

safety. We will request approval of the incorporation by reference of the 2009 edition of NFPA 101 from the Office of the Federal Register. We are not aware of any significant changes from the 2006 edition to the 2009 edition.

This document for which we are seeking incorporation by reference is available for inspection by appointment (call (202) 461-4902 for an appointment) at the Department of Veterans Affairs, Office of Regulation Policy and Management, Room 1063B, 810 Vermont Avenue, NW., Washington, DC 20420 between the hours of 8 a.m. and 4:30 p.m., Monday through Friday (except holidays). It is also available at the National Archives and Records Administration (NARA). For information on the availability of this document at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html). In addition, copies may be obtained from the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02269-9101. (For ordering information, call toll-free 1-800-344-3555 or go to <http://www.nfpa.org>.)

#### Unfunded Mandates

The Unfunded Mandates Reform Act of 1995 requires, at 2 U.S.C. 1532, that agencies prepare an assessment of anticipated costs and benefits before issuing any rule that may result in an expenditure by State, local, and tribal governments, in the aggregate, or by the private sector, of \$100 million or more (adjusted annually for inflation) in any given year. This rule would have no such effect on State, local, and tribal governments, or on the private sector.

#### Paperwork Reduction Act

This document contains no collections of information under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501-3521).

#### Executive Order 12866

Executive Order 12866 directs agencies to assess all costs and benefits of available regulatory alternatives and, when regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public health and safety, and other advantages; distributive impacts; and equity). The Executive Order classifies a "significant regulatory action" requiring review by the Office of Management and Budget as any regulatory action that is likely to result in a rule that may: (1) Have an annual effect on the economy of \$100 million or more or adversely affect in a

material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities; (2) create a serious inconsistency or interfere with an action taken or planned by another agency; (3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or (4) raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in Executive Order.

The economic, interagency, budgetary, legal, and policy implications of this proposed rule have been examined, and it has been determined not to be a significant regulatory action under Executive Order 12866.

#### Regulatory Flexibility Act

The Secretary hereby certifies that this regulatory amendment would not have a significant economic impact on a substantial number of small entities as they are defined in the Regulatory Flexibility Act, 5 U.S.C. 601-612. This rulemaking would affect veterans and State homes. The State homes that would be subject to this rulemaking are State government entities under the control of State governments. All State homes are owned, operated and managed by State governments except for a small number that are operated by entities under contract with State governments. These contractors are not small entities. Therefore, pursuant to 5 U.S.C. 605(b), this rule would be exempt from the initial and final regulatory flexibility analysis requirements of sections 603 and 604.

#### Catalog of Federal Domestic Assistance

The Catalog of Federal Domestic Assistance numbers and titles for the programs affected by this document are 64.005, Grants to States for Construction of State Home Facilities; 64.007, Blind Rehabilitation Centers; 64.008, Veterans Domiciliary Care; 64.009, Veterans Medical Care Benefits; 64.010, Veterans Nursing Home Care; 64.011, Veterans Dental Care; 64.012, Veterans Prescription Service; 64.013, Veterans Prosthetic Appliances; 64.014, Veterans State Domiciliary Care; 64.015, Veterans State Nursing Home Care; 64.016, Veterans State Hospital Care; 64.018, Sharing Specialized Medical Resources; 64.019, Veterans Rehabilitation Alcohol and Drug Dependence; 64.022, Veterans Home Based Primary Care; and 64.026, Veterans State Adult Day Health Care.

#### Signing Authority

The Secretary of Veterans Affairs, or designee, approved this document and authorized the undersigned to sign and submit the document to the Office of the Federal Register for publication electronically as an official document of the Department of Veterans Affairs. John R. Gingrich, Chief of Staff, Department of Veterans Affairs, approved this document on March 1, 2010, for publication.

#### List of Subjects in 38 CFR Part 51

Administrative practice and procedure, claims, day care, dental health, government contracts, grant programs—health, grant programs—veterans, health care, health facilities, health professions, health records, mental health programs, nursing homes, reporting and recordkeeping requirements, travel and transportation expenses, Veterans.

Dated: April 1, 2010.

**Robert C. McFetridge,**  
*Director, Regulation Policy and Management.*

For the reasons set forth in the preamble, VA proposes to amend 38 CFR part 51 as follows:

#### PART 51—PER DIEM FOR NURSING HOME CARE OF VETERANS IN STATE HOMES

1. The authority citation for part 51 continues to read as follows:

**Authority:** 38 U.S.C. 101, 501, 1710, 1741-1743, 1745.

#### § 51.200 [Amended]

2. Amend § 51.200 by removing the phrase "(2006 edition)" each place it appears and adding, in its place, "(2009 edition)".

[FR Doc. 2010-7811 Filed 4-6-10; 8:45 am]

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#### ENVIRONMENTAL PROTECTION AGENCY

#### 40 CFR Part 761

[EPA-HQ-OPPT-2009-0757; FRL-8811-7]

RIN 2070-AJ38

#### Polychlorinated Biphenyls (PCBs); Reassessment of Use Authorizations

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Advance notice of proposed rulemaking (ANPRM).

**SUMMARY:** EPA is issuing an ANPRM for the use and distribution in commerce of certain classes of PCBs and PCB items

and certain other areas of the PCB regulations under the Toxic Substances Control Act (TSCA). EPA is reassessing its TSCA PCB use and distribution in commerce regulations to address: The use, distribution in commerce, marking, and storage for reuse of liquid PCBs in electric and non-electric equipment; the use of the 50 parts per million (ppm) level for excluded PCB products; the use of non-liquid PCBs; the use and distribution in commerce of PCBs in porous surfaces; and the marking of PCB articles in use. Also in this document, EPA is also reassessing the definitions of "excluded manufacturing process," "quantifiable level/level of detection," and "recycled PCBs." EPA is soliciting comments on these and other areas of the PCB use regulations. EPA is not soliciting comments on the PCB disposal regulations in this document.

**DATES:** Comments must be received on or before July 6, 2010.

See Unit XIII. of the **SUPPLEMENTARY INFORMATION** for meeting dates and other deadlines associated with the meetings.

**ADDRESSES:** Submit your comments, identified by docket identification (ID) number EPA-HQ-OPPT-2009-0757, by one of the following methods:

- *Federal eRulemaking Portal:* <http://www.regulations.gov>. Follow the on-line instructions for submitting comments.

- *Mail:* Document Control Office (7407M), Office of Pollution Prevention and Toxics (OPPT), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460-0001.

- *Hand Delivery:* OPPT Document Control Office (DCO), EPA East Bldg., Rm. 6428, 1201 Constitution Ave., NW., Washington, DC. Attention: Docket ID Number EPA-HQ-OPPT-2009-0757. The DCO is open from 8 a.m. to 4 p.m., Monday through Friday, excluding legal holidays. The telephone number for the DCO is (202) 564-8930. Such deliveries are only accepted during the DCO's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

*Instructions:* Direct your comments to docket ID number EPA-HQ-OPPT-2009-0757. EPA's policy is that all comments received will be included in the docket without change and may be made available on-line at <http://www.regulations.gov>, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through [www.regulations.gov](http://www.regulations.gov) or e-

mail. The [www.regulations.gov](http://www.regulations.gov) website is an "anonymous access" system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through [www.regulations.gov](http://www.regulations.gov), your e-mail address will be automatically captured and included as part of the comment that is placed in the docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD-ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses.

*Docket:* All documents in the docket are listed in the docket index available at <http://www.regulations.gov>. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available electronically at <http://www.regulations.gov>, or, if only available in hard copy, at the OPPT Docket. The OPPT Docket is located in the EPA Docket Center (EPA/DC) at Rm. 3334, EPA West Bldg., 1301 Constitution Ave., NW., Washington, DC. The EPA/DC Public Reading Room hours of operation are 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number of the EPA/DC Public Reading Room is (202) 566-1744, and the telephone number for the OPPT Docket is (202) 566-0280. Docket visitors are required to show photographic identification, pass through a metal detector, and sign the EPA visitor log. All visitor bags are processed through an X-ray machine and subject to search. Visitors will be provided an EPA/DC badge that must be visible at all times in the building and returned upon departure.

See Unit XIII. of the **SUPPLEMENTARY INFORMATION** for meeting locations.

**FOR FURTHER INFORMATION CONTACT:** *For general information contact:* Colby Lintner, Regulatory Coordinator, Environmental Assistance Division (7408M), Office of Pollution Prevention and Toxics, Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460-0001; telephone

number: (202) 554-1404; e-mail address: [TSCA-Hotline@epa.gov](mailto:TSCA-Hotline@epa.gov).

*For technical information contact:* John H. Smith, National Program Chemicals Division (7404T), Office of Pollution Prevention and Toxics, Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460-0001; telephone number: (202) 566-0512; e-mail address: [smith.johnh@epa.gov](mailto:smith.johnh@epa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **I. General Information**

#### *A. Does this Action Apply to Me?*

You may be potentially affected by this action if you manufacture, process, distribute in commerce, use, or dispose of PCBs. Potentially affected entities may include, but are not limited to:

- Utilities (NAICS code 22), e.g., Electric power and light companies, natural gas companies.
- Manufacturers (NAICS codes 31-33), e.g., Chemical manufacturers, electroindustry manufacturers, end-users of electricity, general contractors.
- Transportation and Warehousing (NAICS codes 48-49), e.g., Various modes of transportation including air, rail, water, ground, and pipeline.
- Real Estate (NAICS code 53), e.g., People who rent, lease, or sell commercial property.
- Professional, Scientific, and Technical Services (NAICS code 54), e.g., Testing laboratories, environmental consulting.
- Public Administration (NAICS code 92), e.g., Federal, State, and local agencies.
- Waste Management and Remediation Services (NAICS code 562), e.g., PCB waste handlers (e.g., storage facilities, landfills, incinerators), waste treatment and disposal, remediation services, material recovery facilities, waste transporters.
- Repair and Maintenance (NAICS code 811), e.g., Repair and maintenance of appliances, machinery, and equipment.

This listing is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be affected by this action. Other types of entities not listed in this unit could also be affected. The North American Industrial Classification System (NAICS) codes have been provided to assist you and others in determining whether this action might apply to certain entities. To determine whether you or your business may be affected by this action, you should carefully examine the applicability provisions in 40 CFR part 761. If you have any

questions regarding the applicability of this action to a particular entity, consult the technical person listed under **FOR FURTHER INFORMATION CONTACT**.

*B. What Should I Consider as I Prepare My Comments for EPA?*

1. *Submitting CBI.* Do not submit this information to EPA through [regulations.gov](http://regulations.gov) or e-mail. Clearly mark the part or all of the information that you claim to be CBI. For CBI information in a disk or CD-ROM that you mail to EPA, mark the outside of the disk or CD-ROM that you mail to EPA, mark the outside of the disk or CD-ROM as CBI and then identify electronically within the disk or CD-ROM the specific information that is claimed as CBI. In addition to one complete version of the comment that includes information claimed as CBI, a copy of the comment that does not contain the information claimed as CBI must be submitted for inclusion in the public docket. Information so marked will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.

2. *Tips for preparing your comments.* When submitting comments, remember to:

- i. Identify the document by docket ID number and other identifying information (subject heading, **Federal Register** date and page number).
- ii. Follow directions. The Agency may ask you to respond to specific questions or organize comments by referencing a Code of Federal Regulations (CFR) part or section number.
- iii. Explain why you agree or disagree; suggest alternatives and substitute language for your requested changes.
- iv. Describe any assumptions and provide any technical information and/or data that you used.
- v. If you estimate potential costs or burdens, explain how you arrived at your estimate in sufficient detail to allow for it to be reproduced.
- vi. Provide specific examples to illustrate your concerns and suggest alternatives.
- vii. Explain your views as clearly as possible, avoiding the use of profanity or personal threats.
- viii. Make sure to submit your comments by the comment period deadline identified.

## II. Background

### A. What Action is the Agency Taking?

With this document, EPA is issuing an ANPRM for the use and distribution in commerce of certain classes of PCBs and PCB items and certain other areas of the PCB regulations under TSCA. EPA is reassessing its TSCA PCB use

and distribution in commerce regulations, 40 CFR part 761, subparts B and C, to address:

1. The use, distribution in commerce, marking, and storage for reuse of liquid PCBs in electric and non-electric equipment.
2. The use of the 50 ppm level for excluded PCB products.
3. The use of non-liquid PCBs.
4. The use and distribution in commerce of PCBs in porous surfaces.
5. The marking of PCB articles in use. EPA is also reassessing the definitions of "excluded manufacturing process," "quantifiable level/level of detection," and "recycled PCBs" in 40 CFR part 761, subpart A.

### B. What is the Agency's Authority for Taking this Action?

The authority for this action comes from TSCA section 6(e)(2)(B) and (C) of TSCA (15 U.S.C. 2605(e)(2)(B) and (C)) as well as TSCA section 6(e)(1)(B) (15 U.S.C. 2605(e)(1)(B)). Section 6(e)(2)(A) of TSCA provides that "no person may manufacture, process, or distribute in commerce or use any polychlorinated biphenyl in a manner other than in a totally enclosed manner" after January 1, 1978. However, TSCA section 6(e)(2)(B) provides EPA with the authority to issue regulations allowing the use and distribution in commerce of PCBs in a manner other than in a totally enclosed manner if the EPA Administrator finds that the use and distribution in commerce "will not present an unreasonable risk of injury to health or the environment." (EPA's authority to allow distribution of PCBs in commerce is limited to those PCB items that were "sold for purposes other than resale" before April 1978 (TSCA section 6(e)(3)(C) (15 U.S.C. 2605(e)(3)(C))). Section 6(e)(2)(C) of TSCA defines "totally enclosed manner" as "any manner which will ensure that any exposure of human beings or the environment by the polychlorinated biphenyl will be insignificant as determined by the Administrator by rule." Section 6(e)(1)(B) of TSCA directs EPA to promulgate rules to require PCBs to be marked with clear and adequate warnings and instructions (15 U.S.C. 2605(e)(1)(B)).

## III. Context of this ANPRM

In the 1970s, commercial manufacture of PCBs in the United States ceased. A substantial portion of the PCBs that had already been manufactured were still in use in many areas of the country; in 1976 EPA estimated that of 1.4 billion pounds (lbs.) of PCBs produced in the United States, 750 million lbs. remained in service in the country.

Approximately 75% of the PCBs produced were for use as liquids in electrical or industrial equipment (Ref. 1). For some specific types of equipment, such as electrical capacitors, virtually all of the large number of units manufactured and in use contained PCBs, but for other types of equipment, such as electromagnets, only a small number of units contained PCBs (Ref. 2).

TSCA became effective on January 1, 1977. Section 6(e) of TSCA generally prohibited the manufacture, processing, distribution in commerce, and use of PCBs and charged EPA with issuing regulations for the marking and disposal of PCBs. EPA published the first regulations addressing the use of equipment containing PCBs on May 31, 1979 (Ref. 3). Over the 30 years since then, many changes have taken place in the industry sectors that use such equipment, and EPA believes that the balance of risks and benefits from the continued use of remaining equipment containing PCBs may have changed enough to consider amending the regulations.

### A. Regulatory History

On December 30, 1977, EPA published a notice in the **Federal Register** stating that implementation of the January 1, 1978 ban imposed by TSCA was being postponed until 30 days after the promulgation of new regulations (Ref. 4). On May 31, 1979, EPA promulgated these regulations (Ref. 3). The regulations found that PCB liquid-filled capacitors, electromagnets, and transformers (other than railroad transformers) met the statutory definition of "totally enclosed," and were exempt from the ban in TSCA section 6(e)(2)(A) on manufacture, processing, distribution in commerce, or use. This EPA finding meant that it was not necessary to specifically authorize the use of these types of PCB-containing equipment. In this same regulation, EPA also authorized, in accordance with TSCA section 6(e)(2)(B), the use of other liquid-filled equipment that was not totally enclosed (railroad transformers, heat transfer systems, and hydraulic systems), based on a finding that the use would pose no unreasonable risk of injury to health or the environment, subject to conditions. One of the conditions EPA imposed on the authorization of most non-totally enclosed uses was a time limit on the use of PCBs at or above the established 50 ppm PCB regulatory cutoff. In the June 7, 1978 (Ref. 5), proposed rule for the use authorizations, EPA discussed its authority and rationale for establishing use limits:

Section 6(e)(2)(B) of TSCA permits EPA to authorize by rule the manufacturing, processing, distribution in commerce, and use of PCBs in a non-totally enclosed manner if these activities will not present an unreasonable risk of injury to health or the environment. EPA has determined that certain non-totally enclosed PCB use activities will not present an unreasonable risk and proposed to authorize these use activities for a period of 5 years after the effective date of the final rule. At that time, EPA will examine the need for continuing these authorizations. (Ref. 5, p. 24807)

EPA has not previously undertaken a reassessment. In making this determination to make a reassessment, EPA weighed the effects of PCBs on health and the environment, the magnitude of exposure, and the reasonably ascertainable economic consequences of the rule. This determination is fully discussed in the support/voluntary draft environmental impact statement. These proposed time limits were, with minor modifications, adopted in the final rule:

Unlike all other activities that may be subject to an authorization under TSCA section 6(e)(2)(B), use activities are not prohibited under TSCA section 6(e)(3)(A). Accordingly, there is no automatic limit to the length of use authorizations. In deciding how long to authorize each use, EPA believes that it should have the opportunity to review each use in a timely way to ensure that there is no unreasonable risk associated with its continuation. In addition, improved technology or development of new PCB substitutes could reduce the need for the authorization. Accordingly EPA proposed a five-year limit on most use authorizations; however, no such limit was proposed on the use authorization for PCBs in electric equipment. (Ref. 3, p. 31530)

After the May 31, 1979, rule was published, the Environmental Defense Fund, Inc., (EDF) petitioned the U.S. Court of Appeals for the District of Columbia Circuit to review the portion of the 1979 regulation which designated the use of "intact and non-leaking" PCB liquid filled capacitors, electromagnets, and transformers (other than railroad transformers) as "totally enclosed." On October 30, 1980, the court decided that there was insufficient evidence in the record to support the Agency's classification of the equipment as "totally enclosed" (Ref. 6). The court vacated this portion of the rule and remanded it to EPA for further action. EPA, EDF, and certain industry interveners petitioned the court to stay the mandate while EPA conducted rulemaking beginning with an ANPRM, and a utility industry group agreed to develop factual information necessary for the rulemaking. The court granted

the request for a stay and the text of the court order was published with EPA's ANPRM on March 10, 1981 (Ref. 7). On August 25, 1982, EPA issued a final rule authorizing the use of capacitors, electromagnets, and transformers other than railroad transformers, in accordance with TSCA section 6(e)(2)(B) (Ref. 8). Time limits were imposed on the use of certain types of PCB equipment posing an exposure risk to food and feed. Since 1982 there have been additional rulemakings (e.g., Refs. 9 and 10), which, with certain exceptions, have continued to allow the use of PCB-containing equipment, the passive removal of PCB-containing equipment from use through attrition, and to require the disposal of PCBs and PCB-containing equipment in an environmentally sound manner.

#### B. PCB Use Authorizations

Currently, under 40 CFR 761.30, the following liquid-filled PCB equipment is authorized for use in a non-totally enclosed manner:

- Electrical transformers.
- Railroad transformers.
- Mining equipment.
- Heat transfer systems.
- Hydraulic systems.
- Electromagnets.
- Switches.
- Voltage regulators.
- Electrical capacitors.
- Circuit breakers.
- Reclosers.
- Liquid-filled cable.
- Rectifiers.

The servicing, in accordance with specified conditions, of the following liquid-filled equipment is also authorized:

- Electrical transformers.
- Railroad transformers.
- Electromagnets.
- Switches.
- Voltage regulators.
- Circuit breakers.
- Reclosers.
- Liquid-filled cable.
- Rectifiers.

Liquid PCBs are authorized for use where they are a contaminant in the following equipment:

- Natural gas pipeline systems.
- Contaminated natural gas pipe and appurtenances.
- Other gas or liquid transmission systems.

There are also use authorizations for certain non-liquid PCBs applications: Carbonless copy paper and porous surfaces contaminated with PCBs regulated for disposal by spills of liquid PCBs. There are other use authorizations for research and development (40 CFR 761.30(j)), for scientific instruments (40

CFR 761.30(k)), and for decontaminated materials (40 CFR 761.30(u)).

However, there are no use authorizations for non-liquid PCB-containing products if they contain PCBs at concentrations > 50 ppm, including but not limited to adhesives, caulk, coatings, grease, paint, rubber or plastic electrical insulation, gaskets, sealants, and waxes.

In 40 CFR 761.35, storage for reuse of authorized PCB articles is allowed for up to 5 years, or longer if kept in a storage unit complying with TSCA or the Resource Conservation and Recovery Act (RCRA) requirements.

#### C. Distribution in Commerce Regulations

Section 6(e)(2)(C) of TSCA states, "The term 'totally enclosed manner' means any manner which will ensure that any exposure of human beings or the environment to a polychlorinated biphenyl will be insignificant as determined by the Administrator by rule." The definition established by rule in 40 CFR 761.3 is, "Totally enclosed manner means any manner that will ensure no exposure of human beings or the environment to any concentration of PCBs."

EPA has found that the distribution in commerce of intact and non-leaking equipment is "totally enclosed." See 40 CFR 761.20 (Ref. 3, p. 31542). Therefore, no authorization is required for the distribution in commerce for use of intact and non-leaking, liquid-filled electrical equipment, so long as the equipment was sold for purposes other than resale before July 1, 1979. Section 40 CFR 761.20 states:

In addition, the Administrator hereby finds, for purposes of section 6(e)(2)(C) of TSCA, that any exposure of human beings or the environment to PCBs, as measured or detected by any scientifically acceptable analytical method, may be significant, depending on such factors as the quantity of PCBs involved in the exposure, the likelihood of exposure to humans and the environment, and the effect of exposure. For purposes of determining which PCB items are totally enclosed, pursuant to section 6(e)(2)(C) of TSCA, since exposure to such items may be significant, the Administrator further finds that a totally enclosed manner is a manner which results in no exposure to humans or the environment to PCBs. The following activities are considered totally enclosed: distribution in commerce of intact, nonleaking electrical equipment such as transformers (including transformers used in railway locomotives and self-propelled cars), capacitors, electromagnets, voltage regulators, switches (including sectionalizers and motor starters), circuit breakers, reclosers, and cable that contain PCBs at any concentration and processing and distribution in commerce of PCB equipment

containing an intact, nonleaking PCB Capacitor.

Since then, EPA has gathered information showing measurable emissions of PCBs from some otherwise intact and non-leaking equipment, which is not energized (providing or receiving electricity), to the ambient air (Ref. 11). "Weeps" and "seeps" and other leaks are visual indicators that the distribution in commerce of some of this equipment could result in exposure to humans or the environment to PCBs.

#### D. PCB Health Effects

The following information about the health effects of PCBs is taken directly from the 1996 EPA document entitled "PCBs: Cancer Dose Response Assessment and Application to Environmental Mixtures" (Ref. 12), which is the source document for the 1997 EPA Integrated Risk Information System (IRIS) file for PCBs. The information is referenced in the 1997 EPA IRIS file for PCBs under heading II.A.2 (Human Carcinogenicity Data), it states in part:

Occupational studies show some increases in cancer mortality in workers exposed to PCBs. Bertazzi et al. (1987) found significant excess cancer mortality at all sites combined and in the gastrointestinal tract in workers exposed to PCBs containing 54 and 42 percent chlorine. Brown (1987) found significant excess mortality from cancer of the liver, gall bladder, and biliary tract in capacitor manufacturing workers exposed to Aroclors 1254, 1242, and 1016. Sinks et al. (1992) found significant excess malignant melanoma mortality in workers exposed to Aroclors 1242 and 1016. Some other studies, however, found no increases in cancer mortality attributable to PCB exposure (ATSDR, 1993). The lack of consistency overall limits the ability to draw definitive conclusions from these studies. Incidents in Japan and Taiwan where humans consumed rice oil contaminated with PCBs showed some excesses of liver cancer, but this has been attributed, at least in part, to heating of the PCBs and rice oil, causing formation of chlorinated dibenzofurans (ATSDR, 1993; Safe, 1994).

A study of rats fed diets containing Aroclors 1260, 1254, 1242, or 1016 found statistically significant, dose-related, increased incidences of liver tumors from each mixture (Brunner et al., 1996). Earlier studies found high, statistically significant incidences of liver tumors in rats ingesting Aroclor 1260 or Clophen A 60 (Kimbrough et al., 1975; Norback and Weltman, 1985; Schaeffer et al., 1984). Partial lifetime studies found precancerous liver lesions in rats and mice ingesting PCB mixtures of high or low chlorine content.

Several mixtures and congeners test positive for tumor promotion (Silberhorn et al., 1990). Toxicity of some PCB congeners is correlated with induction of mixed-function oxidases; some congeners are phenobarbital-type inducers, some are 3-

methylcholanthrene-type inducers, and some have mixed inducing properties (McFarland and Clarke, 1989). The latter two groups most resemble 2,3,7,8-tetrachlorodibenzo-p-dioxin in structure and toxicity.

Overall, the human studies have been considered to provide limited (IARC, 1987) to inadequate (U.S. EPA, 1988a) evidence of carcinogenicity. The animal studies, however, have been considered to provide sufficient evidence of carcinogenicity (IARC, 1987; U.S. EPA, 1988a). Based on these findings, some commercial PCB mixtures have been characterized as probably carcinogenic to humans (IARC, 1987; U.S. EPA, 1988a). There has been some controversy about how this conclusion applies to PCB mixtures found in the environment. (Ref. 13)

In addition to cancer, the 1996 document states, "Although not covered by this report PCBs also have significant ecological and human health effects other than cancer, including neurotoxicity, reproductive and developmental toxicity, immune system suppression, liver damage, skin irritation, and endocrine disruption. Toxic effects have been observed from acute and chronic exposures to PCB mixtures with varying chlorine content" (Ref. 12).

The Agency for Toxic Substances and Disease Registry (ATSDR) Toxicological Profile for PCBs of November 2000 (2000 ATSDR Toxicological Profile) is a more recent review of the toxicity of PCBs. The study's summary of health effects (chapter 2.2) states:

The preponderance of the biomedical data from human and laboratory mammal studies provide strong evidence of the toxic potential of exposure to PCBs. Information on health effects of PCBs is available from studies of people exposed in the workplace, by consumption of contaminated rice oil in Japan (the Yusho incident) and Taiwan (the Yu-Cheng incident), by consumption of contaminated fish, and via general environmental exposures, as well as food products of animal origin....[H]ealth effects that have been associated with exposure to PCBs in humans and/or animals include liver, thyroid, dermal and ocular changes, immunological alterations, neurodevelopmental changes, reduced birth weight, reproductive toxicity, and cancer. The human studies of the Yusho and Yu-Cheng poisoning incidents, contaminated fish consumption, and general populations are complicated by the mixture nature of PCB exposure and possible interactions between the congener components and other chemicals.... Therefore, although PCBs may have contributed to adverse health effects in these human populations, it cannot be determined with certainty which congeners may have caused the effects. Animal studies have shown that PCBs induce effects in monkeys at lower doses than in other species, and that immunological, dermal/ocular, and neurobehavioral changes are

particularly sensitive indicators of toxicity in monkeys exposed either as adults, or during pre- or postnatal periods. (Ref. 14)

EPA continues to examine more recent scientific studies on the health effects of PCBs and seeks comments and/or information on the health effects of PCBs available since the 1997 EPA update of IRIS and since the 2000 ATSDR Toxicological Profile. Any proposed or final PCB rulemaking which relies on PCB health effects will use information subject to EPA's rigorous peer-review process.

#### E. PCB Environmental Effects

The 2000 ATSDR Toxicological Profile for PCBs summarizes the environmental fate, transport, and bioaccumulation of PCBs as follows:

Once in the environment, PCBs do not readily break down and therefore may remain for very long periods of time. They can easily cycle between air, water, and soil. For example, PCBs can enter the air by evaporation from both soil and water. In air, PCBs can be carried long distances and have been found in snow and sea water in areas far away from where they were released into the environment, such as in the arctic. As a consequence, PCBs are found all over the world. In general, the lighter the type of PCBs, the further they may be transported from the source of contamination. PCBs are present as solid particles or as a vapor in the atmosphere. They will eventually return to land and water by settling as dust or in rain and snow. In water, PCBs may be transported by currents, attach to bottom sediment or particles in the water, and evaporate into air. Heavy kinds of PCBs are more likely to settle into sediments while lighter PCBs are more likely to evaporate to air. Sediments that contain PCBs can also release the PCBs into the surrounding water. PCBs stick strongly to soil and will not usually be carried deep into the soil with rainwater. They do not readily break down in soil and may stay in the soil for months or years; generally, the more chlorine atoms that the PCBs contain, the more slowly they break down. Evaporation appears to be an important way by which the lighter PCBs leave soil. As a gas, PCBs can accumulate in the leaves and above-ground parts of plants and food crops. PCBs are taken up into the bodies of small organisms and fish in water. They are also taken up by other animals that eat these aquatic animals as food. PCBs especially accumulate in fish and marine mammals (such as seals and whales) reaching levels that may be many thousands of times higher than in water. PCB levels are highest in animals high up in the food chain. (Ref. 14)

The 2000 ATSDR Toxicological Profile also summarizes ecotoxicological effects of PCBs in wildlife (Ref. 14). Information in the 2000 ATSDR Toxicological Profile is gathered from experimental studies and field

observations of wildlife, specifically outlining PCB effects in fish, bird, and mammal species. The biological responses in wildlife to exposures to individual PCB congeners and commercial PCB mixtures vary widely in these studies, possibly reflecting not only variability in susceptibility among species, but also differences in the mechanism of action or selective metabolism of individual congeners. Noteworthy impacts on fish, birds, and mammals from this collective data include neurological/behavioral, immunological, dermal, and reproductive/developmental effects. Observed PCB effects related to neurological impairment include alterations in central nervous system neurotransmitter levels, retarded learning, increased activity, and behavioral changes. Immunological effects consist of morphological changes in organs related to the immune system, as well as functional impairment of humoral- and cell-mediated immune responses. Dermal effects in species include adverse effects on fins and tails in fish, and abnormal skin, hair, and nail growth in mammals. Lastly, reproductive and developmental impacts consist of increased embryo/fetal loss through effects such as decreased egg hatchability and reduced embryo implantation (Ref. 14).

EPA seeks information on the environmental effects of PCBs that became available after the 2000 ATSDR Toxicological Profile (Ref. 14).

#### IV. Objective of this ANPRM

The objective of this ANPRM is to announce the Agency's intent to reassess the current use authorizations for certain PCB uses to determine whether they may now pose an unreasonable risk to human health and the environment. This reassessment will be based in part upon information and experience acquired in dealing with PCBs over the past 3 decades. This ANPRM solicits information from the public on several topics to assist EPA in making this reassessment.

Since the Agency first promulgated its PCB use regulations in 1979, EPA's knowledge about the universe of PCB materials has greatly increased. The Agency has gained valuable knowledge and experience regarding the various sources and uses of PCB materials. Over the past 30 years, EPA has had the opportunity to evaluate and draw conclusions about the effectiveness of the PCB regulations in preventing an unreasonable risk to human health and the environment from exposure to PCBs, as well as their economic impact. This document details EPA's observations on

why there is reason to make changes in the regulations. At the present time, EPA is investigating whether some authorized uses of PCBs should be eliminated or phased-out and whether more stringent use and servicing conditions would be appropriate. EPA is also re-examining the geographical and numerical extent of PCBs and PCB items, which are subject to the use regulations. The objective of the anticipated rulemaking would be to modify any of the regulations that apply to PCBs or PCB items, as necessary, if these uses present an unreasonable risk to human health and the environment, taking into account conditions as they exist and as they are likely to exist in the future.

EPA seeks information that will be useful in making the findings required by TSCA section 6. By prohibiting the use of PCBs (except in a totally enclosed manner), Congress established a statutory presumption that use of PCBs poses an unreasonable risk of injury to health or the environment. In order to assess whether a use poses "no unreasonable risks," EPA would include an assessment of impacts on the economy, electric energy availability, and all other health, environmental, or social impacts that could be expected from adoption of alternatives to PCBs. There is a list of several questions related to EPA's reassessment in Unit XIV. Responses to the questions will provide EPA with information needed to assist in its reassessment; other information, of course, is also welcome.

EPA recognizes that there may be differences in the maintenance operations, inventories, planning, funding, and budgets for different owners of electrical equipment and does not make any assumptions about these differences. For example, when compared to very large interstate utilities, small municipal and cooperative utilities may have a very different approach to address the replacement of leaking equipment. Where applicable and appropriate, small municipal and cooperative utility responders should provide information about the impacts a phaseout of PCB-containing equipment might have on their operations and their customers. In particular, EPA encourages small municipal and cooperative utilities to take the time to answer the questions in Unit XIV. or otherwise provide details about maintenance operations, inventories, planning, funding, budgets, or any other information related to the cost of addressing the sound environmental management of the PCBs in their equipment and measures they have taken or planned to take and how

these measures will help to safely manage their PCBs. EPA also is interested in exploring a range of incentives or programs that might facilitate organizations with limited budgets to remove regulated PCBs and PCB equipment from their systems and facilities.

In this document, EPA is also announcing plans to involve stakeholders in gathering information to inform EPA's determination of the scope of the problem, and EPA's decision on the best ways to address risks that may be present from current PCB use authorizations. EPA will sponsor a series of public meetings around the country to solicit stakeholder comments on this document. Specific information regarding the locations, dates, and times of the public meetings are included in Unit XIII.

#### V. EPA's Reasons for Reassessing Existing Use and Distribution Provisions

##### A. Attrition, Aging of Equipment, and Spills

All of the PCB-containing equipment in current use, which has been operating in accordance with the 1979 and subsequent use authorizations, is at least 30 years old. Since the ban on manufacturing in 1979, no new equipment containing PCBs at concentrations greater than or equal to ( $\geq$ ) 50 ppm has been manufactured. The total number of PCB transformers in the United States is decreasing (Ref. 15) but there are still many PCB transformers in use (Ref. 16). Also, all but the most recently manufactured PCB-containing equipment may be nearing the end of its expected useful life, although the useful life of some equipment may have effectively been extended by extensive maintenance and re-building. The useful life of transformers is typically no more than 30–40 years (Ref. 2).

Equipment is increasingly vulnerable to leaks the older it becomes. For example, between 2002 and 2005, two large, aging electrical transformers located on Exxon Mobil's offshore oil and gas platform, Hondo, in the Santa Barbara Channel, leaked nearly 400 gallons of PCB-contaminated fluid. Exxon allowed one of the transformers to leak for almost 2 years before repairing it (Ref. 17).

Several statutes and regulations require reporting of spills of hazardous chemicals, including PCBs, to the United States Coast Guard National Response Center. EPA contacted the National Response Center (Ref. 18) to find out how many PCB spills have been reported historically. The National

Response Center advised EPA that there were a total of 5,578 spills associated with PCBs reported from 1990 through August 19, 2009 (Ref. 19).

#### *B. International Developments*

PCBs are persistent chemicals and it is internationally recognized that they pose a risk to health and the environment and need to be removed from use. As of October 6, 2009, 166 countries have signed and ratified, accepted, approved, or accessed the Stockholm Convention on Persistent Organic Pollutants (Stockholm Convention), which among other things requires parties to make determined efforts to phaseout certain ongoing uses of PCBs by the year 2025. The United States is a signatory to the Stockholm Convention but has not yet ratified it (Ref. 20). A similar agreement, which has an earlier date relating to the phaseout of certain ongoing uses of PCBs, is the 1998 Aarhus Protocol on Persistent Organic Pollutants of the 1979 Convention on Long-Range Transboundary Air Pollution, which the United States signed in 1998. As with the Stockholm Convention, the United States is a signatory to the Aarhus Protocol, but has not yet ratified this agreement (Ref. 21).

On September 17, 2008, Canada published PCB ban and phaseout regulations with bans starting in 2009 for high concentration PCBs (Ref. 22). In the Canadian regulations, low-level (< 500 ppm) equipment must be removed from use by 2025.

#### *C. Disposal and Cleanup Costs*

EPA anticipates that disposal costs may increase faster than the general increase in inflation or cost of living. The population of PCB-containing equipment is continually decreasing and will never grow or rebound due to the ban on manufacturing. This may make the economics of retaining a presence in the PCB storage and disposal industry potentially less economically attractive for the waste management industry. The numerous disposal options and excess disposal capacity currently present may not be available in the future, so the costs and benefits of continuing to operate aging equipment change in the future. The benefits of continued use of PCB-containing equipment are also diminished by the increasing risk that aging equipment may fail in a manner that releases PCBs to the environment as that equipment reaches the end of its useful life. The cost of cleaning up PCB spills may exceed the cost of reclassifying or disposing of the intact PCB equipment and replacing it with

new equipment. The consequences include both the direct costs to the equipment owners in damage, equipment replacement, service interruption, and lost revenue, and also the liability costs of losses to other parties, and compensation and potential fines for damages to human health and the environment. EPA seeks information and comment on how much the possibility of spills and the costs of cleanup affect the decisions of facility owners and operators regarding the management, removal, reclassification, or replacement of PCB equipment.

#### *D. Insurance Costs*

EPA believes that the cost of liability insurance for owners of PCB equipment is likely to increase significantly as the equipment continues to age. Insurers have already observed the increased rate of failure in equipment which is approaching the end of its useful life expectancy (Ref. 23). EPA anticipates that in the future there will be continuous increases in the cost of liability insurance to cover all equipment because of numbers of releases and contamination from PCB equipment which is at least 30 years old. EPA seeks comments on the comparison of the cost of future liability insurance with potential costs for testing and reclassification of potentially contaminated equipment either before it has failed or before there has been a determination made to dispose of it. EPA seeks information on historical changes in insurance premiums, as PCB-containing equipment has aged, and any projections of changes in future rates as a result of projected changes in failure rates. EPA also seeks information and comment on the extent to which the availability of commercial liability insurance or self-insurance by facilities affects facility owners' and operators' decisions on how to manage removal or reclassification of PCB equipment that may be nearing the end of its useful life.

#### *E. Hazard Assessment of PCBs*

EPA is evaluating the risks from polychlorinated dibenzo-*p*-dioxin (PCDDs) and structurally similar chemicals, such as certain PCBs, through a process referred to as the Dioxin Reassessment (Ref. 24). Polychlorinated dibenzo-*p*-dioxins, polychlorinated dibenzofurans (PCDFs), and some PCBs as molecules are structurally similar and have been shown to have similar impacts on human health and the environment. Also, under certain conditions, the incomplete combustion of PCB-containing materials produces PCDDs

and PCDFs, including some of the more toxic congeners. Preliminary indications from the 2003 Draft Dioxin Reassessment are that the toxicity of PCBs in general is higher than the toxicity values that EPA used in developing previous TSCA PCB regulations. Some PCB congeners, sometimes referred to as co-planar PCBs or dioxin-like PCBs, are considered to have toxicities similar to the most toxic of the PCDDs and PCDFs. EPA has not yet determined how a potentially higher toxicity of these PCBs would impact regulatory findings used to make risk based decisions. It is possible that EPA would find that some risks, which were found to be reasonable using older PCB toxicity information, would be unreasonable when using potentially higher toxicity information. If this is the case, that information may affect any proposed rule that EPA might issue. Any proposed or final PCB rulemaking which relies on the contribution of dioxin-like PCBs to the overall toxicity of PCBs will be based on the finalized Dioxin Reassessment or another EPA peer-reviewed document.

#### *F. Risks of PCB Substitute Materials*

EPA seeks information on the current and likely future substitute materials for PCBs that are currently in use or may be put into service in the future. EPA is particularly interested in the chemical, physical, flammability, and toxicological properties of these materials. This information will be essential to a consideration of the net differences in risks, were these materials to be substituted for PCB equipment currently in use.

#### *G. Updating Information on Releases of PCBs*

EPA does not have a current, thorough national assessment of the risks to human health and the environment from PCB releases. Information is fragmentary and much of it is geographically limited. For instance, the Great Lakes program in which EPA participates has published recent estimates of PCB releases, but such estimates are statewide, and similar estimates are not available for all States in the United States (Ref. 25). The New York Academy of Sciences published a study of PCB releases into the waterways feeding into the New York/New Jersey harbor, breaking down the releases by type of source (Ref. 26), but similar studies are not available for most waterways in the country. Releases to the environment exceeding the reportable quantity for PCBs must be reported promptly to the National Response Center. In addition to the

information which is available through the National Response Center, EPA seeks any information or data on releases of PCBs, to the environment from all kinds of sources, in order to set the releases that are the subject of the regulations being considered into a larger context. EPA seeks information on the causes of such releases, whether the releases reached the environment or were contained, and any information on human health or environmental consequences.

#### *H. Risks From the Contamination of Food from PCB-Containing Oils*

Currently the use and storage for reuse of PCB transformers that pose an exposure risk to food or feed are prohibited (40 CFR 761.30(a)(1)(i)). The use and storage for reuse of large high voltage capacitors and large low voltage capacitors which pose an exposure risk to food or feed are also prohibited (40 CFR 761.30(l)(1)(i)). However, both transformers and capacitors containing:

- < 500 ppm PCBs at any weight or volume; or
- < 1.36 kilograms (kg) or 3 lbs. of dielectric fluid at any PCB concentration, are not included in these prohibitions.

To lessen the likelihood of such food and feed contamination from these sources, EPA is considering broadening the prohibition on the use and storage for reuse of PCBs that pose an exposure risk to food and feed, including PCB articles containing greater than 0.05 liters (or approximately 1.7 fluid ounces) of dielectric fluid. PCB concentrations in food are regulated by the Food and Drug Administration and PCB concentrations in feed are regulated by the United States Department of Agriculture (USDA).

There have been two recent incidents of particular note in Europe of very significant contamination of foods and a subsequent recall of those foods from the international market. Because of the presence of trace amounts of dioxins which are present in most PCBs, these two crises also became dioxin crises. These are discussed as follows.

1. *Belgium.* The "Belgian PCB/dioxin crisis" began in January 1999, when 50 kg of PCBs contaminated with 1 gram (g) of dioxins were accidentally added to a stock of recycled fat used for the production of 500 tons of animal feed in Belgium. Although signs of poultry poisoning were noticed by February 1999, the extent of the contamination was publicly announced only in May 1999, when it appeared that more than 2,500 poultry and pig farms could have been involved. The highest concentrations of PCBs and dioxins and

the highest percentage of affected animals were found in poultry.

The Belgian government estimates that the dioxin crisis cost approximately \$493 million, with approximately \$106 million attributed to the loss in the swine sector (in 1999 1 Euro = 1.06 U.S. dollars). As other European Union (EU) countries were also affected by export bans, the final cost of this incident worldwide will likely be higher (Refs. 27, 28, and 29).

2. *Ireland.* In December 2008, Irish pork products were removed from distribution in commerce. This action was taken by the Food Safety Authority of Ireland after finding levels of PCBs and PCDDs in the food at concentrations in excess of EU health standards for food. Preliminary investigations indicated that a single supplier's feed, which had been contaminated from PCB oil in equipment, had been distributed to farmers broadly throughout the Republic of Ireland and Northern Ireland. All pork products produced in Ireland after September 1, 2008 were removed from sale in early December 2008. Details of the full investigation and the economic impact of the contamination are not yet available (Refs. 30, 31, and 32).

#### *I. Risks in Public Buildings From Fluorescent Light Ballasts*

EPA is concerned about the release of high concentrations of PCBs from fluorescent light ballasts, particularly in public buildings, such as schools. There are anecdotal accounts of spills from this source and anecdotal information that PCB fluorescent light ballasts have a lifetime of less than 10 years. One of these spills was a significant release from fluorescent light ballasts, almost 20 years after the publication of the PCB use regulations, at the Standing Rock Indian Reservation, ND.

On February 2, 1998, there were complaints of respiratory problems in the administration buildings at the Standing Rock Indian Reservation in North Dakota. On February 5, 1998, EPA received an urgent telephone call from the Standing Rock Sioux Tribe in North Dakota about possible PCB contamination from leaking fluorescent light ballasts. The light ballasts were located in the elementary school, administration building, high school library, and several Bureau of Indian Affairs (BIA) buildings on the reservation (Refs. 33 and 34). EPA determined that many of the fluorescent light ballasts contained PCBs. A sampling contractor found PCBs above EPA's PCB spill cleanup levels in light fixtures, office equipment and carpeting. BIA hired a contractor to decontaminate

all areas where it found detectable levels. The contractor removed light ballasts and disposed of all ballasts and contaminated materials as PCB waste. A high school building where contamination was found was closed from February to June, but reopened for summer school. The cleanup for the 4 buildings at Standing Rock cost BIA more than \$500,000 (Ref. 35). The estimated cost for removing the non-leaking ballasts from 60 other buildings in the BIA Great Plains Region (formerly the Aberdeen Area) was \$60,000.

#### *J. Environmental Justice Considerations*

EPA seeks comments on any disproportionate environmental and public health impacts that PCB use and distribution in commerce for use may have on minority, low-income, tribal, and disadvantaged populations. As explained in Unit III.D., it is noted that ATSDR has concluded that there may be an adverse impact on the health of persons who eat fish contaminated with PCBs. Disadvantaged populations may be more exposed to PCBs in contaminated fish than members of the general population. Some disadvantaged communities, such as Indian tribes, have subsistence lifestyles and rely on fish and mammals that may be caught in PCB contaminated waters and environs, as a primary source of nutrition. Fish in these waters may have been contaminated by both PCB wastes disposed of prior to the use authorizations, as well as releases that have occurred from the currently authorized use, distribution in commerce and disposal of PCBs (Refs. 14, 36, 37, 38, 39, 40, and 41).

In addition, EPA is concerned about the presence of the potential risks to urban environmental justice communities from PCB releases at railroad substations, electrical substations, and electrical equipment storage areas. EPA seeks specific information about the prevalence of spills and other releases, including fires, from the use of PCBs in environmental justice areas. The focus of the information gathering in Unit XIV. is owners and operators of regulated electrical equipment and those using PCBs which are authorized in part 40 CFR part 761. However, EPA also seeks comments from minority, low-income, tribal, and disadvantaged persons and their representatives, who are not direct owners or users of PCBs and PCB equipment.

EPA is also announcing public meetings to discuss the Agency's reassessment of the existing PCB use authorizations at several locations around the country. The dates,



locations, and times of the meetings are included in Unit XIII. Any additional meetings will be announced on the PCB website (<http://www.epa.gov/epawaste/hazard/tsd/pcbs/index.htm>) at least 30 days prior to the first meeting date. Please refer to the PCB website or call Christine Zachek at (202) 566-2219 for further details. At these meetings, representatives of minority, low-income, tribal, and disadvantaged populations will be able to provide oral comments on the proposed regulations. These persons will also have the opportunity to provide comments to EPA as part of this ANPRM.

#### VI. Summary of Possible Regulatory Changes for PCB-Containing Equipment Under Consideration

This unit identifies possible changes to the PCB use regulations that EPA may consider in a future notice of proposed rulemaking. Any future regulatory action to propose these changes will be supported by an analysis of costs and benefits, as is required by TSCA. This analysis will be supported, in part, by the quality of the data submitted as a result of the ANPRM.

##### A. Options for Initial Phaseout Regulations

A potential phaseout of any PCB use authorizations might be implemented gradually, allowing some use to continue under more restrictions before the end of the use authorization. The Agency may consider a number of regulatory measures, including, but not limited to, the following:

- Require testing of equipment which is stored for reuse or removed from service for any reason, and which is assumed to contain PCBs at concentrations  $\geq 50$  ppm in accordance with §761.2.

- Require that where such equipment is found to contain PCBs at concentrations  $\geq 50$  ppm after testing, within 30 days of receiving the test results the owner must either reclassify the equipment to  $< 50$  ppm PCBs or designate it for disposal.

- Eliminate all currently authorized PCB equipment servicing except for reclassification.

- Require marking of all equipment which is known or assumed (in accordance with §761.2) to contain PCBs at  $\geq 50$  ppm.

- Increase the inspection frequency to a minimum of once every month for non-leaking known or assumed  $\geq 500$  ppm PCB equipment in use.

- Before the final phaseout date(s), broaden the prohibition on the use of PCBs in transformers that pose an

exposure risk to food or feed to include use of PCB-contaminated transformers.

- Broaden the definition of PCB article (this would also require changing other definitions) to include all equipment containing  $> 0.05$  liters (or approximately 1.7 fluid ounces) of dielectric fluid with  $\geq 50$  ppm PCBs, in place of the current definition which regulates transformers and capacitors containing  $\geq 3$  lbs. of dielectric fluid.

- Require registration of PCB large capacitors containing a specified volume of dielectric fluid or having a specified external volume or dimensions.

- Eliminate the authorization for storage of PCB equipment for reuse.

- Eliminate the use authorization for PCBs in carbonless copy paper.

- Eliminate totally enclosed determination for distribution in commerce.

- Require reporting/notification to EPA Regional Administrators when PCBs are found in any pipeline system, regardless of the source of PCBs or the owner of the pipeline.

##### B. Potential Time Frames for Completing the Removal of PCB Equipment From Service

These measures would phaseout all PCB-electrical equipment uses with interim deadlines by equipment concentration and type.

- By 2015, eliminate all use of askarel equipment ( $\geq 100,000$  ppm PCBs), removing from service the equipment in high potential exposure areas first. EPA is considering allowing exceptions on a case-by-case basis based on hardship and no unreasonable risk. Exceptions may be granted based on an application and approved exceptions may be published on the PCB website.

- By 2020, eliminate all use of oil-filled PCB equipment ( $\geq 500$  ppm) and the authorization for use of PCBs at  $\geq 50$  ppm in pipeline systems.

- By 2025, eliminate all use of any PCB contaminated equipment ( $\geq 50$  ppm), which is still authorized for use.

#### VII. Information to Be Considered During EPA Reassessment of PCB Use Authorizations

This unit outlines what information EPA believes is important to consider when reassessing PCB use authorizations. EPA seeks comment on any other information, which may not be included in this unit, but which you believe is important for EPA to consider when reassessing PCB use authorizations.

##### A. Liquid-filled Electrical Equipment (Except Railroad Transformers and Mining Equipment)

EPA seeks information on the specific population of any electrical equipment that contains greater than 2 fluid ounces of dielectric fluid with PCBs  $\geq 1$  ppm and that was manufactured prior to July 31, 1979: Transformers (regulated at 40 CFR 761.30(a)), electromagnets (regulated at 40 CFR 761.30(a)), switches (regulated at 40 CFR 761.30(h)), voltage regulators (regulated at 40 CFR 761.30(h)), electrical capacitors (regulated at 40 CFR 761.30(l)), circuit breakers (regulated at 40 CFR 761.30(m)), reclosers (regulated at 40 CFR 761.30(m)), liquid-filled cable (regulated at 40 CFR 761.30(m)), and rectifiers (regulated at 40 CFR 761.30(r)). Each unit describes specifically what information EPA solicits. EPA encourages small business owners and small municipal and cooperative utilities to provide details on their PCB-containing electrical equipment population characteristics and their management activities for the equipment.

1. *Population characteristics for transformers, electromagnets, switches, voltage regulators, electrical capacitors, circuit breakers, reclosers, liquid-filled cable, and rectifiers.* Information that EPA seeks about the use of this equipment appears in questions, which are located in Unit XIV.A.–E.

2. *Servicing.* Since the first use regulations for liquid-filled PCB-containing equipment, EPA has continued to prescribe conditions for authorized servicing (maintaining or repairing) this equipment, which facilitated extending the life of the equipment, in order to ease the hardship an immediate ban would have caused owners. Most life-extending use conditions are included in the authorization for servicing:

- Draining, repairing, and putting back into service PCB-contaminated electrical equipment.

- Topping off and putting back into service PCB-electrical equipment.

- Blending the oil drained from multiple pieces of PCB-containing equipment for servicing.

- Adding blended or other PCB-containing oil into repaired, drained equipment.

- Reclassifying.

- Distributing PCB-containing equipment in commerce for repair without manifesting.

- Storing company-owned equipment for servicing without any conditions to protect against leaks or spills.

- Servicing equipment which is owned by others, without having commercial storage approvals.

EPA believes that this equipment is nearing the final stages of useful life, after a minimum of 30 years of use. When this aging equipment fails to function in use or is otherwise removed from service, and if there is a need to prolong the life of the equipment, EPA believes that the PCBs should be removed from the equipment and disposed of in accordance with the regulations in 40 CFR part 761, subpart D. The reclassification of out-of-service equipment could be considered preventive maintenance and does not require service interruption, lost revenue, or liability costs of losses to other parties. In the brochure, entitled "Promoting the Voluntary Phase-Down of PCB-Containing Equipment," published in October 2005 by the Utilities Solid Waste Activities Group (USWAG) (Ref. 42), it states that:

Many utility companies across the country have procedures in place to ensure that most equipment containing PCBs in concentrations > 50 ppm identified after removal from the field is either disposed of and not returned to service or retrofilled before being returned to service. This practice helps ensure the accelerated retirement from service of a large class of potentially PCB-containing equipment (e.g., distribution pole-top and padmount transformers) that could otherwise lawfully be placed back into service. USWAG will continue to actively promote these systematic practices of voluntarily identifying and retiring PCB-containing equipment from service.

On April 2, 2001, EPA provided new reclassification procedures which include refilling mineral oil filled equipment with liquid containing < 2 ppm total PCBs (Ref. 10). A majority of liquid-filled equipment which was manufactured to contain mineral oil dielectric fluid (mineral oil) and which remains in use can be easily reclassified to contain < 50 ppm with a thorough draining and refilling with liquid containing < 2 ppm PCBs. If an owner determines that the equipment is not worth reclassifying, there currently are numerous disposal options and excess disposal capacity for the equipment. EPA seeks information on the types and extent of service-extending maintenance and rebuilding of PCB-containing transformers, railroad transformers, heat transfer systems, hydraulic systems, electromagnets, switches, voltage regulators, circuit breakers, reclosers, cable, and rectifiers. EPA's questions about servicing are located in Unit XIV.F.

3. *Identifying and managing the use, removal from use, and disposal.* In the

public comments provided during the 1979 rulemaking, electrical equipment owners stated that they did not know where PCB-containing equipment was located (Ref. 3). In the 30 years since, EPA believes that it would have been prudent for owners to implement a plan during that time to locate any regulated equipment. The common use and availability of bar code labels and scanning equipment and user-friendly computerized inventory management systems, plus the ability of global positioning systems to precisely specify locations, should facilitate the development and maintenance of an inventory of PCB-containing regulated equipment. Equipment owners previously told EPA that it was not possible to determine whether mineral oil-filled equipment contained PCBs unless the oil was tested, and testing was expensive. EPA agrees that it is necessary to collect oil to test it and there is a cost associated with the oil sample collection and chemical analysis. However, at the time of disposal it is already necessary to test to determine the PCB concentration to determine how the equipment is regulated for disposal. Based on current regulatory requirements, the cost of chemical analysis would have to be paid at the time of the disposal of the equipment, regardless of a non-attrition-based phaseout. Collection and analysis of oil would only be an additional cost if EPA imposes a new requirement to test in-service and energized equipment.

Currently there are several options available for equipment that is no longer operable, or is otherwise designated for disposal. For equipment with recyclable metals, some disposal companies are paying for this equipment, because they can recover their costs and make a profit, even when paying the waste generator for "scrap metal." In 2001, EPA facilitated the reclassification of electrical equipment making this a cost effective means of removing the risk from PCBs in equipment, while continuing to use the equipment until it no longer functions or is voluntarily removed from service for disposal (Ref. 10).

In 1996, EPA surveyed the PCB disposal industry and found that there was a large capacity surplus (Ref. 35). However, as the PCB disposal market increasingly becomes smaller, it may be that fewer disposers will find it economical to retain licenses and disposal facilities for this small market, decreasing the number of options available and very likely increasing the costs for the remaining options. Any increased cost of fuel employed in many disposal technologies and for the

transportation of equipment to disposers will likely also increase disposal costs in the future. The potential increase in disposal costs in the future may make it economically advantageous to either reclassify equipment or dispose of it now, even if it has not reached the end of its useful life.

Owners commented in 1979 that there were few commercial storers for PCB wastes (Ref. 3). Currently, EPA believes that there is an excess of storage capacity. Like disposal, commercial storage capacity could also decrease as the supply of PCB equipment diminishes. EPA seeks information on whether advancing the date of testing from some future disposal date to a date closer to the present time would present cost, economic, or management difficulties or advantages to the owners and operators of PCB-containing equipment.

4. *Information about an increased failure rate of vintage electrical equipment.* A 2002 report, Life Cycle Management of Utility Transformer Assets, by the Hartford Steam Boiler Inspection and Insurance Company, uses information from claims filed by policy holders with the insurer for failed transformers, regardless of whether they contained PCBs (Ref. 23). The information has been used to estimate or predict when equipment will fail, based on historical failures for which claims were filed. This document also highlights that the electricity demand load grew 35% and the transmission capacity grew 18% over the 10 preceding years. EPA is concerned that the rate of failures for transformers manufactured in the 1950s, 1960s, and 1970s may increase substantially in the future. EPA seeks data on the failure rate in the last 10 years and the results and documentation of recent modeling of projections of failures into the future. EPA seeks information on any differences in failure rate for different types of equipment of different vintages, and differences in failure rates for equipment which is located indoors as compared to outdoors and what effect, if any, that electronic monitoring and other maintenance methods have had on failure rates. EPA's questions about failure rates are located in Unit XIV.G.

5. *Severe weather event and other natural disasters increase the potential risk from PCBs.* There have been recent severe weather events (e.g., Hurricane Katrina (Ref. 44), Tornado in Greensburg, KS (Ref. 45)) where there was significant damage to electrical equipment of all ages, both containing PCBs and not containing PCBs. Although there have not been reports of

natural disasters such as earthquakes, mudslides, or volcanic eruptions which resulted in significant spills of PCBs, there is a possibility that this could have occurred in some regions of the country. These unpreventable events contribute to catastrophically ending the useful life of PCB-containing equipment and the uncontrolled release of PCBs. EPA believes that one cost-effective protection against PCB releases from these weather events and natural disasters may be a proactive program to test equipment that is taken out of service for PCBs, and to remove, test, and replace or retrofit equipment in service that is known or assumed to contain PCBs, especially the equipment in locations and areas where a release would present the greatest risk. EPA is also concerned about areas which may not be directly contaminated from nearby equipment ravaged by severe weather, but where spilled PCBs from that weather event might be expected to migrate and accumulate, such as spillways and drinking water reservoirs. Answers to the questions about severe weather events in Unit XIV.H. and other related comments will assist EPA in the reassessment of the use of PCB-containing electrical equipment.

6. *Alternatives to PCB liquids.* One type of information the Agency is soliciting for its proposed rulemaking relates to alternatives to the use of PCBs in liquid-filled equipment. To EPA's knowledge, satisfactory substitutes are available to replace PCBs in all electrical equipment applications. The Agency welcomes comments on the comparative costs and the effectiveness of various substitutes in reducing fires and heat-related degradation or destruction of equipment. EPA seeks information on the hazards and the risks posed by these PCB substitutes. EPA's questions about alternatives to PCB liquids are located in Unit XIV.I.

7. *Removal and replacement costs.* EPA seeks information on the costs of removing and replacing old PCB-containing equipment with new or used non-PCB equipment based on attrition (i.e., end of equipment's useful life) and based on removal in advance of attrition. In particular, EPA would like to have information on:

- How often any equipment (PCB-containing or non-PCB-containing) of the same age or size is replaced per year and the costs for replacement.
- Costs for replacement include cheapest source, foreign, or domestic, including transport and transaction costs.
- The price for replacement of various types and classes of equipment

each year over the last 30 years, as well as estimated or projected future prices.

EPA seeks information that explains:

- The impact of changes in system distribution and transmission voltage on the potential obsolescence of mineral oil-filled equipment, which was manufactured before 1979 would be useful.
  - The cost impact of replacing mineral oil-filled equipment, which was manufactured before 1979, with more modern equipment with respect to efficiency, longevity, or any other attribute which would create an economic incentive to hasten the phaseout of older equipment.
- Further, EPA solicits information on the numbers of these units manufactured before 1979 that are:

- Expected to be replaced or exceeded during system voltage changes.
- Planned for distribution in commerce for use. EPA would also like to know to whom these excessed units would most likely be sold.

EPA seeks information on the costs of service interruptions and revenue loss which may result from equipment replacement, either scheduled or unplanned. Similarly, EPA solicits comments on the current and estimated future supply of replacement equipment, when PCB-containing equipment is moved out of service before the end of its useful life. Reclassification options and procedures in the regulations were broadened in 2001 (Ref. 10) and EPA seeks comments on the costs and advantages found for this option, as opposed to disposal. EPA encourages small business owners, and small municipal and cooperative utilities to provide details on their PCB-containing electrical equipment replacement schedules and costs. EPA's questions about PCB equipment removal and replacement costs are located in Unit XIV.J.

8. *Current PCB waste disposal capacity.* EPA solicits comments on the availability of disposal capacity for PCBs in liquids at concentrations  $\geq 50$  ppm by weight, and for other materials in drained electrical equipment. EPA also seeks comments on the economic benefits of decontamination and recycling of liquids or non-liquids in this equipment, where possible. In 1979, PCB disposal options and capacity were limited and the potential demand on disposal capacity from a ban or phaseout of PCB-containing equipment would have been high. EPA also seeks information on whether there currently is a charge to the equipment owner (waste generator) for disposing of equipment which will be

decontaminated and then sold as scrap metal. EPA also seeks information on the cost for disposing of mineral oil contaminated with PCBs. EPA has seen a continuous decrease in the numbers of PCB disposal approvals issued over the last 10 years. EPA seeks comment on what the disposal industry predicts with respect to the future number of approved PCB disposal and storage companies, future disposal and storage capacity, and the future cost of commercial storage and disposal of electrical equipment waste as compared to current disposal costs. EPA's questions about PCB waste disposal capacity are located in Unit XIV.K.

9. *Current equipment management practices.* EPA solicits information on the current management practices intended to reduce the risk from PCBs in the following types of equipment that contain PCBs at concentrations of  $\geq 1$  ppm: Electrical transformers, railroad transformers, mining equipment, electromagnets, switches, voltage regulators, electrical capacitors, circuit breakers, reclosers, liquid-filled cable, and rectifiers. EPA encourages small business owners, small municipal and cooperative utilities to provide details on their PCB-containing electrical equipment management activities. EPA's questions addressing the information that EPA seeks about equipment current management practices are located in Unit XIV.L.

10. *Electrical equipment which contains non-liquid PCBs at concentrations  $\geq 1$  ppm.* EPA seeks information on electrical equipment, such as tar-filled equipment, which was manufactured prior to July 31, 1979, in the following categories: Containing non-liquid PCBs at concentrations  $\geq 1$  ppm and  $< 50$  ppm,  $\geq 50$  ppm and  $< 500$  ppm,  $\geq 500$  ppm and  $< 100,000$  ppm, and  $\geq 100,000$  ppm. EPA seeks this information for the following non-liquid filled equipment types: Transformers, electromagnets, switches, voltage regulators, electrical capacitors, circuit breakers, reclosers, rectifiers, and any other equipment populations (such as paper insulated lead cable and bushings). EPA's questions about electrical equipment which contains non-liquid PCBs at concentrations  $\geq 1$  ppm are located in Unit XIV.M.

11. *Impact of vandalism and theft on the risk from PCBs.* The presence of PCBs in equipment subject to vandalism incidents could increase potential risk not only to the vandal, but to others in the area. In particular, EPA is concerned about areas which may not be directly contaminated from the nearby equipment impacted by vandalism but also areas where spilled PCBs from that

vandalism might be expected to migrate and accumulate such as low-lying residential neighborhoods and cropland. EPA solicits data on the number of units lost and the cost from losses from vandalism and theft of electrical transformers, railroad transformers, mining equipment, heat transfer systems, hydraulic systems, electromagnets, switches, voltage regulators, electrical capacitors, circuit breakers, reclosers, liquid-filled cable, and rectifiers. EPA seeks information on the rate of occurrence of vandalism events involving PCB-containing equipment in each calendar year starting from 1998 until 2008, including how many gallons of oil have been lost from equipment and what has been the cost from this loss of oil. EPA's questions about the impact of vandalism and theft on the risk from PCBs are located in Unit XIV.N.

12. *Fraudulent export for scrap metal recovery.* EPA is concerned about the potential for incidents where used electrical equipment is exported for purported reuse, but where the equipment is actually scrapped or smelted for recovery of metal components. Elimination of the totally enclosed determination for distribution in commerce will restrict the fraudulent practice of export of equipment in the guise of reuse, when the exported equipment will not be used, properly reclassified/decontaminated, or disposed of in an environmentally sound manner. EPA is concerned that metal recycling facilities may not manage the exported equipment and the PCBs in an environmentally sound manner; and scrap metal management workers may not be protected from exposure to PCBs or even know that PCBs are present in the exported equipment.

13. *Reclassification of askarel transformers.* EPA is concerned that reclassification of askarel transformers (which were manufactured to contain  $\geq 500,000$  ppm PCBs) is generally ineffective because PCBs leach back out of internal components several years after the active processing to reclassify is completed. This seems plausible because of the nature of the inner structure of transformers. EPA is considering whether to restrict the reclassification option to electrical equipment which at the time of manufacture contains  $< 10,000$  ppm ( $< 1\%$ ) PCBs, based on the inability to drain and flush PCBs efficiently from askarel PCB equipment. EPA's questions about the reclassification of askarel transformers are located in Unit XIV.O.

14. *Registration of PCB large capacitors.* PCBs were formulated at

concentrations from about 75 weight percent to about 100 weight percent (or 750,000 ppm to 1,000,000 ppm) in capacitors (Ref. 46). Therefore, the amount of PCBs in the smallest PCB large capacitor, which contains 1.36 kg or 3 lbs. of dielectric fluid, is about 1.02 kg. (or about 2.25 lbs.). There could be as much PCBs of the same PCB formulation in the smallest PCB large capacitor as the approximately the same amount of PCBs in a transformer which contains 600 gallons of 500 ppm PCBs in mineral oil dielectric fluid. The regulations currently require that a mineral oil transformer containing 600 gallons of 500 ppm PCBs and even a much smaller 1-gallon transformer containing 500 ppm of PCBs in mineral oil dielectric fluid to be registered with EPA. In order to protect first responders and others who might potentially be accidentally exposed to PCBs from PCB large capacitors, EPA is assessing whether to require registration of some or all PCB capacitors currently in use with EPA. EPA could publish and post the register of the capacitors on the PCB website as it has the Transformer Registration Database.

*B. Railroad Transformers (Regulated at 40 CFR 761.30(b))*

At the time of the 1979 rulemaking there were a limited number of PCB transformers used on electric railroad engines and cars. The railroads where the askarel PCB equipment was used were located in the northeastern part of the country, mainly in Pennsylvania, New Jersey, and New York (Ref. 47). Because of the known leakage from this equipment and the requirement for frequent servicing, EPA found that the distribution in commerce of this equipment was not totally enclosed. The leaks from the use of this equipment have resulted in Superfund PCB cleanups of some Southeastern Pennsylvania Transportation Authority (SEPTA) track areas. EPA assumes that by now, all of the PCB railroad transformers have either been removed from service or the dielectric fluid has been replaced and that all railway transformers are now operating with dielectric fluid which contains  $< 50$  ppm PCBs. EPA seeks comments on the continued use of PCBs in railroad transformers, and is considering eliminating the authorization for the use of PCBs in railroad transformers at concentrations greater than 1 ppm. EPA's questions about the railroad transformers are located in Unit XIV.P.

*C. Mining Equipment (Regulated at 40 CFR 761.30(c))*

In 1978, there were only very limited uses of PCBs in electric motors in fewer than 1,000 mining machines (Ref. 2). The motors were manufactured in the 1960s and early 1970s by one company and used in machinery manufactured by another company. The PCBs were used as a motor coolant. Because of its operating conditions, this equipment must frequently be rebuilt. Based on the small usage in 1979 and the expected relative short life of this limited use population, EPA believes it is likely that PCBs are no longer used in the motors of mining equipment. EPA seeks comments on whether there is any continued use of PCBs in such electric motors in mining equipment and whether EPA should eliminate the authorization for the use of PCBs in mining equipment at concentrations  $> 1$  ppm. EPA's questions about mining equipment are located in Unit XIV.Q.

*D. Heat Transfer Systems (Regulated at 40 CFR 761.30(d)) and Hydraulic Systems (Regulated at 40 CFR 761.30(e))*

Heat transfer systems and hydraulic systems have been authorized for use since 1984, when they contain PCBs at concentrations  $< 50$  ppm. Because of the common leakage from this equipment and the frequent requirement for servicing, the distribution in commerce of this equipment was not found to be totally enclosed. The regulatory provisions for this equipment at 40 CFR 761.30(d) and (e) have been in place for almost 25 years. EPA seeks information on the number of these units, their types, and how frequently draining and refilling takes place. Because these types of equipment are often serviced by draining and refilling with new PCB-free fluid, EPA believes it is likely that any residual PCBs present in equipment that was in use in 1984, has been diluted through servicing to a concentration far below 50 ppm. There may be no reason to continue an authorization of PCBs in equipment at measurable concentrations. EPA seeks information demonstrating a need to continue to use PCBs in heat transfer systems and hydraulic systems at concentrations greater than 1 ppm.

*E. Carbonless Copy Paper (Regulated at 40 CFR 761.30(f))*

In 1979, there were many files containing carbonless copy paper. EPA does not have information on whether the information on this 30-year old, thin carbon copy paper is still legible, and if it is not legible, why it cannot be disposed of. Thirty years later it may be

feasible and economical to convert any necessary, legible information and records from carbonless copy paper to a different storage medium. EPA seeks information on the volume of records on carbonless copy paper, the records' locations, and the types of business, government agencies, or other holders of such documents. EPA would like to know whether holders of such documents are smaller or larger businesses, and whether the size or type of the business would affect the economic feasibility of document conversion. EPA seeks comments on whether carbonless copy paper containing PCBs is still in use and whether there is a need to continue the existing use authorization for this paper.

*F. Continued Use of Porous Surfaces Contaminated with PCBs Regulated for Disposal by Spills of Liquid PCBs (Regulated at 40 CFR 761.30(p))*

EPA is considering changing 40 CFR 761.30(p) to reflect the continued potential risk from contaminated porous surfaces. Persons who are potentially exposed to contaminated porous surfaces should be protected from air emissions, which are not eliminated under the existing use authorizations by encapsulation or metal covers. EPA's questions about the use of contaminated porous surfaces are located in Unit XIV.R.

*G. Use in Fluid and Gas Transmission and Distribution Systems (Regulated at 40 CFR 761.30(i), 40 CFR 761.30(s), and 40 CFR 761.30(t))*

In comments on the June 7, 1978, proposed rule (Ref. 5), which was finalized in 1979, two natural gas transmission companies claimed that they had PCBs in turbine compressors at concentrations  $\geq 50$  ppm, but they could not reduce these concentrations to levels  $< 50$  ppm in the near future. One company claimed to have removed all of the PCB turbine oil in 1972. The companies claimed that the PCBs would not leak out of the compressors into other parts of the natural gas pipeline system. In the May 31, 1979 final rule (Ref. 3), EPA prohibited the use of PCBs at concentrations  $> 50$  ppm in natural gas pipeline systems, effective as of May 1, 1980.

In the early 1980s, PCBs were found in a cold trap in the gas line outside a home in New York. In 1981, EPA entered into agreements with 13 natural gas transmission companies which had PCBs at concentrations  $\geq 50$  ppm in their systems but outside of turbine compressors (Ref. 48).

It is not clear exactly how the PCBs entered the systems if they did not come

from the turbine compressors. After nearly 30 years of operations and after all known sources of PCBs were removed from these systems, EPA has information indicating that PCBs at levels  $\geq 50$  ppm continue to be found in natural gas pipeline systems including within equipment which is not specifically designed to collect such material. EPA believes that the authorized use conditions in the current regulations should have resulted in companies removing PCBs to the extent that there no longer are PCBs in the systems at concentrations  $\geq 50$  ppm.

EPA is considering requiring sampling and analyzing individual condensate samples (not composites or accumulations) to determine the extent of the PCB contamination when any person finds PCBs in any pipeline system at concentrations  $\geq 1$  ppm. Owners would be required to analyze condensate from surrounding areas to confirm that regulated PCBs were not present in the system. Regardless of the original or current source of the PCBs, owners would report results of  $\geq 50$  ppm findings to EPA. EPA is also considering whether to propose ending the use authorization for PCBs at concentrations  $\geq 1$  ppm in these systems by 2020 or an earlier date. In this phase-down approach, owners would also be required to analyze current condensate in areas having historical PCB measurements to confirm the absence of PCBs during the period prior to the final phaseout date. If PCBs are found, owners would have to demonstrate they have reduced PCB concentrations to  $< 1$  ppm or have implemented engineering controls similar to the current requirements in 40 CFR 761.30(i)(1)(iii)(A)(4) to reduce and prevent migration of PCB impacted material. EPA seeks comments on the continued use of PCBs in fluid and gas transmission and distribution systems. EPA's questions about use in gas transmission and distribution systems are located in Unit XIV.S.

EPA has little information on the need to continue the use authorizations at 40 CFR 761.30(s) for air compressor systems and 40 CFR 761.30(t) for other gas or liquid transmission systems. The 10 years that these authorizations have been in place should have allowed owners sufficient time to purge the PCBs from their systems. EPA is considering whether to terminate or significantly limit the duration of these authorizations.

*H. Use in Research and Development (Regulated at 40 CFR 761.30(j)), Scientific Instruments (Regulated at 40 CFR 761.30(k)), and Decontaminated Materials (Regulated at 40 CFR 761.30(u))*

EPA is not currently planning to reassess the authorizations for: Use in research and development, scientific instruments, and decontaminated materials. However, EPA welcomes comments on these use authorizations.

*I. No Use Authorization for PCB-Containing Electrical Equipment Parts*

There is no use authorization for parts or detached ancillary equipment, such as bushings, for electrical equipment when separate from that equipment. Bushings contain insulating material separated from the primary equipment's insulating fluid. Bushings may be removed from equipment during servicing or transportation. Utilities have told EPA that it is necessary to store bushings for reuse, especially for large transmission electrical equipment. There is no use authorization in 40 CFR part 761, subpart B, for bushings, which are no longer attached to or associated with a specific article of authorized equipment (Ref. 10). EPA seeks information on the feasibility of reclassifying bushings or other ancillary equipment, which can be used as spare parts. EPA seeks information on the economic value of continuing to maintain such PCB-containing parts and ancillary equipment in inventories of utility companies and industrial facilities. EPA's questions about the use of PCB-containing electrical equipment parts are located in Unit XIV.Y.

*J. Reassessment of the Possible Authorization of the Use of Some Non-Liquid PCB-Containing Products*

The use of PCBs at concentrations of 50 ppm or greater in caulk products, regardless of whether the PCBs were created by an inadvertent chemical reaction during the manufacturing process or were added to the caulk afterward, is not currently authorized under TSCA section 6. EPA requests comments on whether the use of PCBs in caulk should be authorized, and what data or other information is available on which to evaluate the risks and benefits of the use of PCB-containing caulk. EPA's questions about authorization of some non-liquid PCB-containing products are located in Unit XIV.Z.

**VIII. Storage for Reuse of PCB Articles (Regulated at 40 CFR 761.35)**

EPA established limits on storage of PCB articles for reuse at 40 CFR 761.35. These limits were established to curtail

storage practices which were not in keeping with the statutory objectives of:

1. A general ban on use with limited exceptions.
2. Quick disposal of PCB-containing equipment which was no longer used or usable.
3. Protection of human health and the environment from risks presented by PCBs.

When the PCB regulations were first promulgated in the late 1970's, EPA recognized that it might be necessary to have PCB-containing spare equipment to press into use when other new or reasonably new equipment needed to be replaced. However, nearly 30 years later, the demand for PCB-containing equipment replacements should be much lower. EPA has information indicating that the older unused PCB equipment, now 30 years old or older, does emit PCBs even when sealed and still can leak even when it is not energized. EPA also seeks information about whether stored non-askarel equipment could be reclassified while it is in storage for reuse. EPA also is concerned that equipment, which is stored for reuse outside of a secure storage facility, is more susceptible to potential releases of PCBs to the environment from accidents, both weather-related and the result of the owner's activities, and to vandalism or theft.

EPA seeks information on the location of equipment being stored for reuse, especially in relationship to the equipment it is to replace. EPA seeks information on the economic value of continuing to maintain PCB-containing equipment which is not in use, in inventories of utility companies and industrial facilities. EPA's questions about storage for reuse of PCB articles are located in Unit XIV.T.

#### **IX. Distribution in Commerce of Electrical Equipment (Regulated at 40 CFR 761.20)**

PCBs have been measured in the ambient air coming from PCB-containing equipment in storage for disposal in an approved PCB storage facility. Information about the measurement of PCBs in the ambient environment around stored electrical equipment indicates that aging equipment appears to no longer be airtight, even if seemingly "intact and non-leaking" upon cursory visual inspection (Ref. 11). If this stored equipment is not airtight, there must also be releases during use and transportation (distribution in commerce) of this equipment, despite its deenergized state. EPA is also concerned about and seeks information

on the frequency of PCB surface contamination on this equipment and the practice of routine inspection for the presence of residual PCB surface contamination on equipment, by using a standard wipe test. For this reason, EPA questions whether the historical determination that distribution in commerce of PCBs in electrical equipment still can be considered totally enclosed in accordance with TSCA section 6(e)(2)(C). Elimination of distribution in commerce of this PCB-containing equipment for reuse could also prevent the fraudulent practice of a guise of resale for reuse. One fraudulent practice is a claim of the export of regulated PCB-containing equipment for reuse to avoid proper domestic reclassification or disposal, when the equipment is intended only for foreign scrap metal recovery. EPA's questions about distribution in commerce are located in Unit XIV.U.

#### **X. Reconsideration of the Use of the 50 ppm Level for Excluded PCB Products, in Particular for PCBs in Caulk**

The level of 50 ppm has been used in PCB use regulations since 1979. Based on regulatory history, this number is based almost entirely on economic considerations. There are no traditional exposure and risk assessment calculations (Refs. 3 and 8). EPA seeks comments on the application of the value of 50 ppm as the upper value in the definition of Excluded PCB products in 40 CFR 761.3. One such excluded product is PCBs in caulk where PCBs are present at concentrations < 50 ppm. EPA is seeking comment and any supporting data or other information on whether the number 50 ppm should be changed given the recent realization that the use of PCBs in caulk may be widespread and may be an undue burden for schools if the exclusion continues at 50 ppm. EPA's questions about excluded PCB products are located in Unit XIV.X.

#### **XI. Definitional Changes Under Consideration (Located at 40 CFR 761.3)**

EPA is considering proposing changes to the following definitions found at §761.3, and solicits comments on these changes.

##### *A. PCB Articles*

The definition of PCB articles in §761.3 includes transformers and capacitors, but it has no mention of size or the volume of liquid contained in the article. EPA is considering changing this definition to regulate equipment containing  $\geq 0.05$  liters (approximately 1.7 fluid ounces) of dielectric fluid.

Definitions for Capacitor, PCB Capacitor, PCB Transformer, and PCB-contaminated Electrical Equipment would be adjusted accordingly. This revision would correspond to minimum volumes for liquid-filled equipment found in the Stockholm Convention.

EPA seeks information on the type and volume of PCB products that would be affected by such changes in the definition, as well as the cost, economic, and other impacts of these changes.

##### *B. Excluded Manufacturing Process*

The current definition states, "The concentration of inadvertently generated PCBs in products leaving any manufacturing site or imported into the United States must have an annual average of less than 25 ppm, with a 50 ppm maximum." EPA is considering whether to eliminate the annual average and whether the maximum concentration should be set at < 1 ppm. EPA's questions about excluded manufacturing processes are located in Unit XIV.V.

##### *C. Recycled PCBs*

The current definition states, "The concentration of PCBs in paper products leaving any manufacturing site processing paper products or paper products imported into the United States must have an annual average of less than 25 ppm, with a 50 ppm maximum." EPA is considering whether to revise the annual average and whether the maximum should be lowered. Additionally, the definition requires the release of PCBs to ambient air at any point be at concentrations < 10 ppm. EPA is considering whether the maximum allowable PCB concentration released to air should be lowered to be consistent with what the Agency has said about PCB exposures from PCBs in caulk (Ref. 49). EPA's questions about recycled PCBs are located in Unit XIV.W.

##### *D. Quantifiable Level/Level of Detection*

In the years since this definition was first promulgated, analytical measurement technology has improved so that the current quantitation level/level of detection is lower. Currently, the quantitation level in mineral oil can be as low as, or lower than, 1 ppm and the level of detection can be as low as, or lower than, 0.5 ppm. The quantitation level and level of detection in other media such as air and water can be three orders of magnitude or more lower than the values for mineral oil. EPA is evaluating whether to change this definition to reflect to most current science, and solicits any information regarding such a change.

## XII. Marking of All PCB Articles

EPA is considering requiring marking of all PCB articles, which includes electrical equipment containing  $\geq 50$  ppm PCBs, and all storage areas. Some  $\geq 50$  ppm PCBs items are already required to be marked in 40 CFR 761.40:

- Above-ground sources of PCB liquids in natural gas pipeline systems.
- PCB containers.
- Electric motors using PCB coolants.
- Hydraulic systems using PCB hydraulic fluid.
- PCB heat transfer systems.
- PCB article containers.
- Areas used to store PCBs and PCB items for disposal.
- Transportation vehicles transporting more than 45 kg or 99.5 lbs of items containing  $\geq 50$  ppm liquids, containers of  $\geq 50$  ppm liquids, or one (or more) PCB transformers.

EPA discussed concerns about PCB releases from liquid-filled equipment, regardless of concentration, during natural disasters in Unit VII.A.5. The consequences of natural disasters and other events such as automobile collisions with equipment and vandalism (e.g., shots from firearms), may be more significant when damaging older and over-loaded electrical equipment. In addition to those persons who might be accidentally exposed, it is important that public emergency responders as well as owners/maintainers be advised of the PCB content of PCBs in use or those catastrophically released from use as quickly as possible. In addition, residents and the public in proximity to regulated equipment have the right to know of the presence of PCBs. Many owners already know the locations of and have already marked PCB-contaminated equipment. EPA believes that marking of PCB-contaminated equipment also aids in planning management of equipment during transportation and storage for disposal. A possible requirement under consideration is for owners to locate and label PCB-contaminated equipment. This would require an owner to take additional labeling action beyond what is required in the current regulations for the use of PCB-contaminated equipment and the assumptions in 40 CFR 761.2. Once equipment was marked for use, it would not need to be re-marked at the time of disposal. In Unit XIV.A.–E., M., P., Q., and S. EPA has asked for specific numbers of PCB-contaminated equipment and the size of populations of equipment which is assumed by regulation to contain PCBs  $\geq 50$  ppm.

## XIII. Public Participation

In addition to the requests for information and comments contained in this document, EPA intends to involve stakeholders through a series of public meetings taking place in locations across the country. The purpose of these meetings is to receive stakeholder comments on the issue of EPA's reassessment of PCB use authorizations, including the questions described in Unit XIV.

### A. Meeting Dates and Locations

The meetings will be held as follows:

1. New York, NY, May 4, 2010, from 1 p.m. to 5 p.m. at EPA Region 2 offices, Room 2735, Conference Room A (27<sup>th</sup> Floor), 290 Broadway.
2. Chicago, IL, May 18, 2010, from 1 p.m. to 5 p.m., at the EPA Region 5 offices, Lake Michigan Room (12<sup>th</sup> Floor), 77 West Jackson Blvd.
3. Atlanta, GA, May 25, 2010, from 1 p.m. to 5 p.m., at EPA Region 4 offices, Rooms 9D and 9E, Sam Nunn Atlanta Federal Center, 61 Forsyth St., SW.
4. Washington, DC, May 27, 2010, from 1 p.m. to 5 p.m., at EPA Headquarters, EPA East, Room 1153, 1201 Constitution Ave., NW.

### B. Meeting Procedures

For additional information on the scheduled meetings, please see the PCB website (<http://www.epa.gov/epawaste/hazard/tsd/pcbs/index.htm>) or contact Christine Zachek at (202) 566–2219 or [zachek.christine@epa.gov](mailto:zachek.christine@epa.gov).

The meetings will be open to the public. To ensure that all interested parties will have an opportunity to comment in the allotted time, oral presentations or statements will be limited to 10 minutes. EPA therefore recommends that stakeholders who present oral comments also submit written comments following the instructions provided under **ADDRESSES**. Interested parties are encouraged to contact the technical person at least 10 days prior to the meeting to schedule presentations. Since seating for outside observers will be limited, those wishing to attend the meetings as observers are also encouraged to contact the technical person at the earliest possible date, but no later than 10 days before the meetings, to ensure adequate seating arrangements.

To request accommodation of a disability, please contact Christine Zachek at (202) 566–2219 or [zachek.christine@epa.gov](mailto:zachek.christine@epa.gov), preferably at least 10 days prior to the meeting, to give EPA as much time as possible to process your request.

## XIV. Request for Comment and Additional Information

EPA invites public comment and any additional information in response to the questions identified in Unit XIV.A through Unit XIV.AA. Unit I.B. contains a description of points commenters should consider when preparing comments for submission to EPA, including how to submit any comments that contain CBI. No one is obliged to respond to these questions, and anyone may submit any information and/or comments in response to this request, whether or not it responds to every question in this unit.

### A. Populations of Transformers (Containing Greater Than 2 Fluid Ounces of Dielectric Fluid)

1. What percentage of your entire transformer inventory in use or storage for reuse was manufactured each year between 1950 and 1980, all years up to 1949, and all years from 1981 to date? If this information is not available, please provide alternative information, such as: What percentage of the entire transformer inventory is 30 years old, 40 years old, and 50 years old?

2. Of the inventory information provided in the previous question, how does the percentage differ for the following applications: Transmission, substation, pole top, and pad mount?

3. What percentage of your transformer population consists of PCB transformers? How many units are in this population? How does the percentage and population compare for major interstate utilities, municipal utilities, cooperative utilities, industrial owners, and other groups?

4. What percentage of your transformer population consists of PCB-contaminated transformers? How many units are in this population? How does the percentage and population compare for major interstate utilities, municipal cooperatives, industrial owners, and other groups?

5. For electrical utilities and other owners, have you tested all potentially (based on year of manufacture and other information) contaminated equipment? Do you know where all regulated PCB equipment is currently located? Have you removed all askarel containing PCB transformers? Have you removed all mineral oil containing PCB transformers? Have you removed all mineral oil containing PCB-contaminated transformers?

6. What percentage of the transformer population consists of transformers which contain measurable PCBs between 1 and 50 ppm and were manufactured before July 31, 1979? How

many units are in this population? How does the percentage and population compare for major interstate utilities, municipal cooperatives, industrial owners, and other groups?

7. What would be the difference in cost (and why) for removing within 10 years the PCBs from the transformers through reclassification and disposing of the transformers, versus disposing of the transformers without reclassification at the end of their useful life?

8. How much equipment is being used indoors? How much equipment is being used outdoors?

9. Geographically and topographically exactly where, in the form of global positioning system coordinates or maps, is the PCB-containing equipment located? What is the age of the PCB-containing equipment at each of these locations?

10. What active or passive safety systems and equipment are installed and operating for PCB-containing equipment, including dikes, berms, safety valves, expansion chambers, remote monitoring systems and capture basins?

#### *B. Populations of Electromagnets, Switches, and Voltage Regulators (Containing Greater Than 2 Fluid Ounces of Dielectric Fluid)*

1. What percentage of your entire electromagnets, switches, and voltage regulators inventory in use or stored for reuse was manufactured each year between 1950 and 1980, all years up to 1949, and all years from 1981 to 2007? If this information is not available, please provide alternative information, such as: What percent of the entire transformer inventory is 30 years old, 40 years old, and 50 years old?

2. What percentage of the electromagnets, switches, and voltage regulators population contains dielectric fluid with PCB concentrations  $\geq 50$  ppm PCB? How many units are in each population? How does the percentage and population compare for major interstate utilities, municipal cooperatives, industrial owners, and other groups?

3. The original use authorization for electromagnets was for a very restricted number of known applications in coal mine processing operations. How many electromagnets in these coal mining operations still use PCBs?

4. For electrical utilities and other owners, have you tested all potentially (based on year of manufacture and other information) contaminated electromagnets, switches, and voltage regulators? Do you know where all regulated PCB-containing electromagnets, switches, and voltage

regulators are currently located? Have you removed all askarel containing PCB electromagnets, switches, and voltage regulators? Have you removed all mineral oil containing PCB electromagnets, switches, and voltage regulators? Have you removed all mineral oil containing PCB-contaminated electromagnets, switches, and voltage regulators?

5. What would be the difference in cost (and why) for removing the PCB-containing electromagnets, switches, and voltage regulators and disposing of them within 10 years, versus disposing of the electromagnets, switches, and voltage regulators at the end of their useful life?

6. How much equipment is being used indoors? How much equipment is being used outdoors? Geographically and topographically exactly where, in the form of global positioning system coordinates or maps, is the PCB-containing equipment located?

7. What is the age of the PCB-containing equipment at each of these locations?

8. What active or passive safety systems and equipment is installed and operating, including dikes, berms, safety valves, expansion chambers, and capture basins?

#### *C. Populations of Electrical Capacitors (Containing Greater Than 2 Fluid Ounces of Dielectric Fluid)*

1. What percentage of your entire capacitor inventory in use or stored for reuse was manufactured each year between 1950 and 1980, all years up to 1949, and all years from 1981 to 2007? If this information is not available, please provide alternative information, such as: What percentage of the entire transformer inventory is 30 years old, 40 years old, or 50 years old?

2. How does the percentage differ of these 30, 40, and 50 year-old and older capacitors for the following applications: Transmission, substation, pole top, and pad mount?

3. What percentage of the total capacitor population is made up of PCB large capacitors? How many units are in this population? How does the percent and population compare for major interstate utilities, municipal cooperatives, industrial owners, and other groups?

4. What percentage of your capacitor population is PCB-contaminated? How many units are in this population? How does the percentage and population compare for major interstate utilities, municipals cooperatives, industrial owners, and other groups?

5. For electrical utilities and other owners, have you tested all potentially

(based on year of manufacture and other information) contaminated equipment? Do you know where all regulated PCB equipment is currently located? Have you removed all askarel containing PCB capacitors? Have you removed all mineral oil containing PCB capacitors? Have you removed all mineral oil containing PCB-contaminated capacitors?

6. What would be the difference in cost (and why) for removing the regulated PCB capacitors and disposing of them within 10 years as opposed to at the end of the useful life of the capacitors?

7. How many PCB capacitors which are still in active use (not stored for reuse) contain  $\geq 2$  ounces of dielectric fluid and  $< 3$  lbs. of dielectric fluid?

8. What is the best way to determine whether a capacitor contains  $\geq 2$  ounces of dielectric fluid other than reading a nameplate or actually draining and weighing the dielectric fluid?

9. What are the most likely minimum dimensions of a capacitor, which contains 2 or more ounces of PCB dielectric fluid?

10. What percentage of the total population of PCB capacitors that are currently in use contain  $\geq 0.05$  liters (or approximately 1.7 fluid ounces) of dielectric fluid and 1.36 kg. ( $< 3$  lbs.) of dielectric fluid?

11. What would be the difference in cost (and why) for removing within 10 years the PCBs from the PCB capacitors and disposing of them versus disposing of the PCB capacitors at the end of their useful life?

12. How much equipment is being used indoors? How much equipment is being used outdoors? Geographically and topographically exactly where, in the form of global positioning system coordinates or maps, is the PCB-containing equipment located?

13. What is the age of the PCB-containing equipment at each of these locations?

14. What active or passive safety systems and equipment is installed and operating, including dikes, berms, safety valves, expansion chambers, and capture basins?

#### *D. Populations of Circuit Breakers, Reclosers, and Liquid-filled Cable (Containing Greater Than 2 Fluid Ounces of Dielectric Fluid)*

1. What percentage of circuit breakers, reclosers, and liquid-filled cables inventory in use or stored for reuse was manufactured each year between 1950 and 1980, all years up to 1949, and all years from 1981 to 2007? If this information is not available, please provide alternative information, such as:



What percent of the entire transformer inventory is 30 years old, 40 years old, and 50 years old?

2. What percentage in each population of your circuit breakers, reclosers, and liquid-filled cable population contains dielectric fluid with PCB concentrations  $\geq 50$  ppm is PCB? How many units are in each population?

3. For electrical utilities and other owners, have you tested all potentially contaminated breakers, reclosers, and liquid-filled cables? Do you know where all regulated PCB breakers, reclosers, and liquid-filled cables are currently located? Have you removed all circuit breakers, reclosers, and liquid-filled cables containing mineral oil with  $\geq 50$  ppm PCBs-contaminated circuit breakers, reclosers, and liquid-filled cables?

4. What would be the difference in cost (and why) for removing within 10 years the PCB breakers, reclosers, and liquid-filled cables and disposing of them versus disposing of the PCB breakers, reclosers, and liquid-filled cables at the end of their useful life?

5. How much equipment is being used indoors? How much equipment is being used outdoors? Geographically and topographically exactly where, in the form of global positioning system coordinates or maps, is the PCB-containing equipment located?

6. What is the age of the PCB-containing equipment at each of these locations?

7. What active or passive safety systems and equipment is installed and operating, including dikes, berms, safety valves, expansion chambers, and capture basins?

#### *E. Populations of Rectifiers (Containing Greater Than 2 Fluid Ounces of Dielectric Fluid)*

1. What percentage of your rectifiers inventory in use or stored for reuse was manufactured each year between 1950 and 1980, all years up to 1949, and all years from 1981 to 2007? If this information is not available, please provide alternative information, such as: What percentage of the entire rectifier inventory is 30 years old, 40 years old, and 50 years old?

2. What percentage of your rectifier population contains dielectric fluid with PCB concentrations  $\geq 50$  ppm PCBs? How many units are in this population?

3. What percentage of your rectifier population is PCB-contaminated? How many units are in this population?

4. For electrical utilities and other owners, have you tested all potentially contaminated rectifiers? Do you know

where all regulated PCB rectifiers are currently located? Have you removed all askarel PCB rectifiers? Have you removed all rectifiers containing mineral oil with  $\geq 500$  ppm PCBs? Have you removed all rectifiers containing mineral oil with  $\geq 50$  ppm and  $< 500$  ppm PCBs?

5. What percent of electrical utilities and other owners has removed all mineral oil PCB rectifiers?

6. What percent of electrical utilities and other owners has removed all mineral oil PCB-contaminated rectifiers?

7. What would be the estimated cost (and why) for removing these PCB rectifiers and disposing of them within 10 years as opposed to at the end of the useful life of the rectifiers?

8. How much equipment is being used indoors? How much equipment is being used outdoors? Geographically and topographically exactly where, in the form of global positioning system coordinates or maps, is the PCB-containing equipment located?

9. What is the age of the PCB-containing equipment at each of these locations?

10. What active or passive safety systems and equipment is installed and operating, including dikes, berms, safety valves, expansion chambers, and capture basins?

#### *F. Servicing*

1. How long does servicing extend the useful service life of each type of equipment?

2. How does servicing alter the likelihood of equipment failures?

3. How does servicing change the ultimate likelihood of the release of PCBs?

#### *G. Failure of Vintage PCB-Containing Electrical Equipment*

1. How do failure rates differ for equipment which has been rebuilt or serviced in particular ways, relative to equipment that remains substantially as it was originally installed?

2. EPA seeks information to project the rate, location, and amount of PCB releases, and the causes of the releases. For example, what are the risks of failure involving electrical surges, insulation failure, or electrical fires as compared to the rupture of the tanks containing the PCBs?

3. What percentage of the entire transformer inventory, which was in use or storage for reuse and which was manufactured before July 31, 1979, failed in the following time periods:

a. All years between January 1, 1940 and December 31, 1949;

b. Each year between 1950 and 1980; and

c. All years between January 1, 1981 and December 31, 2008?

4. If this information is not available, please provide information for alternate time intervals.

5. What forms of preventive maintenance or remote monitoring are used to warn owners or operators of a potential or impending equipment failure?

6. With respect to a company's PCB-containing equipment, on what equipment are these or other preventive maintenance or remote monitoring techniques employed?

7. For drainable and refillable mineral oil containing PCB articles, how do the purchase price and operational costs for this approach compare to reclassification for transformers or reclassifiable equipment?

8. How do failure rates differ for equipment which has been rebuilt or serviced in particular ways, compared to equipment that remains substantially as it was originally installed?

9. What have been and are the insurance costs for the replacement of failed PCB-containing equipment and cleanup of PCB spills from this equipment over the past 30 years?

10. How would these insurance costs for the replacement of failed PCB-containing equipment and cleanup of PCB spills from this equipment be expected to change in the next 20 years?

#### *H. Damage to Equipment During Severe Weather Events*

1. What kind of steps can be taken to prevent release of dielectric fluid from damage during adverse severe weather events such as hurricanes, tornados, floods, and earthquakes?

2. What is the cost per unit of these steps compared to the cost of: Removal and disposal of askarel containing units; or reclassification or removal and disposal of the mineral oil containing units?

3. What is the cost to cleanup an average catastrophic weather release of dielectric fluid and the disposal of the waste and the equipment plus any damages to private or public property?

4. How does this cleanup and related costs compare to the cost of: Removal and disposal of askarel containing units; or reclassification or removal and disposal of the mineral oil containing units?

5. What have been and are the insurance costs as the result of damage from severe weather events for the replacement of failed PCB-containing equipment and cleanup of PCB spills from this equipment over the past 30 years?

6. How would these insurance costs as the result of damage from severe weather events for the replacement of failed PCB-containing equipment and cleanup of PCB spills from this equipment be expected to change in the next 20 years?

7. How has the weather-related liability insurance cost changed for owners of PCB-containing equipment over the last 30 years? Over the last 20 years? Over the last 5 years?

8. EPA seeks information on the rate of occurrence of severe weather events involving PCB-containing equipment in each calendar year starting from 1998 until 2008:

a. What types of equipment were involved?

b. Where was the equipment located (indoors or outdoors)?

c. Did spills occur as a result of the severe weather events?

d. What was the amount released in gallons of liquid, and if PCBs were presents what was the concentration in ppm?

e. How much liquid was contained and recovered?

f. What human health or environmental exposure and effects were observed or recorded?

g. How were the exposures and effects estimated or measured?

#### *I. Alternatives to PCB Liquids*

1. What are the PCB substitutes currently available commercially?

2. What are the human health and environmental effects of exposure to PCB substitutes when they are released to the environment?

3. What are the human health and property damage risks due to the flammability properties of the PCB substitutes?

4. What is the likelihood that equipment containing the PCB substitutes have releases of the substitute materials, compared with the likelihood that equipment containing PCBs have releases of PCBs?

5. What other information about PCB substitutes is available that would inform EPA's consideration of the trade-offs that would be required by a PCB phaseout?

#### *J. Removal and Replacement Costs*

1. How many PCB liquid disposal companies have been operating at the end of each year for the last 10 years?

2. How many PCB equipment (drained or undrained) disposal companies have been operating at the end of each year for the last 10 years?

3. What has the average disposal cost been for a gallon of PCB oil containing  $\geq 50$  ppm and  $< 500$  ppm at the end of each year for the last 10 years?

4. What has been the average disposal cost for a gallon PCB oil containing from  $\geq 500$  ppm to  $\leq 10,000$  ppm at the end of each year for the last 10 years?

5. What has been the average disposal cost for a gallon or of askarel oil containing  $> 100,000$  ppm PCBs at the end of each year for the last 10 years?

6. What has been the average cost per ton for disposing of drained, oil-filled equipment, which contained  $\geq 50$  ppm and  $< 500$  ppm PCB at the end of each year for the last 10 years?

7. What has been the average cost per ton for disposing of drained, oil-filled equipment which contained  $\geq 500$  ppm PCB at the end of each year for the last 10 years?

8. What has been the average cost per ton for disposing of drained askarel-filled equipment  $> 100,000$  ppm PCB at the end of each year for the last 10 years?

9. What has been the average cost per pound, per ton, or per kilovolt amp (KVA) been for recycling the metal from drained oil-filled transformers which contained  $\geq 50$  ppm and  $< 500$  ppm PCB at the end of each year for the last 10 years?

10. What sorts of incentives might enable organizations with limited budgets to remove regulated PCBs and PCB equipment for their systems and facilities?

#### *K. PCB Waste Disposal Capacity*

1. What has been the permitted PCB disposal capacity for liquid PCBs for companies which have been operating at the end of each year for the last 10 years?

2. At what average percent of permitted PCB disposal capacity have the PCB liquid disposal companies operated per year for the last 10 years?

3. What has been the permitted PCB disposal capacity for drained PCB equipment for companies which have been operating at the end of each year for the last 10 years?

4. At what average percent of permitted PCB disposal capacity have the drained PCB equipment disposal companies operated per year for the last 10 years?

5. For a transformer containing 100 gallons of 250 ppm oil, how does the cost compare for:

a. Reclassifying to a non PCB transformer (draining, refilling with new/clean oil, and disposing of the PCB oil and reusing the transformer)?  
Reclassifying to a transformer containing  $< 1$  ppm PCBs?

b. Disposing of the oil and landfilling the drained transformer?

c. Disposing of the oil and recovering the metal for recycling?

#### *L. Current Management Practices for Equipment (Other Than Equipment Included in Unit XIV.A.-F.)*

1. If you are a PCB equipment owner, which of the following have you completed:

a. Identified all PCB-containing equipment?

b. Routinely tested equipment for its PCB content?

c. Tested all equipment known or assumed to contain PCBs?

d. Reclassified known PCB equipment or equipment, which is newly tested and found to be positive for PCBs?

e. Disposed of, without recycling metals, known PCB equipment, or equipment which is newly tested and found to be positive for PCBs?

f. Disposed of, to include recycling metals, known PCB equipment, or equipment which is newly tested and found to be positive for PCBs?

g. Distributed in commerce to someone else for use known PCB equipment, or equipment which is newly tested and found to be positive for PCBs?

h. Recorded the locations of all equipment or a particular type of equipment, such as transformers or capacitors, containing  $> 500$  ppm PCBs?

i. Recorded the locations of all of a particular type of equipment, such as transformers containing  $> 50$  ppm PCBs?

j. Recorded the locations of all of a particular type of equipment, such as transformers containing  $> 1$  ppm PCBs?

k. Tested all mineral oil containing equipment, or a particular type of equipment (such as transformers), which was manufactured before 1979?

l. Labeled all PCB-containing equipment, even though PCB equipment containing  $< 500$  ppm is not required to be marked?

m. Removed from service and disposed of all PCB-containing equipment or a particular type of equipment (such as PCB-contaminated transformers or PCB large capacitors)?

2. What are the costs associated with such activities in question No. 1 in Unit XIV.L.?

3. What are the costs of the practice of preventive maintenance and the rebuilding of equipment to meet changing service requirements and/or industry or company codes?

4. How well does preventive maintenance or rebuilding effect extension of the expected service life of equipment?

#### *M. Equipment Containing Non-liquid PCBs*

1. What is the total number of units (liquid filled plus non-liquid filled) in

each equipment category, such as transformers?

2. What total number of non-liquid units in each equipment category, such

as transformers, is in each of these PCB concentration ranges:  $\geq 1$  ppm and  $< 50$  ppm,  $\geq 50$  ppm and  $< 500$  ppm,  $\geq 500$

ppm and  $< 100,000$  ppm, and  $\geq 100,000$  ppm?

For example, fill in the following table:

Category	Total number of liquid filled plus non-liquid filled units in population	Number of non-liquid filled units with $\geq 1$ parts per million (ppm) and $< 50$ ppm PCBs	Number of non-liquid filled units with $\geq 50$ ppm and $< 500$ ppm PCBs	Number of non-liquid filled units with $\geq 500$ ppm and $< 100,000$ ppm PCBs	Number of non-liquid filled units with $\geq 100,000$ ppm PCBs
Transformers	1,000	0	2	0	0
Capacitors	200	0	0	0	10
Etc.					

3. What is the difference in the locations used for liquid filled units, versus non-liquid filled units located?

4. How much does it cost to test (sample collection, extraction, chemical analysis, and recordkeeping) non-liquid filled equipment to determine the PCB concentration?

5. Other than chemical analysis, what methods (such as application type, nameplate, model number, manufacturer name, etc.) can be used to identify PCB containing non-liquid filled equipment?

#### *N. Damage Due to Vandalism or Theft*

1. What types of equipment were involved?

2. Where was the equipment located (indoors or outdoors)? Did spills occur as a result of the vandalism?

3. What was the amount released in gallons of liquid, and if PCBs were present what was the concentration in ppm?

4. How much liquid was contained and recovered?

5. What human health or environmental exposure and effects were observed or recorded?

6. How were the exposures and effects which were reported in response to question No. 5 in Unit XIV.N. estimated or measured?

7. What have been and are the insurance costs as the result of vandalism or theft for the replacement of failed PCB-containing equipment and cleanup of PCB spills from this equipment over the past 30 years?

8. How would these insurance costs as the result of vandalism or theft for the replacement of failed PCB-containing equipment and cleanup of PCB spills from this equipment change in the next 20 years?

#### *O. Reclassification of Askarel Transformers*

1. If you have attempted to reclassify an askarel-filled unit and have been unsuccessful, how long did you spend draining and refilling and how many

times did you drain and refill when PCBs still "leached back" to a concentration  $\geq 500$  ppm for each unit?

2. What was the cost of each unsuccessful reclassification?

3. How many askarel transformers or other askarel PCB articles (such as voltage regulators) have you reclassified successfully to PCB-contaminated status or non-PCB status?

4. For each piece of successfully reclassified askarel-filled equipment, how many times was it necessary to drain and refill the equipment?

5. For each piece of successfully reclassified askarel-filled equipment, if the equipment was also flushed, what flushing procedure did you use?

6. For each piece of successfully reclassified askarel-filled equipment, how long did it take to reclassify the equipment from the first drain and refilling to a permanent PCB measurement at the new regulatory status of PCB-contaminated or non-PCB? How often was reclassification later proven to be unsuccessful, because PCBs leached back above the target reclassification level?

7. What was the cost of each successful reclassification?

#### *P. Railroad Transformers*

1. In what railroad systems are PCB transformers and PCB-contaminated transformers still in use as railroad transformers?

2. What percentage of railroad transformers are PCB transformers?

3. How many railroad transformers are PCB transformers?

4. What percentage of railroad transformers are PCB-contaminated transformers?

5. How many railroad transformers are PCB-contaminated transformers?

6. What is the expected life of a transformer now in service as a railroad transformer before it requires routine servicing of the dielectric fluid?

7. What would be the difference in cost (and why) for removing within 10 years the PCBs from the railroad

transformers through reclassification and disposing of them versus disposing of the railroad transformers without reclassification at the end of their useful life?

#### *Q. Mining Equipment*

1. At what locations and for what applications are PCBs currently used in mining equipment?

2. What percent of these pieces of equipment, which are found in these applications, contain PCBs?

3. How many pieces of equipment in these applications contain PCBs?

4. What would be the difference in cost (and why) for removing within 10 years the PCBs from the mining equipment and disposing of them versus disposing of the mining equipment at the end of their useful life?

#### *R. Use of Contaminated Porous Surfaces*

1. What has the average per ton, drum, or cubic yard disposal cost been to dispose of contaminated non-liquid material (such as soil or concrete) from a spill of PCB oil containing  $\geq 50$  ppm each year for the last 10 years? Please differentiate costs based on PCB concentration (e.g.,  $< 50$  ppm PCB waste,  $\geq 50$  ppm, etc.) and based on type of disposer (e.g., landfill, incinerator, etc.).

2. How often is there a planned major outage to equipment mounted on concrete pads or floors? How long is such a planned outage?

#### *S. Use in Natural Gas Transmission and Distribution Systems*

1. How many gallons of  $\geq 50$  ppm condensate have been removed and disposed of annually from natural gas pipelines owned by each individual gas transmission company and distribution company starting in 1998?

2. Do transmission companies regularly test the condensate for PCBs? If so, what is done with the PCBs when found?

3. What locations in the system have the most condensate removed?

4. What time of year is most condensate removed?

5. How do natural gas transmission and distribution companies test for PCBs in dry systems?

#### T. Storage for Reuse of PCB Articles

1. How many pieces of in-use equipment are the stored equipment items being kept to replace?

2. Where is the equipment which is to be replaced by the stored equipment located with respect to other potential indoor secure storage areas?

3. What is the historical lifetime and turnover (removal from storage for disposal) rate per year of the in-use equipment?

4. When do owners plan to replace this in-use equipment with non-PCB equipment or reclassify this in-use equipment?

5. When do owners plan to replace the stored equipment with non-PCB equipment or reclassify this stored equipment?

6. What is the annualized cost of storing and managing this equipment?

7. What would be the cost of replacement of this equipment?

8. What would be the cost of reclassifying this equipment, where authorized?

9. What is the likelihood and consequences of service interruptions and loss of revenue if these replacement devices were not available at the site of the equipment to be replaced?

10. What is the history (number of occurrences, dates, amounts and cost to clean up) of spills or other releases of PCBs from this equipment, which is being stored for reuse?

#### U. Distribution in Commerce

1. What is the annual sale price or dollar value and what is the number of units which were distributed in commerce each year over the last 5 years of used but working askarel-filled equipment?

2. What is the annual sale price or dollar value and what is the number of units which were distributed in commerce each year over the last 5 years of used but working mineral oil filled PCB ( $\geq 500$  ppm) equipment?

3. What is the annual sale price or dollar value and what is the number of units which were distributed in commerce each year of used but working mineral oil filled PCB-contaminated ( $\geq 50$  ppm and  $< 500$  ppm) equipment?

4. How many units of regulated PCB-electrical equipment were sold each year over the last 5 years for domestic scrap metal recovery?

5. How many units of regulated PCB-electrical equipment were sold each

year over the last 5 years for foreign scrap metal recovery?

6. How many units of regulated PCB-electrical equipment were exported for use each year over the last 5 years for use?

7. What has been the average purchase price of a new or rebuilt (PCB-free) 100 KVA mineral oil filled transformer and a new (PCB-free) 100 KVAR capacitor every year over the last 10 years?

8. How different is the average purchase price of new or rebuilt (PCB-free) larger or smaller transformers and capacitors?

9. What is the average number of days between an order and delivery for a new or rebuilt replacement PCB-free 100 KVA transformer and a new replacement PCB-free 100 KVAR capacitor every year over the last 10 years?

10. How long does it take for a delivery for a replacement for a new or rebuilt PCB-free large ( $> 250$  KVA) transformer, a smaller ( $< 250$  KVA) transformer, and larger ( $> 1.36$  kg [3 lbs.] of dielectric fluid) capacitors?

#### V. Excluded Manufacturing Processes

1. How many excluded manufacturing processes are currently operating or, if not currently operating, expect to be operating in the next 5 years?

2. What is the estimated total annual weight in tons of PCBs produced each year over the last 5 years and in the next 5 years in each of the following categories: Products, solid waste, waste water, and air emissions?

3. What are the type and volume of PCB products that would be affected by such changes in the definition, as well as the cost, economic, and other impacts of these changes?

#### W. Recycled PCBs

1. In any of the last 5 years have you anyone found PCBs at concentrations  $\geq 1$  ppm in recycled paper? How often? What was the source of the feedstock paper?

2. What steps can be taken or have been taken to reduce the PCB concentration in recycled paper?

3. What is the cost of implementing these steps to reduce the PCB concentration in recycled paper if they have not already been implemented?

4. What are the type and volume of PCB products that would be affected by a potential change in the definition of recycled paper (required to contain less than 1 ppm PCBs), as well as the cost, economic, and other impacts of these changes?

#### X. Reconsideration of the Use of the 50 ppm Level for Excluded PCB Products (e.g., Caulk)

1. What should the maximum PCB concentration, if any, be for the "excluded PCB products" as defined in 40 CFR 761.3?

2. What should the minimum PCB concentration be for the "excluded PCB products" as defined in 40 CFR 761.3?

3. Should there be a new separate use authorization for certain currently excluded PCBs found in certain products such as paint, gaskets, or caulk?

4. What types of non-liquid products (adhesives, caulk, coatings, grease, paint, rubber/plastic electrical insulation, gaskets, sealants, waxes, etc.), which were manufactured before 1979 and are currently in use, contain PCBs at concentrations between 1 ppm and 50 ppm?

5. What types of liquid products (pump oil, solvent, or other fluid), other than those authorized for use in 40 CFR 761.30, contain PCBs at concentrations between 1 ppm and 50 ppm?

6. For each class of non-liquid and liquid product, what percent of the overall product market share is taken by the PCB-containing product?

a. What is the estimated total weight or volume of each type of product in current use?

b. What kinds of use has each product been applied to, on, or in?

c. What is the geographic distribution of each product use?

d. What is the average expected lifetime of the product?

e. When would the product normally be replaced as part of preventive maintenance?

#### Y. Use of PCB-Containing Electrical Equipment Parts

1. What PCB-containing spare parts, such as bushings and other ancillary equipment, are currently needed for what equipment?

2. What is the feasibility of reclassifying PCB-containing spare parts?

3. What is the annualized cost of storing and managing PCB-containing spare parts?

4. What would be the cost of replacement of PCB-containing spare parts?

5. What are the likelihood and consequences of service interruptions and loss of revenue if the PCB-containing spare parts were not available?

6. Where are these spare parts located geographically in relation to the equipment they will be used on?

7. In what industrial or commercial settings can the equipment, which the spare parts will be used on, be found?

#### Z. Reassessment of the Possible Authorization of the Use of Some Non-Liquid PCB-Containing Products

1. What comments can you provide that will inform EPA as to whether to authorize or not authorize the use of caulk, paint, or other non-liquid PCB product at concentrations exceeding the level of 50 ppm currently provided in the PCB regulations for excluded PCB products?

2. What data or other information is available on which to evaluate the risks and benefits of the use of PCB-containing caulk, paint, or other non-liquid PCB product?

3. What PCB concentrations should be authorized for the use of PCB-containing caulk, paint, or other non-liquid PCB products?

#### AA. PCBs on Maritime Vessels

1. In what vessel systems is PCB-containing equipment still in use on vessels?

2. What percentage of vessel equipment uses liquid PCBs?

3. What percentage of vessel equipment uses non-liquid PCBs?

4. What is the expected life of equipment containing PCBs on vessels now in service before it requires routine servicing?

5. What is the difference in the locations used for liquid filled equipment, versus non-liquid filled equipment located?

6. How much does it cost to identify and test (sample collection, extraction, chemical analysis, and recordkeeping) liquid filled equipment and/or non-liquid filled equipment on vessels to determine the PCB concentration?

7. Other than chemical analysis, what methods (such as application type, nameplate, model number, manufacturer name, etc.) can be used to identify PCB-containing equipment?

8. Do non-liquid PCBs enclosed in cabling pose any greater risk to the health of the public than liquid PCBs enclosed in cabling?

9. Should the "totally enclosed" exemption accorded to liquid PCBs enclosed in cabling be extended to solid PCBs?

#### XV. References

As indicated under **ADDRESSES**, a docket has been established for this rulemaking under docket ID number EPA-HQ-OPPT-2009-0757. The following is a listing of the documents that are specifically referenced in this document. The docket includes these

documents and other information considered by EPA in developing this ANPRM, including documents that are referenced within the docket, even if the referenced document is not physically located in the docket. For assistance in locating these other documents, please consult the technical person listed under **FOR FURTHER INFORMATION CONTACT**.

1. Hutzinger, O.; Safe, S.; and Zitko, V. *Chemistry of PCBs*. Robert E. Krieger Publishing Company. 1983.

2. EPA. *Microeconomic Impacts of the Proposed "PCB Ban Regulation."* EPA 560/6-77-035.

3. EPA. *Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions; Final Rule.* **Federal Register** (44 FR 31514, May 31, 1979) (FRL-1075-2).

4. EPA. *Polychlorinated Biphenyls (PCBs), Toxic Substances Control; Notice.* **Federal Register** (42 FR 65264, December 30, 1977) (FRL-837-1).

5. EPA. *Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Bans; Proposed Rule.* **Federal Register** (43 FR 24802, June 7, 1978) (FRL-886-6).

6. *Environmental Defense Fund v. Environmental Protection Agency*. 636 F.2d 1267 (D.C. Cir. 1980).

7. EPA. *Polychlorinated Biphenyls (PCBs); Use in Electrical Equipment; Advance Notice of Proposed Rulemaking.* **Federal Register** (46 FR 16096, March 10, 1981) (FRL-1773-2).

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## XVI. Statutory and Executive Order Reviews

Under Executive Order 12866, entitled “Regulatory Planning and Review” (58 FR 51735, October 4, 1993), this action was submitted to the Office of Management and Budget (OMB) for review. Any changes to the document that were made in response to OMB comments received by EPA during that review have been documented in the docket as required by the Executive Order.

Since this document does not impose or propose any requirements, and instead seeks comments and suggestions for the Agency to consider in possibly developing a subsequent proposed rule, the various other review requirements that apply when an agency imposes requirements do not apply to this action. Nevertheless, as part of your comments on this document, you may include any comments or information that you have regarding the various other review requirements.

In particular, EPA is interested in any information that would help the Agency to assess the potential impact of a rule on small entities pursuant to the Regulatory Flexibility Act (RFA) (5 U.S.C. 601 *et seq.*); to consider voluntary consensus standards pursuant to section 12(d) of the National Technology Transfer and Advancement Act of 1995 (NTTAA), Public Law 104–113, section 12(d) (15 U.S.C. 272 note); to consider environmental health or safety effects on children pursuant to Executive Order 13045, entitled “Protection of Children from Environmental Health Risks and Safety Risks” (62 FR 19885, April 23, 1997); or to consider human health or environmental effects on minority or low-income populations pursuant to Executive Order 12898, entitled “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations” (59 FR 7629, February 16, 1994).

The Agency will consider such comments during the development of any subsequent proposed rule as it takes appropriate steps to address any applicable requirements.

## List of Subjects in 40 CFR Part 761

Environmental protection, Hazardous substances, Labeling, Polychlorinated

biphenyls (PCBs), Reporting and recordkeeping requirements.

Dated: March 31, 2010.

**Lisa P. Jackson,**  
Administrator.

[FR Doc. 2010-7751 Filed 4-6-10; 8:45 am]

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## DEPARTMENT OF THE INTERIOR

### Fish and Wildlife Service

#### 50 CFR Part 17

[Docket No. FWS-R8-ES-2008-0067]  
[MO 92210-0-0008-B2]

#### Endangered and Threatened Wildlife and Plants; 12-Month Finding on a Petition to Reclassify the Delta Smelt From Threatened to Endangered Throughout Its Range

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Notice of 12-month petition finding.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service), announce a 12-month finding on a petition to reclassify the delta smelt (*Hypomesus transpacificus*) under the Endangered Species Act of 1973, as amended. After review of all available scientific and commercial information, we find that reclassifying the delta smelt from a threatened to an endangered species is warranted, but precluded by other higher priority listing actions. We will develop a proposed rule to reclassify this species as our priorities allow.

**DATES:** The finding announced in this document was made on April 7, 2010.

**ADDRESSES:** This finding is available on the Internet at <http://www.regulations.gov> at Docket Number FWS-R8-ES-2008-0067. Supporting documentation we used in preparing this finding is available for public inspection, by appointment, during normal business hours at the U.S. Fish and Wildlife Service, Sacramento Fish and Wildlife Office, 2800 Cottage Way, W-2605, Sacramento, CA 95825. Please submit any new information, materials, comments, or questions concerning this finding to the above address.

**FOR FURTHER INFORMATION CONTACT:** Mary Grim, San Francisco Bay-Delta Fish and Wildlife Office, 650 Capitol Mall, 5<sup>th</sup> Floor, Sacramento, CA 95814; by telephone at 916-930-5634; or by facsimile at 916-414-6462. If you use a telecommunications device for the deaf (TDD), call the Federal Information Relay Service (FIRS) at 800-877-8339.

#### SUPPLEMENTARY INFORMATION:

##### Background

Section 4(b)(3)(A) of the Endangered Species Act of 1973, as amended (Act) (16 U.S.C. 1531 *et seq.*) requires that, for any petition to add a species to, remove a species from, or reclassify a species on one of the Lists of Endangered and Threatened Wildlife and Plants, we first make a determination whether the petition presents substantial scientific or commercial information indicating that the petitioned action may be warranted. To the maximum extent practicable, we make this determination within 90 days of receipt of the petition, and publish the finding promptly in the **Federal Register**.

If we find the petition presents substantial information, section 4(b)(3)(A) of the Act requires us to commence a status review of the species, and section 4(b)(3)(B) of the Act requires us to make a second finding, this one within 12 months of the date of receipt of the petition, on whether the petitioned action is: (a) Not warranted, (b) warranted, or (c) warranted, but the immediate proposal of a regulation implementing the petitioned action is precluded by other pending proposals to determine whether any species is threatened or endangered, and expeditious progress is being made to add or remove qualified species from the Lists of Endangered and Threatened Wildlife and Plants. We must publish these 12-month findings in the **Federal Register**.

Species for which listing is warranted but precluded are considered to be "candidates" for listing. Section 4(b)(3)(C) of the Act requires that a petition for which the requested action is found to be warranted but precluded be treated as though resubmitted on the date of such finding, i.e., requiring a subsequent finding to be made within 12 months. Each subsequent 12-month finding is also to be published in the **Federal Register**. We typically publish these findings in our Candidate Notice of Review (CNOR). Our most recent CNOR was published on November 9, 2009 (74 FR 57804).

##### Previous Federal Action

We were originally petitioned to list the delta smelt as endangered on June 26, 1990. We proposed the species as threatened and proposed the designation of critical habitat on October 3, 1991 (56 FR 50075). We listed the species as threatened on March 5, 1993 (58 FR 12854), and we designated critical habitat on December 19, 1994 (59 FR 65256). The delta smelt was one of eight fish species addressed

in the November 26, 1996, *Recovery Plan for the Sacramento-San Joaquin Delta Native Fishes* (Service 1996, pp. 1-195). We completed a 5-year status review of the delta smelt on March 31, 2004 (Service 2004, pp. 1-50).

On March 9, 2006, we received a petition to reclassify the listing status of the delta smelt, a threatened species, to endangered on an emergency basis. We sent a letter to the petitioners dated June 20, 2006, stating that we would not be able to address their petition at that time because further action on the petition was precluded by court orders and settlement agreements for other listing actions that required us to use nearly all of our listing funds for fiscal year 2006. We also stated in our June 20, 2006, letter that we had evaluated the immediacy of possible threats to the delta smelt, and had determined that an emergency reclassification was not warranted at that time.

On July 10, 2008, we published a 90-day finding that the petition presented substantial scientific information to indicate that reclassifying the delta smelt may be warranted (73 FR 39639). We announced the initiation of a status review at that time, and requested comments and information from the public on or before September 8, 2008. We reopened the comment period on December 9, 2008, and that comment period closed February 9, 2009 (73 FR 74674).

##### Species Information

###### *Description and Taxonomy*

Delta smelt are slender-bodied fish, generally about 60 to 70 millimeters (mm) (2 to 3 inches (in)) long, although they may reach lengths of up to 120 mm (4.7 in) (Moyle 2002, p. 227). Delta smelt are in the Osmeridae family (smelts) (Stanley *et al.* 1995, p. 390). Live fish are nearly translucent and have a steely blue sheen to their sides (Moyle 2002, p. 227). Delta smelt feed primarily on small planktonic (free-floating) crustaceans, and occasionally on insect larvae (Moyle 2002, p. 228). Delta smelt usually aggregate into loose schools, but their discontinuous stroke-and-glide swimming behavior likely makes schooling difficult (Moyle 2002, p. 228).

The delta smelt is one of six species currently recognized in the *Hypomesus* genus (Bennett 2005, p. 8). Within the genus, delta smelt is most closely related to surf smelt (*H. pretiosus*), a species common along the western coast of North America. In contrast, delta smelt is a comparatively distant relation to the wakasagi (*H. nipponensis*), which was introduced into Central Valley