duplicating and confirming the calculations. To do this, use the following three steps:

Step 1. Obtain the most recent annual implicit price deflator and the annual implicit price deflator for the previous year from Survey of Current Business or Economic Indicators, available at Regional Offices. Exhibit 5-2 highlights the deflators from page 14 of the June 1989 issue of Survey of Current Business. Exhibit 5-3 highlights the deflators found on page 2 of the same month's issue of Economic Indicators. Note that the deflators used are annual deflators rather than quarterly deflators (which may be more recent). The deflators may also be obtained by calling the RCRA/Superfund Hotline (toll free from 8:30 to 4:30 EST, 800-424-9346, or in Washington, D.C., 202-382-3000).

Step 2. Calculate the inflation factor by dividing the most recent deflator by the previous deflator. For example:

$$\frac{\text{Most recent annual deflator}}{\text{Previous year's annual deflator}} = \frac{121.7}{117.7} = 1.03$$

Step 3. Multiply the inflation factor by the old cost estimate to derive the new cost estimate. For example:

$$\begin{array}{rcl} \text{Previous year's cost estimate} & \$100,000 & \\ \times \quad \text{Inflation factor} & & \\ \hline \text{Updated cost estimate} & \$103,000 & \end{array} = \begin{array}{rcl} & \times & 1.03 \end{array}$$

Review of cost estimates for inflation updates might also be undertaken using an automated spreadsheet system that would recalculate the cost estimates based on the latest inflation factor.

5.3 SOURCE OF FURTHER INFORMATION

Guidance Manual: Cost Estimates for Closure and Post-Closure Plans (Subparts G and H), Volumes I, III, IV, EPA (OSWER Policy Directive Number 9476.00-6), November 1986.

EXHIBIT 5-1

INITIAL COST ESTIMATE CHECKLIST

- ___ 1. Written closure cost estimate is certified by the person who prepared it using the wording in Exhibit 5-4 (40 CFR 761.3).
- ___ 2. The closure cost estimate covers all activities in the closure plan and reflects current costs.
- ___ 3. The cost estimate covers costs of closing the facility at the time when costs would be the highest.
- ___ 4. The cost estimate includes the costs of off-site disposal at a commercial facility, unless the owner or operator has demonstrated that disposal capability and capacity will be available on-site.
- ___ 5. The estimate is based on the costs of hiring a third-party to conduct closure.
- ___ 6. No salvage value is included in the cost estimate for any wastes, equipment, land, facility structures, or other assets associated with the facility.

EXHIBIT 5-2

Table 7.4.—Implicit Price Deflators for Gross National Product

(Index numbers, 1962=100)

	1967	1968	Seasonally adjusted					
			1967					
			IV	I	II	III	IV	I'
Gross national product	117.7	121.7	118.9	119.4	121.0	122.4	124.0	125.1
Personal consumption expenditures	119.5	124.3	121.5	122.3	123.9	125.3	126.7	128.2
Durable goods	107.9	110.1	102.9	109.1	109.6	110.4	111.4	111.5
Nondurable goods	112.1	116.4	113.7	113.8	116.0	117.3	118.3	119.9
Services	128.5	134.8	131.0	132.3	134.0	135.6	137.3	139.2
Gross private domestic investment								
Fixed investment	105.2	105.7	105.4	105.3	105.1	105.3	107.2	107.7
Nonresidential	100.4	100.2	99.8	99.6	99.5	99.7	101.9	102.2
Structures	111.1	114.2	111.8	112.0	113.3	114.3	115.6	117.6
Producers' durable equipment	96.2	95.4	95.1	94.8	94.6	94.8	97.2	97.0
Residential	116.2	119.7	118.7	119.3	119.5	119.6	120.4	122.1
Change in business inventories								
Net exports of goods and services								
Exports	100.0	102.9	100.1	100.3	102.1	104.3	105.0	106.1
Imports	99.0	101.3	100.0	100.8	101.4	101.3	102.6	104.2
Government purchases of goods and services	118.5	123.3	119.5	121.7	122.7	123.5	125.4	126.7
Federal	112.7	115.9	112.6	115.2	115.3	114.9	118.1	118.4
National defense	111.5	114.0	111.6	112.8	113.4	114.8	115.0	116.7
Nondefense	117.0	123.4	116.0	125.5	122.7	115.2	129.3	123.9
State and local	125.0	128.7	124.9	126.5	128.1	129.6	130.7	132.7

NOTE.—Percent changes from preceding period for selected items in this table are shown in table 8.1.

Table 7.5.—Implicit Price Deflators for Gross National Product by Major Type of Product

(Index numbers, 1962=100)

Gross national product	117.7	121.7	118.9	119.4	121.0	122.4	124.0	125.1
Final sales	117.7	121.8	119.1	119.8	121.0	122.4	124.0	125.2
Change in business inventories								
Goods	107.8	110.0	107.9	107.5	109.4	110.0	112.3	112.3
Final sales	107.6	109.9	107.9	107.8	109.1	110.5	112.2	112.3
Change in business inventories								
Durable goods	100.2	99.2	99.5	98.4	98.6	99.6	100.3	101.0
Final sales	99.9	98.8	98.8	98.0	98.3	99.0	99.9	100.5
Change in business inventories								
Nondurable goods	114.3	120.4	115.5	115.8	119.7	122.0	124.1	125.2
Final sales	114.3	120.4	115.9	117.0	119.4	121.4	123.9	123.4
Change in business inventories								
Services	127.5	133.6	129.7	131.2	132.5	134.3	136.9	138.6
Structures	114.6	118.5	116.2	117.4	117.9	118.4	119.4	121.2

NOTE.—Percent changes from preceding period for selected items in this table are shown in table 8.1.

Table 7.6.—Implicit Price Deflators for Gross National Product by Sector

(Index numbers, 1962=100)

Gross national product	117.7	121.7	118.9	119.4	121.0	122.4	124.0	125.1
Gross domestic product	117.7	121.7	118.9	119.4	121.0	122.4	124.0	125.1
Business	116.0	119.7	117.1	117.4	119.0	120.4	122.0	122.8
Nonfarm	116.7	120.0	117.7	118.0	119.3	120.5	122.3	123.0
Nonfarm less housing	112.2	118.4	116.2	116.3	117.7	118.8	120.6	121.3
Housing	131.9	135.2	134.7	136.1	137.1	138.9	140.7	141.9
Farm	92.0	104.1	89.8	94.4	106.4	115.8	101.8	112.6
Statistical discrepancy	116.0	119.7	117.1	117.4	119.0	120.4	122.0	122.8
Households and institutions	131.0	136.9	134.9	135.7	138.1	139.8	142.0	144.0
Private households	104.8	105.8	105.0	105.0	105.8	106.1	106.4	106.9
Nonprofit institutions	132.9	141.3	137.1	137.9	140.4	142.2	144.3	146.6
Government	127.8	134.2	129.7	132.3	133.6	134.8	136.0	139.2
Federal	123.3	127.1	123.2	126.5	127.2	127.3	127.4	133.1
State and local	130.5	137.7	133.0	135.1	136.9	138.6	140.3	142.2
Rest of the world	119.5	124.5	120.8	121.4	123.2	124.8	126.4	127.6
Adendum								
Gross domestic business product less housing	114.7							

NOTE.—Percent changes from preceding period for selected items in this table are shown in table 8.1.

Table 7.7.—Implicit Price Deflators for the Relation of Gross National Product to Net National Product, and National Income

(Index numbers, 1962=100)

	1967	1968	Seasonally adjusted					
			1967					
			IV	I	II	III	IV	I'
Gross national product	117.7	121.7	118.9	119.4	121.0	122.4	124.0	125.1
Less: Capital consumption allowances with capital consumption adjustment	104.2	105.6	104.6	105.4	105.4	105.4	106.1	106
Equals: Net national product	113.5	123.9	120.8	121.3	123.2	124.8	126.4	127
Less: Indirect business tax and nonrec liability plus business transfer payments less subsidies plus current surplus of government enterprises	117.8	123.3	117.6	120.3	121.6	126.4	124.9	122
Statistical discrepancy	116.0	119.7	117.1	117.4	119.0	120.4	122.0	122
Equals: National income	119.7	124.0	121.1	121.4	123.3	124.6	126.5	127

Table 7.8.—Implicit Price Deflators for Command-Basis Gross National Product

(Index numbers, 1962=100)

Gross national product	117.7	121.7	118.9	119.4	121.0	122.4	124.0	125.1
Less: Net exports of goods and services								
Exports	100.0	102.9	100.1	100.3	102.1	104.3	105.0	106.1
Imports	99.0	101.3	100.0	100.8	101.4	101.3	102.6	104.2
Equals: Gross domestic purchases	116.9	121.1	118.3	119.9	120.8	121.6	123.1	124
Plus: Command-basis net exports of goods and services								
Command-basis exports	99.0	101.5	100.0	100.8	101.4	101.3	102.6	104
Imports	99.0	101.3	100.0	100.8	101.4	101.3	102.6	104
Equals: Command-basis gross national product	117.5	121.5	118.8	119.5	120.9	122.8	123.6	124

NOTE.—Percent changes from preceding period for selected items in this table are shown in table 8.1.

Table 7.9.—Fixed-Weighted Price Indexes for Personal Consumption Expenditures by Major Type of Product, 1962 Weights

(Index numbers, 1962=100)

Personal consumption expenditures	128.4	128.6	127.5	123.2	124.9	124.3	127.9	128
Durable goods	108.7	112.5	111.0	111.4	111.9	112.8	113.9	114
Motor vehicles and parts	115.3	117.7	117.0	117.0	116.8	117.9	118.9	120
Furniture and household equipment	102.1	102.8	102.4	102.9	103.5	104.3	104.7	104
Other	112.7	118.5	115.0	116.2	117.8	118.8	121.1	121
Nondurable goods	112.6	117.2	114.3	114.6	116.7	118.2	119.4	120
Food	117.2	122.2	118.6	119.2	121.0	123.7	124.9	126
Clothing and shoes	111.0	115.8	113.0	113.1	115.2	114.8	117.9	118
Cosmetics and oil	78.4	79.1	80.6	79.2	79.0	80.9	79.2	79
Other nondurable goods	121.4	127.2	123.5	124.9	126.7	127.9	129.3	131
Fuel oil and coal	76.6	76.8	77.7	77.1	78.9	77.5	73.5	77
Other	127.6	134.1	129.8	131.5	133.2	134.8	136.9	136
Services	129.8	136.2	131.5	132.6	134.4	136.0	137.8	139
Housing	130.0	136.3	132.7	134.2	135.2	137.0	138.7	140
Household operation	118.3	119.8	119.6	119.6	119.8	121.4	121.4	122
Electricity and gas	111.8	112.6	111.7	111.6	112.2	112.2	114.6	115
Other	125.0	127.2	125.7	125.7	127.2	127.6	128.4	128
Transportation	120.3	126.5	125.1	125.5	126.7	126.9	128.8	131
Medical care	135.6	144.3	138.0	140.4	143.4	146.3	149.2	151
Other	130.2	136.6	133.1	134.6	135.9	137.2	138.7	140

Table 7.14.—Fixed-Weighted Price Indexes for Exports and Imports of Goods and Services, 1962 Weights

(Index numbers, 1962=100)

Exports of goods and services	106.8	111.5	107.0	106.7	110.5	113.0	113.7	114
Merchandise	97.8	104.5	99.2	101.3	103.3	106.7	106.6	106
Durable goods	101.7	105.0	102.2	103.5	104.5	105.7	106.2	106
Nondurable goods	92.7	103.9	94.9	96.3	101.3	108.1	106.0	107
Services	117.7	121.7	118.6	119.4	121.0	122.3	123.7	124
Factor income	120.3	124.8	121.6	122.2	124.0	125.5	127.1	128
Other	113.1	116.1	113.1	114.4	115.7	116.7	117.7	118
Imports of goods and services	108.8	105.1	103.8	102.9	106.3	105.4	106.2	106
Merchandise	94.7	96.9	97.1	97.9	99.4	99.2	99.7	100
Durable goods	109.7	117.8	112.4	113.4	117.4	117.9	120.2	121
Nondurable goods	79.5	79.9	81.5	80.1	81.0	80.1	78.7	79
Services	118.4	123.2	120.2	121.4	122.7	123.5	124.5	125
Factor income	119.6	124.0	120.8	121.4	123.2	124.7	126.4	127
Other	117.5	122.6	119.7	121.4	122.3	122.5	124.3	125

EXHIBIT 5-3

GROSS NATIONAL PRODUCT IN 1982 DOLLARS

(Billions of 1982 dollars; quarterly data at seasonally adjusted annual rates)

Period	Gross national product	Personal consumption expenditures	Gross private domestic investment			Exports and imports of goods and services			Government purchases of goods and services				Final sales	Gross domestic purchases	
			Nonresidential fixed	Residential fixed	Change in business inventories	Net exports	Exports	Imports	Total	Federal					State and local
										Total	National defense	Non-defense			
1980.....	3,187.1	2,000.4	379.2	187.0	-6.9	57.0	388.9	332.0	620.5	246.9	171.2	75.7	373.6	3,194.0	3,190.1
1981.....	3,248.8	2,024.2	395.2	196.5	23.9	49.4	392.7	343.4	629.7	256.6	180.3	79.3	370.1	3,225.0	3,199.4
1982.....	3,186.0	2,050.7	366.7	105.1	-24.5	26.3	361.9	335.6	641.7	272.7	183.8	78.9	369.0	3,190.5	3,139.7
1983.....	3,279.1	2,146.0	361.2	149.3	-6.4	-19.9	348.1	368.1	649.0	275.1	206.9	68.2	373.9	3,285.5	3,299.1
1984.....	3,501.4	2,249.8	425.2	170.9	62.3	-84.0	371.8	455.8	677.7	290.8	218.5	72.3	387.0	3,439.1	3,585.1
1985.....	3,618.7	2,354.8	453.5	174.4	9.1	-104.3	367.3	471.4	781.2	326.0	237.2	88.8	406.3	3,609.6	3,723.0
1986.....	3,721.7	2,456.2	433.1	195.0	15.4	-137.5	378.4	515.9	780.5	333.4	251.4	82.0	437.1	3,708.3	3,859.1
1987.....	3,847.0	2,581.0	445.1	196.2	34.4	-128.9	427.8	556.7	780.2	339.0	264.9	74.1	441.3	3,812.6	3,975.9
1988.....	3,996.1	2,592.2	467.5	191.8	42.5	-100.2	504.8	606.0	782.3	338.7	261.8	69.9	453.6	3,963.6	4,086.3
1982: IV.....	3,159.3	2,078.7	352.3	115.8	-59.3	11.7	336.0	334.3	680.1	289.5	301.4	86.2	370.6	3,218.6	3,147.6
1983: IV.....	3,265.1	2,191.9	390.4	159.9	27.0	-44.3	355.5	401.6	642.3	288.0	211.6	54.4	376.3	3,338.1	3,411.1
1984: IV.....	3,535.2	2,281.1	444.4	189.6	41.7	-94.8	376.6	471.4	693.2	300.5	225.3	75.2	392.7	3,493.5	3,630.0
1985: IV.....	3,662.4	2,386.9	460.9	179.4	7.7	-125.3	367.4	492.6	752.7	340.8	341.4	99.2	412.1	3,654.7	3,787.6
1986: IV.....	3,734.7	2,486.2	427.3	199.7	-10.5	-142.4	367.8	530.2	774.6	340.5	253.1	87.4	434.0	3,745.2	3,877.2
1987: III.....	3,865.3	2,545.2	462.8	192.1	13.0	-130.7	440.9	571.6	782.9	342.1	269.5	72.6	440.8	3,852.2	3,996.0
1987: IV.....	3,923.0	2,531.7	464.8	192.7	67.1	-126.0	456.2	585.2	792.6	347.7	268.2	79.5	444.9	3,855.9	4,049.0
1988: I.....	3,956.1	2,559.8	473.4	189.5	66.0	-109.0	486.3	595.1	778.4	327.8	264.6	63.2	448.7	3,890.1	4,085.1
1988: II.....	3,985.2	2,579.0	490.2	189.6	35.3	-92.6	496.9	589.5	783.8	331.6	263.6	67.9	452.3	3,949.9	4,077.9
1988: III.....	4,009.4	2,603.8	495.0	191.6	29.5	-93.9	514.0	607.9	773.5	330.1	256.4	63.7	453.4	3,989.9	4,100.0
1988: IV.....	4,033.4	2,626.2	491.4	196.6	29.1	-106.4	522.1	637.4	795.5	335.5	262.5	72.9	460.0	4,004.4	4,100.0
1989: I.....	4,077.5	2,634.9	500.5	194.3	35.5	-85.9	540.7	636.6	798.2	335.6	256.6	79.1	462.4	4,042.0	4,163.0

¹ GNP less exports of goods and services plus imports of goods and services.

Source: Department of Commerce, Bureau of Economic Analysis.

IMPLICIT PRICE DEFLATORS FOR GROSS NATIONAL PRODUCT

(1982 = 100; quarterly data are seasonally adjusted)

Period	Gross national product	Personal consumption expenditures				Gross private domestic investment		Exports and imports of goods and services		Government purchases of goods and services			
		Total	Durable goods	Non-durable goods	Services	Nonresidential fixed	Residential fixed	Exports	Imports	Federal			State and local
										Total	National defense	Non-defense	
1980.....	85.7	86.6	89.2	89.4	83.9	85.1	89.4	90.2	96.0	84.3	83.4	96.4	86.2
1981.....	94.0	94.6	95.7	96.9	92.6	93.4	96.6	97.5	101.6	93.8	92.9	94.3	93.4
1982.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1983.....	103.9	104.1	102.1	102.1	106.2	98.8	102.2	101.3	97.4	103.1	103.6	101.4	104.1
1984.....	107.7	108.1	103.8	105.0	111.6	97.9	106.0	103.2	97.1	106.8	107.2	105.5	109.0
1985.....	110.9	111.6	104.8	107.5	116.8	97.7	108.3	101.0	95.2	109.0	109.2	108.2	114.6
1986.....	113.9	114.3	106.6	107.3	122.4	100.2	111.1	100.0	93.6	109.8	110.4	108.2	118.2
1987.....	117.7	119.5	107.9	112.1	128.5	100.4	116.2	100.0	99.0	112.7	111.5	117.0	123.0
1988.....	121.7	124.5	110.1	116.4	134.8	100.2	119.7	102.9	101.5	115.9	114.0	123.4	128.0
1982: IV.....	101.7	101.8	100.7	101.0	102.7	100.7	99.1	100.0	99.3	101.3	102.0	99.5	102.0
1983: IV.....	105.4	105.7	103.1	103.1	108.3	98.3	103.1	102.6	97.2	103.8	104.7	100.3	106.0
1984: IV.....	109.0	109.3	104.1	105.8	113.5	97.9	107.2	102.4	96.2	108.5	106.3	108.9	111.7
1985: IV.....	112.2	113.1	104.7	106.7	119.0	97.9	109.0	100.5	85.9	110.6	111.3	108.8	116.5
1986: IV.....	115.3	115.7	106.2	107.8	124.6	101.6	112.4	99.3	94.2	107.7	106.9	101.5	119.0
1987: III.....	118.2	120.2	106.6	112.9	129.1	99.9	117.7	99.9	96.9	112.9	111.3	119.0	123.0
1987: IV.....	119.9	121.5	106.9	113.7	131.0	99.8	118.7	100.1	100.0	112.6	111.6	116.0	124.0
1988: I.....	119.4	122.2	109.1	113.8	132.2	99.6	119.5	100.3	100.8	115.2	112.8	125.5	126.5
1988: II.....	121.0	123.9	109.6	116.0	134.0	99.5	119.5	102.1	101.4	115.3	113.4	127.7	128.1
1988: III.....	122.4	125.2	110.4	117.3	135.6	99.7	119.6	104.3	101.3	114.9	114.8	115.2	129.0
1988: IV.....	124.0	126.7	111.4	118.3	137.3	101.9	120.4	105.0	102.6	116.1	115.0	129.3	130.0
1989: I.....	125.1	126.2	111.5	119.9	139.2	102.2	122.1	106.1	104.2	118.4	116.7	123.9	131.0

Source: Department of Commerce, Bureau of Economic Analysis.

EXHIBIT 5-4

**CERTIFICATION STATEMENT
(40 CFR 761.3)**

"Certification" means a written statement regarding a specific fact or representation that contains the following language:

Under the civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.

This statement must accompany any certification required for compliance with PCB commercial storage approval requirements, including certification of a complete application for approval to operate and certification of closure.

CHAPTER 6

FINANCIAL RESPONSIBILITY DEMONSTRATIONS

This chapter discusses the mechanisms that storers may use to meet the financial responsibility requirement. A demonstration of financial responsibility is an essential part of the storage approval application. Storage facilities that meet financial responsibility requirements must still meet all other requirements discussed in earlier chapters in order to obtain storage approval.

The amount of financial assurance required for each commercial PCB storage facility is determined by the facility's closure cost estimate, which is based on the site-specific closure plan. Financial assurance should be maintained from the time the storer initially applies to EPA for final storage approval until the storer is released from the financial assurance requirements by the EPA Regional Administrator. The Regional Administrator will notify the storer of its release from the requirements within 60 days after receiving certifications from the storer and an independent registered professional engineer that final closure was completed in accordance with the approved closure plan. However, if the Regional Administrator has reason to believe that final closure was not conducted in accordance with the approved closure plan, then he will provide the storer with a detailed written statement of the reasons for not allowing release from the requirements (40 CFR 761.65(h)).

The financial assurance mechanisms that commercial storers of PCB wastes may use are virtually identical to the mechanisms allowed for hazardous waste management facilities under Subpart H of 40 CFR 264, promulgated under the Resource Conservation and Recovery Act of 1976 (RCRA). This chapter provides guidance in determining the adequacy of financial assurance mechanisms. Each allowable mechanism is discussed in detail in the following sections:

- 6.1 Trust Funds and Standby Trust Funds
- 6.2 Surety Bonds
- 6.3 Letters of Credit
- 6.4 Insurance
- 6.5 Financial Test
- 6.6 Corporate Guarantee
- 6.7 Combination of Mechanisms

Exhibit 6-1 summarizes the responsibilities of a reviewer with respect to all financial assurance mechanisms, while Sections 6.1 through 6.6 detail the responsibilities specific to each mechanism. Section 6.7 discusses the use of combinations of mechanisms.

EXHIBIT 6-1

SUMMARY OF RESPONSIBILITIES*

- (1) Verify that the financial assurance mechanism is:
 - Issued by a qualified party;
 - Correctly worded;
 - In a sufficient amount;
 - Signed as necessary; and
 - In effect and submitted to the Regional Office on time.
- (2) Ensure that the amount of financial assurance is increased when necessary throughout the operating life of the facility due to:
 - Annual adjustments for inflation; and
 - Changes in plans and increases in cost estimates.
- (3) Allow decreases in the amount of financial assurance only when cost estimates decrease and the remaining amount of assurance will still be adequate.
- (4) When the financial institution, insurer, or parent guarantor sends notice of cancellation, either ensure that alternate assurance is provided or draw upon the financial mechanism to fund closure.
- (5) Verify that new assurance is obtained when:
 - The financial institution, insurer or guarantor enters bankruptcy or ceases operations;
 - The financial institution, insurer, or parent guarantor ceases to qualify; or
 - The commercial storer requests termination of assurance because a new mechanism is being used or ownership or operating responsibility is being transferred.
- (6) Approve requests for a change in mechanisms only if no lapse in coverage will result.

* NOTE: Details regarding specific financial assurance mechanisms and combinations of mechanisms are presented in Sections 6.1 through 6.7.

EXHIBIT 6-1 (continued)

SUMMARY OF RESPONSIBILITIES

- (7) As necessary for trust funds and insurance, approve requests for reimbursement of closure expenses. Requests should be approved only when itemized bills are submitted and the expenses are in accordance with the approved closure plan or are otherwise justified. Instruct the insurer or trustee in writing to make reimbursement in the specified amounts. If closure costs will significantly exceed the value of a trust fund or remaining insurance, withhold a portion of reimbursement until completion of closure.
- (8) Release the owner or operator from financial assurance requirements within 60 days after receiving certification from the owner or operator and an independent registered professional engineer that final closure has been completed in accordance with the approved closure plans.
- (9) Approve requests to terminate financial assurance when:
 - Alternate assurance is substituted; or
 - The owner or operator is released from financial assurance requirements.
- (10) Maintain facility information and monitor deadlines for submissions.

6.1 TRUST FUNDS AND STANDBY TRUST FUNDS

A **trust fund** is a pool of money that may be set aside by a commercial storer of PCB wastes to cover anticipated (or unanticipated) future costs. The money is invested and managed by a trustee (usually the trust department of a bank) on behalf of the beneficiary of the trust (EPA). The storage facility makes payments into the trust fund annually so that the costs of closure for the facility will be available at the appropriate time. The trust fund must be large enough to cover the estimated costs of closure care, although it may be funded over a "pay-in period" not to exceed three years for PCB storage facilities. The entire arrangement is governed by a trust agreement that sets out the responsibilities and rights of each party. (A **standby trust fund** is slightly different and is discussed later in this section.)

Review of the trust fund should cover the following steps. Exhibit 6-2 at the end of this section is a checklist to document review of a trust fund.

6.1.1 Trust Fund Submissions

Review of Initial Submissions:

Step 1. Verify submission of documents. The owner or operator should submit the following documents:

- An originally signed duplicate copy of the trust agreement;
- A completed "Schedule A" including the following information for each commercial storage facility covered by the trust fund:
 - EPA Identification Number (if one has been assigned at the time the application has been submitted)
 - Name and address
 - Amount of the current closure cost estimate covered by the trust fund agreement.
- A completed "Schedule B" listing the property or money that the fund consists of initially.
- A notarized, formal certificate of acknowledgment such as the example in Exhibit 6-3.

Step 2. Ensure that the Trustee is qualified. Check to ensure that the trustee:

- Has the authority to act as a trustee, and
- Is regulated and examined by a Federal or State agency.

If there is any doubt about whether a trustee is qualified, find out what authority regulates it, and then contact the authority to determine whether the trustee is

qualified. Maintain regular contact with the regulatory agencies to identify trustees that should be deleted from the list because they no longer qualify. Exhibit 6-4 at the end of this section provides a list of different types of financial institutions which offer trust agreements along with the primary regulatory authority that governs these institutions. Appendix E is a list of State regulatory authorities. The easiest way to check the trustee's qualifications may be to maintain a current list of the qualified trustees in the Region. Regional RCRA staff may already maintain a list of qualified trustees. If not, this list can be compiled initially by checking the qualifications of each trustee as trust agreements are submitted and adding any trustee that qualifies to the list.

- Step 3. Review the wording of the Trust Agreement. The wording of the trust agreement in all initial submissions should be substantially the same as that in the regulations. The suggested wording for trust agreement submissions is in Exhibit 6-5 at the end of this section.

Review of Initial Payment

- Step 4. Check the sufficiency of the initial payment. The initial payment into the trust fund is due after EPA has notified the storage facility that the application has been conditionally approved, pending EPA review and approval of a receipt from the trustee that the owner or operator has established a trust fund and has made an initial payment. New facilities will not receive approval to operate until EPA has reviewed this receipt. Existing facilities must submit the receipt within 30 days after notification of conditional approval of the application. Existing facilities that fail to meet this deadline will lose interim approval to operate.

Check the remaining life of the facility as indicated in the closure plan to ensure that a sufficient initial payment into the trust fund was made. Sufficiency of payment is determined according to the following schedule:

<u>Remaining Life of the Facility</u> <u>(According to Closure Plan)</u>	<u>Minimum Annual Payment</u>
3 or more years	1/3 of the unfunded portion of the closure cost estimate
2 years	1/2 of the unfunded portion of the closure cost estimate
1 year or less	full amount of the unfunded portion of the closure cost estimate

- Step 5. Compare the level of coverage to the approved cost estimate. The trust fund may have been submitted prior to EPA's final review of the storer's closure cost estimate; this review may cause the cost estimate to increase above the initial estimate. Therefore, once the storer's cost estimate has been reviewed and EPA is satisfied with the estimate, repeat Step 4. If monies in the trust fund are not

sufficient, the Regional Office should immediately notify the storer that the unassured costs must be assured within 60 days.

Step 6. Maintain a regional information system. As trust fund agreements are received, record the following information in a regional information system:

- The name, address, and EPA Identification Number of the facilities covered by one trust;
- The name of the financial institution;
- The amount of coverage for each facility and the effective date of the trust agreement; and
- Documentation for review of the mechanism.

It may be useful to file each trust fund under both the commercial storer's name and the name of each financial institution. (In case of bankruptcy or ineligibility of the trustee or for other reasons, it will be easy to determine which owners or operators need to obtain alternate financial assurance.)

Follow-Up Review of the Mechanism:

Step 7. Ensure that closure/cost estimate and Trust Fund Schedule A are updated 60 days prior to Trust's anniversary date. Based on the updated cost estimate, the owner or operator must make annual payments throughout the pay-in period, and may have to obtain additional financial assurance (if closure cost estimates increase because of inflation or changes in plans). Even after the end of the pay-in period, the owner or operator should increase the final value of the trust fund or add a new mechanism (see Section 6.7, Combinations of Mechanisms) within 60 days of an increase in the closure cost estimate, unless the amount of money in the trust fund is at least as great as the increased cost estimate. Be aware of the following "signals" that additional financial assurance may be necessary:

- Storer submits a revised closure plan
- There has been significant inflation in that year.

Step 8. Verify that proper annual payments have been made. The pay-in period for a trust fund may not exceed three years. It is important to ensure that the owner or operator makes annual payments in the proper amount to the trust fund during the pay-in period. Annual payments must be made no later than 30 days after the anniversary date of the first payment. There are three reasons for verifying the annual payments:

- The owner or operator is not required to submit receipts for annual payments into the fund;

- The trustee must notify the Regional Administrator only if the owner or operator fails to make annual payments (i.e., an absence of a payment), not that a payment is too small; and
- The trustee need not report failure to make payments due to increases in cost estimates.

The size of the annual payments depends on the portion of the cost estimate that remains unfunded, whether it is the second or third annual payment, and on the remaining length of the facility's life:

- If the remaining life of the facility is one year or less, or if this is the third annual payment to the fund, the payment must be sufficient to raise the value of the fund to the total cost specified in the current closure cost estimate.
- If this is the second annual payment for a facility which still has an expected life of more than one year, the annual payment may be calculated by subtracting the value of the trust (prior to this payment) from the current closure cost estimate and then dividing by two.

Once the size of the current payment has been determined, verify that the trustee received a sufficient payment from the owner or operator.

After completion of the pay-in period, the owner or operator may need to make additional payments within 60 days if the cost estimate exceeds the value of the trust. In other cases, the value of the trust may exceed the adjusted cost estimates. The owner or operator may request the Regional Administrator to return the excess. If a review of the documentation verifies that the current value of the trust exceeds the current cost estimate, the Regional Administrator should instruct the trustee to release the appropriate amount of funds.

- Step 9. Review qualifications of Trustees. A trustee is not required by regulation to notify the Regional Office or the owner or operator regarding disqualification. You may therefore wish to check that existing trustees continue to remain qualified and do not enter bankruptcy. If a trustee does enter bankruptcy, the owner or operator is required to obtain alternate financial assurance within 60 days. If the Regional Office maintains a list of the trustees holding RCRA or PCB trusts under the trustee's name, it will be easy to determine which owners or operators need to obtain alternate assurance when a trustee ceases to qualify or enters bankruptcy.
- Step 10. Investigate changes of Trustee. The Regional Administrator also must approve changes in trustees. To evaluate a new trustee, determine if it is qualified using the same procedures as discussed in Step 2.

6.1.2 Reimbursements from the Trust

As closure activities are carried out by an owner or operator, or another person authorized by the Regional Administrator, itemized bills should be submitted to the Regional

Office with requests for reimbursement. When reviewing itemized bills, the Regional Office should:

- Determine within 60 days of the request for reimbursement whether the expenses are reasonable, justified, and consistent with approved closure plans;
- Approve the request for reimbursement and direct payment within 60 days of the request for reimbursement unless there is reason to believe that the remaining costs of closure will be significantly greater than available funds, or that the incurred costs are not in accordance with the approved closure plan (or are not otherwise justifiable). If this occurs, reimbursement may be withheld until proper closure has been completed and certified.
- Determine if reimbursement is appropriate for expenditures caused by a contingent event such as bad weather or an accident during closure. These decisions will have to be made by the Regional Administrator on a case-by-case basis. The owner or operator, however, remains ultimately responsible for all closure costs even if the financial assurance funds are exhausted.

6.1.3 Terminating the Trust

The Regional Administrator may consent to the termination of the trust only if:

- The owner or operator substitutes an alternate assurance mechanism; or
- The Regional Administrator releases the owner or operator from applicable TSCA financial assurance requirements.

Consent should be in writing and may accompany the Regional Administrator's letter releasing the owner or operator from closure financial assurance requirements. The trustee should be instructed to terminate the trust and to forward the remaining funds to the owner or operator.

6.1.4 Standby Trust Funds

A **standby trust fund** is a trust fund that contains little or no monies initially, but which stands ready to receive monies at any time. A standby trust differs from an ordinary trust fund in that a standby trust exists only to facilitate the use of other financial mechanisms. Standby trust funds must be established by an owner or operator who uses a surety bond (Section 6.2) or a letter of credit (Section 6.3) as a financial assurance mechanism. If the owner or operator defaults, the third party designated by the surety bond or the letter of credit must deposit a specified sum of money into the standby trust fund. This is necessary because EPA is not allowed to receive the funds directly. However, once the monies have been paid into a fund managed by a trustee, EPA may direct how the funds are used.

A standby trust is subject to the same requirements as trust funds, including the suggested wording described in Exhibit 6-5, except that:

- Annual payments into the standby trust fund are not necessary (only the nominal initial payment mentioned above is usually made);
- Schedule A (identification of facilities and cost estimates) of the trust agreement need not be updated;
- Annual valuations are not necessary; and
- The trustee need not send notices of nonpayment.

If an owner or operator uses a trust fund in combination with a surety bond or letter of credit (see Section 6.7), he need not establish a separate standby trust fund. In the event that the owner or operator defaults and the surety or bank is liable for the surety bond or letter of credit, the surety or bank can deposit the funds into the owner or operator's trust fund. Only one standby trust fund is needed if the owner or operator uses a surety bond and a letter of credit, or several letters of credit.

6.1.5 Sources of Further Information

Exhibit 6-6 provides a list of major national trade associations which supply general information about financial institutions.

EXHIBIT 6-2

TRUST FUND CHECKLIST

- Step 1. The necessary documents have been submitted:
- ☐ An originally signed duplicate copy of the trust agreement.
 - ☐ A completed Schedule A.
 - ☐ A completed Schedule B.
 - ☐ A notarized, formal certificate of acknowledgment.
- Step 2. The Trustee is qualified:
- ☐ Has the authority to act as a Trustee.
 - ☐ Is regulated and examined by a Federal or State agency.
- Step 3. ☐ The wording of the trust agreement is substantially similar to RCRA's wording for Trust Fund Agreements (see Exhibit 6-5).
- Step 4. ☐ Compare the level of coverage to the approved cost estimate; if necessary, immediately notify the storer to obtain additional assurance within 60 days for any unassured costs.
- Step 5. Relevant information is recorded:
- ☐ Name, address and EPA identification number of the facility(ies).
 - ☐ Name of the financial institution.
 - ☐ The amount of coverage for each facility and the effective date of the trust agreement.
 - ☐ Documentation for review of the mechanism.
- Step 6. ☐ The initial payment into the trust fund is sufficient.

EXHIBIT 6-2 (continued)

TRUST FUND CHECKLIST

- Step 7. ___ Closure cost estimate and trust fund Schedule A are updated. After the pay-in period is completed, if the cost estimate increases to more than the current valuation of the trust fund, then, within 60 days, either additional payments should be made into the fund to cover the difference or another financial assurance mechanism should be obtained to cover the difference.
- Step 8. ___ The proper annual payments have been made.
- Step 9. ___ The trustee remains qualified.
- Step 10. ___ Changes in trustee is approved.
- Step 11. ___ Authorize reimbursement from the fund to the owner or operator when appropriate.
- Step 12. Consent to the termination of the trust only if:
- ___ Alternate insurance is substituted, or
- ___ The owner or operator is released from applicable TSCA financial requirement.

EXHIBIT 6-3

SAMPLE WORDING FOR CERTIFICATE OF ACKNOWLEDGMENT

The following is an example of the certification of acknowledgment which must accompany the trust agreement for a trust fund. State requirements may differ on the proper content of this acknowledgment.

State of _____
County of _____

On this [date], before me personally came [owner or operator] to me known, who, being by me duly sworn, did depose and say that she/he resides at [address], that she/he is [title] of [corporation], the corporation described in and which executed the above instrument; that she/he knows the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

[Signature of Notary Public]

EXHIBIT 6-4

TRUST FUND: REGULATORY AUTHORITIES FOR FINANCIAL INSTITUTIONS

<u>Type of Financial Institution</u>	<u>Primary Regulatory Authority (and contact)</u>
1. State-Chartered financial institutions, including Commercial Banks, Savings and Loans, Mutual Savings Banks, Credit Unions, State Licensed Foreign Banks	State Authority (see Appendix E)
2. Nationally-Chartered Commercial Banks, Nationally-licensed Foreign Banks, all Washington, D.C. commercial banks	Comptroller of the Currency, Trust Division, (202) 447-1731
3. Nationally-Chartered Savings and Loans	Federal Home Loan Bank Board, General Counsel, (202) 377-6404
4. Nationally-Chartered Mutual Savings Banks	Federal Home Loan Bank Board (Same as Number 3), and State Authorities (see Appendices D and E).
5. Nationally-Chartered Credit Unions	National Credit Union Administration, General Counsel, (202) 357-1030

EXHIBIT 6-5

SAMPLE WORDING FOR TRUST FUND AGREEMENTS

A trust agreement for a trust fund may be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

TRUST AGREEMENT

Trust Agreement, the "Agreement," entered into as of [date] by and between [name of the owner or operator], a [name of State] [insert "corporation," "partnership," "association," or "proprietorship"], the "Grantor," and [name of corporate trustee], [insert "incorporated in the State of _____" or "a national bank"], the "Trustee."

Whereas, the United States Environmental Protection Agency, "EPA," an agency of the United States Government, has established certain regulations applicable to the Grantor, requiring that an owner or operator of a polychlorinated biphenyl (PCB) commercial storage facility shall provide assurance that funds will be available when needed for closure and/or post-closure care of the facility.

Whereas, the Grantor has elected to establish a trust to provide all or part of such financial assurance for the facilities identified herein.

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee.

Now, therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term "Grantor" means the owner or operator who enters into this Agreement and any successors or assigns of the Grantor,

(b) The term "Trustee" means the Trustee who enters into this Agreement and any successor Trustee.

Section 2. Identification of Facilities and Cost Estimates. This Agreement pertains to the facilities and cost estimates identified on attached Schedule A [on Schedule A, for each facility list the EPA Identification Number, name, address, and the current closure and/or post-closure cost estimates, or portions thereof, for which financial assurance is demonstrated by this Agreement].

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a trust fund, the "Fund," for the benefit of EPA. The Grantor and the Trustee intend that no third party have access to the Fund except as herein provided. The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B attached hereto. Such property and any other property subsequently transferred to the Trustee is

EXHIBIT 6-5 (continued)

SAMPLE WORDING FOR TRUST FUND AGREEMENTS

referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by EPA.

Section 4. Payment for Closure and Post-Closure Care. The Trustee shall make payments from the Fund as the EPA Regional Administrator shall direct, in writing, to provide for the payment of the costs of closure and/or post-closure care of the facilities covered by this Agreement. The Trustee shall reimburse the Grantor or other persons as specified by the EPA Regional Administrator from the Fund for closure and post-closure expenditures in such amounts as the EPA Regional Administrator shall direct in writing. In addition, the Trustee shall refund to the Grantor such amounts as the EPA Regional Administrator specifies in writing. Upon refund, such funds shall no longer constitute part of the Fund as defined herein.

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.

Section 6. Trustee Management. The Trustee shall invest and reinvest the principal and income of the Fund and keep the Fund invested as a single fund, without distinction between principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this Section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstances then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; except that:

(i) Securities or other obligations of the Grantor, or any other owner or operator of the facilities, or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2.(a), shall not be acquired or held, unless they are securities or other obligations of the Federal or a State government;

(ii) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or State government; and

(iii) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

EXHIBIT 6-5 (continued)

SAMPLE WORDING FOR TRUST FUND AGREEMENTS

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common, commingled, or collective trust fund created by the Trustee in which the Fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 80a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

(a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;

(b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;

(c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve Bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;

(d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and

(e) To compromise or otherwise adjust all claims in favor of or against the Fund.

EXHIBIT 6-5 (continued)

SAMPLE WORDING FOR TRUST FUND AGREEMENTS

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. Annual Valuation. The Trustee shall annually, at least 30 days prior to the anniversary date of establishment of the Fund, furnish to the Grantor and to the appropriate EPA Regional Administrator a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of not more than 60 days prior to the anniversary date of establishment of the Fund. The failure of the Grantor to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the EPA Regional Administrator shall constitute conclusively binding assent by the Grantor, barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 11. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor, with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 12. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 13. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the EPA Regional Administrator and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this Section shall be paid as provided in Section 9.

EXHIBIT 6-5 (continued)

SAMPLE WORDING FOR TRUST FUND AGREEMENTS

Section 14. Instructions to the Trustee. All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendment to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by the EPA Regional Administrator to the Trustee shall be in writing, signed by the EPA Regional Administrators of the Regions in which the facilities are located, or their designees, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or EPA hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or EPA, except as provided for herein.

Section 15. Notice of Nonpayment. The Trustee shall notify the Grantor and the appropriate EPA Regional Administrator, by certified mail within 10 days following the expiration of the 30-day period after the anniversary of the establishment of the Trust, if no payment is received from the Grantor during that period. After the pay-in period is completed, the Trustee shall not be required to send a notice of nonpayment.

Section 16. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the appropriate EPA Regional Administrator, or by the Trustee and the appropriate EPA Regional Administrator if the Grantor ceases to exist.

Section 17. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and the EPA Regional Administrator, or by the Trustee and the EPA Regional Administrator, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

Section 18. Immunity and Indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the EPA Regional Administrator issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

EXHIBIT 6-5 (continued)

SAMPLE WORDING FOR TRUST FUND AGREEMENTS

Section 19. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of [insert name of State].

Section 20. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each Section of this Agreement shall not affect the interpretation of the legal efficacy of this Agreement.

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written: The parties below certify that the wording of this Agreement is substantially similar to the wording in 40 CFR 761.65(g)(1) as such regulations were constituted on the date first above written.

[Signature of Grantor]

Attest:

[Title]

[Seal]

[Signature of Trustee]

Attest:

[Title]

[Seal]

EXHIBIT 6-6

National trade associations can supply information about financial institutions in general. Major national organizations include:

1. American Bankers Association
Information Services
1120 Connecticut Avenue, N.W.
Washington, D.C. 20036
(202) 663-5000
Trade association of banks and trust companies.
2. Independent Bankers Association of America
One Thomas Circle, N.W.
Suite 950
Washington, D.C. 20005
(202) 659-8111
Association of medium size and smaller independent banks.
3. National Counsel of Savings Institutions
1101 15th Street, N.W.
Washington, D.C. 20005
(202) 857-3100
Trade association of mutual savings banks.
4. United States League of Savings Institutions
111 East Wacker Drive
Chicago, Illinois 60601
(312) 644-3100
Trade association of savings and loan associations, cooperative banks, and state and local savings and loan association leagues.
5. Credit Union National Association
Public Relations Department
Box 431
Madison, Wisconsin 53701
(608) 231-4000
Trade association of state credit union leagues.

EXHIBIT 6-6 (continued)

6. Conference of State Bank Supervisors
State Banking Department Services
1015 Eighteenth Street, N.W.
Suite 606
Washington, D.C. 20036
(202) 296-2840
Organization of state officials responsible for the supervision of state-chartered banking institutions.
7. National Association of State Credit Union Supervisors
1499 Chain Bridge Road
Suite 201
McLean, Virginia 22101
(703) 821-2243
Organization of state credit union supervisors and state-chartered credit unions.
8. National Association of State Savings and Loan Supervisors
1499 Chain Bridge Road
Suite 201
McLean, Virginia 22101
(703) 821-2488
Organization of state savings and loan supervisors.

6.2 SURETY BONDS

A **surety bond** is a contract under which a surety firm provides monetary compensation or performance to the "obligee" should the owner or operator ("the principal") fail to perform a specific act within a specific timeframe.

Two types of surety bonds may be used to assure closure obligations. Under a **payment bond**, the surety firm guarantees that if the facility owner or operator fails to fully fund a trust fund before the beginning of closure, then the surety must fund the trust. Under a **performance bond**, the surety firm guarantees that if the storer fails to perform closure in accordance with the approved closure plan, then the surety must either perform closure activities in accordance with the closure plan, or fully fund a standby trust fund. Under either type of surety bond, the storer must establish a trust fund or a standby trust fund.

Review of the surety bond should cover the points discussed below. The following discussion applies to both payment bonds and performance bonds unless otherwise noted. Exhibit 6-7 at the end of this section contains a summary checklist to document review of the mechanism.

6.2.1 Surety Bond Submissions

Review of Initial Submissions:

- Step 1. Verify submission of documents. Verify that all appropriate documents have been submitted.
- The surety bond;
 - An originally signed duplicate of a trust agreement (for payment bonds) or standby trust agreement (for performance bonds).
- Step 2. Verify the qualifications of surety and broker or agent. Review Circular 570 (published annually by the Department of Treasury on approximately July 1 -- see "Sources of Other Information" at the end of this section) to check that the surety:
- is listed on Circular 570;
 - is licensed to do business in the State in which the bond is signed; and
 - has an underwriting limitation equal to or larger than the bond amount.

Because many sureties have similar names, review Circular 570 carefully. The circular can be obtained from the Department of the Treasury at the following address:

Surety Bond Branch
Financial Management Service
Department of the Treasury
Washington, D.C. 20226
(202) 634-2214 or (202) 634-2245

The bond amount can exceed the surety's underwriting limitation only if the surety properly indicates that other sureties are sharing the risk. If the surety is doing this, or "reinsuring," then a Treasury reinsurance form should be submitted with the surety bond or within 45 days thereafter. If two or more sureties are used to fulfill the bond obligation (cosureties), the original bond should reflect that fact. In all cases, ensure that the total underwriting limitation of all sureties involved is not exceeded.

For each surety bond submitted, request to see the broker or agent's POWER OF ATTORNEY and review it to make certain that the broker or agent has authority to act on behalf of the surety on this type of bond (PCB wastes) and in the amount of the bond.

Verify the qualifications of the trustee institution for the standby trust fund. The qualifications for a standby trust are the same as for the trust fund (see Section 6.1).

Step 3. Review mechanism terms. Review the surety bond to ensure that it is:

- Effective by 180 days from the effective date of the regulations, except for facilities opening 240 days or more after the effective date, for which the bond should be effective 60 days prior to the first receipt of PCB material;
- Signed by both the surety representative and the owner or operator;
- Worded substantially similar to RCRA's wording for surety bonds (see Exhibit 6-8); and
- In an amount at least equal to the most recent closure cost estimates (unless multiple mechanisms are being used).

Step 4. Compare the level of coverage to the approved cost estimate. The surety bond may take effect prior to EPA's final review of the owner or operator's closure cost estimate and this review may cause the cost estimate to increase above the initial estimate. Therefore, once the owner or operator's cost estimate has been reviewed, and EPA is satisfied with the estimate, compare the costs assured by the surety bond with the amount of the approved cost estimate. If the surety bond does not cover increases in the cost estimate, the Regional Office should immediately notify the owner or operator that the cost increases must be assured within 60 days.

Step 5. Maintain a regional information system. Record relevant information in a regional information system as surety bonds and standby trust agreements are received. This information should include:

- The name, address, and EPA Identification Number of the covered facilities;
- The name of the surety, bond number, and trustee;
- Amount of coverage for each facility and the effective date; and
- Information verification procedures performed.

Automatic data processing systems can be used for this. The Regional Office should maintain a list of surety bonds in effect not only under the owner or operator's name, but also under the name of each surety company and trustee institution so that, in case of bankruptcy or ineligibility of the provider, it will be easy to determine which owners or operators need to obtain financial assurance elsewhere. This system can also be used to keep track of mergers and changes in the names of sureties.

Follow-Up Review of the Mechanism:

Step 6. Ensure that coverage is sufficient relative to updated cost estimates. Coverage should be increased whenever the closure cost estimate increases to more than the existing coverage. Therefore, sufficiency of coverage should be evaluated whenever the cost estimate is likely to increase:

- Upon Modification of the Closure Plan. If a modification to the closure plan increases the closure cost estimate, the storer must adjust the cost estimate within 30 days of the approval of the modification.
- On the Anniversary Date of the Establishment of Coverage. Storers should update the closure cost estimate for inflation within 60 days prior to the anniversary date of the establishment of financial assurance coverage.

If the cost estimate increases to more than the existing level of financial assurance coverage, the storer should, within 60 days, increase the coverage either by raising the coverage of the existing mechanism or by increases in other financial assurance (see Section 6.7, Combinations of Mechanisms).

If cost estimates decrease, the owner or operator may apply for a reduction in the penal sum of the surety bond. The Regional Administrator should approve the decrease in writing only if the owner or operator demonstrates that the reduced financial responsibility level will still cover closure expenses. Such a determination will require a review of the closure plan for technical adequacy and completeness as well as a review of the reasonableness of the associated cost estimates.

- Step 7. Ensure that assurance is maintained in the event of disqualification of the surety. If a surety loses its qualifications or enters bankruptcy, Regional Offices should verify that the owner or operator has obtained a new financial assurance mechanism. The new mechanism should be in place within 60 days of the disqualification or the beginning of bankruptcy proceedings. **It is important to note that the surety is not required by regulation to notify the Regional Administrator or the owner or operator regarding disqualification or bankruptcy.**

Maintain up-to-date lists of which sureties are currently listed on Circular 570, the States where they are licensed, and what their underwriting limitations are. In addition, a list of surety bonds in effect should be kept under each surety's name so that in the case of bankruptcy or other disqualification, it is easy to determine which owners or operators need to obtain financial assurance elsewhere. This system could also be used to keep track of mergers and changes in the names of sureties. Automated data processing information systems may be particularly useful in helping ensure that alternative assurance is obtained within 60 days after the surety becomes bankrupt or otherwise ceases to qualify.

Requests to use alternate assurance mechanisms should be approved if no lapse in coverage will result.

- Step 8. Ensure that assurance is maintained in the event of cancellation of the surety bond. Surety bonds may only be cancelled by the issuer 120 days after the surety's notice of cancellation to both the owner or operator and the Regional Administrator have been received. If notice of cancellation is received, the storer should obtain within 90 days:

- Alternate financial assurance coverage; and
- Written approval of such assurance.

The 90-day period begins after both the owner or operator and the Regional Office have received the notice of cancellation. If the owner or operator is unable to obtain acceptable alternate assurance within 90 days, the Regional Office should call upon the surety to fulfill its obligations under the bond (see Section 6.2.2).

Upon receipt of a cancellation notice from a surety, a Regional Office should contact the owner or operator to determine:

- The date the owner or operator received the notice from the surety; and
- The owner or operator's plans to provide alternate assurance.

In the event of transfer of ownership or operation of a facility, a surety may wish to cancel the surety bond. The Regional Office should verify that assurance is maintained until the new owner or operator satisfies the financial requirements, and should draw upon the surety bond (see Section 6.2.2) prior to the transfer of ownership if the new owner or operator has not obtained financial assurance.

6.2.2 Drawing on Surety Bonds

Performance Bonds:

The Regional Administrator must make demand upon the surety to fulfill its obligations under a financial guarantee bond when:

- The surety has sent notice of cancellation of the bond and the owner or operator has not obtained alternate financial assurance within 90 days; or
- A final administrative determination pursuant to Section 16 of TSCA finds that the owner or operator has failed to complete a proper closure of the facility, including performing all activities required by the closure plan and other activities required by the Regional Administrator to ensure that any post-closure releases of PCBs to the environment will not present unreasonable risks.

The Regional Office should instruct the surety in writing to perform closure activities or to deposit the funds into the standby trust. The Regional Office should also notify the trustee of the standby trust in advance of expected payments into the trust.

Payment Bonds:

The Regional Administrator is authorized to draw on funds from the surety bond for closure:

- If the surety has sent notice of cancellation of the bond and the owner or operator has not obtained alternate financial assurance within 90 days; or
- If, prior to the beginning of final closure, the owner or operator has not funded the trust fund in an amount equal to the penal sum of the bond.
- Within 15 days after an administrative order to begin closure issued by the Regional Administrator becomes final, or within 15 days after an order to begin final closure is issued by a U.S. District Court or other court of competent jurisdiction; or

The Regional Office should instruct the surety to deposit the funds into the trust. The Regional Office should also notify the trustee of the standby trust in advance of expected payments into the trust.

6.2.3 Terminating Surety Bonds

The Regional Office may consent to the termination of the surety bond if:

- Alternate assurance is substituted; or
- The owner or operator is released from applicable closure financial requirements.

If the Regional Office approves termination of the surety bond, notice must be given to the owner or operator in writing. This notice may accompany the Regional Administrator's letter releasing the owner or operator from closure financial assurance.

At the same time, the Regional Office may consent to the termination of the standby trust fund unless the owner or operator is obtaining an alternate financial assurance mechanism for which a stand-by trust fund is also necessary.

6.2.4 Sources of Further Information

In addition to the Circular 570 updates discussed above. Circular 297 of the Treasury Department – a more technical document – contains the Treasury regulations governing sureties doing business with the United States. These regulations were promulgated pursuant to Title 6 of the U.S. Code, Sections 6-13, and could be useful in answering specific questions that may arise concerning sureties.

Exhibit 6-9 is a list of major national trade associations concerned with surety bonds.

EXHIBIT 6-7

SURETY BOND CHECKLIST

- Step 1. The necessary documents have been submitted:
- ___ The surety bond.
 - ___ An originally signed duplicate of a trust or standby trust agreement.
- Step 2. The surety is qualified:
- ___ The surety is listed on Circular 570 and is licensed in the state.
 - ___ The surety has a sufficiently large underwriting limitation (or shares the risk with other sureties or reinsurers and the combined underwriting limitation is not exceeded).
 - ___ The broker or agent's power of attorney is authorized by the surety to issue this type of bond in the amount needed.
 - ___ The trustee institution for the trust fund or standby trust is qualified.
- Step 3. The surety bond is:
- ___ Effective by 180 days from the effective date of the regulations (or, for facilities opening 240 days or more after the effective date, 60 days prior to the first receipt of PCB material).
 - ___ Signed by both the surety representative and the owner or operator.
 - ___ Worded substantially similar to RCRA's wording for surety bonds (see Exhibit 6-8).
 - ___ In an amount at least equal to the most recent cost estimates.
- Step 4. ___ Compare the level of coverage to the approved cost estimate; if necessary, immediately notify the owner or operator to obtain additional assurance within 60 days for any unassured costs.

EXHIBIT 6-7 (continued)

SURETY BOND CHECKLIST

- Step 5. Relevant information is recorded:
- ___ Name, address and EPA identification number of the facility.
 - ___ Amount of coverage for each facility and the effective date.
 - ___ Information verification procedures performed.
- Step 6. ___ Increases in cost estimates are covered within 60 days either by increases in the penal sum of surety bonds or other added financial assurance. Decreases in surety bond penal sums are approved only when sufficient coverage will remain.
- Step 7. Assurance is maintained in the event of disqualification of the surety.
- ___ The Regional Office keeps track of which sureties enter bankruptcy or cease to be listed in Circular 570.
 - ___ The Regional Office ensures that owners or operators obtain alternate assurance within 60 days after such events.
- Step 8. Assurance is maintained in the event of cancellation:
- ___ The owner or operator is contacted following notice from the surety of intent to cancel.
 - ___ The owner or operator obtains alternative means of financial assurance within 90 days after receipt of notice of cancellation, or the Regional Office draws upon the mechanism.
 - ___ In the event of transfer of ownership, the surety bond is not cancelled until the new owner or operator meets financial responsibility requirements.
- Step 9A. The Regional Office draws on the performance bond when:
- ___ The surety has sent notice of cancellation and no alternate financial assurance has been obtained.
 - ___ The owner or operator has failed to complete proper closure of the facility.

EXHIBIT 6-7 (continued)

SURETY BOND CHECKLIST

Step 9B. The Regional Administrator draws on the payment bond:

- ___ If the surety has sent notice of cancellation and no alternate financial assurance has been obtained.
- ___ If, prior to final closure, the owner or operator has not fully funded the standby trust.
- ___ Within 15 days after an order to begin final closure is issued either by the Regional Administrator or by a court of competent jurisdiction.

Step 10. Requests to terminate the bond are approved in writing when:

- ___ Alternate financial assurance is substituted.
- ___ The owner or operator has been released from financial responsibility requirements for closure.

EXHIBIT 6-8

SAMPLE WORDING FOR SURETY BONDS

A. Sample Wording for Payment Bonds

FINANCIAL GUARANTEE BOND

Date Bond executed:

Effective date:

Principal: [legal name and business address of owner or operator]

Type of Organization: [insert "individual," "joint venture," "partnership,"
or "corporation"]

State of incorporation: _____

Surety(ies): [name(s) and business address(es)] _____

EPA Identification Number, name, address and closure and/or post-closure
amount(s) for each facility guaranteed by this bond [indicate closure and post-closure
amounts separately]: _____

Total penal sum of bond: \$ _____

Surety's bond number: _____

Know All Persons By These Presents, That, we, the Principal and Surety(ies) hereto are firmly bound to the U.S. Environmental Protection Agency (hereinafter called EPA), in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Surety(ies) are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes such Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

Whereas said Principal is required, under the Toxic Substances Control Act (TSCA) as amended, to have a permit, approval, or interim status in order to own or operate each PCB commercial storage facility identified above, and

Whereas, said Principal is required to provide financial assurance for closure or closure and post-closure care, as a condition of the permit, approval, or interim status, and

Whereas said Principal shall establish a standby trust fund as is required when a surety bond is used to provide such financial assurance;

Now, Therefore, the conditions of the obligation are such that if the Principal shall faithfully, before the beginning of final closure of each facility identified above, fund the standby trust fund in the amount(s) identified above for the facility.

EXHIBIT 6-8 (continued)

SAMPLE WORDING FOR SURETY BONDS

Or, if the Principal shall fund the standby trust fund in such amount(s) within 15 days after a final order to begin closure is issued by an EPA Regional Administrator or a U.S. district court or other court of competent jurisdiction.

Or, if the Principal shall provide alternate financial assurance, as specified in Subpart D of 40 CFR 761, as applicable, and obtain the EPA Regional Administrator's written approval of such assurance, within 90 days after the date notice of cancellation is received by both the Principal and the EPA Regional Administrator(s) from the Surety(ies), then this obligation shall be null and void; otherwise it is to remain in full force and effect.

The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above. Upon notification by an EPA Regional Administrator that the Principal has failed to perform as guaranteed by this bond, the Surety(ies) shall place funds in the amount guaranteed for the facility(ies) into the standby trust fund as directed by the EPA Regional Administrator.

The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said penal sum.

The Surety(ies) may cancel the bond by sending notice of cancellation by certified mail to the Principal and to the EPA Regional Administrator(s) for the Region(s) in which the facility(ies) is(are) located, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by both the Principal and the EPA Regional Administrator(s), as evidenced by the return receipts.

The Principal may terminate this bond by sending written notice to the Surety(ies), provided, however, that no such notice shall become effective until the Surety(ies) receive(s) written authorization for termination of the bond by the EPA Regional Administrator(s) of the EPA Region(s) in which the bonded facility(ies) is(are) located.

[The following paragraph is an optional rider that may be included but is not required.]

Principal and Surety(ies) hereby agree to adjustment the penal sum of the bond yearly so that it guarantees a new closure and/or post-closure amount, provided that the penal sum does not increase by more than 20 percent in any one year, and no decrease in the penal sum takes place without the written permission of the EPA Regional Administrator(s).

EXHIBIT 6-8 (continued)

SAMPLE WORDING FOR SURETY BONDS

In Witness Whereof, the Principal and Surety(ies) have executed this Financial Guarantee Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this surety bond is substantially similar to the wording in 40 CFR 761.65(g)(2) as such regulations were constituted on the date this bond was executed.

Principal

[Signature(s)] _____
[Name(s)] _____
[Title(s)] _____
[Corporate seal] _____

Corporate Surety(ies)

[Name and address] _____
[State of Incorporation:] _____
Liability limit: \$ _____
[Signature(s)] _____
[Name(s) and title(s)] _____
[Corporate seal] _____
[For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above.] _____
Bond premium: \$ _____

EXHIBIT 6-8 (continued)

SAMPLE WORDING FOR SURETY BONDS

B. Sample Wording for Performance Bonds

PERFORMANCE BOND

Date bond executed: _____

Effective date: _____

Principal: [legal name and business address of owner or operator]

Type of organization: [insert "individual," "joint venture," "partnership," or "corporation"]

State of incorporation: _____

Surety(ies): [name(s) and business address(es)] _____

EPA Identification Number, name, address, and closure and/or post-closure amount(s) for each facility guaranteed by this bond indicate closure and post-closure amounts separately]: _____

Total penal sum of bond: \$ _____

Surety's bond number: _____

Know All Persons By These presents, That we, the Principal and Surety(ies) hereto are firmly bound to the U.S. Environmental Protection Agency (hereinafter called EPA), in the above penal sum for the payment of which we bind ourselves, our heirs, executors, administrators, successors, and assigns jointly and severally; provided that, where the Surety(ies) are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" only for the purpose of allowing a joint action or actions against any or all of us, and for all other purposes such Surety binds itself, jointly and severally with the Principal, for the payment of such sum only as is set forth opposite the name of such Surety, but if no limit of liability is indicated, the limit of liability shall be the full amount of the penal sum.

Whereas said Principal is required, under the Toxic Substances Control Act (TSCA) as amended, to have a permit or approval in order to own or operate each PCB commercial storage facility identified above, and

Whereas said Principal is required to provide financial assurance for closure, or closure and post-closure care, as a condition of the permit or approval, and

Whereas said Principal shall establish a standby trust fund as is required when a surety bond is used to provide such financial assurance;

EXHIBIT 6-8 (continued)

SAMPLE WORDING FOR SURETY BONDS

Now, Therefore, the conditions of this obligation are such that if the Principal shall faithfully perform closure, whenever required to do so, of each facility for which this bond guarantees closure, in accordance with the closure plan and other requirements of the permit or approval as such plan, permit, and/or approval may be amended, pursuant to all applicable laws, statutes, rules, and regulations may be amended,

And, if the Principal shall faithfully perform post-closure care of each facility for which this bond guarantees post-closure care, in accordance with the post-closure plan and other requirements of the permit or approval, as such plan, permit, and/or approval may be amended, pursuant to all applicable laws, statutes rules, and regulations, as such laws, statutes, rules, and regulations may be amended,

Or, if the Principal shall provide alternate financial assurance as specified in Subpart D of 40 CFR 761, and obtain the EPA Regional Administrator's written approval of such assurance, within 90 days after the date notice of cancellation is received by both the Principal and the EPA Regional Administrator(s) from the Surety(ies), then this obligation shall be null and void, otherwise it is to remain in full force and effect.

The Surety(ies) shall become liable on this bond obligation only when the Principal has failed to fulfill the conditions described above.

Upon notification by an EPA Regional Administrator that the Principal has been found in violation of the closure requirements of 40 CFR 761, for a facility for which this bond guarantees performance of closure, the Surety(ies) shall either perform closure in accordance with the closure plan and other permit or approval requirements or place the closure amount guaranteed for the facility into the standby trust fund as directed by the EPA Regional Administrator.

Upon notification by an EPA Regional Administrator that the Principal has been found in violation of the post-closure requirements of 40 CFR 761 for a facility for which this bond guarantees performance of post-closure care, the Surety(ies) shall either perform post-closure care in accordance with the post-closure plan and other permit or approval requirements or place the post-closure amount guaranteed for the facility into the standby trust fund as directed by the EPA Regional Administrator.

Upon notification by an EPA Regional Administrator that the Principal has failed to provide alternate financial assurance as specified in Subpart D of 40 CFR 761, and obtain written approval of such assurance from the EPA Regional Administrator(s) during the 90 days following receipt by both the Principal and the EPA Regional Administrator(s) of a notice of cancellation of the bond, the Surety(ies) shall place funds in the amount guaranteed for the facility(ies) into the standby trust fund as directed by the EPA Regional Administrator.

EXHIBIT 6-8 (continued)

SAMPLE WORDING FOR SURETY BONDS

The surety(ies) hereby waive(s) notification of amendments to closure plans, permits, approvals, applicable laws, statutes, rules, and regulations and agrees that no such amendment shall in any way alleviate its (their) obligation on this bond.

The liability of the Surety(ies) shall not be discharged by any payment or succession of payments hereunder, unless and until such payment or payments shall amount in the aggregate to the penal sum of the bond, but in no event shall the obligation of the Surety(ies) hereunder exceed the amount of said penal sum.

The Surety(ies) may cancel the bond by ending notice of cancellation by certified mail to the owner or operator and to the EPA Regional Administrator(s) for the Region(s) in which the facility(ies) is(are) located, provided, however, that cancellation shall not occur during the 120 days beginning on the date of receipt of the notice of cancellation by both the Principal and the EPA Regional Administrator(s), as evidenced by the return receipts.

The principal may terminate this bond by sending written notice to the Surety(ies) provided, however, that no such notice shall become effective until the Surety(ies) receive(s) written authorization for termination of the bond by the EPA Regional Administrator(s) of the EPA Region(s) in which the bonded facility(ies) is(are) located.

[The following paragraph is an optional rider that may be included but is not required.]

Principal and Surety(ies) hereby agree to adjust the penal sum of the bond yearly so that it guarantees a new closure and/or post-closure amount, provided that the penal sum does not increase by more than 20 percent in any one year, and no degree in the penal sum takes place without the written permission of the EPA Regional Administrator(s).

In Witness Whereof, The Principal and Surety(ies) have executed this Performance Bond and have affixed their seals on the date set forth above.

The persons whose signatures appear below hereby certify that they are authorized to execute this surety bond on behalf of the Principal and Surety(ies) and that the wording of this

EXHIBIT 6-8 (continued)

SAMPLE WORDING FOR SURETY BONDS

surety bond is substantially similar to the wording in 40 CFR 761.65(g)(3) as such regulation was constituted on the date this bond was executed.

Principal

[Signature]
[Name(s)]
[Title(s)]
[Corporate seal]

Corporate Surety(ies)

[Name and address]
State of incorporation: _____
Liability limit: \$ _____
[Signature(s)]
[Name(s) and title(s)]
[Corporate seal]

[For every co-surety, provide signature(s), corporate seal, and other information in the same manner as for Surety above]

Bond premium: \$ _____

EXHIBIT 6-9

National trade associations concerned with surety bonds are:

1. National Association of Surety Bond Producers
6931 Arlington Road
Suite 308
Bethesda, Maryland 20814
(301) 986-4166
Trade association of surety bond agents
2. Surety Association of America
100 Wood Avenue, South
Iselin, New Jersey 08830
(201) 494-7600
Trade association of surety companies
3. National Association of Insurance Commissioners
1125 Grand Avenue
Suite 1900
Kansas City, Missouri 64106
(816) 842-3600
Organization of state insurance commissioners, who are responsible for the
state regulations of surety companies and their agents

6.3 LETTERS OF CREDIT

A **letter of credit** is a mechanism by which a bank or other financial institution (the issuer) extends credit on behalf of a PCB commercial storer (the account party) to the EPA to assure the availability of funds for closure expenses. The issuer offers this assurance in exchange for a fee paid by the owner or operator of the facility. This assurance may only be used to finance closure in the event that the owner or operator is unable to pay. In the case of nonpayment or nonperformance by the owner or operator, or if the letter of credit is about to be cancelled without substitution of alternate assurance, EPA can direct the deposit of funds from the letter of credit into a standby trust fund. (Storers must also establish a trust or standby trust, discussed in Section 6.1, to use the letter of credit to satisfy the regulations.) The owner or operator would then be responsible for repaying the bank.

Described below are the responsibilities of the Regional Office for reviewing letters of credit. Exhibit 6-10 at the end of this section is a checklist to document review of the mechanism.

6.3.1 Letter of Credit Submissions

Review of Initial Submissions:

- Step 1. Verify submission of documents. Verify that all appropriate documents have been submitted:
- The letter of credit;
 - An accompanying letter referring to the letter of credit by number, issuing institution, and date, which provides the EPA Identification Number, name, and address of each facility, and the amount of funds assured by the letter of credit for closure of each facility; and
 - An originally signed duplicate of a trust or standby trust agreement.
- Step 2. Verify qualifications of issuers. Check to ensure that the financial institution:
- Has the authority to issue letters of credit; and
 - Is regulated by a Federal or State Agency.

These qualifications should be checked with the appropriate regulatory authority on a case-by-case basis. Exhibit 6-11 at the end of this section lists regulatory authorities that could be contacted to verify an issuer's qualifications. Federal and State authorities are listed in Appendix D and Appendix E.

Also verify the qualifications of the Trustee institution for the standby trust. These are the same as for the trust fund (see Section 6.1).

Step 3. Review mechanism terms. Review the letter of credit to ensure that it is:

- Effective by 180 days from the effective date of the regulations, except for facilities opening 240 days or more after the effective date, for which the letter of credit must be effective 60 days prior to the first receipt of PCB material;
- Worded substantially similar to RCRA's wording for letters of credit (see Exhibit 6-12);
- Signed by officials of the financial institution issuing the letter of credit; and
- In an amount at least equal to the current cost estimate(s) (unless multiple mechanisms are being used).

Step 4. Compare the level of coverage to the approved cost estimate. The letter of credit may take effect prior to EPA's final review of the owner or operator's closure cost estimate and this review may cause the cost estimate to increase above the initial estimate. Therefore, once the owner or operator's cost estimate has been reviewed, and EPA is satisfied with the estimate, compare the costs assured by the letter of credit with the amount of the approved cost estimate. If the letter of credit does not cover increases in the cost estimate, the Regional Office should immediately notify the owner or operator that the cost increases should be assured within 60 days.

Step 5. Maintain a regional information system. Record relevant information in a regional information system as letters of credit and standby trust agreements are received. This information should include:

- The name, address, and EPA Identification Number of the facility;
- Letter of credit number and financial institution name;
- Amount of coverage for each facility and effective date; and
- Information verification procedures performed.

Also, keep a list of letters of credit and standby trust funds in effect under the owner or operator's name, and under each financial institution's name so that in the case of bankruptcy, de-licensing, or other events, it is easy to determine which owners or operators need to obtain financial assurance elsewhere. This information system could also be used to keep track of mergers and changes in the names of financial institutions.

Follow-Up Review of the Mechanism:

Step 6. Ensure that coverage is sufficient relative to updated cost estimates. Coverage must be increased whenever the closure cost estimate increases to more than the existing coverage. Therefore, sufficiency of coverage should be evaluated whenever the cost estimate is likely to increase:

- Upon Modification of the Closure Plan. If a modification to the closure plan increases the closure cost estimate, the storer must adjust the cost estimate within 30 days of the approval of the modification.
- On the Anniversary Date of the Establishment of Coverage. Storers are required to update the closure cost estimate for inflation within 60 days prior to the anniversary date of the establishment of financial assurance coverage.

If the cost estimate increases to more than the existing level of financial assurance coverage, the storer should, within 60 days, increase the coverage either by raising the coverage of the existing mechanism or by increases in other financial assurance (see Section 6.7, Combinations of Mechanisms).

If cost estimates decrease, the owner or operator may apply for a reduction in the face value of the letter of credit. The Regional Administrator should approve the decrease in writing only if the owner or operator demonstrates that the reduced financial responsibility level will still cover closure plan for technical adequacy and completeness as well as a review of the reasonableness of the associated cost estimates.

Step 7. Ensure that assurance is maintained in the event of disqualification of the issuer. If a financial institution loses its qualification to offer letters of credit or enters bankruptcy proceedings, verify that the owner or operator has obtained a new financial assurance mechanism. It is important to note that the issuing institution is not required by regulation to notify the Regional Administrator or the owner or operator regarding disqualifications or bankruptcy.

Though Regional offices are not expected to develop surveillance systems to monitor these disqualifications, they should periodically review the qualifications (see Step 2 of this section) of issuers to ensure that no owner or operator is using a letter of credit issued by an unqualified financial institution. Information concerning disqualified institutions could be incorporated into an automated information system that would alert the Region or other owners and operators with letters of credit issued by unqualified institutions. Regional staff should be prepared to instruct owners or operators to obtain alternate assurance in the event the disqualification, bankruptcy, or termination of the issuer becomes known.

Step 8. Ensure that assurance is maintained in the event of cancellation or nonrenewal by the issuer. Cancellation or nonrenewal by the issuer may not occur less than 120 days after the issuer serves notice of intent to cancel the letter of credit. If notice

of cancellation or nonrenewal is received, the owner or operator must obtain within 90 days:

- Alternate financial assurance coverage; and
- Written approval of such assurance.

The 90-day period begins after both the owner or operator and the Regional Office have received the notice of non-renewal.

Upon receipt of the notice, the Regional Office should contact the owner or operator to determine:

- Exactly when the 90-day period will begin; and
- When the owner or operator plans to provide alternate assurance.

The Agency needs this information to determine the nature and timing of future action. If the owner or operator does not provide alternate assurance, the Regional Office may have to draw on the letter of credit.

In the event of the transfer of ownership of or operating responsibility for a facility, the issuer of the letter of credit may wish to terminate it. The Regional Office should not allow the letter of credit for that facility to be terminated until the new owner or operator has met the applicable financial responsibility requirements. The Regional Office should draw upon the letter of credit prior to the transfer of ownership if the new owner or operator has not obtained alternate assurance.

6.3.2 Drawing on Letters of Credit

The Regional Administrator is authorized to draw on funds from the letter of credit for closure:

- If the owner or operator fails to provide alternate assurance within 90 days after receipt of a notice of non-renewal from the issuing institution. If the issuer grants an extension of the term of the credit, EPA may delay drawing on the letter of credit. However, if the owner or operator fails to provide alternate assurance and obtain the written approval of the Regional Administrator, EPA should draw on the letter during the last 30 days of any extension; or
- If the owner or operator has failed to fulfill closure requirements in accordance with previously approved closure plans whenever required to do so. The Regional Office may draw on the mechanism following a final administrative determination under TSCA Section 16, that the owner or operator has failed to perform final closure in accordance with the closure plan and other approval or regulatory requirement when required to do so.

Funds drawn from the letter of credit must be deposited into the standby trust fund. The Regional Office should instruct the issuing institution in writing to deposit the funds. If possible, the Regional Office should notify the trustee of the standby trust in advance of expected payments into the trust.

6.3.3 Terminating Letters of Credit

Termination of the letter of credit may occur only:

- If alternate assurance is substituted; or
- If the owner or operator is released from all applicable financial requirements (40 CFR 761.65(h)).

The letter of credit can only be terminated with the Regional Administrator's approval. If termination is approved:

- Notice must be given to the owner or operator in writing (this notice may accompany the letter releasing the owner or operator from closure financial assurance); and
- The letter of credit should be returned to the issuing institution.

The standby trust fund may also be terminated at this time unless the owner or operator is still demonstrating financial assurance with a surety bond, which also requires a standby trust. Procedures for terminating the standby trust fund are identical to the procedures for terminating trust funds, discussed in Section 6.1.

6.3.4 Sources of Further Information

Information on letters of credit may be found in Article 5 of the Uniform Commercial Code or the International Chamber of Commerce "Uniform Customs and Practices for Documentary Credits," and is also available from the State and Federal regulatory agencies (see Appendix D and Appendix E). Exhibit 6-13 is a list of major national trade associations which can also provide information on letters of credit and financial institutions in general.

EXHIBIT 6-10

LETTER OF CREDIT CHECKLIST

- Step 1. The appropriate documents have been submitted:
- ☐ The letter of credit.
 - ☐ The accompanying letter detailing coverage.
 - ☐ The originally signed duplicate of the standby trust agreement.
- Step 2. The issuing institution is qualified:
- ☐ The trustee financial institution is qualified.
 - ☐ The issuing institution has the authority to issue letters of credit.
 - ☐ The issuing institution is regulated by a Federal or State Agency.
- Step 3. The letter of credit is:
- ☐ Effective by the appropriate date.
 - ☐ Worded substantially similar to RCRA's wording for letters of credit (see Exhibit 6-12).
 - ☐ Signed by an authorized officer of the financial institution.
- Step 4. ☐ Compare the level of coverage to the approved cost estimate; if necessary, immediately notify the owner or operator to obtain additional assurance within 60 days for any unassured costs.
- Step 5. Relevant information is recorded:
- ☐ Name, address, and EPA identification number of the facility.
 - ☐ Amount of coverage for each facility and effective date.
 - ☐ Information verification procedures performed.
- Step 6. ☐ Evidence is submitted within 60 days of increases in cost estimates that the amount of the letter of credit is properly increased as necessary (or other financial assurance is increased). Decreases in the amount of the credit are approved only when sufficient coverage will remain.

EXHIBIT 6-10 (continued)

LETTER OF CREDIT CHECKLIST

- Step 7. Assurance is maintained in the event of disqualification of the issuer:
- ___ Owners or operators obtain alternate assurance within 60 days if the issuing institution ceases to qualify, ceases operations, or files for bankruptcy.
- Step 8. Assurance is maintained in the event the letter of credit is cancelled or not renewed:
- ___ The owner or operator is contacted after receipt of notice of intent to cancel or not renew.
 - ___ Alternate financial assurance is obtained within 90 days after notification of nonrenewal by the issuer.
 - ___ In the event of transfer of ownership, the letter of credit is not cancelled unless the new owner or operator meets financial responsibility requirements.
- Step 9. The Regional Office draws upon letters of credit when appropriate:
- ___ The letter of credit is drawn upon when the owner or operator has not obtained alternate financial assurance within 90 days after notice of cancellation by issuing institution or prior to the last 30 days of any extension granted by the issuer.
 - ___ The letter of credit is drawn upon following a determination by the Regional Administrator that the owner or operator had failed to perform closure as required.
 - ___ Funds drawn from the letter of credit are deposited by the issuer into the standby trust fund.
 - ___ The trustee of the standby trust fund is notified, if possible, in advance of payments into the trust.
- Step 10. Requests to terminate the letter of credit are approved in writing when:
- ___ Alternate assurance is provided; or
 - ___ The owner or operator has been released from financial assurance requirements.

EXHIBIT 6-11

LETTER OF CREDIT: REGULATORY AUTHORITIES FOR FINANCIAL INSTITUTIONS

Type of Financial Institution	Primary Regulatory Authority (and contact)
1. State-Chartered financial institutions, including Commercial Banks, Savings and Loans, Mutual Savings Banks, Credit Unions, State Licensed Foreign Banks	State Authority (see Appendix E)
2. Nationally-Chartered Commercial Banks, Nationally-licensed Foreign Banks, all Washington, D.C. commercial banks	Comptroller of the Currency, Trust Division, (202) 447-1731
3. Nationally-Chartered Savings and Loans	Federal Home Loan Bank Board, General Counsel, (202) 377-6404
4. Nationally-Chartered Mutual Savings Banks	Federal Home Loan Bank Board (Same as Number 3), and State Authorities (see Appendices D and E).
5. Nationally-Chartered Credit Unions	National Credit Union Administration, General Counsel, (202) 357-1030

EXHIBIT 6-12

SAMPLE WORDING FOR LETTERS OF CREDIT

Regional Administrator(s)
Region(s) _____
U.S. Environmental Protection Agency

Dear Sir or Madam:

We hereby establish our Irrevocable Standby Letter of Credit No. ____ in your favor, at the request and for the account of [owner's or operator's name and address] up to the aggregate amount of [in words] U.S. dollars \$____, available upon presentation [insert, if more than one Regional Administrator is a beneficiary, "by any one of you"] of

- (1) your sight draft, bearing reference to this letter of credit No. _____, and
- (2) your signed statement reading as follows: "I certify that the amount of the draft is payable pursuant to regulations issued under authority of the Toxic Substances Control Act as amended."

This letter of credit is effective as of [date] and shall expire on [date at least 1 year later], but such expiration date shall be automatically extended for a period of [at least 1 year] on [date] and on each successive expiration date, unless, at least 120 days before the current expiration date, we notify both you and [owner's or operator's name] by certified mail that we have decided not to extend this letter of credit beyond the current expiration date. In the event you are so notified, any unused portion of the credit shall be available upon presentation of your sight draft for 120 days after the date of receipt by both you and [owner's or operator's name], as shown on the signed return receipts.

Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us, and we shall deposit the amount of the draft directly into the standby trust fund of [owner's or operator's name] in accordance with your instructions.

We certify that the wording of this letter of credit is substantially similar to the wording in 40 CFR 761.65(g)(4) as such regulations were constituted on the date shown immediately below.

[Signature(s) and title(s) of official(s) of issuing institution] [Date]

This credit is subject to [insert "the most recent edition of the Uniform Customs and Practice for Documentary Credits, published by the International Chamber of Commerce," or "the Uniform Commercial Code"].

EXHIBIT 6-13

National trade associations can supply information about letters of credit and financial institutions in general. Major national organization include:

1. American Bankers Association
Information Services
1120 Connecticut Avenue, N.W.
Washington, D.C. 20036
(202) 663-5000
Trade association of banks and trust companies.
2. Independent Bankers Association of America
One Thomas Circle, N.W.
Suite 950
Washington, D.C. 20005
(202) 659-8111
Association of medium size and smaller independent banks.
3. National Council of Savings Institutions
1001 Fifteenth Street, N.W.
Washington, D.C. 20005
(202) 857-3100
Trade association of mutual savings banks.
4. United States League of Savings Associations
111 East Wacker Drive
Chicago, Illinois 60601
(312) 644-3100
Trade association of savings and loan associations, cooperative banks, and state and local savings and loan association leagues.
5. Credit Union National Association
Public Relations Department
Box 431
Madison, Wisconsin 53701
(608) 231-4000
Trade association of state credit union leagues.
6. Conference of State Bank Supervisors
State Banking Department Services
1015 Eighteenth Street, N.W., Suite 606
Washington, D.C. 20036
(202) 296-2840
Organization of state officials responsible for the supervision of state-chartered banking institutions.

EXHIBIT 6-13 (continued)

7. National Association of State Credit Union Supervisors
1499 Chain Bridge Road, Suite 201
McLean, Virginia 22101
(703) 821-2243
Organization of state credit union supervisors and state-chartered credit unions.

8. National Association of State Savings and Loan Supervisors
1499 Chain Bridge Road
Suite 201
McLean, Virginia 22101
(703) 821-2488
Organization of state savings and loan supervisors.

6.4 INSURANCE

Another mechanism which may be used to satisfy the financial responsibility requirements for closure is **insurance**. Under this mechanism, the insurer agrees to fund the closure at the direction of the EPA. (This may involve reimbursing the owner or operator or another party who conducts closure activities.) The owner or operator pays the insurer (in premiums) to assume the liability of providing for closure expenses up to the value or face amount of the policy. The face amount of the insurance policy should at least equal the current closure cost estimate (unless the insurance is combined with another mechanism, in which case the combined coverage should be at least equal to the cost estimate). The initial amount of insurance coverage, alone or in combination, may be larger than the cost estimate in order to accommodate increases due to inflation. This type of insurance funds an event (closure) which is certain to occur, and should not be confused with liability insurance coverage for a pollution occurrence.

Exhibit 6-14 at the end of this section is a checklist to use when documenting review of the insurance mechanism.

6.4.1 Insurance Submissions

Review of Initial Submissions:

Step 1. Verify submission of documents. Verify that the "certificate of insurance" has been submitted. The certificate of insurance, required by regulations, is a specifically-worded statement certifying that the actual insurance policy complies with applicable requirements.

Step 2. Verify qualifications of the insurer. Check to verify that the insurer is:

- licensed to transact the business of insurance by one or more states; or
- eligible to provide insurance as an **excess or surplus lines insurer** (see glossary for complete definition) in one or more States.

It is important to note that the insurer need not be qualified in the state in which the covered facility is located. Contact the insurer and appropriate State regulatory agencies (such as the State Insurance Commission) to verify qualifications. See Appendix D for a list of State regulatory authorities.

Step 3. Review mechanism terms. Review the certificate of insurance to verify that:

- The wording of the certificate is substantially similar to that presented in Exhibit 6-15 at the end of this section;
- The certificate clearly indicates that the policy is effective 180 days from the effective date of the rule, except for facilities opening 240 days or more after the effective date, for which the policy must be effective 60 days prior to the first receipt of PCB material;

- The face amount of the certificate is at least equal to current closure cost estimate(s) (unless multiple mechanisms are being used).

Owners or operators of existing PCB storage facilities who are interested in using closure insurance must submit to the Region (by 180 days from the effective date of the rule) a letter from an insurer stating that it will issue a policy if all of EPA's other requirements are met. For such submittals, the Regional Office should also verify that the insurance certificate is provided. Owners or operators of new PCB facilities must submit the certificate of insurance 60 days prior to the first receipt of PCB material.

Step 4. Compare the level of coverage to the approved cost estimate. The insurance may take effect prior to EPA's final review of the owner or operator's closure cost estimate and this review may cause the cost estimate to increase above the initial estimate. Therefore, once the owner or operator's cost estimate has been reviewed, and EPA is satisfied with the estimate, compare the costs assured with the amount of the approved cost estimate. If the insurance does not cover increases in the cost estimate, the Regional Office should immediately notify the owner or operator that the cost increases must be assured within 60 days.

Step 5. Maintain a regional information system. Record relevant information in a Regional information system as certificates of insurance are received. This information should include:

- The name, address, and EPA Identification Number of the facility;
- Insurance policy number and insurer name;
- Amount of coverage for each facility and the effective date of the policy; and
- Information verification procedures performed.

Similarly, if an owner or operator of an existing facility submits a letter from a potential insurer, log the name, address, and EPA identification number of the facility and verify that financial assurance is established within 90 days after the effective date. Keep a list of insurance contracts in effect under the owner's or operator's name and also under each insurer's name. This listing is useful in notifying owners or operators of insurers undergoing bankruptcy, de-licensing, or other events which might affect the owner or operator's insurance coverage. An automated data processing system can be a useful tool in organizing and storing this information. This system could also be used to keep track of mergers and changes in the name of insurers.

Follow-Up Review of the Mechanism:

Step 6. Ensure that coverage is sufficient relative to updated cost estimates. Coverage should be increased whenever the closure cost estimate increases to more than the existing coverage. Therefore, sufficiency of coverage should be evaluated whenever the cost estimate is likely to increase:

- Upon Modification of the Closure Plan. If a modification to the closure plan increases the closure cost estimate, the storer must adjust the cost estimate within 30 days of the approval of the modification.
- On the Anniversary Date of the Establishment of Coverage. Storers are required to update the closure cost estimate for inflation within 60 days prior to the anniversary date of the establishment of financial assurance coverage.

If the cost estimate increases to more than the existing level of financial assurance coverage, the storer should, within 60 days, increase the coverage either by raising the coverage of the existing mechanism or by increases in other financial assurance (see Section 6.7, Combinations of Mechanisms).

If cost estimates decrease, an owner or operator may apply for a reduction in the face value of the insurance policy. Decreases in coverage should be approved only if the owner or operator demonstrates that the reduced financial responsibility level will still cover closure costs. Such a determination of adequate coverage will require a review of the closure plan for technical adequacy and completeness as well as a review of the reasonableness of associated cost estimates.

Step 7. Ensure that assurance is maintained in the event of disqualification of the insurer. If the insurance company becomes disqualified, ceases operation, or files for bankruptcy, verify that the owner or operator provides alternate financial assurance. The insurer is not required to notify the Regional Office or the owner or operator regarding disqualifications.

Annually review the qualifications (see Step 2 of this section) of the insurer to ensure that no owner or operator is using an unqualified insurer.

Step 8. Ensure that assurance is maintained in the event of cancellation of insurance by the insurer. The insurer may cancel, terminate, or fail to renew the policy only if the owner or operator fails to pay the premium of the insurance contract. In such an event the insurer must provide notice to the Regional Office and the owner or operator by certified mail. The policy may be terminated effective 120 days after the receipt of the notice by both the owner or operator and the Regional Office, unless:

- The Regional Administrator judges the facility to be abandoned;
- The Regional Administrator terminates or rejects the TSCA approval;

- Closure is ordered by the Regional Administrator or a court of competent jurisdiction;
- The owner or operator is named as a debtor in bankruptcy proceeding; or
- The premium is paid.

Once the Regional Office has received a notice of cancellation from an insurer, it should:

- Contact the owner or operator to determine the date he received the notice from the insurer and whether he is willing and financially capable of paying the premium.
- Conduct an inspection of the facility to determine whether the facility is abandoned, and whether it is in compliance with its application.
- Consider terminating or rejecting its approval, or ordering closure.

This information will be essential for EPA to determine the nature and timing of future action.

In the event of transfer of ownership of a facility, an insurer may wish to cancel the policy. EPA should verify that assurance is maintained until the new owner or operator obtains assurance.

6.4.2 Drawing on the Insurance

As closure activities are carried out by the owner or operator, or other person authorized by the Regional Administrator, itemized bills should be submitted to the Regional Office with requests for reimbursement. When reviewing itemized bills, the Regional Office should:

- Determine within 60 days if the expenses are reasonably justified, and consistent with approved closure plans;
- Approve the request for reimbursement and direct payment within 60 days unless there is reason to believe that the cost of closure will be significantly greater than available funds. If this occurs, the Regional Office may withhold reimbursement until proper closure has been completed and certified; and
- Determine if reimbursement is appropriate for unanticipated expenditures caused by a contingent event such as bad weather or an accident during closure. These decisions will have to be made on a case-by-case basis. The owner or operator, however, remains ultimately responsible for all closure costs even if the financial assurance funds are exhausted.

The Regional Office will grant requests for reimbursement of partial closure expenses only if the remaining value of the policy will cover the costs of closing the remainder of the facility.

6.4.3 Terminating Insurance

The owner or operator may be allowed to terminate insurance coverage only if:

- The owner or operator provides alternate assurance; or
- The owner or operator is released from applicable financial requirements.

Insurance coverage may be terminated only with the Regional Administrator's approval. The Regional Administrator's consent should be in writing and may accompany the letter releasing the owner or operator from closure financial assurance requirements.

6.4.4 Sources of Further Information

State agencies listed in Appendix E can be used to determine whether an insurer is licensed or eligible to provide insurance. Also, national trade associations listed in Exhibit 6-16 can supply general information about the insurance industry.

EXHIBIT 6-14

INSURANCE CONTRACT CHECKLIST

- Step 1. The appropriate documents are submitted:
- ☐ The certificate of insurance.
- Step 2. The insurer is qualified:
- ☐ The insurer is licensed to transact the business of insurance; or
 - ☐ Eligible as a provider of excess or surplus lines insurance in any of one or more states.
- Step 3. The certificate of insurance:
- ☐ Is worded substantially similar to RCRA's wording for insurance certificates (see Exhibit 6-15).
 - ☐ Is effective by the appropriate date.
 - ☐ Has a face amount at least equal to the closure cost estimate, unless multiple mechanisms are used.
- Step 4. ☐ Compare the level of coverage to the approved cost estimate; if necessary, immediately notify the storer to obtain additional assurance within 60 days for any unassured costs.
- Step 5. Relevant information is recorded:
- ☐ Name, address, and EPA identification number of the facility.
 - ☐ Amount of coverage for each facility and effective date.
 - ☐ Information verification procedures performed.
- Step 6. ☐ Evidence of increases in the face amount of insurance coverage (or other financial assurance coverage) is provided within 60 days of a change in the cost estimate if necessary to cover increases in cost estimates. Decreases in the face amount of insurance are approved only during the operating life of the facility and only when sufficient coverage will remain.

EXHIBIT 6-14 (continued)

INSURANCE CONTRACT CHECKLIST

- Step 7. Assurance is maintained in the event of disqualification of the insurer:
- ___ Alternate financial assurance is provided within 60 days of notification if insurance company becomes disqualified, ceases operations, or files for bankruptcy.
- Step 8. Assurance is maintained in the event the policy is cancelled or not renewed due to nonpayment of premium or transfer of ownership:
- ___ Following a notice from the insurer of intent to cancel insurance, the owner or operator is contacted to determine whether he will pay the premium.
 - ___ Insurance policies are assigned or other financial assurance is provided in the event of transfer of ownership or operation.
 - ___ In the event of transfer of ownership, the insurance policy is not cancelled until the new owner or operator meets financial responsibility requirements.
- Step 9. The Regional Administrator instructs the insurer in writing to make reimbursement in the specified amounts:
- ___ Within 60 days after receiving bills, after determining that expenses are justified and consistent with closure plans.
 - ___ If there is no reason to believe that the cost of closure will be significantly greater than available funds.
 - ___ If a determination is made that reimbursement is appropriate for unanticipated expenditures caused by a contingent event.
- Step 10. Requests to terminate insurance are approved in writing when:
- ___ Alternate financial assurance is substituted; or
 - ___ The owner or operator has been released from closure financial requirements.

EXHIBIT 6-15

SAMPLE WORDING FOR INSURANCE CERTIFICATE

Name and Address of Insurer
(herein called the "Insurer"): _____

Name and Address of Insured
(herein called the "Insured"): _____

Facilities Covered: [List for each facility: The EPA Identification Number, name, address,
and the amount of insurance for closure care (these amounts for all
facilities covered must total the face amount shown below.)

Face Amount: _____

Policy Number: _____

Effective Date: _____

The Insurer hereby certifies that it has issued to the Insured the policy of insurance identified above to provide financial assurance for [insert "closure" or "closure and post-closure care" or "post-closure care"] for the facilities identified above. The Insurer further warrants that such policy conforms with requirements of Subpart D of 40 CFR 761 as applicable and as such regulations were constituted on the date shown immediately below. It is agreed that any provision of the policy inconsistent with such regulations is hereby amended to eliminate such inconsistency.

Whenever requested by the EPA Regional Administrator(s) of the U.S. Environmental Protection Agency, the Insurer agrees to furnish to the EPA Regional Administrator(s) a duplicate original of the policy listed above, including all endorsements thereon.

I hereby certify that the wording of this certificate is substantially similar to the wording in 40 CFR 761.65(g)(5) as such regulations were constituted on the date shown immediately below.

[Authorized signature for Insurer]

[Name of person signing]

[Title of person signing]

Signature of witness or notary: _____

[Date]

EXHIBIT 6-16

National trade associations can supply information about insurance and the insurance industry in general. Major organizations include:

1. American Insurance Association
85 John Street
New York, New York 10038
(212) 669-0400
Trade and service organization of the property and casualty insurance industry.
2. Insurance Information Institute
110 William Street
New York, New York 10038
(212) 669-9200 or 1-800-221-4954
Educational, fact-finding, and communications organization for all lines of insurance except life and health insurance.
3. Independent Insurance Agents of America
100 Church Street
New York, New York 10007
(212) 285-4250
Trade association of independent insurance agents.
4. Professional Insurance Agents
400 North Washington Street
Alexandria, Virginia 22314
(703) 836-9340
Trade association of insurance agents.
5. National Association of Insurance Commissioners
1125 Grand Avenue
Suite 1900
Kansas City, Missouri 64106
(816) 842-3600
Organization of state insurance commissioners.
6. Alliance of American Insurers
1501 Woodfield Road
Suite 400 West
Schaumburg, Illinois 60173-4980
(312) 490-8500
Trade association of fire and casualty insurance companies.

EXHIBIT 6-16 (continued)

7. National Association of Insurance Brokers
1401 New York Avenue, N.W.
Suite 720
Washington, D.C. 20005
(202) 628-6700
Trade association of commercial insurance brokers.
8. National Association of Independent Insurers
2600 River Road
Des Plains, Illinois 60018
(312) 297-7800
Trade association of property, casualty, and surety insurers.
9. National Insurance Consumer Organization
121 North Payne Street
Alexandria, Virginia 22314
(703) 549-8050
Non-profit public interest membership organization.

6.5 FINANCIAL TEST

Owners and operators of PCB commercial storage facilities may demonstrate financial assurance for closure by passing one of two financial tests allowed by the rule. By meeting the financial criteria contained in a financial test, the storer demonstrates that he has the financial resources to meet his closure obligations. (Exhibit 6-17 shows the criteria of the two tests.) However, unlike the trust fund, surety bond, letter of credit, or insurance policy mechanisms, the financial test does not ensure that funds are set aside to cover the costs of closure. Thus, the storer has the responsibility to meet closure costs using his own resources when needed. Because of the lack of third-party guarantees or set-aside funds, it is particularly important that the financial test criteria are strictly enforced. Users of the test must be closely monitored to ensure that their financial positions have not seriously deteriorated since last taking the test. EPA must therefore re-evaluate the financial test submissions of every owner or operator each year, even if there has been no change in closure cost estimates.

Review of the financial test should cover the areas described below. A summary checklist appears in Exhibit 6-18.

6.5.1 Financial Test Submissions

Review of Initial Submissions:

- Step 1. Verify the submission of documents. The first step is to verify that the owner or operator has submitted all the necessary documents as follows:
- Chief financial officer's letter including cost estimates and data from audited financial statements;
 - A copy of the independent certified public accountant's opinion of the storer's financial statements for the latest completed fiscal year (also known as Report on Examination);
 - A special report from the independent certified public accountant.
- Step 2. Verify the qualifications of accountant. Confirm that the independent certified public accountant responsible for preparing the opinion and special report is certified by an officially recognized accreditation organization. Most firms will be easily recognizable as certified public accountants. If there is any doubt about the accountant's qualifications, check the credentials of the accountant by contacting the State Board of Accountancy in the state where the accountant resides. These are listed in Appendix E.
- Step 3. Check the Chief Financial Officer's letter. Review the letter from the chief financial officer and verify that it is complete and accurate:
- The wording of the letter should be substantially the same as the wording found in 40 CFR 264.151(f) (see also Exhibit 6-19 at the end of this section). If anything is missing from the letter, the Regional Office should immediately

notify the submitter, and ensure that alternative financial assurance mechanisms are provided or proper submissions are made;

- The letter should be signed by the chief financial officer;
- All relevant facilities of the owner or operator must be included in the chief financial officer's letter. (Relevant facilities include any PCB storage facilities, RCRA Subtitle C facilities, and SDWA Underground Injection Wells that are covered by the financial test, guarantee, or substantially equivalent state financial tests, and facilities for which no financial assurance has been demonstrated.) This step is very important to ensure that the firm does not use the same assets to pass separate financial tests for different EPA programs. All financial responsibility obligations related to these facilities must be covered by the test or another mechanism. However, note that the financial test may not be combined with another mechanism to cover the costs of one facility (see Section 6.7, "Combinations of Mechanisms");
- To verify financial information EPA may want to request the audited financial statements from the firm, or obtain the Form 10K from the SEC (see Sources of Further Information below). Since privately-owned firms are not required to file with the SEC, requests for financial information may have to be directed directly to certain firms. Moody's or Standard and Poor's bond guides (available at major libraries as well as libraries in Regional Offices of the U.S. Securities and Exchange Commission) may be checked to verify the bond ratings.
- Verify the mathematics indicating that the owner or operator passes the criteria of the test. If any of the criteria for the financial test are not met, the Regional Office should immediately notify the submitter, and ensure that alternative financial assurance mechanisms are provided or proper submissions are made;

Step 4. Review of the Accountant's Opinion of the financial statements. Determine what kind of opinion was expressed by the accountant: Unqualified Opinion, Qualified Opinion, Adverse Opinion, or Disclaimer of Opinion. Two exhibits at the end of this section may assist in this review. Exhibit 6-20 provides examples of different opinions. Some examples of conditions likely to result in a Qualified Opinion, Adverse Opinion, and Disclaimer of Opinion are given in Exhibit 6-21.

When evaluating accountants' opinions, EPA staff should consider the following points:

- Accountants will generally give "unqualified" opinions to firms whose financial statements have been properly prepared and whose financial condition is not subject to any other qualification (see below). An unqualified opinion does not mean that a firm passes the financial test. It merely indicates the accountant's belief that the financial statements are accurate. Therefore, it is important to ensure that an owner or operator meets all other test criteria.

- Occasionally, an accountant will issue either (1) an Adverse Opinion, (2) a Disclaimer of Opinion, or (3) a Qualified Opinion based on a "going concern" issue. An adverse opinion is issued when an accountant does not believe a firm's financial statements fairly present its financial condition. A disclaimer of opinion is given when an accountant cannot, or will not, express an opinion on the financial statements. An opinion qualified on the basis of a "going concern" issue suggests serious doubt about the viability of the firm. It is inappropriate for a firm receiving any one of these types of opinions to be permitted to use the financial test.
- Accountants will issue other types of qualified opinions (either an "except for" or a "subject to" opinion not based on a "going concern" issue) for a wide variety of reasons. Further investigation is generally necessary in such cases to determine whether the qualification calls into question any of the data an owner or operator is using in his financial test submission.

The following four steps may be useful when investigating cases where an owner or operator has received a Qualified Opinion (either an "except for" or "subject to," excluding those rendered on the basis of a "going concern" issue):

1. The owner or operator should be asked to submit a copy of the latest financial statements, including notes to the statements, so that EPA may consider the most current information available. Alternatively, a copy of the latest Form 10-K could be obtained from the SEC.
2. The opinion rendered by the accountant should be thoroughly understood in the context of the financial statements:
 - If it is an "except for" opinion, determine if the parts of the statements which give rise to the "except for" qualification have any bearing on the firm's ability to pass the financial test. Accept the qualified opinion if it has no bearing on the firm's ability to pass the test.
 - If it is a "subject to" opinion, determine the likelihood of the occurrence of the event the accuracy of the financial statements are "subject to," and the importance of the unforeseeable event's occurrence or nonoccurrence on the firm's ability to pass the financial test.
3. If not enough information is available in the opinion or the financial statements to make a satisfactory decision, the firm should be asked to submit a written explanation as to why the qualification should not be grounds for disqualification from the financial test.
4. If the matter is still unresolved, contact EPA Headquarters for additional assistance.

- Step 5. Check the special report from the certified public accountant. The auditor's special report should verify that the data specified in the chief financial officer's letter can be traced back to the audited, year-end financial statements. (The auditor's confirmation does not pass judgment on whether the owner or operator is economically viable.) See Exhibit 6-22 at the end of this chapter for an example of an auditor's confirmation.
- Step 6. Compare the level of coverage to the approved cost estimate. The financial test mechanism may be submitted prior to EPA's final review of the storer's closure cost estimate; this review may cause the cost estimate to increase above the initial estimate. Therefore, once the storer's cost estimate has been reviewed and EPA is satisfied with all other relevant cost estimates, compare the costs assured by the financial test with the amount of the approved cost estimates. If the financial test does not cover the approved cost estimates, the Regional Office should immediately notify the storer that the cost increases must be assured within 60 days.
- Step 7. Maintain a regional information system. As financial information is received, record relevant information, including the name, address, and EPA Identification Number of the covered facilities; amount of coverage for each facility and effective date; and information verification procedures performed. Keep a file on each submitting firm, such as the one shown in Exhibit 6-23 which keeps track of key financial data.

Follow-Up Review of the Mechanism:

- Step 8. Reviewing annual submissions. To continue use of the financial test, a storer must resubmit updated information (that is, the letter from the chief financial officer, the accountants' opinion and special report) within 90 days after the close of every fiscal year. Failure to do so could be an indication of financial deterioration in the submitting firm, so the Regional Office should make prompt inquiries into such cases. Note that the first re-evaluation may be due soon after the initial test submission (if the initial submission was submitted just prior to the end of the firm's fiscal year). However, subsequent re-evaluations will then be due annually.

To review the updated information, follow the same procedures that were outlined for Initial Responsibilities, plus:

- Verify that all relevant financial responsibility obligations have been included (see Step 3).
- Ensure that coverage is sufficient relative to updated cost estimates. Coverage must be increased whenever the closure cost estimate increases to more than the existing coverage. Therefore, sufficiency of coverage should be evaluated whenever the cost estimate is likely to increase:
 - Upon Modification of the Closure Plan. If a modification to the closure plan increases the closure cost estimate, the storer must adjust the cost estimate within 30 days of the approval of the modification.

- On the Anniversary Date of the Establishment of Coverage. Storers using the financial test are required to update the closure cost estimate for inflation within 30 days after the end of the firm's fiscal year and prior to the submission of the financial test documentation to the Regional Office.

If the cost estimate increases to more than the existing level of financial assurance coverage, the storer should, within 60 days, increase the coverage either by raising the coverage of the existing mechanism or by increases in other financial assurance (see Section 6.7, Combinations of Mechanisms).

If cost estimates decrease, the owner or operator may apply for a reduction in coverage. The Regional Administrator should approve the decrease in writing only if the owner or operator demonstrates that the reduced financial responsibility level will still cover closure expenses. Such a determination will require a review of the closure plan for technical adequacy and completeness as well as a review of the reasonableness of the associated cost estimates.

- The storer is required to notify the Regional Administrator by certified mail within 90 days after the end of the fiscal year if he no longer passes the financial test. If the owner or operator notifies the Regional Administrator of his intent to establish alternate assurance because he no longer meets the financial test requirements, the Regional Administrator should ensure that an alternate mechanism is established. Such assurance must be provided within 120 days after the end of the fiscal year.

Step 9. Ongoing monitoring. Monitor storers that may be experiencing financial deterioration. The business press (e.g., "The Wall Street Journal") may reveal important adverse news about owners and operators. In addition, an online computerized business data base service such as DIALOG could be used for this purpose. Through the computerized data base, or manually, the Business Periodical Index and the F&S Corporate Index should be searched using the firm's name as a "keyword," for:

- Bankruptcy proceedings,
- Decreases in bond ratings,
- Sharp stock price decreases,
- Omission of a dividend,
- Delisting from a stock exchange, or suspended trading,
- Mergers, acquisitions, divestitures, and
- Financial losses, competitive problems.

If any of these events occur, the firm should be investigated further (see the next step). Storers are required to notify the Regional Administrator within ten days of the start of any bankruptcy proceeding.

Step 10. Investigate for reasonable cause. Firms singled out for further investigation may be monitored more frequently than annually. EPA has broad powers to obtain

interim reports of financial condition from the owner or operator if he believes that the firm may no longer meet the financial test criteria (Exhibit 6-17). At a minimum, if there is suspicion of non-compliance, the latest quarterly financial report should be obtained from the firm, or the Form 10-Q obtained from the SEC (see Sources of Further Information below). The quarterly financial reports or Form 10-Q should be used to see if the firm still meets the test requirements. The Standard and Poor's or Moody's bond guides should be checked, if applicable, to verify that the latest bond ratings are still investment grade.

- Step 11. Disallow use of the test when appropriate. Based on the annual submission or on interim reports of financial condition or any other materials, EPA may at any time find that the owner or operator no longer meets the financial test criteria. If so, the owner or operator must provide alternative financial assurance within 30 days after receiving notification of this finding.
- Step 12. Release from the financial test. The storer may be released from the requirements of the financial test when:
- An alternate financial assurance mechanism is substituted; or
 - The storer is released from all financial responsibility requirements for closure. The Regional Administrator should release a storer from closure financial responsibility requirements within 60 days after receiving certification from the storer and an independent registered professional engineer that final closure has been conducted in accordance with the approved closure plan.

6.5.2 Use of Financial Test by Local Government Entities

The financial test used for financial assurance of PCB storage facilities was designed for private firms and government entities that behave like firms (e.g., certain special authorities). The financial test is inapplicable to most government entities because their financial statements do not use the same measures as found in private sector financial statements. (For example, because governments do not function to generate profits, a measure of "net income" does not apply to them.)

6.5.3 Sources of Further Information

For further information on the financial test, see Background Document for the Financial Test and Municipal Revenue Test, U.S. Environmental Protection Agency, Office of Solid Waste, November 30, 1981 (including Appendix A and Appendix B).

Standard reference books include:

- American Institute of Certified Public Accountants. AICPA Professional Standards - Volume 1, June 1, 1981.
- Burton, Palmer, and Kay. Handbook of Accounting and Auditing, Boston: Warren, Gorham and Lamont, 1981.

- Kohler, Eric L. A Dictionary for Accountants, New Jersey: Prentice Hall, Inc. (Fourth edition 1970).
- Lev, Baruch Financial Statement Analysis - A New Approach, New Jersey: Prentice-Hall, Inc., 1974.
- Merrill Lynch Pierce Fenner & Smith, Inc. How to Read A Financial Report, May 1979.
- Myer, John N. Understanding Financial Statements, American Research Council, Inc., 1964.
- Myer, John N. Accounting for Non-Accountants, New York: New York University Press, 1957.
- Myer, John N. Financial Statement Analysis, Englewood Cliffs: Prentice Hall Inc., 1969.

To obtain Form 10-K or 10-Q reports from the SEC, contact: The U.S. Securities and Exchange Commission's Public Reference Room, located at 450 Fifth Street, N.W., Washington, D.C. 20549 (telephone: (202) 272-7450). Requests will be processed in 3-4 weeks and will be sent C.O.D. with a 10 cents/page photocopying charge. For more urgent requests, call Bechtel Information Services at 1-800-231-DATA or (202) 258-4300.

State Boards of Accountancy are listed in Appendix E. Finally, the American Institute of Certified Public Accountants, 1620 Eye Street, N.W., Washington, D.C. 20006, (202) 872-8190 may be of assistance.

EXHIBIT 6-17

ALTERNATIVE FINANCIAL TESTS

Different Provisions of Tests

Alternative I
(must meet A, B, C, and D)

- A. Meet two of the following three ratios:
- (i) Total liabilities/net worth less than 2.0
 - (ii) The sum of net income plus depreciation, depletion, and amortization/total liabilities greater than 0.1
 - (iii) Current assets/current liabilities greater than 1.5
- B. Meet both of the following requirements
- (i) Net working capital at least 6 times the current closure cost estimates

Alternative II
(must meet A, B, C, and D)

- A. A current rating for the most recent bond issuance of either:
- (i) AAA, AA, A, BBB, as issued by Standard and Poor's; or
 - (ii) Aaa, Aa, Baa as issued by Moody's

Identical Provisions of Tests

- (ii) Tangible net worth at least 6 times the current closure cost estimates
- C. Tangible net worth of at least \$10 million in the U.S.
- D. Meet one of the following tests:
- (i) Assets in the U.S. amounting to at least 90 percent of total assets
 - (ii) Assets in the U.S. amounting to at least 6 times the current closure cost estimates

- B. Tangible net worth at least 6 times the current closure cost estimates
- C. Tangible net worth of at least \$10 million
- D. Meet one of the following tests:
- (i) assets in the U.S. amounting to at least 90 percent of total assets
 - (ii) assets in the U.S. amounting to at least 6 times the current closure estimates

Note:

See glossary for definition of terms.

See 40 CFR 264.143(f).

EXHIBIT 6-18

FINANCIAL TEST CHECKLIST

- Step 1. All documents have been submitted:
- ☐ Chief financial officer's letter.
 - ☐ Independent certified public accountant's opinion.
 - ☐ Independent certified public accountant's special report.
- Step 2. ☐ The independent certified public accountant is certified.
- Step 3. The letter from the chief financial officer:
- ☐ Is worded substantially similar to RCRA's wording for letter from chief financial officer (see Exhibit 6-19).
 - ☐ Is signed by the chief financial officer.
 - ☐ Covers all relevant facilities.
 - ☐ Is complete and accurate.
- Step 4. ☐ The accountant's opinion of the storer's financial statements is either "unqualified" or otherwise acceptable.
- Step 5. ☐ The accountant's special report confirms that the data in the chief financial officer's letter are acceptable.
- Step 6. ☐ Compare the level of coverage to the approved cost estimate; if necessary, immediately notify the storer to obtain additional assurance within 60 days for any unassured costs.
- Step 7. ☐ The regional information system is updated.
- Step 8. ☐ Subsequent submissions account for changes in cost estimates due to either inflation or revised closure plans, plus meet Steps 1-6. Firms experiencing financial deterioration should be flagged for monitoring and investigation.
- Step 9. ☐ Firms are monitored to determine whether they are experiencing financial deterioration and to see if further investigation is necessary.

EXHIBIT 6-18 (continued)

FINANCIAL TEST CHECKLIST

Step 10. Deteriorating firms are investigated:

- ☐ Interim financial data are requested.
- ☐ Firm's ability to pass the financial test criteria is reassessed.

Step 11. ☐ Firms that cannot meet the criteria are directed to obtain alternative financial assurance within 30 days, and are monitored until they obtain alternative assurance.

Step 12. Storers are released from the requirements of the test when:

- ☐ Alternative assurance is substituted; or
- ☐ The storer is released from all closure financial responsibility requirements.

EXHIBIT 6-19

SAMPLE WORDING FOR LETTER FROM CHIEF FINANCIAL OFFICER

A letter from the chief financial officer may be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

[Address to Regional Administrator of every region in which facilities for which financial responsibility is to be demonstrated through the financial test are located.]

I am the chief financial officer of [name and address of firm]. This letter is in support of this firm's use of the financial test to demonstrate financial assurance, as specified in Subpart D of 40 CFR 761.

[Fill out the following four paragraphs regarding facilities and associated cost estimates. If your firm does not have facilities that belong in a particular paragraph, write "None" in the space indicated. For each facility, include its EPA Identification Number, name, address, and current closure and/or post-closure cost estimates. Identify each cost estimate as to whether it is for closure or post-closure care.]

1. This firm is the owner or operator of the following facilities for which financial assurance for closure or post-closure care is demonstrated through the financial test specified in Subpart H of 40 CFR 264 and 265 or as required by 40 CFR 761.65(g)(6). The current closure and/or post-closure cost estimates covered by the test are shown for each facility:

2. This firm guarantees, through the corporate guarantee specified in Subpart H of 40 CFR 264 and 265 or as required by 40 CFR 761.65(g)(6), the closure or post-closure care of the following facilities owned or operated by subsidiaries of this firm. The current cost estimates for the closure or post-closure care so guaranteed are shown for each facility:

3. In States where EPA is not administering the financial requirements of Subpart H of 40 CFR 264 and 265 or of Subpart D of 40 CFR 761, this firm, as owner or operator or guarantor, is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in Subpart H of 40 CFR 264 and 265 or as required by 40 CFR 761.65(g)(6). The current closure and/or post-closure cost estimates covered by such a test are shown for each facility:

EXHIBIT 6-19 (continued)

SAMPLE WORDING FOR LETTER FROM CHIEF FINANCIAL OFFICER

4. This firm is the owner or operator of the following PCB commercial storage facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated either to EPA or a State through the financial test or any other financial assurance mechanism specified in Subpart H of 40 CFR 264 and 265 or required by 40 CFR 761 or equivalent or substantially equivalent State mechanisms. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility:
-

This firm [insert "is required" or "is not required"] to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on [month, day]. The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements and footnotes for the latest completed fiscal year, ended [date].

[Fill in Alternative I if the criteria of paragraph (f)(1)(i) of 40 CFR 264.143 or 264.145, or of paragraph (e)(1)(i) of 40 CFR 265.143 or 265.145 of this chapter are used. Fill in Alternative II if the criteria of paragraph (f)(1)(ii) of 40 CFR 264.143 or 264.145, or of paragraph (e)(1)(ii) of 40 CFR 265.143 or 265.145 of this chapter are used.]

EXHIBIT 6-19 (continued)

SAMPLE WORDING FOR LETTER FROM CHIEF FINANCIAL OFFICER

ALTERNATIVE I

- | | |
|---|----------------------|
| 1. Sum of current closure and post-closure cost estimates
[total of <u>all</u> cost estimates shown in the four paragraphs
above] | \$ _____ |
| *2. Total liabilities [if any portion of the closure or
post-closure cost estimates is included in total
liabilities, you may deduct the amount of that portion
from this line and add that amount to lines 3 and 4] | \$ _____ |
| *3. Tangible net worth | \$ _____ |
| *4. Net worth | \$ _____ |
| *5. Current assets | \$ _____ |
| *6. Current liabilities | \$ _____ |
| 7. Net working capital [line 5 minus line 6] | \$ _____ |
| *8. The sum of net income plus depreciation, depletion, and
amortization | \$ _____ |
| *9. Total assets in U.S. (required only if less than 90
percent of firm's assets are located in the U.S.) | \$ _____ |
| | <u>Yes</u> <u>No</u> |
| 10. Is line 3 at least \$10 million? | ___ ___ |
| 11. Is line 3 at least 6 times line 1? | ___ ___ |
| 12. Is line 7 at least 6 times line 1? | ___ ___ |
| *13. Are at least 90 percent of firm's assets located in the
U.S.? If not, complete line 14. | ___ ___ |
| 14. Is line 9 at least 6 times line 1? | ___ ___ |
| 15. Is line 2 divided by line 4 less than 2.0? | ___ ___ |

* Denotes figures derived from financial statements.

EXHIBIT 6-19 (continued)

SAMPLE WORDING FOR LETTER FROM CHIEF FINANCIAL OFFICER

ALTERNATIVE I (continued)

- | | <u>Yes</u> | <u>No</u> |
|---|------------|-----------|
| 16. Is line 8 divided by line 2 greater than 0.1? | — | — |
| 17. Is line 5 divided by line 6 greater than 1.5? | — | — |

ALTERNATIVE II

- | | | |
|---|------------|-----------|
| 1. Sum of current closure and post-closure cost estimates
[total of <u>all</u> cost estimates shown in the four paragraphs
above] | \$ | _____ |
| 2. Current bond rating of most recent issuance of this firm
and name of rating service | \$ | _____ |
| 3. Date of issuance of bond | \$ | _____ |
| 4. Date of maturity of bond | \$ | _____ |
| *5. Tangible net worth [if any portion of the closure and
post-closure cost estimates is included in "total
liabilities" on your firm's financial statements, you
may add the amount of that portion to this line] | \$ | _____ |
| *6. Total assets in U.S. (required only if less than 90
percent of firm's assets are located in the U.S.) | \$ | _____ |
| | <u>Yes</u> | <u>No</u> |
| 7. Is line 5 at least \$10 million? | — | — |
| 8. Is line 5 at least 6 times line 1? | — | — |
| *9. Are at least 90 percent of firm's assets located in the
U.S.? If not, complete line 10. | — | — |
| 10. Is line 6 at least 6 times line 1? | — | — |

I hereby certify that the wording of this letter is substantially similar to the wording in 40 CFR 761.65(g)(6) as such regulations were constituted on the date shown immediately below.

[Signature]

[Name]

[Title]

[Date]

EXHIBIT 6-20

EXAMPLES OF ACCOUNTANT'S OPINIONS

A. Unqualified Opinions

Example 1: Unqualified Two-Year Opinion

The following is an unqualified report covering two years of a corporation's statements. It is prepared in this form when the accountant has no limitations on scope, no reservations as to his opinion and feels no supplemental information is needed in a middle paragraph:

"We have examined the balance sheets of XYZ Company, Inc. as of December 31, 19X1 and 19X0, and the related statements of earnings, stockholders' equity* and changes in financial position for the years then ended. Our examinations were made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the financial statements referred to above present fairly the financial position of XYZ Company, Inc. as of December 31, 19X1 and 19X0, and the results of its operations and the changes in its financial position for the years then ended, in conformity with generally accepted accounting principles applied on a consistent basis."

Based on accounting practice, it is preferable to present comparative financial statements and to cover two to three years. However, for non-public companies, it is still acceptable to present and report on only the current year. In those situations, the report is modified to cover only that one year. Where the prior year's financial are presented, but are unaudited or were examined by another auditor, the current report must acknowledge that fact.

Example 2: Unqualified Three-Year Opinion for SEC Registrants

"We have examined the balance sheets of ABC Company at December 31, 19X3 and 19X2, and the related statements of income, retained earnings and changes in financial position for each of the three years in the period ended December 31, 19X3. Our examinations were made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

* When appropriate, the terms "retained earnings" and "additional paid-in capital" are substituted for "stockholders' equity."

EXHIBIT 6-20 (continued)

EXAMPLES OF ACCOUNTANT'S OPINIONS

In our opinion, the financial statements referred to above present fairly the financial position of ABC Company at December 31, 19X3 and 19X2, and the results of its operations and the changes in its financial position for each of the three years in the period ended December 31, 19X3, in conformity with generally accepted accounting principles applied on a consistent basis."

B. "Except For" Qualified Opinion

Example 1: "Except for" Qualified Opinion Due to a Scope Limitation

"We were not able to observe the taking of the physical inventories of cut timber, which were necessarily taken as of September 30, in 19X2 and 19X1, since those dates were prior to the time we were initially engaged as auditors for the Company. The cut timber inventory was stated at \$ and \$ at September 30, 19X2 and 19X1, respectively. Due to the nature of the Company's records, we were unable to satisfy ourselves as to the inventory quantities by means of other auditing procedures.

In our opinion, except for the effects of such adjustments, if any, as might have been determined to be necessary had we been able to observe the physical inventories of cut timber...."

Example 2: "Except for" Qualified Opinion Due to Variances from Generally Accepted Accounting Principles

"The Company has excluded from property and debt in the accompanying balance sheet certain lease obligations, which, in our opinion, should be capitalized in order to conform with generally accepted accounting principles. If these lease obligations were capitalized, property would be increased by \$, long-term debt by \$ and retained earnings by \$ as of December 31, 19XX, and net income and earnings per share would be increased (decreased) by \$ and \$, respectively, for the year then ended.

In our opinion, except for the effects of not capitalizing lease obligations, as discussed in the preceding paragraph, the financial statements present fairly...."

EXHIBIT 6-20 (continued)

EXAMPLES OF ACCOUNTANT'S OPINIONS

Example 3: "Except for" Qualified Opinion Due to Inconsistencies in a Company's Application of Generally Accepted Accounting Principles

The following two examples illustrate how a similar "except for" situation might be reported differently by different accountants.

Accountant "A": "In our opinion ... generally accepted accounting principles consistently applied during the period except for the change, with which we concur, in the method of computing depreciation as described in Note A to the financial statements.

Accountant "B": "As disclosed in Note A to the financial statements, the Company has adopted the sum-of-the-years digits method for computing depreciation, whereas it previously used the straight-line method. In our opinion the Company has provided reasonable justification for making a change as required by the generally accepted accounting principles.

In our opinion, except for the change in accounting principles as stated above, the financial statements referred to above present fairly the financial position of X Company as of October 31, 19 , and the results of its operations and the changes in its financial position for the year the ended in conformity with generally accepted accounting principles."

C. "Subject to" Qualified Opinions

Examples 1 and 2 are "subject to" Qualified Opinions based on a "going concern" issue. In both instances, the survival of the firm is uncertain. Examples 3 and 4 are "subject to" other considerations.

EXHIBIT 6-20 (continued)

EXAMPLES OF ACCOUNTANT'S OPINIONS

Example 1: "Subject to" Qualified Opinion Based on a "Going Concern" Issue

"The financial statements referred to previously have been prepared using generally accepted accounting principles applicable to a going concern which contemplates the realization of assets and the liquidation of liabilities in the normal course of business. However, continuation of the Company as a going concern is dependent upon its obtaining additional financing and achieving profitable operations. At December 31, 19X1, adverse operating results had reduced the Company's working capital below the amounts required under long-term debt agreements. As explained in Note , the working capital requirements under the debt agreements have been waived until December 31, 19X2. Should losses continue and the lenders exercise their rights under the debt agreements to accelerate the maturities of long-term debt, the order of maturity of the liabilities and the carrying values of assets would be significantly affected.

In our opinion, subject to the possible effects of such adjustments, if any, as might have been required had the outcome of the uncertainties relating to the Company's continuance as a going concern been known, the financial statements referred to above present fairly the financial position of ABC Corporation, Inc. at December 31, 19X2, and 19X1."

Example 2: "Subject to" Qualified Opinion Based on a "Going Concern" Issue

"The financial statements referred to above have been prepared on a going concern basis and do not reflect any downward adjustments (presently not determinable) to the carrying value of assets which could be required in the event of disposal other than in the ordinary course of business. Continuation of the business is dependent on (1) consummation of debt restructuring agreements as discussed in Note (2) maintaining adequate financing arrangements with all lenders, (3) achieving profitable operations. Should any of these circumstances interrupt the continuity of the business, the realization of assets and order of maturity of liabilities may be adversely affected.

In our opinion, subject to the possible effects of such adjustments, if any, as might have been required had the outcome of the uncertainties relating to the Company's continuance as a going concern been known, the financial statements referred to above present fairly the financial position of ABC Corporation, Inc. at December 31, 19X2 and 19X1."

EXHIBIT 6-20 (continued)

EXAMPLES OF ACCOUNTANT'S OPINIONS

Example 3: "Subject to" Qualified Opinion Due to An Uncertainty Regarding the Outcome of a Judicial Proceeding

"As discussed in Note X to the financial statements, the Company is defendant in a lawsuit alleging infringement of certain patent rights and claiming royalties and punitive damages. The Company has filed a counteraction, and preliminary hearings and discovery proceedings on both actions are in progress. Company officers and counsel believe the Company has a good chance of prevailing, but the ultimate outcome of the lawsuits cannot presently be determined, and no provision for any liability that may result has been made in the financial statements.

In our opinion, subject to the effects of such adjustments, if any, as might have been required had the outcomes of the uncertainty referred to in the preceding paragraph been known, the financial statements referred to above present fairly the financial position of ABC Company as of (current year-end) and the results of its operations and the changes in its financial position, in conformity with generally accepted accounting principles."

Example 4: "Subject to" Qualified Opinion Due to a Company Without an Operating History

Often there is uncertainty about the ability of a new enterprise to establish a profitable level of operations. It has become accepted practice to render "subject to" opinions in these "development stage" situations. The middle paragraph should recite all of the uncertainties facing the company and that recitation is frequently quite extensive.

"We have examined the balance sheet of ABC Corporation, Inc., as of December 31, 19X2 and 19X1, and the related statements of operations, changes in stockholders' equity and changes in financial position for the years then ended. Our examination was made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

The Corporation is in the development stage as of December 31, 19X2. The accompanying financial statements have been prepared in accordance with generally accepted accounting principles applicable to a going concern which contemplates the realization of assets and liquidation of liabilities in the normal course of business. However, recovery of the Corporation's assets is dependent upon future events, the outcome of which is currently indeterminable. Additionally, successful completion of the Corporation's development program and its transition, ultimately, to attaining profitable operations is dependent upon obtaining financing adequate to fulfill its

EXHIBIT 6-20 (continued)

EXAMPLES OF ACCOUNTANT'S OPINIONS

development activities and achieving a level of sales adequate to support the Corporation's cost structure. Should any of these events not occur, the accompanying financial statements may be affected materially.

In our opinion, subject to the ultimate resolution of the uncertainties described in the preceding paragraph, the financial statements referred to above present fairly the financial position of ABC Corporation, Inc. at December 31, 19X2 and 19X1, and the results of its operations, changes in its stockholders' equity and changes in its financial position for the years then ended, in conformity with generally accepted accounting principles applied on a consistent basis."

D. Adverse Opinions

Example of an Adverse Opinion

An Adverse Opinion is an extreme form of an "except for" Qualified Opinion in the case of a generally accepted accounting principles (GAAP) violation.

"As discussed in Note X to the financial statements, the Company carries its property, plant and equipment accounts at appraisal values and provides depreciation on the basis of such values. Further, the Company does not provide for income taxes with respect to differences between financial income and taxable income arising because of the use, for income tax purposes, of the installment method of reporting gross profit from certain types of sales. Generally accepted accounting principles, in our opinion, require that property, plant and equipment be stated at an amount not in excess of cost, reduced by depreciation based on such amount and that deferred income taxes be provided. Because of the departure from generally accepted accounting principles identified above, as of December 31, 19XX, inventories have been increased \$..... by inclusion in manufacturing overhead of depreciation in excess of that based on cost; property, plant and equipment, less accumulated depreciation, is carried at \$..... in excess of an amount based on the cost to the Company; and allocated income tax of \$..... has not been recorded, resulting in an increase of \$..... in retained earnings and in appraisal surplus of \$..... For the year ended December 31, 19XX, cost of goods sold has been increased \$..... because of the effects of the depreciation accounting referred to above, and deferred income taxes of \$..... have not been provided, resulting in an increase in net income and earnings per share of \$..... and \$....., respectively.

EXHIBIT 6-20 (continued)

EXAMPLES OF ACCOUNTANT'S OPINIONS

In our opinion, because of the effects of the matters discussed in the preceding paragraph, the financial statements referred to above do not present fairly, in conformity with generally accepted accounting principles, the financial position of X Company as of December 31, 19XX, or the results of its operations and changes in its financial position for the year then ended."

E. Disclaimer of Opinion

Example of a Disclaimer of Opinion

A disclaimer of opinion means that the accountant can not express an opinion on the financial statements of the firm. An example of a disclaimer resulting from an extreme form of a scope restriction follows:

"... Except as set forth in the following paragraph, our examination was made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

The Company did not take a physical inventory of merchandise, stated at \$..... in the accompanying financial statements as of December 31, 19XX, and at \$..... as of December 31, 19X1. Further, evidence supporting the cost of property and equipment acquired prior to December 31, 19XX, is no longer available. The Company's records do not permit the application of adequate alternative procedures regarding the inventories or the cost of property and equipment.

Since the Company did not take physical inventories and we were unable to apply adequate alternative procedures regarding inventories and the cost of property and equipment, as noted in the preceding paragraph, the scope of our work was not sufficient to enable us to express, and we do not express, an opinion on the financial statements referred to above."

EXHIBIT 6-21

CONDITIONS LIKELY TO RESULT IN A QUALIFIED OPINION, ADVERSE OPINION AND DISCLAIMER OF OPINION

CONDITION						
VIOLATION OF GENERALLY ACCEPTED ACCOUNTING PRINCIPLES (GAAP)	UNCERTAINTY	SCOPE LIMITATIONS				
<p><u>Except for" Qualified Opinion</u> - Violation is not overwhelming or pervasive to financial statements as a whole</p> <p>Lease obligations that were not capitalized that auditor thinks should have been capitalized</p> <p>Omission of disclosure that the auditor thinks should be included</p> <p><u>Adverse Opinion</u> - Violation is overwhelming or pervasive to financial statement as a whole</p> <p>A large company uses the cash basis rather than the accrual basis of accounting and thus, does not match expenses with revenues for the accounting period</p>	<p><u>"Subject To" Qualified Opinion</u></p> <table><tr><td><u>Internal Matters</u></td><td><u>External Matters</u></td></tr><tr><td><ul style="list-style-type: none">o Loss of management or other key personnelo Negative trends, recurring operating losses, negative cash flowo Work stoppageso Uneconomical long-term commitments</td><td><ul style="list-style-type: none">o Legal proceedingso Legislationo Loss of key franchise, license, or patento Loss of a principal customer or suppliero Uninsured catastrophes</td></tr></table> <p><u>Disclaimer of Opinion</u></p> <ul style="list-style-type: none">o It is impossible to determine the future operational activity of company or the effect of material uncertainties	<u>Internal Matters</u>	<u>External Matters</u>	<ul style="list-style-type: none">o Loss of management or other key personnelo Negative trends, recurring operating losses, negative cash flowo Work stoppageso Uneconomical long-term commitments	<ul style="list-style-type: none">o Legal proceedingso Legislationo Loss of key franchise, license, or patento Loss of a principal customer or suppliero Uninsured catastrophes	<p><u>"Except for" Qualified Opinion</u></p> <ul style="list-style-type: none">o <u>Segments</u> of inventory not observed at beginning or end of year (not so significant as to require a disclaimer)o Joint ventures were not audited <p><u>Disclaimer of Opinion</u></p> <ul style="list-style-type: none">o The accounting/operating systems are so unreliable that an audit cannot be performed
<u>Internal Matters</u>	<u>External Matters</u>					
<ul style="list-style-type: none">o Loss of management or other key personnelo Negative trends, recurring operating losses, negative cash flowo Work stoppageso Uneconomical long-term commitments	<ul style="list-style-type: none">o Legal proceedingso Legislationo Loss of key franchise, license, or patento Loss of a principal customer or suppliero Uninsured catastrophes					

EXHIBIT 6-22

**EXAMPLE OF AUDITOR'S SPECIAL REPORT,
CONFIRMATION OF CHIEF FINANCIAL OFFICER'S LETTER**

We have examined the financial statements of XYZ Company for the year ended December 31, 19X1, and have issued our report thereon dated March 15, 19X2. Our examination was made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

The Company has prepared documents to demonstrate its financial responsibility under the Environmental Protection Agency's financial assurance regulations, in compliance with 40 CFR 761, Subpart D. This letter is furnished to assist the Company in complying with these regulations and should not be used for other purposes.

The attached schedule reconciles the specified information furnished in the Chief Financial Officer's Letter in response to the regulations with the Company's financial statements. In connection therewith, we have:

1. Agreed the amounts in the column "per financial statements" with amounts contained in the Company's financial statements for the year ended December 31, 19X1.
2. Agreed the amounts in the column "per Chief Financial Officer's Letter" to the Letter prepared in response to the regulations.
3. Agreed the amounts in the column "reconciling items" to analyses prepared by the Company setting forth the indicated items.
4. Recomputed the totals and percentages.

Because the above procedures do not constitute an examination made in accordance with generally accepted auditing standards, we do not express an opinion on any amounts or items referred to above. In connection with the procedures referred to above, no matters came to our attention that caused us to believe the Schedule should be adjusted.

EXHIBIT 6-22 (continued)

XYZ COMPANY
YEAR ENDED DECEMBER 31, 19X1

SCHEDULE RECONCILING AMOUNTS CONTAINED IN THE CHIEF
FINANCIAL OFFICER'S LETTER FURNISHED IN RESPONSE TO 40 CFR
761, SUBPART D TO AMOUNTS CONTAINED IN THE FINANCIAL
STATEMENTS*

<u>Line number</u> <u>in CFO's</u> <u>Letter</u>		<u>Per</u> <u>Financial</u> <u>Statements</u>	<u>Recon-</u> <u>ciling</u> <u>Items</u>	<u>Per</u> <u>CFO's</u> <u>Letter</u>
2	Total current liabilities	X		
	Long-term debt	X		
	Deferred income taxes	<u>X</u>		
		XX		
	Accrued post-closure costs included in current liabilities		X	
	Total liabilities (less accrued post-closure costs)			X
3	Net Worth	XX		
	Less: Cost in excess of value of tangible assets acquired	<u>X</u>		
		XX		
	Accrued post-closure costs included in current liabilities		X	
	Tangible net worth (plus accrued post-closure costs)			XX
	(balance of schedule not illustrated)			

* This illustrates the form of schedule which is contemplated. Details and reconciling items will differ in a specific situation.

EXHIBIT 6-23

SAMPLE FILE ON OWNER OR OPERATOR

DATE OF CLOSE OF FISCAL YEAR _____

Owner/Operator _____

	<u>Initial Year</u>	<u>Second Year</u>	<u>Third Year</u>
1. Sum of total of all cost estimates			
2. Bond Rating			
*3. Total Liabilities			
*4. Tangible Net Worth			
*5. Net Worth			
*6. Current Assets			
*7. Current Liabilities			
*8. Net Working Capital			
*9. Sum of Net Income, Depreciation, Depletion, and Amortization			
*10. Total assets in U.S.			
11. Line 4 divided by Line 1			
12. Line 8 divided by Line 1			
13. Line 10 divided by Line 1			
14. Line 9 divided by Line 3			
15. Line 6 divided by Line 7			

* Denotes figures derived from financial statements.

EXHIBIT 6-23 (continued)

SAMPLE FILE ON OWNER OR OPERATOR

	<u>Initial Year</u>	<u>Second Year</u>	<u>Third Year</u>
16. Line 3 divided by Line 5			
17. Qualified Auditor's Opinion?			
18. Cost estimates changed because of changes in operating plans?			

NOTES:

[Adverse Business Press Releases, Competitive Problems, Drop in Bond Ratings]

6.6 CORPORATE GUARANTEE

A corporate guarantee is an agreement, by the parent corporation of a subsidiary PCB commercial storage facility owner or operator, to guarantee to perform closure or to fund a closure trust fund if the owner or operator fails to do so. To be eligible to provide the guarantee, a parent corporation must own at least 50 percent of the voting stock of the owner or operator, and pass one of the financial tests described in the previous section.

Because the guarantee's value depends entirely on the corporate parent's financial health, the guarantor is required to meet the requirements of the financial test (see the previous section). EPA should completely re-evaluate the corporate parent each year that the guarantee remains in effect.

Review of the corporate guarantee should follow the steps outlined below. A checklist for tracking the review appears in Exhibit 6-24.

6.6.1 Corporate Guarantee Submissions

Review of Initial Submissions:

- Step 1. Verify the submission of documents. First, verify that all documents have been submitted, including:
- Guarantee contract;
 - Guarantor's financial test submission
 - Letter from the corporate parent's chief financial officer including cost estimates and data from audited financial statements.
 - Independent certified public accountant's opinion of the corporate parent's financial statements for the latest completed fiscal year (also known as Report on Examination).
 - Special report from the independent certified public accountant.
- Step 2. Verify that the guarantor is the storer's corporate parent. The parent must own at least 50 percent of the voting stock of the owner or operator. If the parent files with the SEC, verification may be made by checking the form 10-K filed with the SEC. If not, the independently audited financial statements of the firm should be requested from the firm. Both the 10-K and the independently audited statements will list the subsidiaries of the corporation in addition to other financial information.
- Step 3. Review the wording of the guarantee. Review the written guarantee form for completeness and accuracy. The wording should be substantially similar to that prescribed in the regulations (see Exhibit 6-25).

- Step 4. Review the financial test submission. Review the chief financial officer's letter, the accountant's opinion and the independent auditor's special report to determine if the corporate parent passes the financial test. Conduct the review of the guarantor's financial test submission in exactly the same way as described in the previous section on the Financial Test, except the corporate parent should be treated as if it were the owner or operator. Also, include as relevant any facility owned or operated by the storer, the guarantor, or any subsidiary of the guarantor for which an alternate mechanism is not provided.
- Step 5. Compare the level of coverage to the approved cost estimate. The guarantee mechanism may take effect prior to EPA's final review of the storer's closure cost estimate; this review may cause the cost estimate to increase above the initial estimate. Therefore, once the storer's cost estimate has been reviewed and EPA is satisfied with the estimate, compare the costs assured by the guarantee with the amount of the approved cost estimate. If the guarantee does not cover increases in the cost estimate, the Regional Office should immediately notify the storer that the cost increases should be assured within 60 days.
- Step 6. Maintain a regional information system. Records should be maintained similar to those maintained for financial test users. As financial information and corporate guarantees are received, record relevant information, including the name, address and EPA Identification Number of the covered facilities; name of the corporate guarantor; amount of coverage for each facility and the effective date; and information verification procedures performed. Keep a file on each firm using the guarantee to track the corporate guarantor's financial data (see Exhibit 6-26).

Follow-Up Review of the Mechanism:

- Step 7. Review annual financial test submissions of guarantor. Conduct the review of annual test submissions in exactly the same way as described in the previous section of the Financial Test. (See also Step 4 above.)
- Step 8. Ongoing monitoring. Maintain ongoing monitoring of the guarantor and of the owner and operator whose costs are being guaranteed. This monitoring should involve the same steps used to monitor users of the financial tests. See the previous section for a financial test monitoring procedures.
- Step 9. Cancelling the corporate guarantee. The corporate parent may cancel its guarantee of financial assurance 120 days after its notification of cancellation is received by both EPA and the owner or operator. The Region should ensure that the storer obtains alternate financial assurance (with the approval of the Regional Administrator) within 90 days. If the storer does not obtain alternate assurance, the guarantor is required to do so. The Regional Office must ensure that either the owner, operator, or guarantor has obtained alternate assurance before the 120 days have passed and the guarantee is cancelled (see the next step).

6.6.2 Drawing on the Corporate Guarantee

The Regional Administrator is authorized to draw upon the corporate guarantee for closure when:

- 1) The owner or operator fails to provide alternate assurance within 90 days after he and the Regional Administrator receive notice of cancellation from the parent guarantor; or
- 2) A determination is made pursuant to Section 16 of TSCA, that the owner or operator has failed to perform closure care in accordance with previously approved plans whenever required to do so.

In the first case, the guarantor must provide alternate financial assurance. In the second case, the parent guarantor must perform closure, or set up a trust fund as specified in 40 CFR 761.65(g)(1) in the name of the owner or operator.

6.6.3 Terminating the Corporate Guarantee

The Regional Office may consent to the termination of the corporate guarantee only if:

- Alternate assurance is provided; or
- The owner or operator is released from applicable financial assurance requirements. The Regional Office should release a storer from closure financial responsibility requirements within 60 days after receiving certification from the storer and an independent registered professional engineer that final closure has been conducted in accordance with the approved closure plan.

EXHIBIT 6-24

CORPORATE GUARANTEE CHECKLIST

- Step 1. All documents have been submitted:.
- ☐ Guarantee contract.
 - ☐ Guarantor's financial test submission:
 - ☐ Letter from corporate parent's chief financial officer.
 - ☐ Independent certified public accountant's opinion.
 - ☐ Independent certified public accountant's special report.
- Step 2. ☐ Corporate guarantor qualifies as a corporate parent of the owner or operator.
- Step 3. ☐ The wording of the written guarantee of corporate parent is substantially similar to that required by the regulations (see Exhibit 6-25).
- Step 4. ☐ Guarantor's financial test submission meets requirements for the financial test, and covers all relevant facilities owned/operated by the storer, guarantor, or subsidiary firms.
- Step 5. ☐ Compare the level of coverage to the approved cost estimate; if necessary, immediately notify the storer to obtain additional assurance within 60 days for any unassured costs.
- Step 6. ☐ The regional information system is updated.
- Step 7. ☐ Subsequent annual financial test submissions of the guarantor meet the requirements for the financial test (see the previous section).
- Step 8. ☐ Guarantors are monitored in the same way that storers using the financial test are monitored (see the previous section).
- Step 9. ☐ If parent corporation notifies in writing its intent to cancel the guarantee, the owner or operator is monitored to ensure provision of alternate assurance within 90 days after they and EPA are notified by the parent of cancellation.
- Step 10. ☐ If alternate assurance is not provided by the owner or operator within 90 days after notification of cancellation, the Regional Administrator has 30 more days in which to draw upon the corporate guarantee before it lapses.
- Step 11. ☐ The Regional Administrator terminates the guarantee only if alternate assurance has been provided or closure has been completed in accordance with the approved closure plan.

EXHIBIT 6-25

SAMPLE WORDING FOR CORPORATE GUARANTEE

A corporate guarantee may be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Guarantee made this [date] by [name of guaranteeing entity], a business corporation organized under the laws of the State of [insert name of State], herein referred to as guarantor, to the United States Environmental Protection Agency (EPA), obligee, on behalf of our subsidiary [owner or operator] of [business address].

Recitals

1. Guarantor meets or exceeds the financial test criteria and agrees to comply with the reporting requirements for guarantors as required in 40 CFR 761.65(g)(6).
2. [Owner or operator] owns or operates the following PCB commercial storage facility(ies) covered by this guarantee: [List for each facility: EPA Identification Number, name, and address. Indicate for each whether guarantee is for closure, post-closure care, or both.]
3. "Closure plans" and "post-closure plans" as used below refer to the plans maintained as required by Subpart G of 40 CFR 264 and 265 and Subpart D of 40 CFR 761 for the closure and post-closure care of facilities as identified above.
4. For value received from [owner or operator], guarantor guarantees to EPA that in the event that [owner or operator] fails to perform [insert "closure," "post-closure care" or "closure and post-closure care"] of the above facility(ies) in accordance with the closure or post-closure plans and other permit, approval, or interim status requirements whenever required to do so, the guarantor shall do so or establish a trust fund as specified in Subpart D of 40 CFR 761, as applicable, in the name of [owner or operator] in the amount of the current closure or post-closure cost estimates as specified in Subpart D of 40 CFR 761.
5. Guarantor agrees that if, at the end of any fiscal year before termination of this guarantee, the guarantor fails to meet the financial test criteria, guarantor shall send within 90 days, by certified mail, notice to the EPA Regional Administrator(s) for the Region(s) in which the facility(ies) is(are) located and to [owner or operator] that he intends to provide alternate financial assurance as specified in Subpart D of 40 CFR 761, as applicable, in the name of [owner or operator]. Within 120 days after the end of such fiscal year, the guarantor shall establish such financial assurance unless [owner or operator] has done so.

EXHIBIT 6-25 (continued)

SAMPLE WORDING FOR CORPORATE GUARANTEE

6. The guarantor agrees to notify the EPA Regional Administrator by certified mail, of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming guarantor as debtor, within 10 days after commencement of the proceeding.
7. Guarantor agrees that within 30 days after being notified by an EPA Regional Administrator of a determination that guarantor no longer meets the financial test criteria or that he is disallowed from continuing as a guarantor of closure or post-closure care, he shall establish alternate financial assurance as specified in Subpart D of 40 CFR 761, as applicable, in the name of [owner or operator] unless [owner or operator] has done so.
8. Guarantor agrees to remain bound under this guarantee notwithstanding any or all of the following: amendment or modification of the closure or post-closure plan, amendment or modification of the permit or approval, the extension or reduction of the time of performance of closure or post-closure, or any other modification or alteration of an obligation of the owner or operator pursuant to 40 CFR 761.
9. Guarantor agrees to remain bound under this guarantee for so long as [owner or operator] must comply with the applicable financial assurance requirements of Subpart D of 40 CFR 761 for the above-listed facilities, except that guarantor may cancel this guarantee by sending notice by certified mail to the EPA Regional Administrator(s) for the Region(s) in which the facility(ies) is(are) located and to [owner or operator], such cancellation to become effective no earlier than 120 days after receipt of such notice by both EPA and [owner or operator], as evidenced by the return receipts.
10. Guarantor agrees that if [owner or operator] fails to provide alternate financial assurance as specified in Subpart D of 40 CFR 761, as applicable, and obtain written approval of such assurance from the EPA Regional Administrator(s) within 90 days after a notice of cancellation by the guarantor is received by an EPA Regional Administrator from guarantor, guarantor shall provide such alternate financial assurance in the name of [owner or operator].
11. Guarantor expressly waives notice of acceptance of this guarantee by the EPA or by [owner or operator]. Guarantor also expressly waives notice of amendments or modifications of the closure and/or post-closure plan and of amendments or modifications of the facility permit(s) and/or approvals.

EXHIBIT 6-25 (continued)

SAMPLE WORDING FOR CORPORATE GUARANTEE

I hereby certify that are wording of this guarantee is substantially similar to the wording in 40 CFR 761.65(g)(6) as such regulations were constituted on the date first above written.

Effective date: _____

[Name of guarantor]

[Authorized signature for guarantor]

[Name of person signing]

[Title of person signing]

Signature of witness or notary: _____

EXHIBIT 6-26

SAMPLE FILE ON OWNER, OPERATOR, OR CORPORATE PARENT

DATE OF CLOSE OF FISCAL YEAR _____

Owner/Operator _____

Corporate Parent _____

	<u>Initial</u> <u>Year</u>	<u>Second</u> <u>Year</u>	<u>Third</u> <u>Year</u>
1. Sum of total closure and post-closure cost estimates			
2. Bond Rating			
*3. Total Liabilities			
*4. Tangible Net Worth			
*5. Net Worth			
*6. Current Assets			
*7. Current Liabilities			
*8. Net Working Capital			
*9. Sum of Net Income, Depreciation, Depletion, and Amortization			
*10. Total assets in U.S.			
11. Line 4 divided by Line 1			
12. Line 8 divided by Line 1			
13. Line 10 divided by Line 1			

* Denotes figures derived from financial statements.

EXHIBIT 6-26 (continued)

SAMPLE FILE ON OWNER, OPERATOR, OR CORPORATE PARENT

	<u>Initial Year</u>	<u>Second Year</u>	<u>Third Year</u>
14. Line 9 divided by Line 3			
15. Line 6 divided by Line 7			
16. Line 3 divided by Line 5			
17. Qualified Auditor's Opinion?			
18. Cost estimates changed because of changes in operating plans?			

NOTES:

[Adverse Business Press Releases, Competitive Problems, Drop in Bond Ratings]

6.7 COMBINATIONS OF MECHANISMS

The financial mechanisms allowed to demonstrate financial assurance for closure include trust funds, surety bonds (payment bonds and performance bonds), letters of credit, insurance, the financial test, and the corporate guarantee. An owner or operator may combine trust funds, surety bonds guaranteeing payment, letters of credit and insurance to demonstrate financial assurance for closure of a facility. When coverage must be increased due to inflation or changes in the closure plan, adding a different mechanism may be less expensive or burdensome than increasing the coverage of existing mechanisms. Owners or operators may also use one or more financial mechanisms to cover multiple facilities.

The financial test, corporate parent guarantee, and performance bond may not be combined to provide financial assurance for partial costs of the same facility -- these mechanisms may be used only to cover the entire closure cost estimate of a facility. The Regional Administrator may authorize payments from any or all of the combined mechanisms to provide coverage for the facility. However, in the case of multiple facilities covered by a single mechanism, he may only authorize use of the amount of funds designated by the cost estimates for that facility (unless the owner or operator agrees to the use of additional funds available under the mechanism).

Exhibit 6-27 is a checklist to use when documenting review of combinations of mechanisms.

EXHIBIT 6-27

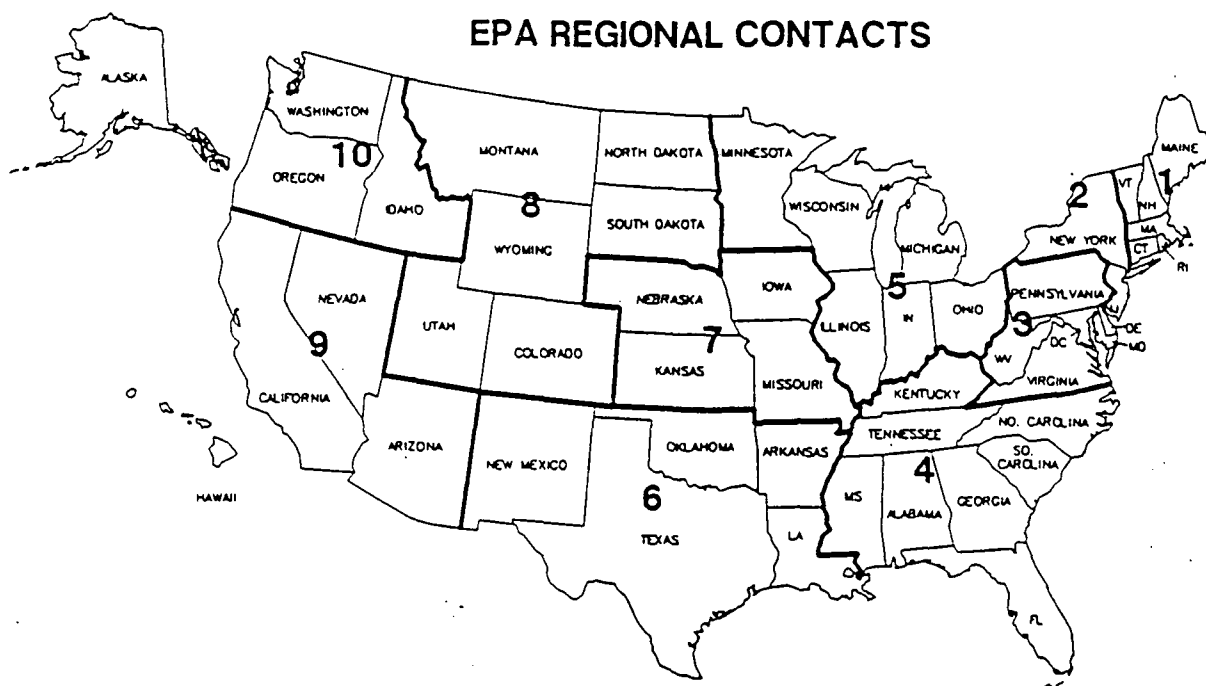
COMBINATIONS OF MECHANISMS CHECKLIST

If a combination of mechanisms is used to demonstrate financial assurance:

- ___ The financial test, corporate parent guarantee, and/or performance bond are not combined to provide coverage for partial costs at the same facility.
- ___ Each mechanism used complies with the requirements for that mechanism.
- ___ The total coverage demonstrated by all mechanisms is at least as great as the total of the cost estimates.
- ___ The total coverage demonstrated is increased, as necessary, whenever the cost estimates increase to more than the existing coverage.

APPENDIX A

EPA REGIONAL CONTACTS



REGION I

Tony Palermo
Air Management Division
Environmental Protection Agency
John F. Kennedy Federal Building
Boston, Massachusetts 02203
(617) 565-3279, FTS 835-3279

REGION V

Sheldon Simon, PCB Coordinator
Pesticides and Toxic Substances Branch (5S-PTSB-7)
Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604
(312) 886-6087, FTS 886-6087

REGION II

John Brogard
Air and Waste Management Division
Environmental Protection Agency
26 Federal Plaza
New York, New York 10278
(212) 264-8682, FTS 264-8682

REGION VI

Jim Sales, Environmental Engineer
Hazardous Waste Management Division
Environmental Protection Agency
First Interstate Bank Tower
1445 Ross Avenue
Dallas, Texas 75202-2733
(214) 655-8785, FTS 255-8785

REGION IX

Greg Czajkowski, Chief of Toxics Section
Pesticides and Toxics Branch (T-5-2)
Environmental Protection Agency
215 Fremont Street
San Francisco, California 94105
(415) 974-7295, FTS 454-7295

REGION III

Edward Cohen, PCB Disposal Coordinator
Lisa Nichols, PCB Compliance Coordinator
Environmental Protection Agency
841 Chestnut Street
Philadelphia, Pennsylvania 19107
(215) 597-7668 and 597-4851
FTS 597-7668

REGION VII

Leo Alderman, PCB Coordinator
Gary Bertram, Permitting Coordinator
Toxic and Pesticides Branch
Environmental Protection Agency
726 Minnesota Avenue
Kansas City, Kansas 66101
(913) 236-2835, FTS 757-2835

REGION X

Gil Haselberger
Hazardous Waste Management Branch
Environmental Protection Agency
1200 Sixth Avenue
Seattle, Washington 98101
(206) 442-1094, FTS 399-1094

REGION IV

Robert Stryker, Chief of Toxics Division
Connie Jones
Pesticides and Toxic Substances Branch
Environmental Protection Agency
345 Courtland Street, N.E.
Atlanta, Georgia 30365
(404) 347-3864, FTS 257-3864

REGION VIII

Dan Bench, PCB Coordinator
Toxic Substances Branch
Environmental Protection Agency
One Denver Place
999 18th Street, Suite 1300
Denver, Colorado 80202-2413
(303) 293-1732, FTS 564-1732

APPENDIX B

INFORMATION SOURCES

This Appendix describes information that must be submitted to EPA or maintained on-site by the facility. These documents could be useful to the applicant and reviewer, providing insight into the facility's operation and design specifications, its operating history, and its compliance history both with PCB regulatory requirements and with other regulatory programs, as well as into potential current compliance problems.

Annual Document Log (40 CFR 761.180)

EPA requires private and commercial storers, as well as PCB disposal facilities, to keep annual document logs on site if at least 45 kilograms of PCBs or PCB Items, more than one transformer, or more than 50 large (high or low voltage) capacitors are on premises (40 CFR 761.180(a)). These documents must be maintained until 5 years after closure or after the facility stops storing PCBs. These annual document logs can offer insight into the actual capacity and maximum inventory for the facility and how this information relates to the inventory and design specification included in the approval application.

These annual document logs account for quantities, types, and weights of PCB wastes entering, stored at, and existing at the facility, including:

- The dates when PCB wastes were removed from service for disposal; and
- The identification, total and individual weights, and numbers of:
 - PCBs and PCB Containers,
 - PCB Transformers,
 - PCB Capacitors, and
 - PCB Equipment.

Specific information required for PCB storage and disposal facilities includes: an identification and description of waste received and the date of receipt; the date when items were disposed of or transferred off site; descriptions of items transferred offsite; the destination's name, address, and EPA identification number for off-site shipments; and the total weights of different PCBs, PCB Articles, PCBs in Transformers, and PCB Equipment (40 CFR 761.180(b)). The PCB wastes must also be categorized whether they are in containers.

Special Records Retained by Storage and Disposal Facilities (40 CFR 761.180(f))

Special records can provide information on the facility's structure and additional data that may aid the applicant and reviewer, including State and local government interaction with facility owners and operators, local land use permits, and other information, such as:

- All documents, correspondence, and data that have been provided, including correspondence and data exchanged between the owner or operator of the facility and any State or local government agency

pertaining to the storage or disposal of PCBs and PCB items at the facility.

[NOTE: Because a number of States have designated PCBs as hazardous wastes, facilities may be subject to State requirements for hazardous waste storage facilities.]

- Solid waste permits or other permits and authorizations and any applications and related correspondence sent by the owner or operator of the facility to the local, State, or Federal authorities in regard to wastewater discharge permits.

Annual Reporting Requirements

PCB commercial storage facilities must also include information on waste types and quantities in their annual reports. The facility owner or operator must submit an annual report to the Regional Administrator by July 15 following the effective date of the rule and submission of the annual report for the calendar year in which the facility ceases PCB storage or disposal operations. Additional information on the identity of waste shipment is required as part of the tracking system.

The Spill Cleanup Policy (40 CFR 761.125(b)(3) and (c)(5))

The Spill Cleanup Policy requires records of cleanup and certification. These records can provide information on spills at the facility that may alter elements of the closure plan. They may also give insight into the adequacy of cleanups and recordkeeping by the facility's owner or operator. The records must contain the following potentially useful information:

- Source of the spill;
- Date and time of spill occurrence;
- The date and time cleanup was completed, including the reasons for any delays;
- Description of spill location; and
- Sampling data and cleanup measures taken.

The Spill Cleanup Certification requires a description of the spill location. This description may indicate any changes to the facility's operation or design as a result of the spill. The information provided in this description may help the reviewer to verify information in the closure plan with operations mentioned in the spill cleanup certification document.

The Manifest System (40 CFR 761.207-218)

The manifest system follows a system similar to RCRA's manifest system. Shipping documents ensure the proper transport and disposal of PCBs. Two documents are used to

notify the Regional Authority of discrepancies and exceptions to the one-year storage limit of PCBs before final disposal: exception reports and manifest discrepancy reports. Exception reports and manifest discrepancy reports are described below.

- Exception Reports (40 CFR 761.215) are submitted when:
 - Generators do not receive a copy of the manifest within 45 days of shipment (and after notifying the transporter and storer/disposer after 35 days).
 - A generator has not received a Certificate of Disposal confirming disposal of the PCBs or PCB Items, or if the Certificate of Disposal confirms disposal after more than one year since the PCBs were removed from service for disposal.
 - A disposer of PCB waste receives PCBs or PCB Items more than 9 months from the date when the items were removed from service for disposal, and the disposer cannot dispose of the waste within one year from removal from service for disposal.
- Exception Reports include:
 - Information on when the items were removed from service for disposal;
 - The dates when PCB wastes were received;
 - The dates the PCB wastes were transferred;
 - The identities of transporters;
 - Storers or disposers known to be involved with the transaction; and
 - The reason for the delay in bringing about the disposal.
- Manifest Discrepancies (40 CFR 761.210):

Manifest discrepancies will be reconciled with the waste generator or transporter. If it is not resolved within 15 days, the Regional Administrator will be notified, with a letter describing the discrepancy and attempts to reconcile it, as well as a copy of the manifest.

Facilities storing PCBs for greater than 9 months may be creating a situation in which their PCB waste is not disposed of within the one-year deadline. This would be reported by disposal facilities in exception reports. In addition, if wastes are being improperly stored, certificates of disposal or copies of the manifest may not be received by generators. Facilities with chronic

problems may need further scrutiny to ensure their operation is in compliance with the regulations.

FURTHER INFORMATION AND GUIDANCE

Sampling:

Field Manual for Grid Sampling of PCB Spill Sites to Verify Cleanup, EPA 560/5-86-017, May 1986.

Quality Assurance Program Plan for OTS, EPA, 1983.

RCRA Facility Assessment Guidance, EPA, October 1986.

RCRA Facility Investigation (RFI) Guidance, Volume I of IV, EPA 530/SW-87-001, April 1987, pp. 3-19 to 3-26.

Test Methods for Evaluating Solid Waste, EPA (SW-846, November 1986, Volume II, pp. 9-1 to 9-49).

Verification of PCB Spill Cleanup by Sampling and Analysis, EPA 560/5-85-026, August 1985.

Decontamination:

Guide for Decontaminating Buildings, Structures, and Equipment at Superfund Sites, EPA, Office of Research and Development, March 1985.

APPENDIX C

STATE RCRA PROGRAM CONTACTS*

This Appendix lists the names, addresses, and telephone numbers of state officials to contact for further information about state financial assurance requirements.

ALABAMA

Daniel E. Cooper, Chief
Land Division
Alabama Department of Environmental
Management
1751 Federal Drive
Montgomery, Alabama 36130
CML (205) 271-7730

ARKANSAS

Mike Bates, Acting Chief
Hazardous Waste Division
Arkansas Department of Pollution Control
and Ecology
P.O. Box 9583
8001 National Drive
Little Rock, Arkansas 72219
CML (501) 562-7444 ext. 504

ALASKA

Stan Hungerford, Supervisor
Air and Solid Waste Management
Department of Environmental Conservation
Pouch O
Juneau, Alaska 99801
CML (907) 465-2666

CALIFORNIA

Alex R. Cunningham, Chief Deputy
Director
Department of Health Services
State of California
714/744 P Street
Sacramento, California 95814
CML (916) 323-2913

David C. Willis, Deputy Director
Toxic Substances Control Division
Department of Health Services
714/744 P Street
Sacramento, California 94814
CML (916) 324-1826

AMERICAN SAMOA

Pati Faii, Executive Secretary
Environmental Quality Commission
Government of American Samoa
Pago Pago, American Samoa 96799
Overseas Operator
(Commercial Call 663-2304)

ARIZONA

Ronald Miller, Manager
Office of Waste and Water Quality
Management
Arizona Department of Environmental
Quality
2005 North Central Avenue, Room 304
Phoenix, Arizona 85004
CML (602) 257-2305

James Easton, Executive Director
State Water Resources Control Board
P.O. Box 100
Sacramento, California 95801
CML (916) 445-1553

* Source: Environmental Protection Agency, Office of Solid Waste, April 1, 1988.

COLORADO

Joane Sowinski, Acting Director
 Waste Management Division
 Colorado Department of Health
 4210 East 11th Avenue
 Denver, Colorado 80220
 CML (303) 320-8333 ext. 4364

COMMONWEALTH OF NORTHERN MARIANA ISLANDS

S. Russell Mecham, II, Chief
 Division of Environmental Quality
 Department of Public Health and
 Environmental Services
 Commonwealth of the Northern Mariana
 Islands
 Office of the Governor
 Saipan, Mariana Islands 96950
 Overseas Operator: 6984
 Cable address: GOV. NMI Saipan

CONNECTICUT

Dr. Stephen Hitchcock, Director
 Hazardous Material Management Unit
 Department of Environmental Protection
 State Office Building
 165 Capitol Avenue
 Hartford, Connecticut 06106
 CML (203) 566-4924

Marian R. Cherton, President
 Connecticut Resource Recovery Authority
 179 Allyn Street, Suite 603
 Professional Building
 Hartford, Connecticut 06103
 CML (203) 549-6390

DELAWARE

Gerard L. Esposito, Deputy Director
 Division of Water Resources
 P.O. Box 1401
 Dover, Delaware 19903
 CML (302) 736-5722

DELAWARE (continued)

Gary Molchan, Manager
 Hazardous Waste Management Section
 Division of Air and Waste Management
 Department of Natural Resources and
 Environmental Control
 P.O. Box 1401, 89 Kings Highway
 Dover, Delaware 19903
 CML (302) 736-4764

DISTRICT OF COLUMBIA

Angelo C. Tompros, Chief
 Pesticides and Hazardous Waste
 Management Branch/Superfund
 Department of Consumer and Regulatory
 Affairs
 5010 Overlook Avenue, S.W., Room 114
 Washington, D.C. 20032
 CML (202) 767-8422

FLORIDA

Raoul Clarke, Administrator
 Solid and Hazardous Waste Underground
 Storage Tanks (UST)
 Department of Environmental Regulation
 Twin Towers Office Building
 2600 Blair Stone Road
 Tallahassee, Florida 32301
 CML (904) 488-0300

GEORGIA

John D. Taylor, Jr., Chief
 Land Protection Branch
 Industrial and Hazardous Waste
 Management Program
 Floyd Towers East
 205 Butler Street, S.E.
 Atlanta, Georgia 30334
 CML (404) 656-2833

GUAM

Charles P. Crisotomo, Administrator
 Guam Environmental Protection Agency
 P.O. Box 2999
 Agana, Guam 96910
 Oversees Operator
 (Commercial Call 646-8863)

HAWAII

Denis Lau, Manager
 Hazardous Waste Program
 Department of Health
 P.O. Box 3378
 Honolulu, Hawaii 96801
 CML (808) 548-6410

IDAHO

Cheryl Koshuta, Chief
 Hazardous Materials Bureau
 Department of Health and Welfare
 Idaho State House
 Boise, Idaho 83720
 FTS 8-554-5879
 CML (208) 334-5879

ILLINOIS

Nancy Simpson, Library
 Division of Land Pollution Control
 Environmental Protection Agency
 2200 Churchill Road, Room A-104
 Springfield, Illinois 62706
 CML (217) 782-6760

INDIANA

Nancy A. Maloley, Administrator
 Indiana Department of Environmental
 Management
 105 South Meridian Street
 Indianapolis, Indiana 46225
 CML (317) 232-3210

IOWA

Luetta Flournoy
 Hazardous Materials Branch
 USEPA Region VII
 726 Minnesota Avenue
 Kansas City, Kansas 66101
 FTS 8-757-2888
 CML (913) 236-2888

KANSAS

Dennis Murphey, Manager
 Bureau of Waste Management
 Department of Health and Environment
 Forbes Field, Building 321
 Topeka, Kansas 66620
 CML (913) 862-9360 ext. 290

KENTUCKY

J. Alex Barber, Director
 Division of Waste Management
 Department of Environmental Protection
 Cabinet for Natural Resources and
 Environmental Protection
 Fort Boone Plaza, Building #2
 18 Reilly Road
 Frankfort, Kentucky 40601
 CML (502) 564-6716 ext. 214

LOUISIANA

Bill Greenwich
 Technical Services Manager
 Hazardous Waste Division
 Office of Solid and Hazardous Waste
 Louisiana Department of Environmental
 Quality
 P.O. Box 44307
 Baton Rouge, Louisiana 70804
 CML (504) 342-9079

George Cramer, Administrator
 Groundwater Division
 Louisiana Department of Environmental
 Quality
 P.O. Box 44274
 Baton Rouge, Louisiana 70804
 CML (504) 342-8950

MAINE

Alan Prysunka, Director
 Bureau of Oil and Hazardous Materials
 Control
 Department of Environmental Protection
 State House Station #17
 Augusta, Maine 04333
 CML (207) 289-2651

MARYLAND

Bernard Bigham
 Maryland Waste Management
 Administration
 National Resources Planner
 Department of Health and Mental Hygiene
 201 West Preston Street, Room 212
 Baltimore, Maryland 21201
 CML (301) 225-5647

Ronald Nelson, Director
 Maryland Waste Management
 Administration
 Office of Environmental Programs
 Department of Health and Mental Hygiene
 201 West Preston Street, Room 212
 Baltimore, Maryland 21201
 CML (301) 225-5647

MASSACHUSETTS

William F. Cass, Director
 Division of Solid and Hazardous Waste
 Massachusetts Department of
 Environmental Quality Engineering
 One Winter Street, 5th Floor
 Boston, Massachusetts 02108
 CML (617) 292-5589

MICHIGAN

Gary Guenther, Acting Chief
 Waste Management Division
 Environmental Protection Bureau
 Department of Natural Resources
 Box 30028
 Lansing, Michigan 48909
 CML (517) 373-2730

MICHIGAN (continued)

Allan Howard, Chief
 Permits Unit
 Technical Services Section
 Waste Management Division
 Department of Natural Resources
 Box 30038
 Lansing, Michigan 48909
 CML (517) 373-2730

MINNESOTA

Richard Scanda, Director
 Solid and Hazardous Waste Division
 Minnesota Pollution Control Agency
 520 Lafayette Road, North
 St. Paul, Minnesota 55155
 CML (612) 296-7282

MISSISSIPPI

Sam Mabry, Director
 Division of Solid and Hazardous Waste
 Management
 Bureau of Pollution Control
 Department of Natural Resources
 P.O. Box 10385
 Jackson, Mississippi 39209
 CML (601) 961-5062

MISSOURI

Nick Di Pasquale, Director
 Waste Management Program
 Department of Natural Resources
 Jefferson Building
 205 Jefferson Street (13/14 floor)
 P.O. Box 176
 Jefferson City, Missouri 65102
 CML (314) 751-3176

MONTANA

Duane L. Robertson, Chief
 Solid and Hazardous Waste Bureau
 Department of Health and Environmental
 Sciences
 Cogswell Building, Room B-201
 Helena, Montana 59620
 CML (406) 444-2821

NEBRASKA

Mike Steffensmeier, Section Supervisor
 Hazardous Waste Management Section
 Department of Environmental Control
 State House Station
 P.O. Box 94877
 Lincoln, Nebraska 68509
 CML (402) 471-2186

NEVADA

Verne Rosse, Director
 Waste Management Program
 Division of Environmental Protection
 Department of Conservation and Natural
 Resources
 Capitol Complex
 201 South Fall Street
 Carson City, Nevada 89710
 CML (702) 885-4670

NEW HAMPSHIRE

John A. Minichiello, Assistant Director
 Division of Public Health Services
 Office of Waste Management
 Department of Health and Welfare
 Health and Welfare Building
 Hazen Drive
 Concord, New Hampshire 03301
 CML (603) 271-2942

NEW JERSEY

Dr. John Trela, Director
 Division of Waste Management
 Department of Environmental Protection
 32 East Hanover Street, CN-027
 Trenton, New Jersey 08625
 CML (609) 292-1250

NEW MEXICO

Richard Mitzelfelt, Chief
 Groundwater and Hazardous Waste Bureau
 Environmental Improvement Division
 New Mexico Health and Environment
 Department
 P.O. Box 968
 Santa Fe, New Mexico 87504-0968
 CML (505) 827-2918

NEW MEXICO (continued)

Jack Ellvinger, Program Manager
 Hazardous Waste Section
 Groundwater and Hazardous Waste Bureau
 New Mexico Health and Environment
 Department
 P.O. Box 968
 Santa Fe, New Mexico 87504-0968
 CML (505) 827-2924

NEW YORK

N.G. Kaul, Acting Director
 Division of Solid and Hazardous Waste
 Department of Environmental Conservation
 50 Wolfe Road, Room 209
 Albany, New York 12233
 CML (518) 457-6603

NORTH CAROLINA

William L. Meyer, Head
 Solid & Hazardous Waste Management
 Branch
 Division of Health Services
 Department of Human Resources
 P.O. Box 2091
 Raleigh, North Carolina 27602
 CML (919) 733-2178

NORTH DAKOTA

Martin Schock, Director
 Division of Hazardous Waste Management
 and Special Studies
 Department of Health
 1200 Missouri Avenue, Room 302
 Box 5520
 Bismarck, North Dakota 58502-5520
 CML (701) 224-2366

OHIO

Charles M. Taylor, Chief
 Division of Solid and Hazardous Waste
 Management
 Ohio Environmental Protection Agency
 361 East Broad Street
 Columbus, Ohio 43215
 CML (614) 466-7220

OKLAHOMA

Robert Rabatine, Chief
 Waste Management Service
 Oklahoma State Department of Health
 P.O. Box 53551
 1000 Northeast 10th Street
 Oklahoma City, Oklahoma 73152
 CML (405) 271-5338

OREGON

Mike Downs, Administrator
 Hazardous and Solid Waste Division
 Department of Environmental Quality
 811 Southwest 6th Avenue
 Portland, Oregon 97204
 CML (503) 229-5356

PENNSYLVANIA

Donald A. Lazarchik, Director
 Bureau of Solid Waste Management
 Pennsylvania Department of
 Environmental Resources
 P.O. Box 2063
 Harrisburg, Pennsylvania 17120
 CML (717) 787-9870

PUERTO RICO

Santos Rohena, President
 Environmental Quality Board
 Santurce, Puerto Rico 00910-1488
 CML (809) 725-0439

RHODE ISLAND

Tom Getz, Director
 Solid Waste Management Program
 Department of Environmental Management
 204 Cannon Building
 75 Davis Street
 Providence, Rhode Island 02908
 CML (401) 277-2797

SOUTH CAROLINA

Hartsill Truesdale, Chief
 Bureau of Solid and Hazardous Waste
 Management
 Department of Health and Environmental
 Control
 2600 Bull Street
 Columbia, South Carolina 29201
 CML (803) 758-5681

SOUTH DAKOTA

Joel C. Smith, Administrator
 Office of Air Quality and Solid Waste
 Department of Water and Natural
 Resources
 Foss Building, Room 217
 Pierre, South Dakota 57501
 CML (605) 773-3153

TENNESSEE

Tom Tiesler, Director
 Division of Solid Waste Management
 Tennessee Department of Public Health
 701 Broadway
 Customs House, 4th Floor
 Nashville, Tennessee 37219-5403
 CML (615) 741-3424

TEXAS

Hector H. Mendieta, P.E., Director
 Division of Solid Waste Management
 Texas Department of Health
 1100 West 49th Street, T-601A
 Austin, Texas 78756-3199
 CML (512) 458-7271

Bryan W. Dixon, Director
 Hazardous and Solid Waste Division
 Texas Water Commission
 P.O. Box 13087, Capitol Station
 Austin, Texas 78711-3087
 CML (512) 463-7760

UTAH

Brent Bradford, Director
 Bureau of Solid and Hazardous Waste
 Management
 Department of Health
 P.O. Box 16700
 288 North 1460 West Street
 Salt Lake City, Utah 84116-0700
 CML (801) 533-4145

VERMONT

John Malter, Director
 Waste Management Division
 Agency of Environmental Conservation
 103 South Main Street
 Montpelier, Vermont 05676
 CML (802) 244-8702

VIRGIN ISLANDS

Angel Lois Le Bron, Commissioner
 Department of Conservation and Cultural
 Affairs
 P.O. Box 4399, Charlotte
 St. Thomas, Virgin Islands 00801
 CML (809) 774-6420

VIRGINIA

Dr. Wladimir Gulevich, Chief
 Division of Technical Services
 Department of Waste Management
 Monroe Building, 11th Floor
 101 North 14th Street
 Richmond, Virginia 23219
 CML (804) 225-2667

WASHINGTON

Chris Haines, Acting Manager
 Solid and Hazardous Waste Management
 Division
 Department of Ecology
 Mail Stop PV-11
 Olympia, Washington 98504
 CML (206) 459-6316

WEST VIRGINIA

Dr. B. Douglas Steel, Chief
 Waste Management Division
 1260 Greenbrier Street
 Charleston, West Virginia 25311
 CML (304) 348-5935

WISCONSIN

Paul Didier, Director
 Bureau of Solid Waste Management
 Department of Natural Resources
 P.O. Box 7921
 Madison, Wisconsin 53707
 CML (608) 266-1327

WYOMING

David A. Finley, Supervisor
 Solid Waste Management Program
 State of Wyoming
 Department of Environmental Quality
 122 West 25th Street
 Herschler Building
 Cheyenne, Wyoming 82002
 CML (307) 777-7752

APPENDIX D

FEDERAL REGULATORY AUTHORITIES FOR FINANCIAL INSTITUTIONS AND FINANCIAL MARKETS

I. Regulatory Authorities for Banks

1. Comptroller of the Currency
Department of the Treasury
490 L'Enfant Plaza East, S.W.
Washington, D.C. 20219
2. Board of Governors of the Federal Reserve System
20th and Constitution Avenue, N.W.
Washington, D.C. 20551
(202) 452-3000
3. Federal Deposit Insurance Corporation
550 Seventeenth Street, N.W.
Washington, D.C. 20429
(202) 393-8400

II. Regulatory Authorities for Savings and Loan Institutions

1. Federal Home Loan Bank Board
1700 G Street, N.W.
Washington, D.C. 20552
(202) 377-6000
2. Federal Savings and Loan Insurance Corporation
1700 G Street, N.W.
Washington, D.C. 20552
(202) 377-6600

III. Regulatory Authority for Credit Unions

1. National Credit Union Administration
1776 G Street, N.W.
Washington, D.C. 20456
(202) 357-1050

IV. Regulatory Authority for Financial Markets

1. U.S. Securities and Exchange Commission
450 Fifth Street, N.W.
Washington, D.C. 20549
(202) 272-3100

2. Copies of corporate financial reports may be obtained by written request (marked Attn: Public Reference) or may be obtained in person at:

Public Reference Room
U.S. Securities & Exchange Commission
450 Fifth Street, N.W.
Washington, D.C. 20549
(202) 272-7450

APPENDIX E

STATE REGULATORY AUTHORITIES FOR FINANCIAL INSTITUTIONS

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APPENDIX E-1

STATE AUTHORITIES WHICH REGULATE BANKS, SAVINGS AND LOANS, AND CREDIT UNIONS*

This Appendix lists the regulatory authorities which oversee state-chartered financial institutions (banks, savings and loan associations, and credit unions). Some or all of these institutions may be empowered to act as trustee or issue letters of credit in their state. In the list below, the type of institution regulated by each state authority is indicated to the left of that agency (B = banks, including mutual savings banks; S&L = savings and loan associations; CU = credit unions).

ALABAMA

B, James E. Goldborough
S&L Superintendent of Banks;
Savings and Loan Commissioner
State Banking Department
166 Commerce Street
3rd Floor
Montgomery, Alabama 36130
(205) 261-3452

CU Lawrence C. Williams,
Administrator
Credit Union Administration
304 Dexter Avenue
Suite 1-C
Montgomery, Alabama 36130
(205) 261-3180

ALASKA

B, Willis F. Kirkpatrick, Director
S&L, Division of Banking and Securities
CU Department of Commerce and
Economic Development
Pouch D
Juneau, Alaska 99811
(907) 465-2521

ARIZONA

B, Mary C. Short
S&L, Superintendent of Banks
CU State Banking Department
3225 North Central
Suite 815
Phoenix, Arizona 85012
(602) 255-4421

ARKANSAS

B Marlin D. Jackson
Bank Commissioner
Bank Department
Tower Building
323 Center Street
Suite 500
Little Rock, Arkansas 72201
(501) 371-1117

S&L, Beverly Bossett
CU Securities Commissioner
Arkansas Securities Department
Heritage West Building
3rd Floor
201 East Markham
Little Rock, Arkansas 72201
(501) 371-1011

* Source: Adapted from information from the Conference of State Bank Supervisors, National Association of State Savings and Loan Supervisors, and the National Credit Union Administration.

CALIFORNIA

B Louis Carter
 Superintendent of Banks
 State Banking Department
 Suite 750
 235 Montgomery Street
 San Francisco, California 94104
 (415) 557-3666 [S.F.]
 (213) 736-3791 [L.A.]

CU Beverly Brooks, Special
 Administrator for Credit Union
 Law
 Department of Corporations
 Financial Services Division
 600 South Commonwealth Avenue
 Los Angeles, California 90005
 (213) 736-2741

COLORADO

B, Richard B. Doby
 CU State Bank Commissioner
 Division of Banking
 First West Plaza
 Suite 700
 303 West Colfax
 Denver, Colorado 80204
 (303) 866-3131

S&L David L. Paul
 Savings and Loan Commissioner
 Division of Savings and Loan
 1560 Broadway
 Suite 705
 Denver, Colorado 80202
 (303) 866-2384

COMMONWEALTH OF THE NORTHERN
MARIANAS ISLANDS

B, Alexandro Castro
 S&L Attorney General
 Office of the Governor
 Commonwealth of the Northern
 Marianas Islands
 Saipan, Marianas Islands 96950
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CONNECTICUT

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 S&L Banking Commissioner
 Department of Banking
 44 Capitol Avenue
 Hartford, Connecticut 06106
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CU Joseph D. Tirinzoni, Director
 Credit Union Division
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 44 Capitol Avenue
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DELAWARE

B, John E. Malarkey
 S&L State Bank Commissioner
 Thomas Collins Building
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 Dover, Delaware 19903
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FLORIDA

B Gerald A. Lewis
 State Comptroller
 State Capitol Building
 Tallahassee, Florida 32301
 (904) 488-0370

S&L, Alex Hager, Chief
 CU Bureau of Thrift Institutions
 Department of Banking and
 Finance
 Suite 1402, The Capitol
 Tallahassee, Florida 32399-0350
 (904) 488-9570

GEORGIA

B, Edward D. Dunn, Commissioner
 CU Department of Banking and
 Finance
 2990 Brandywine Road
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 (404) 393-7330

GEORGIA (continued)

S&L Steven D. Bridges
 Division Director
 Department of Banking and Finance
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 Atlanta, Georgia 30341
 (404) 393-7330

GUAM

B, Dave J. Santos
 S&L Banking Commissioner
 855 West Marine Drive
 Agana, Guam 96910
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HAWAII

B, Donna Tanoue
 S&L, Commissioner of Financial
 Institutions
 Department of Commerce and
 Consumer Affairs
 P.O. Box 541
 Honolulu, Hawaii 96809
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IDAHO

B, Gavin Gee, Bureau Chief
 S&L, Department of Finance
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 2nd Floor
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 (208) 334-3319

ILLINOIS

B William C. Harris
 Commissioner of Banks and Trust
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 119 South Fifth Street
 Room 400
 Springfield, Illinois 62701
 (217) 782-7966 [Springfield]
 (312) 793-2043 [Chicago]

ILLINOIS (continued)

S&L Paul A. Downing, Commissioner
 Savings and Loan Commission
 State of Illinois Center
 Suite 11-300
 100 West Randolph
 Chicago, Illinois 60601
 (312) 917-2030

CU Victor Jay Pambianto,
 Supervisor
 Credit Union Division
 Department of Financial
 Institutions
 421 East Capitol
 Room 205
 Springfield, Illinois 62706
 (217) 782-2833

INDIANA

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 Department of Financial
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CU, Dick Wiles, Supervisor
 S&L Department of Financial
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IOWA

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 Superintendent of Banking
 Banking Department
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 Des Moines, Iowa 50309
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IOWA (continued)

S&L Gregg Barcus, Superintendent
Division of Savings and Loans
State Capitol Complex
Des Moines, Iowa 50319
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CU Betty Minor, Superintendent
Credit Union Division
Commerce Department
Executive Hills West
1209 East Court Avenue
Des Moines, Iowa 50319
(515) 281-6514

KANSAS

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State Bank Commissioner
Banking Department
700 Jackson Street
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(913) 296-2266

S&L Marvin Steinert, Commissioner
Savings and Loan Department
503 Kansas Avenue
Room 220
Topeka, Kansas 66603
(913) 296-3739

CU William A. Kasting, Administrator
Department of Credit Unions
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(913) 296-3021

KENTUCKY

B, Thomas B. Miller
S&L, Commissioner of Financial
Institutions
Department of Financial
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911 Leawood Drive
Frankfort, Kentucky 40601
(502) 564-3390

LOUISIANA

B, Kenneth Pickering
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Baton Rouge, Louisiana 70804-9095
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CU Gerald Thompson, Staff Examiner
Credit Union Division
Office of Financial Institutions
Department of Commerce
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MAINE

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Department of Professional and
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Financial Regulation Division
Department of Licensing and
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Baltimore, Maryland 21202
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S&L William H. Griffin, Director
Division of Savings and Loan
Associations
Department of Licensing and
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Suite 800
Baltimore, Maryland 21202-4078
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 Credit Union Division
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S&L Darwyn V. Sanborn, Director
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 Financial Institutions Bureau
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 P.O. Box 30224
 Lansing, Michigan 48909
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 Credit Union Division
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 Department of Commerce
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 Lansing, Michigan 48909
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MINNESOTA

B James G. Miller
 Deputy Commissioner of Commerce
 Division of Financial Examinations
 Department of Commerce
 500 Metro Square Building
 St. Paul, Minnesota 55101
 (612) 296-2135

S&L Allyn R. Long
 Assistant Commissioner
 Department of Commerce
 Metro Square Building
 5th Floor
 St. Paul, Minnesota 55101
 (612) 296-2297

CU Terry R. Meyer
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 500 Metro Square Building
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 (612) 296-2297

MISSISSIPPI

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 CU Department of Banking and Consumer
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 (601) 359-1031

S&L W.M. Yeager, Commissioner
 Department of Savings Associations
 633 North State Street
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MISSOURI

B Thomas B. Fitzsimmons
 Commissioner of Finance
 Division of Finance
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MISSOURI (continued)

S&L Mickey Brown, Director
 Division of Savings and Loan
 Supervision
 Department of Economic
 Development
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 P.O. Box 836
 Jefferson City, Missouri 65101
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CU Doyle R. Brown, Jr., Director
 Division of Credit Unions
 Department of Economic
 Development
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MONTANA

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 1424 Ninth Avenue
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NEBRASKA

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 S&L Department of Banking and Finance
 301 Centennial Mall, South
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CU Glen Callaway, Assistant Director
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 301 Centennial Mall, South
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NEVADA

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NEW JERSEY

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 Trenton, New Jersey 08625
 (609) 292-5494

NEW JERSEY (continued)

CU Joseph Lanigan, Chief
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NEW MEXICO

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S&L, Carmine M. Tenga
CU Deputy Superintendent
Thrift Institution Division
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NORTH CAROLINA

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NORTH CAROLINA (continued)

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CU Roy High, Administrator
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NORTH DAKOTA

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OHIO

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S&L Connie J. Harris, Superintendent
Division of Savings and Loan
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OHIO (continued)

CU Kenneth A. Roberts, Acting
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 Department of Commerce
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OKLAHOMA

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 State Banking Department
 Malco Building
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 (405) 521-2783

S&L, Wayne Osborn
 CU Deputy Commissioner
 State Banking Department
 Malco Building
 2nd Floor
 4100 Lincoln Boulevard
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OREGON

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 Banking Division
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 Savings Association Bureau
 Department of Banking
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 16th Floor
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CU Frederic George, Director
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PUERTO RICO

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RHODE ISLAND

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CU Frank Caramadre,
 Chief Credit Union Examiner
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TENNESSEE (continued)

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 Institutions
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 505 Deaderick Street
 Nashville, Tennessee 37219
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CU Oliver G. Barnett
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 James K. Polk State Office
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TEXAS

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S&L L.L. Bowman III, Commissioner
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 Austin, Texas 78705
 (512) 479-1250

CU John Hale, Commissioner
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 CU Institutions
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VERMONT

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 S&L, Deputy Commissioner of Banking
 CU Department of Banking and
 Insurance
 120 State Street
 Montpelier, Vermont 05602
 (802) 828-3301

VIRGIN ISLANDS

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 Office of the Lieutenant Governor
 Chairman of the Banking Board
 Government House, Charlotte
 Amalie
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 00801
 (809) 774-2991

VIRGINIA

S Sidney A. Bailey
 Commissioner of Financial
 Institutions
 Bureau of Financial Institutions
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S&L, Lewis S. Trueheart
 CU Deputy Commissioner of Savings
 and Loans and Credit Unions
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 Banking and Small Loans Division
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 General Administration Building
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 Olympia, Washington 98504
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S&L, R.H. Lewis, Supervisor
 CU Division of Savings and Loan
 Associations
 Department of General
 Administration
 General Administration Building
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WEST VIRGINIA

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WISCONSIN

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 Madison, Wisconsin 53707
 (608) 266-1621

S&L R.J. McMahon
 Savings and Loan Commission
 131 West Wilson Street
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 Madison, Wisconsin 53702
 (608) 266-1821

WISCONSIN (continued)

CU Richard Ottow
Commissioner of Credit Unions
310 North Midvale Boulevard
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Madison, Wisconsin 53707
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WYOMING

B, Stanley R. Hunt, State Examiner
S&L Herschler Building
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Cheyenne, Wyoming 82002
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APPENDIX E-2

STATE AUTHORITIES WHICH REGULATE
INSURANCE COMPANIES AND SURETY COMPANIES*

Surety companies, insurance companies, and their agents are regulated by state insurance departments. This Appendix lists the name, address, and telephone number of the insurance commissioner in each state.

ALABAMA

Michael DeBellis
Commissioner of Insurance
Department of Insurance
135 South Union Street
Montgomery, Alabama 36130-3401
(205) 269-3550

ARKANSAS

Robert M. Eubanks, III
Insurance Commissioner
400 University Tower Building
Twelfth and University Streets
Little Rock, Arkansas 72204
(501) 371-1325

ALASKA

John L. George
Director of Insurance
Division of Insurance
Department of Commerce
P.O. Box D
Juneau, Alaska 99811
(907) 465-2515

CALIFORNIA

Roxani Gillespie
Commissioner of Insurance
Department of Insurance
600 South Commonwealth Avenue
14th Floor
Los Angeles, California 90005
(213) 736-2551

AMERICAN SAMOA

Arthur Roberts
Commissioner of Insurance
Office of the Governor
Pago Pago, American Samoa 96799
(684) 633-2225

COLORADO

John Kezer
Commissioner of Insurance
Division of Insurance
Department of Regulatory Agencies
303 West Colfax Avenue
5th Floor
Denver, Colorado 80204
(303) 866-3201

ARIZONA

S. David Childers
Director of Insurance
Department of Insurance
801 East Jefferson
2nd Floor
Phoenix, Arizona 85034
(602) 255-5400

COMMONWEALTH OF THE NORTHERN
MARIANAS ISLANDS

Alexandro Castro
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Commonwealth of the Northern Marianas
Islands
Saipan, Marianas Islands 96950
(670) 234-6207

* Source: Adapted from information from the National Association of Insurance Commissioners.

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Peter W. Gillies
Insurance Commissioner
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(203) 566-5275

DELAWARE

N. Levinson
Insurance Commissioner
841 Silver Lake Boulevard
Dover, Delaware 19901
(302) 736-4251

DISTRICT OF COLUMBIA

Marguerite C. Stokes
Superintendent of Insurance
Department of Insurance
614 H Street, N.W.
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Washington, D.C. 20001
(202) 727-7419

FLORIDA

Bill Gunter
Insurance Commissioner
Department of Insurance and Treasury
State Capitol, Plaza Level 11
Tallahassee, Florida 32301
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GEORGIA

Warren D. Evans
Insurance Commissioner
2 Martin Luther King, Jr. Drive
Floyd Memorial Building
704 West Tower
Atlanta, Georgia 30334
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GUAM

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HAWAII

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IDAHO

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(208) 334-2250

ILLINOIS

John E. Washburn
Director of Insurance
Department of Insurance
320 West Washington Street
4th Floor
Springfield, Illinois 62767
(217) 782-4515

INDIANA

Harry E. Eakin
Commissioner of Insurance
Department of Insurance
509 State Office Building
Indianapolis, Indiana 46204
(317) 232-2386

IOWA

William D. Hager
Commissioner of Insurance
Insurance Department of Iowa
State Office Building
G23 Ground Floor
Des Moines, Iowa 50319
(515) 281-5705

KANSAS

Fletcher Bell
Commissioner of Insurance
Insurance Department
420 S.W. Ninth Street
Topeka, Kansas 66612
(913) 296-7801

KENTUCKY

Gil McCarty
Insurance Commissioner
Department of Insurance
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LOUISIANA

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MAINE

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MARYLAND

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MASSACHUSETTS

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MICHIGAN

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Commissioner of Insurance
Insurance Division
Department of Commerce
500 Metro Square Building
St. Paul, Minnesota 55101
(612) 296-6907

MINNESOTA

Michael A. Hatch
Commissioner of Insurance
Insurance Division
Department of Commerce
500 Metro Square Building
St. Paul, Minnesota 55101
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MISSISSIPPI

George Dale
Commissioner of Insurance
Insurance Department
1804 Walter Sillers Building
P.O. Box 79
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(601) 359-3569

MISSOURI

Lewis R. Christ
 Director of Insurance
 Division of Insurance
 Department of Economic Development
 301 West High Street, 6 North
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MONTANA

Andrea Bennett
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 (406) 444-2040

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Michael J. Dugan
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 301 Centennial Mall South
 Lincoln, Nebraska 68509
 (402) 471-2201

NEVADA

David A. Gates
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 Nye Building
 201 South Fall Street
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 Carson City, Nevada 89710
 (702) 885-4270

NEW HAMPSHIRE

Louis E. Bergeron
 Insurance Commissioner
 Insurance Department
 169 Manchester Street
 Concord, New Hampshire 03301
 (603) 271-2261

NEW JERSEY

Kenneth D. Merin
 Commissioner of Insurance
 Department of Insurance
 201 East State Street
 Trenton, New Jersey 08625
 (609) 292-5363

NEW MEXICO

Vincente Jasso
 Superintendent of Insurance
 Insurance Department
 State Corporation Commission
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 Santa Fe, New Mexico 87504-1269
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NEW YORK

James P. Corcoran
 Superintendent of Insurance
 Insurance Department
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 (212) 602-0429

NORTH CAROLINA

James E. Long
 Commissioner of Insurance
 Department of Insurance
 Dobbs Building
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 Raleigh, North Carolina 27611
 (919) 733-7343

NORTH DAKOTA

Earl R. Pomeroy
 Commissioner of Insurance
 Insurance Department
 Capitol Building, 5th Floor
 Bismarck, North Dakota 58505
 (701) 224-2440

OHIO

George Fabe
Director of Insurance
Department of Insurance
2100 Stella Court
Columbus, Ohio 43266-0566
(614) 481-5735

OKLAHOMA

Gerald Grimes
Insurance Commissioner
Insurance Department
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OREGON

Josephine M. Driscoll
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Insurance Division
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PENNSYLVANIA

George F. Grode
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PUERTO RICO

Juan Antonio Garcia
Commissioner of Insurance
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RHODE ISLAND

Mark A. Pfeiffer
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Insurance Division
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SOUTH CAROLINA

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SOUTH DAKOTA

Susan L. Walker
Director of Insurance
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Pierre, South Dakota 57501
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TENNESSEE

William H. Inman
Commissioner of Insurance
Department of Insurance
1808 West End Avenue
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Nashville, Tennessee 37219
(615) 741-2241

TEXAS

Doyce R. Lee
Commissioner of Insurance
1110 San Jacinto Boulevard
Austin, Texas 78701-1998
(512) 463-6464

UTAH

Harold C. Yancey
Commissioner of Insurance
P.O. Box 45803
Salt Lake City, Utah 84145
(801) 530-6400

VERMONT

Thomas P. Menon
Commissioner of Insurance
Department of Banking and Insurance
State Office Building
Montpelier, Vermont 05602
(802) 828-3301

VIRGIN ISLANDS

Julio A. Brady
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VIRGINIA

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WEST VIRGINIA

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WISCONSIN

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WYOMING

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Herschler Building
122 West 25th Street
Cheyenne, Wyoming 82002
(307) 777-7401

APPENDIX E-3

STATE BOARDS OF ACCOUNTANCY*

ALABAMA STATE BOARD OF PUBLIC ACCOUNTANCY

20 Commerce Row
 529 South Perry Street
 Montgomery, Alabama 36104
 Attn: Boyd E. Nicholson, Jr., CPA
 Executive Director
 Telephone: (205) 834-7651

ALASKA STATE BOARD OF PUBLIC ACCOUNTANCY

Department of Commerce
 Division of Occupational Licensing
 P.O. Box D
 Juneau, Alaska 99811
 Attn: Edward R. Mercer
 Licensing Examiner
 Telephone: (907) 465-2580

ARIZONA STATE BOARD OF ACCOUNTANCY

3110 North 19th Street
 Suite 140
 Phoenix, Arizona 85015
 Attn: Ruth R. Lee
 Executive Director
 Telephone: (602) 255-3648

ARKANSAS STATE BOARD OF ACCOUNTANCY

1515 West 7th Street
 Suite 320
 Little Rock, Arkansas 72201
 Attn: James E. Ward
 Executive Director
 Telephone: (501) 371-1520

CALIFORNIA STATE BOARD OF ACCOUNTANCY

2135 Butano Drive
 Suite 112
 Sacramento, California 95825
 Attn: Della Bousquet
 Executive Officer
 Telephone: (916) 920-7121

COLORADO STATE BOARD OF ACCOUNTANCY

1525 Sherman Street
 Denver, Colorado 80203-1768
 Attn: Mary Lou Burgess
 Administrator
 Telephone: (303) 866-2869

CONNECTICUT STATE BOARD OF ACCOUNTANCY

Secretary of State
 190 Trumbull Street
 3rd Floor
 Hartford, Connecticut 06103
 Attn: Joseph A. Spagna
 Administrator
 Telephone: (203) 566-7835

DELAWARE STATE BOARD OF ACCOUNTANCY

9 Stage Road
 Newark, Delaware 19711
 Attn: John Shellenberger, CPA
 Executive Director
 Telephone: (302) 738-6065

* Source: Adapted from information from the National Association of Insurance Commissioners.

DISTRICT OF COLUMBIA BOARD OF ACCOUNTANCY

Department of Consumer and Regulatory
Affairs
Investigations and Inspections
614 H Street, N.W.
Room 923
Washington, D.C. 20001
Attn: Harriette Andrews
Telephone: (202) 727-7468

FLORIDA BOARD OF ACCOUNTANCY

4001 Northwest 43rd Street
Suite 16
Gainesville, Florida 32606-4599
Attn: Martha P. Willis
Executive Director
Telephone: (904) 372-2032

GEORGIA STATE BOARD OF ACCOUNTANCY

166 Pryor Street, S.W.
Atlanta, Georgia 30303
Attn: Barbara Wilkerson
Executive Director
Telephone: (404) 656-3941

GUAM TERRITORIAL BOARD OF PUBLIC ACCOUNTANCY

P.O. Box P
Agana, Guam 96910
Attn: Judith K. Borja
Chairman
Telephone: (671) 646-6987

HAWAII BOARD OF ACCOUNTANCY

Department of Commerce and Consumer
Affairs
P.O. Box 3469
Honolulu, Hawaii 96801
Attn: Kathleen Yokoyuchi
Executive Secretary
Telephone: (808) 548-7471

IDAHO STATE BOARD OF ACCOUNTANCY

700 West State Street
2nd Floor
Boise, Idaho 83720
Attn: Jeanette B. Drury
Executive Secretary
Telephone: (208) 334-2490

ILLINOIS COMMITTEE ON ACCOUNTANCY

University of Illinois
10 Administration Building
506 South Wright Street
Urbana, Illinois 61801
Attn: Margaret Richardson
Secretary
Telephone: (217) 333-1565

ILLINOIS PUBLIC ACCOUNTING REGISTRATION COMMITTEE

Department of Registration & Ed.
320 West Washington Street
3rd Floor
Springfield, Illinois 62786
Attn: Mary Wright
Unit Manager
Telephone: (217) 785-0800

INDIANA STATE BOARD OF PUBLIC ACCOUNTANCY

Professional Licensing Agency
1021 State Office Building
Indianapolis, Indiana 46204
Attn: Evelyn Dollinger
Administrative Assistant
Telephone: (317) 232-3898

IOWA BOARD OF ACCOUNTANCY

Executive Hills, West
1209 Court Avenue
Des Moines, Iowa 50319
Attn: William Schroeder
Executive Secretary
Telephone: (515) 281-4126

KANSAS BOARD OF ACCOUNTANCY

503 Kansas
Room 236
Topeka, Kansas 66603
Attn: Glenda Sherman
Secretary
Telephone: (913) 296-2162

KENTUCKY STATE BOARD OF
ACCOUNTANCY

332 West Broadway
Suite 310
Louisville, Kentucky 40202
Attn: James T. Ahler
Executive Director
Telephone: (502) 588-3037

STATE BOARD OF CPAs OF LOUISIANA

2 Canal Street
Suite 1515
New Orleans, Louisiana 70130
Attn: Mildred M. McGaha, CPA
Executive Director
Telephone: (504) 566-1244

MAINE STATE BOARD OF ACCOUNTANCY

84 Harlow Street
Bangor, Maine 04401
Attn: L.E. Parker, Jr., CPA
Secretary
Telephone: (207) 942-6702

MARYLAND STATE BOARD OF PUBLIC
ACCOUNTANCY

501 St. Paul Place
9th Floor
Baltimore, Maryland 21202
Attn: John A. Evans
Executive Director
Telephone: (301) 659-6322

MASSACHUSETTS BOARD OF PUBLIC
ACCOUNTANCY

100 Cambridge Street
15th Floor
Saltonstall Building
Boston, Massachusetts 02202
Attn: Lee H. Bonnarrigo, CPA
Executive Secretary
Telephone: (617) 727-3078

MICHIGAN BOARD OF ACCOUNTANCY

Department of Licensing and Regulation
P.O. Box 30018
Lansing, Michigan 48909
Attn: Suzanne U. Jolicoeur
Administrative Secretary
Telephone: (517) 373-0682

MINNESOTA STATE BOARD OF
ACCOUNTANCY

Metro Square Building
5th Floor
St. Paul, Minnesota 55101
Attn: Pamela K. Smith
Executive Secretary
Telephone: (612) 296-7937

MISSISSIPPI STATE BOARD OF PUBLIC
ACCOUNTANCY

P.O. Box 55447
Jackson, Mississippi 39216
Attn: Roy Horton
Executive Director
Telephone: (601) 981-3773

MISSOURI STATE BOARD OF
ACCOUNTANCY

P.O. Box 613
3523 North Ten Mile Drive
Jefferson City, Missouri 65102
Attn: Beverley Shackelford
Executive Director
Telephone: (314) 751-2334

MONTANA STATE BOARD OF PUBLIC ACCOUNTANTS

1424 Ninth Avenue
Helena, Montana 59620-0407
Attn: Brenda St. Clair
Administrative Assistant
Telephone: (406) 444-3739

NEBRASKA STATE BOARD OF PUBLIC ACCOUNTANCY

P.O. Box 94725
Lincoln, Nebraska 68509
Attn: Lon W. Morrey, CPA
Executive Director
Telephone: (402) 471-3595

NEVADA STATE BOARD OF ACCOUNTANCY

Security Bank Building
1 East Liberty Street
Suite 311
Reno, Nevada 89501
Attn: William S. Zideck
Executive Director
Telephone: (702) 786-0231

NEW HAMPSHIRE BOARD OF ACCOUNTANCY

2-1/2 Beacon Street
Concord, New Hampshire 03301-4447
Attn: Louise MacMillan
Assistant to the Board
Telephone: (603) 271-3286

NEW JERSEY STATE BOARD OF ACCOUNTANCY

1100 Raymond Boulevard
Room 507-A
Newark, New Jersey 07102
Attn: John J. Meade
Executive Secretary
Telephone: (201) 648-3240

NEW MEXICO STATE BOARD OF PUBLIC ACCOUNTANCY

4125 Carylyle Boulevard, N.E.
Albuquerque, New Mexico 87107
Attn: Randy Lovato
Executive Secretary
Telephone: (505) 841-6524

NEW YORK STATE BOARD FOR PUBLIC ACCOUNTANCY

State Education Department
Cultural Ed Center
Room 3011
Albany, New York 12230
Attn: Douglas R. Martin
Executive Secretary
Telephone: (518) 474-3836

NORTH CAROLINA STATE BOARD OF CPA EXAMINERS

1101 Oberlin Road
Suite 104
P.O. Box 12827
Raleigh, North Carolina 27605
Attn: Charles I. Bunn, Jr., CPA
Executive Director
Telephone: (919) 821-2443

NORTH DAKOTA STATE BOARD OF ACCOUNTANCY

Box 8104
University Station
Grand Forks, North Dakota 58202
Attn: Daryl J. Hill
Executive Director
Telephone: (701) 777-3869

ACCOUNTANCY BOARD OF OHIO

65 South Front Street
Suite 222
Columbus, Ohio 43215
Attn: Dan Joseph, Jr.
Director
Telephone: (614) 466-4135

OKLAHOMA STATE BOARD OF PUBLIC
ACCOUNTANCY

6600 North Harvey
Suite 130
Oklahoma City, Oklahoma 73116
Attn: Diana Collinsworth
Director
Telephone: (405) 521-2397

OREGON STATE BOARD OF ACCOUNTANCY

403 Labor & Industrial Building
Salem, Oregon 97310
Attn: Mary Alice Hammond
Administrator
Telephone: (503) 378-4181

PENNSYLVANIA STATE BOARD OF
ACCOUNTANCY

612 Transportation & Safety Building
Commonwealth Avenue & Forster Streets
P.O. Box 2649
Harrisburg, Pennsylvania 17105-2649
Attn: J. Robert Kline
Administrative Secretary
Telephone: (717) 783-3658

PUERTO RICO BOARD OF ACCOUNTANCY

Examining Boards
Box 3271
San Juan, Puerto Rico 00904
Attn: Carmen Ramirez Vega
Director
Telephone: (809) 754-1952

RHODE ISLAND BOARD OF ACCOUNTANCY

Department of Business Regulation
100 North Main Street
Providence, Rhode Island 02903
Attn: Nancy W. Thomas
Executive Secretary
Telephone: (401) 277-3185

SOUTH CAROLINA BOARD OF
ACCOUNTANCY

Dutch Plaza
Suite 260
800 Dutch Square Boulevard
Columbia, South Carolina 29210
Attn: R. Larry Kight
Director
Telephone: (803) 737-9266

SOUTH DAKOTA BOARD OF
ACCOUNTANCY

1509 South Minnesota Avenue
Suite 1
Sioux Falls, South Dakota 57105
Attn: Lynn Bethke
Administrative Assistant
Telephone: (605) 339-6746

TENNESSEE STATE BOARD OF
ACCOUNTANCY

1808 West End Building
10th Floor
Nashville, Tennessee 37219
Attn: Anne Darnall
Administrative Assistant
Telephone: (615) 741-2550

TEXAS STATE BOARD OF PUBLIC
ACCOUNTANCY

1033 La Posada
Suite 340
Austin, Texas 78752-3892
Attn: Bob E. Bradley
Executive Director
Telephone: (512) 451-0241

UTAH COMMITTEE FOR PUBLIC
ACCOUNTANCY

160 East 300 South
Salt Lake City, Utah 84145
Attn: Richard Goode
Chairman
Telephone: (801) 530-6635

VERMONT BOARD OF PUBLIC
ACCOUNTANCY

26 Terrace Street
Pavillion Office Building
Montpelier, Vermont 05602
Attn: Francis Conrad
Chairman
Telephone: (802) 828-2363

VIRGIN ISLANDS BOARD OF PUBLIC
ACCOUNTANCY

1 B King Street
Christiansted
St. Croix, Virgin Islands 00820
Attn: Alan Bronstein, CPA
Secretary
Telephone: (809) 773-0096

VIRGINIA STATE BOARD OF ACCOUNTANCY

3600 West Broad Street
Richmond, Virginia 23230
Attn: Roberta L. Banning
Assistant Director
Telephone: (804) 257-8544

WASHINGTON STATE BOARD OF
ACCOUNTANCY

210 East Union
Suite H
P.O. Box 9131
Olympia, Washington 98504
Attn: Carey L. Rader, CPA
Chief Executive Officer
Telephone: (206) 753-2585

WEST VIRGINIA BOARD OF ACCOUNTANCY

507 L&S Building
812 Quarrier Street
Charleston, West Virginia 25301
Attn: Mrs. W.S. Walker, Jr.
Administrative Aide
Telephone: (304) 348-3557

WISCONSIN ACCOUNTING EXAMINING
BOARD

P.O. Box 8935
Madison, Wisconsin 53708
Attn: Sharon Englerth
Program Assistant
Telephone: (608) 266-3020

WYOMING BOARD OF CERTIFIED PUBLIC
ACCOUNTANTS

Barrett Building
3rd Floor
Cheyenne, Wyoming 82002
Attn: Peggy Morgando
Executive Director
Telephone: (307) 777-7551

APPENDIX F

GLOSSARY OF TERMS

<u>Term</u>	<u>Definition</u>
ACCOUNT PARTY	One who purchases or arranges for a letter of credit from a financial institution.
ACCOUNTANT'S OPINION	See REPORT ON EXAMINATION.
ACKNOWLEDGE, ACKNOWLEDGMENT (OF AN INSTRUMENT)	Formal declaration before an authorized official such as a notary, by the person who executed the instrument, that it is his free act and deed.
ADJUSTED COST ESTIMATE	A cost estimate which has been updated using the appropriate inflation factor within 30 days of the anniversary date on which the first cost estimate was prepared.
ADVERSE OPINION	Statement by an accountant that the financial statements of the firm do not present fairly the financial condition of the firm in conformity with generally accepted accounting principles. This type of opinion will cause the EPA to disallow the use of the financial test for the firm.
ALIEN INSURER	An insurance company incorporated under the laws of a foreign country.
AMORTIZATION	Gradual reduction in the accounting or "book" value of a fixed asset by the allocation of part of the cost of the asset over time to individual accounting periods. The term is used to refer to assets which have limited life but which do not physically wear out. Examples include copyrights, patents, and leases. See DEPRECIATION.
ASSETS	All existing and all probable future economic benefits obtained or controlled by a particular entity. Any rights or physical properties that are owned and have monetary value.
ASSIGNMENT	A transfer from one party in a contract to a third party of some or all of the rights of the contract. In this case, the contract is the liability insurance policy.

<u>Term</u>	<u>Definition</u>
AUDIT	Systematic inspection of accounting records involving analyses, tests, and confirmations.
AUTOMATIC EXTENSION, AUTOMATIC RENEWAL	Continuation of an insurance policy or letter of credit without the need for renegotiation.
BENEFICIARY	One for whose benefit a trust of letter of credit is established.
BOND RATING	An assessment of the credit-worthiness of an obligor with respect to a specific debt obligation (bond). Ratings take the form of letters – e.g. AA, A, B, etc. For purposes of these regulations, Moody's and Standard & Poor's are the only two acceptable bond-rating corporations. See also INVESTMENT GRADE.
CAPTIVE INSURER	An insurance company set up by a company or group of companies to insure their own risks, or risks common to the group.
CASH FLOW	In accounting, a company's net income (sales minus operating expenses) plus allowances for depreciation, depletion, and amortization. Represents the funds available as working capital and for expansion.
CERTIFIED PUBLIC ACCOUNTANT (CPA)	An accountant with a special state license indicating that he or she meets certain requirements for the public practice of accounting. Although requirements vary from state to state, all must pass a rigorous examination administered by the American Institute of Certified Public Accountants.
CHIEF FINANCIAL OFFICER	The principal financial officer required to sign SEC Form 10-K's or the equivalent.
CIRCULAR 570	Circular of the U.S. Department of the Treasury, published annually in the Federal Register on July 1. The surety company issuing the surety bond must be among those listed as acceptable sureties on federal bonds in Circular 570.

<u>Term</u>	<u>Definition</u>
COLLATERAL	A tangible security or property, usually readily convertible into cash, that is deposited with a creditor to guarantee payment of an obligation. Either the property itself or a document or title to it is held by the creditor until the loan is repaid.
COMMON TRUST FUND	A trust fund into which funds from several individual trusts may be placed.
CORPORATE GUARANTEE	A guarantee by the owner or operator's parent corporation that it will meet all financial assurance obligations specified in the regulations.
COSURETY	Two or more sureties who share one surety bond obligation.
CLOSURE OR POST-CLOSURE INSURANCE	A type of insurance coverage that provides funds for final closure or post-closure care whenever required.
CURRENT ASSETS	Cash or other assets or resources commonly identified as those which are reasonably expected to be realized in cash or sold or consumed during the normal operating cycle of the business or within one year if the operating cycle is less than one year.
CURRENT COST ESTIMATE	The most recent cost estimate which includes any revisions due to changes in plan or inflation adjustments.
CURRENT LIABILITIES	Obligations whose liquidation is reasonably expected to require the use of existing resources properly classifiable as current assets or the creation or other current liabilities or those expected to be satisfied within a relatively short period of time, usually one year.
DEPLETION	In accounting, an allowance made for the shrinkage or exhaustion of a natural resource.

TermDefinition

DEPRECIATION

In accounting, the method of allocating part of the cost of an asset that will be used up over time to individual accounting periods. The number of accounting periods does not necessarily correspond to the actual life of the asset, i.e., a building that lasts 40 years may be depreciated over 10 years. See AMORTIZATION.

DISCLAIMER OF OPINION

Statement that the auditor does not express an opinion on the financial statements of the firm. This statement will cause EPA to disallow the use of the financial test for the firm.

EXCESS OR SURPLUS LINES

The designation that a state gives to insurance companies which are not licensed to transact business in that state. Because such companies, also known as "non-admitted insurers," cannot be regulated, states include specific regulations for agents and brokers of excess or surplus lines in the broker or agent's license. The state of New York, for example, requires a broker or agent to submit declamations from five licensed (or admitted) insurers stating that the service(s) provided by a particular excess or surplus line cannot be obtained from their firm. Most states also maintain either "black lists" of non-admitted insurers which a broker or agent cannot take on as an excess or surplus line or "white lists" of eligible providers. The Non-Admitted Insurers Information Office (NAIO) of the National Association of Insurance Commissioners (NAIC) publishes its own "Non-Admitted Insurer's Quarterly List."

FACE AMOUNT OF POLICY

Face value of an insurance policy; the total amount the insurer is obligated to pay under the policy.

FACE VALUE

The value of a security, insurance policy, or letter of credit, expressed as a specific sum of money, which is printed, stamped, or otherwise marked on its face. The face value of a bond is usually the amount the issuer promises to pay at maturity.

Term

Definition

FIDUCIARY

A person whose duty is to act on behalf of another or to protect the interests of another. A trustee is a fiduciary.

FINANCIAL GUARANTEE BONDS

A type of surety bond under which the surety agrees to pay the penal sum of the bond if the owner or operator fails to fulfill his closure and/or post-closure obligations. Financial guarantee bonds may be used by facilities with interim or general status.

FINANCIAL RATINGS OF INSURERS

Similar to a bond rating, an assessment of the credit-worthiness of an insurance company with respect to its future obligations.

FINANCIAL STATEMENTS

Formal reports of the status of accounts at a particular time, prepared to show the operating results and financial condition of the firm. The statements include the balance sheet and income statement of changes in financial position.

FINANCIAL TEST

Criteria specified in regulations which an owner, operator, or corporate parent must pass to establish financial assurance.

FORM 10-K, FORM 10-Q

A type of report that U.S. corporations file with the Securities and Exchange Commission. It frequently contains more information than the annual report distributed to stockholders. The 10-K is submitted annually; the 10-Q quarterly. (Note: The 10-Q report is not an audited statement.)

GNP DEFLATOR

Weighted price index which reflects the rate of inflation. It is derived by dividing current-dollar Gross National Product (GNP) by constant-dollar GNP. See also INFLATION FACTOR.

GRANTOR

One who creates a trust. Also called a trustor.

INFLATION FACTOR

The price index used to update cost estimates for closure and post-closure care, in order to account for inflation. The index used is the GNP deflator.

Term

Definition

INVESTMENT GRADE

A bond or other debt instrument with a rating from Moody's of Aaa, Aa, A, or Baa; or a rating from Standard & Poor's of AAA, AA, A, or BBB.

IRREVOCABLE

That which cannot be revoked or recalled. All TSCA trusts must be irrevocable. A TSCA irrevocable letter of credit cannot be cancelled unless alternate assurance is substituted or the account party is released from financial requirements.

ISSUER

The party who issues an insurance policy, letter of credit, or surety bond.

JOINT AND SEVERALLY RESPONSIBLE

A liability is said to be joint and several when the creditor may sue one or more of the parties to such liability separately, or all of them together at his option. Any one of these parties may be liable for the entire amount.

LETTER OF CREDIT

A letter or instrument authorizing that credit up to a particular amount be extended to the person named therein.

LIABILITIES

Probable future sacrifices of economic benefits arising from present obligations to transfer assets or provide services to other entities in the future as a result of past transactions or events.

MOODY'S

One of the two bond-rating agencies acceptable for purposes of these regulations. Address: Moody's Investors Service, Inc., 99 Church Street, New York, New York 10007.

NET INCOME

The difference between total sales and total costs of goods sold plus expenses over the fiscal year.

NET WORKING CAPITAL

Current assets minus current liabilities.

NET WORTH

Total assets minus total liabilities. Net worth is equivalent to owner's equity.

NOMINAL SUM

A small amount of money, such as \$1.00 or \$10.00, with which a standby trust fund is often started.

TermDefinition

OBLIGEE

One in favor of whom the surety is obliged in a surety bond. For TSCA surety bonds, as with RCRA surety bonds, EPA is the obligee.

ORIGINALLY SIGNED
DUPLICATE

A copy of a document with an original signature.

PARENT CORPORATION

A corporation which directly owns at least 50 percent of the voting stock of the corporation which is the facility owner or operator; the latter corporation is deemed a "subsidiary" of the parent corporation.

PARENT GUARANTOR

A parent corporation which provides a corporate guarantee.

PAY-IN PERIOD

Period of time during which the owner or operator must make payments into the trust fund. For facilities with interim status under RCRA, the pay-in period is 20 years or the remaining operating life of the facility as estimated in the closure plan, whichever is shorter. For commercial storage facilities under TSCA, the pay-in period is three years or the remaining operating life of the facility as estimated in the closure plan, whichever is shorter.

PENAL SUM

An amount agreed upon in a bond, to be forfeited if the condition of the bond is not fulfilled. It represents the maximum liability of the surety.

PERFORMANCE BONDS

A type of surety bond under which the surety agrees to either pay the penal sum of the bond or perform the required actions if the owner or operator fails to fulfill his obligation.

POWER OF ATTORNEY

A written statement authorizing another to act as one's agent or attorney.

PREMIUM PAYMENTS

The periodic payments of money which the policyholder agrees to pay the insurer for an insurance policy.

TermDefinition

PRINCIPAL

One who establishes a surety bond. In TSCA surety bonds, the owner or operator is the principal.

PRUDENT MAN STANDARD

An investment rule according to which a trustee may invest in a security only if it is one that a "prudent man" of discretion and intelligence, seeking reasonable income and preservation of capital, would buy.

QUALIFIED OPINION

Statement by an accountant that the financial statements of a firm present fairly the financial condition of the firm, subject to certain conditions, or except for certain limitations.

REINSURANCE

A contract between an insurer or surety and another party, called the reinsurer, in which the reinsurer agrees to protect (reinsure) the insurer or surety against loss on some of its insurance. Reinsurance allows an insurer or surety to share the risk among more parties and issue more policies or bonds within its allowable limits.

REPORT ON EXAMINATION

The independent certified public accountant's report on the financial statements, support schedules, and footnotes. Often referred to as the accountant's report or the auditor's opinion. The report on examination usually contains two paragraphs -- a scope paragraph and an opinion paragraph. The scope paragraph indicates the financial presentations covered by the opinion and affirms that generally accepted auditing standards and practices have been followed by the auditors. The opinion paragraph contains the accountant's opinion of the financial statements, schedules and footnotes. The opinion can be unqualified, qualified, or adverse; or there can be disclaimer of opinion. See QUALIFIED OPINION, UNQUALIFIED OPINION, ADVERSE OPINION, and DISCLAIMER OF OPINION.

RIDER

In insurance, a form adding special provisions to a policy. For TSCA bonds, an optional rider allows the owner or operator to increase the penal sum by up to 20 percent per year without renegotiating the bond.

<u>Term</u>	<u>Definition</u>
SECURITIES OR OTHER OBLIGATIONS	Written instruments showing evidence of indebtedness of a business or government or equity ownership of a business. Bonds are securities which bear interest.
SHARE THE RISK	An action in which a surety company or insurance company enters into an agreement with other companies to share a potential obligation. Also called a "co-surety agreement," "co-insurance," or "re-insurance."
SPECIAL REPORT	The independent certified public accountant's confirmation that the financial data in the letter from the Chief Financial Officer were derived from the annual report.
STANDARD & POOR'S	One of the two bond-rating agencies acceptable for the purposes of these regulations. Address: Standard & Poor's Corp., 25 Broadway, New York, New York 10004 or P.O. Box 992, New York, New York 10275.
STANDBY TRUST FUND	A trust fund which must be established by an owner or operator who obtains a letter of credit or surety bond. The institution issuing the letter of credit or surety bond will deposit into the standby trust fund any drawings by the Regional Administrator on the credit or bond.
SURETY	A person who undertakes to pay money or do any other act in the event that another party fails therein.
SURETY BOND	A contract in which a party called the "surety," guarantees that certain obligations, such as the payment of money, will be paid if another party fails to perform his obligations.
TANGIBLE NET WORTH	Net worth minus intangible assets, such as goodwill and rights to patents or royalties.
TOTAL LIABILITIES	Total debts owed by a business or individual including all liabilities.

Term

Definition

TRUST

A right of property, real or personal, held by one party for the benefit of another. The grantor or trustor creates the trust; the trustee holds the property held in trust; and the beneficiary is the party for whose benefit the trust is created.

TRUST AGREEMENT

The document which establishes a trust.

TRUST FUND

A trust fund establishes a reserve of capital to pay claims for the completion of closure and/or post-closure obligations.

TRUSTEE

The person appointed, or required by law, to execute a trust, i.e., to hold and protect trust assets and invest them according to the "prudent-man standard" and the terms of the trust agreement for the benefit of the beneficiary.

TRUSTOR

One who creates a trust by depositing assets into it. Also called a grantor.

UNDERWRITE (A RISK)

To insure life or property; to assume a risk. In insurance, a person or company undertakes all or part of the risk against theft, fire, death, or whatever the policy stipulates, in exchange for a payment called a premium.

UNDERWRITING LIMITATION

The maximum amount allowed by law for which a surety can issue a surety bond. The limit may be exceeded if the surety "shares the risk" of the obligation, and then still may not exceed the combined underwriting limitation of those companies.

UNQUALIFIED OPINION

Statement by an accountant that the financial statements of a firm present fairly the financial position, results of operations, and changes in financial position in conformity with generally accepted accounting principles consistently applied.