Republic of Palau, or the Commonwealth of the Northern Mariana Islands; or

(3) Provides evidence from the U.S. Immigration and Naturalization Service that he or she—

(i) Is a lawful permanent resident of the United States; or

(ii) Is in the United States for other than a temporary purpose with the intention of becoming a citizen or permanent resident.

(Authority: 20 U.S.C. 1432)

§ 319.32 What amount of assistance is authorized?

Subject to the limitations in §§ 319.33, a grantee shall disburse financial assistance to students in amounts consistent with established policies of the grantee that are relevant to providing financial assistance to part-time and full-time students, including policy relevant to the use of financial assistance for dependents.

§ 319.33 What financial assistance is authorized for part-time students?

(a) Students enrolled for less than a full-time academic year may receive a traineeship or a stipend.

(b) Part-time students who are receiving financial assistance from other public or private agencies or institutions for training are not eligible for financial assistance under this section.

(Authority: 20 U.S.C. 1432)

§ 319.34 May the grantee use funds if a financially assisted student withdraws or is dismissed?

Financial assistance awarded to a student that is unexpended because the student withdraws or is dismissed from the training program may be used for other project costs, including awards to other students, during the grant period.

(Authority: 20 U.S.C. 1432)

§ 319.35 What types of reports are required?

Not more than sixty days after the end of any fiscal year, each recipient of a grant during such fiscal year shall prepare and submit a report to the Secretary. Each report shall be in such form and detail as the Secretary determines to be appropriate, and shall include—

(a) The number of individuals trained under the grant by category of training and level of training; and

(b) The number of individuals trained under the grant receiving degrees and certification, by category and level of training.

(Authority: 20 U.S.C. 1434)

(Approved under OMB control number 1820-0530)

§§ 319.36-319.39 [Reserved]

[FR Doc. 87-15520 Filed 7-7-87; 8:45 am]

BILLING CODE 4000-01-M

DEPARTMENT OF EDUCATION

State Educational Agency and Institutions of Higher Education; Annual Funding Priority

AGENCY: Department of Education.

ACTION: Notice of final annual funding priority.

SUMMARY: The Secretary announces an annual funding priority under the Grants to State Educational Agencies (SEAs) and Institutions of Higher Education (IHEs) program. This priority supports awards for preservice training on a cooperative basis between SEAs and IHEs to prepare personnel to serve infants, toddlers, children, and youth with handicaps.

EFFECTIVE DATE: This final funding priority will take effect either 45 days after publication in the **Federal Register** or later if the Congress takes certain adjournments. If you want to know the effective date of this final priority, call or write the Department of Education contact person.

FOR FURTHER INFORMATION CONTACT: Richard Champion, Division of Personnel Preparation, Office of Special Education Programs, Department of Education, 400 Maryland Avenue, SW. (Switzer Building, Room 4625—M/S 2313,) Washington, DC 20202. Telephone: (202) 732-1158.

SUPPLEMENTARY INFORMATION: The Training Personnel for the Education of the Handicapped program is authorized by sections 631 and 632 of Part D of the Education of the Handicapped Act (EHA). This program is designed to increase the quantity and improve the quality of personnel available to educate children and youth with handicaps. Section 632 of the EHA provides Federal financial assistance for projects to train personnel to meet the needs of infants, toddlers, children and youth with handicaps, consistent with the pesonnel needs identified in each State's comprehensive system of personnel development.

A notice of proposed annual funding priority was published in the **Federal Register** on May 27, 1987 at 52 FR 19812. The public was given thirty days to comment on the proposed priority. Comments received in response to that notice and the Department's responses are summarized below. In response to the comments received regarding the proposed priority, the final priority has been revised to allow submission of applications by either SEAs or IHEs with the written acknowledgement of cooperation from the other participating party.

Comment: Many commenters expressed concern that the SEA/IHE competition represented a diversion of funds from established programs to a new program not required by law. Commenters questioned the authority and policy underlying the announcement of the cooperative grant program.

Response: A change has been made to the application notice, but not the priority. Funds have not been diverted from established programs to a new program not required by law. The funding level for the other training programs is not reduced from the originally announced level. This priority is authorized under the recent EHA amendments, Pub. L. 99-457, and will be funded from the appropriation increases provided by Congress between 1986 and 1987. However, because of widespread confusion regarding the priority, the number of projects estimated to be funded in the application notice will be reduced from 100 to 20. Funds not used for the SEA/IHE priority will be used for training projects in other areas.

Comment: Some commenters stated that although they felt the concept of encouraging SEA/IHE cooperation theoretically sound, a "forced fiscal and administrative partnership" would be counterproductive to collaboration between States and institutions of higher education. Specifically, some commenters objected to the proposal that grant applications be jointly signed by SEAs and IHEs. In addition, some commenters objected to the proposed priority because they viewed it as setting the stage for block granting all Part D funds back to the State level.

Response: A change has been made. The application may be signed by the IHE(s) with the written acknowledgement of cooperation from the SEA, or by the SEA with written acknowledgement of cooperation from the IHE(s).

The SEA/IHE competition does not set the stage for block granting Part D programs. Congress has structured Part D of the Education of the Handicapped Act in a way that precludes block granting of awards. At least 65 percent of the funds available under Part D must be awarded under section 631(a) to institutions that meet "State and professionally recognized standards for the preparation of special education and related services personnel". At least 10 percent of the Part D funds must be awarded to "private nonprofit organizations" to train parents under section 631(c). The remaining 25 percent of funds are divided among 3 mandated national clearinghouses, special projects, and the legislatively expanded section 632 activities, which include mandatory grants to SEAs.

Comment: Many commenters felt that simultaneous publication of the proposed priority and the notice inviting applications was inappropriate because it limited meaningful dialogue between the field and the Department. Also, some commenters noted that the six-week period for submission of proposals was an insufficient time in which to develop quality proposals. These commenters requested that the Department invite further comment and discussion on the priority and also extend the time period for submission of applications.

Response: A change has been made. The closing date for submission of application notices has been extended by two weeks from July 13, 1987, to July 27, 1987. While the Department makes every effort to publish final priorities before requesting applications, the Department sometimes is required to request applications and comments on a proposed priority at the same time when if schedule does not permit these steps to be taken sequentially. In response to public comments, the priority has been changed to significantly simplify applications. The Department intends to maintain a continuing dialogue to seek better ways of coordinating SEA and IHE activities in order to help ensure that the needs of infants, toddlers, children and youth with handicaps for trained personnel are met.

Comment: A few commenters criticized the focus of the competition on preservice training. They argued that Congress had crafted section 632 to support both preservice and inservice training and thus, grantees should be given greater latitude in determining which type of training they will provide.

Response: No change has been made. The Department believes that it is in the best interest of infants, toddlers, children, and youth with handicaps to fund only preservice training through this competition. Inservice training needs can be addressed by SEAs through the mandatory State grant each State receives. In addition, because SEAs have been primarily concerned with inservice training in the past, one purpose of this competition is to encourage the involvement of SEAs in preservice training.

Priority

In accordance with Education Department General Administrative Regulations (EDGAR) at 34 CFR 75.105(c)(3), the Secretary gives an absolute preference to each application that meets the following priority:

1. Awards will only be made for preservice training of personnel for careers in special education of infants, toddlers, children and youth, or supervisors of those personnel.

2. Applications must demonstrate evidence of a cooperative effort between SEAs and IHEs in jointly planning the project, and in on-going coordination for purposes of carrying out, monitoring, and evaluating the project.

3. Training must be consistent with personnel needs identified in the State's or, if applicable, the adjacent State(s) comprehensive system of personnel development.

4. Applications must: (a)(1) be jointly signed by the SEA and the IHE(s) involved in carrying out the project, and (2) specify whether a party other than the SEA will be the fiscal agent; or (b) be signed by the IHE(s) with the written acknowledgment of cooperation from the SEA; or (c) be signed by the SEA with the written acknowledgment of cooperation from the IHE(s).

Period of Award

The projects funded under this priority will be funded for a period of 12 to 60 months. However, most projects will be for 36 months. Awards will be subject to the availability of Federal funds.

(20 U.S.C. 1432)

(Catalog of Federal Domestic Assistance No. 84.029; Training Personnel for the Education of the Handicapped).

William J. Bennett,

Secretary of Education.

[FR Doc. 87-15521 Filed 7-7-87; 8:45 am]

BILLING CODE 4000-01-M

Invitation To Apply for New Competitive Awards Under the Training Personnel for the Education of the Handicapped Program for Fiscal Year 1987

AGENCY: Department of Education.

ACTION: Revised application notice.

SUMMARY: An application notice for this competition was published in the **Federal Register** on May 27, 1987, at 52 FR 19812. A notice of proposed priority for the competition was published in the same issue of the **Federal Register** also at 52 FR 19812. A final priority notice containing some changes from the proposed priority is published in this issue of the **Federal Register.** In order for applicants to revise or submit applications based on the revised priority, the deadline for transmittal of applications is extended from July 13, 1987, to July 27, 1987. In addition, the number of anticipated awards is revised from 100 to 20.

FOR FURTHER INFORMATION CONTACT: Richard Champion, Division of Personnel Preparation, Office of Special Education Programs, Department of Education, 400 Maryland Avenue, SW. (Switzer Building, Room 4625—M/S 2313, Washington, DC, 20202. Telephone: (202) 732-1158.

Dated: July 2, 1987.

Madeleine Will,

Assistant Secretary, Office of Special Education and Rehabilitative Services.

[FR Doc. 87-15522 Filed 7-7-87; 8:45 am]

BILLING CODE 4000-01-M

federal register

Wednesday
July 8, 1987

Part X

Environmental Protection Agency

40 CFR Part 761

Polychlorinated Biphenyls; Exclusions, Exemptions and Use Authorizations; Proposed Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 761

[OPTS-62053; FRL 3176-1]

Polychlorinated Biphenyls; Exclusions, Exemptions and Use Authorizations

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: Section 6(e) of the Toxic Substances Control Act (TSCA), 15 U.S.C. 2605(e), generally prohibits the manufacture, processing, distribution in commerce, and use of polychlorinated biphenyls (PCBs). EPA issued a final rule published in the **Federal Register** of July 10, 1984 (49 FR 28172), prescribing conditions under which certain manufacturing processes were excluded from the TSCA prohibitions, and prescribing conditions on the use of PCBs in hydraulic and heat transfer systems. This document proposes to amend the July 10, 1984 rule (the "Uncontrolled PCBs" Rule) by excluding additional materials from regulation, based on EPA's determination that activities involving these materials do not present an unreasonable risk of injury to health or the environment. In addition, this document proposes: (1) To elimination from the use authorization for PCBs in heat transfer and hydraulic systems, the requirement that Viton® elastomer gloves be worn by workers performing maintenance on such systems; (2) to exclude from the ban on use and distribution in commerce, certain equipment and materials which have been adequately decontaminated; and (3) to amend the definition of "recycled PCBs."

DATES: The public is asked to submit written comments by September 8, 1987. If persons request time for oral comment by August 24, 1987, EPA will hold an informal hearing in Washington, DC, on or about September 21, 1987. The exact time and location of the hearing will be available by telephoning EPA's TSCA Assistance Office at the number listed under **"FOR FURTHER INFORMATION CONTACT."** Any informal hearing will be conducted in accordance with EPA's "Procedures for Conducting Rulemaking Under Section 6 of the Toxic Substances Control Act" (40 CFR Part 750). Persons who wish to participate in the informal hearing must write EPA's TSCA Assistance Office (see address under **"FOR FURTHER INFORMATION CONTACT"**). All requests to participate must include an outline of the topics to be addressed, the amount of time requested, and the names of participants. The informal hearing is meant to provide an opportunity for interested persons to present additional information or to discuss new issues, not to repeat information already presented in written comments.

ADDRESS: Since some comments are expected to contain confidential business information (CBI), all comments should be sent in triplicate to: Document Control Officer (TS-790), Office of Toxic Substances, Environmental Protection Agency, 401 M St. SW., Washington, DC 20460.

Comments should include the docket number OPTS-62053. Non-CBI comments received on this Notice will be available for reviewing and copying from 8 a.m. to 4 p.m., Monday through Friday, excepting legal holidays, in Rm. NE G-004, at the above address.

FOR FURTHER INFORMATION CONTACT: Edward A. Klein, Director, TSCA Assistance Office (TS-799), Office of Toxic Substances, Rm. E-543, Environmental Protection Agency, 401 M St. SW., Washington, DC 20460, Toll free: (800-424-9065); In Washington, DC: (554-1404), Outside the USA: (Operator-202-554-1404).

SUPPLEMENTARY INFORMATION:

I. Overview of This Proposed Rulemaking

This document proposes several amendments to the regulation on "Uncontrolled PCBs," which EPA published in the **Federal Register** of July 10, 1984 (49 FR 28172). The July 10, 1984 regulation affected various activities involving PCBs at concentrations less than 50 parts per million (ppm). Specifically, this rule excluded certain PCB activities from the TSCA bans affecting PCB manufacture, processing, distribution in commerce, and use. Also, the rule authorized the use of hydraulic and heat transfer systems containing PCBs at concentrations less than 50 ppm for the remainder of their useful lives under prescribed conditions, including a requirement that workers performing maintenance work on such systems be supplied with the wear Vitron® elastomer gloves for protection. Petitions seeking judicial review of the July 10, 1984 rule were filed on September 24, 1984, by the American Paper Institute (API), the Fort Howard Paper Company (Ft. Howard), the Outboard Marine Corporation (OMC), and the American Die Casting Institute (ADCI). The various challenges to the rule were consolidated for resolution, and the Chemical Manufacturers Association (CMA) entered the litigation as an intervenor and respondent. On August 7, 1986, EPA entered into a settlement agreement involving API, ADCI, OMC, and CMA. These parties have agreed to dismiss their petitions for review as to all the outstanding issues within 30 days of final rulemaking by EPA in accordance with EPA's commitments in the Settlement Agreement.

The Settlement Agreement committed EPA to proposing specific amendments to the July 10, 1984 regulation, and to taking final action on a rule substantially similar to the proposal. In accordance with the August 7, 1986 Settlement Agreement, EPA is proposing the agreed amendments.

II. Background

Section 6(e) of TSCA generally prohibits the manufacture, processing, distribution in commerce, and use of PCBs. Under section 6(e)(2), the Agency may authorize non-totally enclosed uses of PCBs upon a determination that such uses will not present an unreasonable risk of injury to health or the environment. Also, under section 6(e)(3), EPA may by rule grant 1-year exemptions from the general manufacture, processing, and distribution in commerce prohibitions. Such exemptions may be granted where the petitioner can demonstrate: (1) That the activity to be exempted will not present an unreasonable risk of injury to health or the environment; and (2) that good faith efforts have been made to develop a substitute for PCBs which does not present an unreasonable risk.

A. Ban Rule History and Challenge to 50 PPM Cutoff

In the **Federal Register** of May 31, 1979 (44 FR 31514), EPA issued its first regulation implementing the TSCA section 6(e)(2) and section 6(e)(3) prohibitions. That first rule (the PCB Ban Rule) included among its provisions a general exclusion from regulation for materials containing PCBs at levels less than 50 ppm. The only exception to the general exclusion for less than 50 ppm materials was the prohibition on the use of waste oil as a dust suppressant, sealant, or coating. This prohibition applied to waste oils with any level of PCBs. 40 CFR 761.20(d).

The Environmental Defense Fund (EDF) obtained judicial review of the Ban Rule in the U.S. Court of Appeals for the District of Columbia Circuit. *Environmental Defense Fund, Inc.* v. *Environmental Protection Agency*, 636 F.2d 1267 (D.C. Cir. 1980). While EDF challenged several aspects of the Ban Rule, the significant aspect for the purposes of this proposed rule was the challenge to the general 50 ppm

regulatory cutoff. EDF was successful in its challenge to the general 50 ppm cutoff, and on October 30, 1980, the court remanded the Ban Rule to EPA for further action consistent with its opinion. The *EDF* v. *EPA* court found that there was not substantial evidence in the Ban Rule record which would support the decision to exclude generally from regulation all materials containing PCBs at concentrations less than 50 ppm. The court rejected, however, the contention that TSCA section 6(e) was intended to regulate every source of PCB contamination. Rather, the court concluded from the statute and its legislative history that section 6(e) was intended to regulate the "point sources" that might introduce additional PCBs into the environment. The court distinguished these point sources of new PCB contamination from the "ambient" sources of PCBs which were widely dispersed in the environment. Significantly, the *EDF* v. *EPA* court did not find that the use of a concentration-based regulatory cutoff would be inappropriate in all cases. However, it criticized the Ban Rule's general 50 ppm cutoff as too indirect a means of excluding ambient sources from regulation. The court stated that a proper exclusion would be either more finely tailored to the purpose of excluding ambient sources of PCBs, or, premised upon a finding that the designated cutoff does not involve an unreasonable risk to health or the environment. This decision was the impetus for the Agency's subsequent efforts at regulating PCBs at level less than 50 ppm.

On February 20, 1981, the Chemical Manufacturers Association (CMA), EDF, and other industry intervenors in the *EDF* v. *EPA* litigation filed a joint motion seeking a stay of the court's mandate overturning the 50 ppm cutoff established in the Ban Rule. The court granted the joint motion on April 13, 1981, thereby staying the issuance of its mandate pending the development by EPA of additional regulations concerning PCBs with concentrations less than 50 ppm.

B. EPA's Efforts at Regulating Less Than 50 PPM PCBS

1. *Inadvertently generated PCBs.* EPA undertook the regulation of the very low concentration PCBs (less than 50 ppm) in two phases. In the first phase, EPA issued the Closed and Controlled Waste Manufacturing Process Rule (47 FR 46980, October 21, 1982). This rule excluded from the general prohibitions certain chemical manufacturing processes defined as "closed" or "controlled waste" processes. These processes inadvertently generated PCBs as byproducts that presented only *de minimis* risk, in the sense that their regulation would provide no measurable benefit because the PCBs were generated at levels that were nonquantifiable for all practical purposes. The "closed" processes were manufacturing processes which generated PCBs, but released them in concentrations below the practical limits of quantitation in air, water, and products. "Controlled waste" processes, on the other hand, met the same restrictions on releases as the "closed" processes, except that waste streams containing greater than 2 ppm PCBs were subject to specified disposal requirements.

The second phase of regulation dealt with processes involving the "uncontrolled" PCBs, that is, manufacturing processes generating low concentration PCBs in other than "closed" and "controlled waste" processes. The Agency rejected an approach to regulation which would have established risk-based limits on a case-by-case basis for each such process generating PCBs. Instead, the Agency adopted a "generic exclusion" approach to the regulation of the "inadvertently generated" PCBs, modeled after the Closed and Controlled Waste Rule and a consensus proposal submitted by CMA, EDF, and the Natural Resources Defense Council (NRDC).

These non-Aroclor, inadvertently generated PCBs were the principal subject of the July 10, 1984, rulemaking. The exclusions announced in the July 10, 1984 rule expanded upon and superceded the exclusions for closed and controlled waste manufacturing processes. The generic exclusion for inadvertently generated PCBs applied to manufacturing processes which qualified as "excluded manufacturing processes." These excluded processes were defined in terms of established limits for PCB releases in products, air emissions, water effluents, and wastes. During this rulemaking, EPA evaluated risk assessments for carcinogenicity, as well as information concerning reproductive/developmental effects, environmental effects, and costs. The Agency concluded that the excluded materials, when generated under the prescribed conditions, would not present an unreasonable risk of injury to health or the environment. Significantly, the exclusion from regulation extends beyond the manufacturing processes that generate the very low concentration PCBs; the further processing, distribution in commerce, and use of the material are likewise excluded from the TSCA prohibitions.

The July 10, 1984 rule established the following PCB release limits as the criteria defining "excluded manufacturing processes:"

a. PCBs in products leaving the manufacturing site are limited to an annual average of less than 25 ppm, with a 50 ppm maximum.

b. Where the product is detergent bars, PCB concentrations in the product are limited to less than 5 ppm.

c. PCBs added to water discharges from the manufacturing site are limited to less than 100 micrograms per resolvable gas chromatographic peak per liter of water discharged.

d. Releases of PCBs in air emissions are limited to less than 10 ppm at the point where emissions are vented.

e. Disposal of process wastes above 50 ppm PCB must be in accordance with Subpart D of Part 761.

The above PCB concentration limits for excluded manufacturing processes are calculated according to the definition of "inadvertently generated non-Aroclor PCBs" set out in the definition of "PCB" at 40 CFR 761.3. This definition contains discounting factors for the monochlorinated and dichlorinated congeners.

2. *Recycled PCBs processes.* The July 10, 1984 rule also developed a generic exclusion approach for regulating manufacturing processes which recycle certain Aroclor PCBs (the "old PCBs") which were intentionally manufactured in the past, but which enter a manufacturing process as PCB-contaminated raw materials. The exclusion for these "recycled PCBs" processes is analagous to the exclusion for PCBs inadvertently generated in "excluded manufacturing processes." Like the latter exclusion, the exclusion for "recycled PCBs" is defined in terms of concentration limits on PCB releases to products, air emissions, water discharges, and wastes. Under these conditions, the Agency concluded that the exclusion of the PCB materials involved in recycling processes would not present an unreasonable risk to health or the environment. As in the case of the inadvertently generated PCBs, the exclusion extends to all further use, processing, and distribution in commerce activities connected with the materials.

By including "recycled PCBs" as a subject for the Uncontrolled PCBs Rule, EPA adopted the view that any manufacturing process with the potential to release PCBs to products or the environment was a "point source" for the introduction of additional PCBs.

The Agency believed that the potential for exposure from these very low concentration PCBs was similar, whether the PCBs traced their origin to newly generated PCBs or to raw materials contaminated from prior uses. The Agency intended therefore that "old" PCBs would be excluded according to the same generic, risk-based considerations as the "new" PCBs generated in chemical manufacturing processes as inadvertent byproducts. In other words, EPA understood that by focusing upon the "point source" manufacturing processes which generated very low concentration PCBs, it was discharging the regulatory mandate presented by the *EDF* v. *EPA* court. It was not EPA's intent to extend the coverage of the TSCA section 6(e) prohibitions to every conceivable source of "old," low level PCB contamination.

However, when EPA first embarked on regulating recycling activities involving "old" PCBs, it possessed very little information on their sources, the types of activities that involved their processing, distribution in commerce, and use, or the types and extend of possible exposures. Recognizing the deficiencies in the information base, EPA chose to elicit much of this information from the regulated community. In the Advance Notice of Proposed Rulemaking published in the **Federal Register** of May 20, 1981 (46 FR 27619), EPA solicited comment on the activities and exposures associated with "old" PCBs activities. The Agency also stressed the importance of developing sufficient information during the rulemaking to support any exclusions from the general statutory bans. Otherwise, the statutory bans could prohibit all activities involving low concentration PCBs which were not authorized or excluded (46 FR 27620). This approach was carried forward in the promulgation of the final Uncontrolled PCBs Rule. Particularly, with regard to "old" PCBs that were excluded as "recycled PCBs" processes, EPA believed that manufacturers involved with PCB contaminated raw materials would recognize the incentive to participate in the rulemaking process by identifying their processes and exposures.

The exclusion in the final rule prescribed conditions pertaining only to the two industries (paper pulp manufacturers and manufacturers of asphalt roofing materials) who commented on their recycling activities. As finally promulgated, the exclusion for "recycled PCBs" applied only to these manufacturers. Consistent with the approach first alluded to in the May, 1981 ANPR, EPA asserted in the final rule preamble that upon the effective date of the Uncontrolled PCBs Rule, any activity involving any quantifiable level of PCBs was banned unless the activity had been specifically excluded, exempted, or authorized by regulation (49 FR 28174). In short, a burden shifting device intended to elicit information from the manufacturers of new products became in practice the driving force for an outright prohibition of many activities involving existing products which were not considered by the Agency in developing the Uncontrolled PCBs Rule.

C. Overview of the Settlement Agreement

In connection with the August 7, 1986 Settlement Agreement, EPA agreed: To make good faith efforts to propose amendments to the July 10, 1984 rule within 7 months from the date of the Settlement Agreement; and to take final action on the proposed amendments within 9 months from the date of the proposal. Under the terms of the Settlement Agreement, EPA has also made the following substantive commitments.

1. EPA has agreed to propose an amendment to the present definition of "Recycled PCBs" found at 40 CFR 761.3, by eliminating condition (4) of the five conditions which qualify a process as a "recycled PCBs" process. The effect of the amendment will be to eliminate the condition limiting the amount of Aroclor PCBs in water discharges from a processing site at all times to less than 3 micrograms per liter (ug/l) for total Aroclors (roughly 3 parts per billion).

2. EPA would propose to authorize the processing, distribution in commerce, and use of products containing less than 50 ppm concentration as determined in accordance with the "PCB" definition set out at 40 CFR 761.3, provided that the products were "legally" manufactured, processed, distributed in commerce, or used prior to October 1, 1984. The term "legally" would refer to activities allowed by EPA by regulation, by exemption petition, by settlement agreement, or pursuant to other Agency-approved programs.

3. EPA would propose to authorize the distribution in commerce of equipment and other materials contaminated with PCBs, and not otherwise authorized by 40 CFR Part 761, provided that such materials were decontaminated in accordance with applicable EPA PCB cleanup policies in effect at the time of decontamination. However, if such equipment or other materials were not previously decontaminated in accordance with EPA PCB cleanup policies, the authorization will provide that it must be decontaminated in accordance with the cleanup policies in effect at the time of distribution in commerce.

4. EPA would propose an amendment deleting the requirement for Viton® elastomer gloves as a condition on the current use authorizations for hydraulic and heat transfer systems under 40 CFR 761.30(e)(6) and (7).

III. Discussion of the Proposed Amendments

A. Use Authorization for Hydraulic and Heat Transfer Systems

1. *Background.* In the 1979 Ban Rule, EPA authorized the non-totally enclosed use of PCBs at concentrations of 50 ppm or greater in hydraulic systems and in heat transfer systems (40 CFR 761.30(d) and (e)). The 1979 use authorizations contained conditions relating to testing and retrofilling which were designed to reduce the concentration of PCBs in these systems to levels less than 50 ppm by July 1, 1984.

With the overturning of the general 50 ppm cutoff, the systems containing less than 50 ppm PCBs would have become illegal without further Agency action. So, EPA included in the July 10, 1984 rule provisions authorizing the use of PCBs in hydraulic and heat transfer systems at concentrations less than 50 ppm for the remainder of their useful lives. The 1984 use authorizations imposed an additional condition requiring owners of systems to provide workers with Viton® elastomer gloves for protection against dermal exposure to PCBs. 40 CFR 761.30(d)(6) and 761.30(e)(6). These Viton® elastomer gloves were also required to be worn by workers performing repair and maintenance operations on such systems. 40 CFR 761.30(d)(7) and 761.30(e)(7).

The Viton® glove requirement was challenged in the OMC and ADCI petitions, and it has been the subject of several comments received by EPA after the promulgation of the July 10, 1984 rule. Because of the interest aroused by this requirement, EPA has reexamined the potential exposures and economic impacts presented by the inclusion of a protective clothing requirement referring exclusively to gloves formulated from Viton® elastomer. After considering economic information not examined during the previous rulemaking, and after further evaluation of the potential exposures, the Agency has concluded that the Viton® glove requirement is not necessary to protect against any unreasonable risks presented by the continued use of authorized heat

transfer and hydraulic systems. Therefore, EPA is today proposing to delete the requirement from the use authorizations for heat transfer and hydraulic systems.

2. *The exposure assessment.* The Viton® glove requirement arose from concerns raised by a May, 1984 exposure assessment conducted in support of the July 10, 1984 rule. (For details of the exposure assessment, see Vol. 4 of support document for July 10, 1984 rule entitled "Exposure Assessment for Incidentally Produced Polychlorinated Biphenyls"). Although EPA determined that, on the whole, there was only a very low carcinogenic risk from long-term dermal and inhalation exposures to PCBs in heat transfer and hydraulic systems, certain of the hypothetical dermal absorption situations modeled in the assessment were singled out as presenting the potential for significant exposures. Particularly, occupational dermal exposures during maintenance operations were believed by EPA to present the highest potential for such exposures.

Several variables were considered by EPA in 1984 to estimate the relevant occupational dermal exposures from these uses of PCBs. The variables included PCB dermal exposure, the frequency of exposure, the PCB exposure level, the skin area exposed, the absorption rate of PCBs through the skin, the liquid thickness on skin, the density of the liquid, and the PCB concentration in the liquid.

In addition, in evaluating the risk from these activities, other factors were important: The number, size, and estimated PCB contamination level of the hydraulic and heat transfer systems, and the estimated number of workers potentially exposed to PCBs from contaminated systems. For the purposes of the 1984 assessment, EPA inspection data were primarily used in developing estimates of exposures and risks.

EPA also used assumptions in the 1984 assessment which were designed to develop conservative or "worst-case" exposures. For example, EPA relied on the following conservative assumptions:

a. EPA assumed a constant 50 ppm exposure each workday for a period of 38.5 years.

b. EPA assumed that workers either wore no gloves of any kind during the occupational situations, or that any gloves worn did not protect against dermal contact with PCBs.

c. All types of operations (e.g., regular repairs, spill cleanup, draining and filling, and major repairs) were assumed to expose maintenance workers to the same dermal exposure levels.

d. EPA assumed that the potentially exposed maintenance workers were engaged full-time in maintenance work that would routinely bring them into contact with PCBs, resulting in PCB exposures 240 days per year, for a duration of 38.5 years.

e. EPA assumed that 100 percent of the PCBs contacting the skin were absorbed.

f. EPA assumed that the entire surface area of both hands (870 cm^2) became coated with a film of PCB-containing hydraulic fluid.

Based upon the above "worst-case" assumptions and other modeling assumptions, the assessment estimated a lifetime averaged daily dose (LADD) for maintenance workers of 3.8×10^{-4} mg/kg/day of PCB. These dermal exposures were found to be about two orders of magnitude higher than the estimated inhalation exposures. Identical dermal exposures were estimated for heat transfer systems.

This hypothetical dermal exposure was believed at the time to justify the imposition of the Viton® glove requirement. However, upon further examination, EPA has concluded that the 1984 assessment overstates the likely dermal exposures and associated risks, and that the estimated exposures do not justify the imposition of the enormous costs associated with the present protective glove requirements.

First, the assumption that PCB concentrations are constant at 50 ppm over the entire period of exposure (38.5 years) is not consistent with the circumstances that one would more likely encounter in dealing with this equipment. For example, the assumption does not reflect the actual efficiency of already conducted draining and refilling operations in reducing PCB concentrations to levels under 50 ppm. Also, the assumption does not account for the effects of normal leakage (on average, 2 volumes of fluid annually) in further reducing the actual PCB concentration when leaked fluids are reclaimed or replaced. The 1984 exposure assessment derived a reduction factor and equation to account for the combined effects of retrofilling and normal leakage on residual PCB concentrations. This equation has been used to extrapolate from the 1982 inspection data to project the current PCB concentrations in hydraulic and heat transfer systems. When one focuses upon the equipment that has been maintained to comply with the 1984 use authorization, this equation predicts that the effect of draining and refilling (to meet the 1984 50 ppm limit), as well as the effect of normal leakage, would be to reduce the current PCB concentrations to levels nearly an order of magnitude less than 50 ppm. This factor alone would produce lifetime averaged dermal exposures and associated risks an order of magnitude less than those derived using the "worst-case" assumptions.

Also, aside from the effects of retrofilling and leakage, the 1982 enforcement data point out the extent to which assuming constant 50 ppm exposures exaggerates the actual distribution of PCB concentrations among the systems sampled in 1982. The data base for the 1984 assessment shows that of 2,317 total systems sampled in 1982, 2021 (87.2 percent) were found to contain PCB levels at or below 25 ppm. An additional 3.4 percent were found with levels between 26 and 50 ppm, which would likely be reduced significantly over the intervening years since they were sampled. The 1982 enforcement data also demonstrate the extent to which the reported PCB concentration distribution was skewed by equipment not even in compliance with the 1979 use authorization. For example, although only 3.4 percent of the systems sampled were found with PCB levels above 1,000 ppm, the average among this group was determined to be 69,055 ppm.

EPA believes that the 1982 data, and reasonable extrapolations from that date, support the conclusion that the great majority of the presently authorized hydraulic and heat transfer systems will today have PCB concentrations well below 50 ppm. Moreover, the information available to EPA concerning the frequency with which these systems' fluid contents are regularly replaced suggests that the PCB contamination in these systems will continue to decline until it reaches de minimus levels. For these reasons, EPA believes that it is reasonable to conclude that the actual lifetime averaged PCB exposures resulting from heat transfer and hydraulic systems should be at least one order of magnitude less than those predicted by the 1984 assessment.

3. *Costs.* EPA also considered information not previously examined by the Agency concerning the costs to industry associated with an exclusive Viton® glove requirement. At the time the Uncontrolled PCBs Rule was issued, Viton® elastomer was the only material known to EPA that possessed the necessary resistance to PCB breakthrough. Although the costs of the Viton® gloves were significant, EPA reasoned that the incremental costs associated with the inclusion of the Vitron® glove condition were minimal

relative to the costs which industry would incur without a use authorization for less than 50 ppm systems.

However, in response to numerous comments received by the Agency after the promulgation of the July 10, 1984 rule, EPA has reexamined the costs associated with the Viton® glove requirement. EPA estimated the protected population of hydraulic and heat transfer system maintenance workers (15,306), and assumed a useful life for the gloves of one day (based on the limits of PCB breakthrough studies). With an approximate gloves cost per pair of $25, the additional cost over a 10-year operating period (discounted to present value) has been estimated at $620,718,000. The Agency considers these costs to be exorbitant, in light of the "worst-case" exposures estimated in the exposure assessment.

4. *The no unreasonable risk analysis.* A determination whether a risk from PCB use is unreasonable requires EPA to balance the probability that harm will occur against the benefits to society of the authorized use. EPA considers the effects of PCBs on health and the environment; the magnitude of exposure of the PCBs to humans and the environment; the benefits of using PCBs; the availability of substitutes for PCB uses; and the economic impact resulting from the rule's effect on the national economy, small business, technological innovation, the environment, and public health. EPA discussed these factors at length in the preamble to the Uncontrolled PCBs Rule (49 FR 28176). For purposes of this proposed rule, it is only necessary to reexamine the factors concerned with the magnitude of exposure and economic impacts.

EPA has concluded that the 1984 risk assessment overstates the likely dermal, occupational exposures presented by repair and maintenance operations by at least one order of magnitude. In addition, the incremental costs associated with the Viton® glove requirement are on the order of $600,000,000 over 10 years. The Agency has concluded that the potential risks presented by these activities do not warrant the imposition of incremental costs of this magnitude. Therefore, EPA is proposing to amend the use authorizations for hydraulic and heat transfer systems by eliminating the conditions requiring owners to provide, and maintenance workers to wear, gloves formulated from Viton® elastomer. The Agency emphasizes, however, that the elimination of the TSCA-based protective glove requirements does not affect any protective clothing requirements imposed under Federal or State occupational safety and health regulations, or under standard industrial hygiene practices.

EPA solicits comments on this proposal. Particularly useful comments would present information relevant to these issues:

a. More recent data showing the actual distribution of PCB concentrations among hydraulic and heat transfer systems in compliance with the 1984 use authorization.

b. Information on the actual conditions of exposure to hydraulic and heat transfer system maintenance workers, including frequency and duration of exposures, and measures taken to protect workers from dermal exposures to PCBs.

c. The availability of substitute glove materials which might protect against dermal exposures, including an identification of their costs, breakthrough times, and PCB permeation rates.

B. Water Discharge Limit for "Recycled PCB" Processes

The July 10, 1984 rule defined, among other things, the category of "recycled PCBs" processes excluded from the TSCA section 6(e) bans on manufacturing, use, processing, and distribution in commerce. These processes involved manufacturers who used raw materials contaminated with Aroclor PCBs. In response to the proposed Uncontrolled PCBs Rule, EPA received information from only two manufacturing industries-asphalt roofing materials manufacturers and manufacturers of pulp and paper products. Therefore, the exclusion announced in the July 10, 1984 rule permitted further PCB recycling activities only by these industries, and the conditions defining the exclusion related only to these two industries' products and processes. Similar to the approach adopted for inadvertently generated PCBs (the "excluded manufacturing processes"), the exclusion for "recycled PCBs" is defined by conditions limiting Aroclor PCB concentrations in the products, wastes, water discharges, and air emissions. The five conditions which define the excluded class are set forth in the definition of "recycled PCBs" codified at 40 CFR 761.3; the language excluding the class from the section 6(e) prohibitions is codified at 40 CFR 761.1(f). EPA determined in the final Uncontrolled PCBs Rule that PCB recycling activities conducted under these conditions would not present an unreasonable risk to health or the environment.

The condition relevant to this proposal is condition (4) pertaining to the allowed limits on releases of Aroclor PCBs in water discharges from sites processing paper products. This provision states: "The amount of Aroclor PCBs added to water discharged from a processing site must at all times be less than 3 micrograms per liter (ug/1) for total Aroclors (roughly 3 parts per billion (3 ppb))."

Petitioners Ft. Howard and API filed a joint petition challenging the 3 ppb total Aroclors discharge limit for recycled PCB processes. Petitioners' major concerns were:

1. The "at all times" language did not allow for any excursions beyond the 3 ppb limit due to higher than expected PCB levels in the waste paper stock used as raw materials.

2. The 3 ppb limit, being based only upon concentration, unfairly penalized firms which decreased the volume flow of their releases, and in so doing, exceeded the absolute 3 ppb limit.

EPA has reexamined the 3 ppb Aroclors discharge limit in light of petitioners' claims and other comments received by the Agency. The Agency is proposing to eliminate from the definition of "recycled PCBs" processes the condition limiting Aroclors releases in water discharges. As discussed more fully below, EPA has determined that the elimination of this condition will result in no decreases in protection of health or the environment, i.e., no unreasonable risk to health or the environment.

The 3 ppb water discharge limit for recycled PCBs was established after a thorough EPA evaluation of existing methods for quantitation of Aroclor PCBs in wastewater streams. The 3 ppb limit represented a level determined by EPA to be a universally achievable and reliable level of quantitation (LOQ) which would best ensure that no unreasonable risk to health or environment would be posed by these manufacturing processes. Although industrial wastewater discharges are generally regulated under Clean Water Act (CWA) authorities, rather than TSCA, the imposition of a TSCA-based restriction was believed at the time to be necessary to avoid a situation in which PCB discharges to water would be essentially unregulated.

Coordination with actual and potential CWA requirements was a difficult issue during the promulgation of the Uncontrolled PCBs Rule. EPA had proposed on November 18, 1982, CWA effluent limitations guidelines based on "best available technology" (BAT) and "new source performance standards"

(NSPS) which would limit discharges of Aroclor 1242 from mills in the deink subcategory of the pulp, paper, and paperboard point source category. Because these CWA guidelines and standards were not finalized, EPA believed it to be prudent to adopt the TSCA-based 3 ppb discharge limit for the deink mills as an interim measure pending the development of either more stringent limits under TSCA or more stringent limits under the CWA. For a more detailed discussion of the role of the PCB effluent limitation in the context of TSCA and CWA alternatives, see Unit VI.D. of the Uncontrolled PCB Rule preamble (49 FR 28187).

Since the promulgation of the final Uncontrolled PCB Rule, it has become apparent to EPA that the absolute 3 ppb concentration limit is inconsistent with the effluent limits proposed under the CWA, and the approach followed by states under their discharge-permitting authorities. The inconsistencies are the result of conflicting approaches to the regulation of discharges rather than the result of one limit being more stringent than another. Under the CWA approach to restricting discharges, PCB release restrictions are mass-based, i.e., discharge requirements may be met by limiting the volume flow as well as by limiting the PCB concentration in effluents. So, the strict 3 ppb limit under TSCA may indeed have the effect of punishing those companies which have reduced their volume flows and have consequently increased the relative PCB concentrations in their effluents.

After the promulgation of the final Uncontrolled PCBs Rule, EPA surveyed the various state agencies with jurisdiction over the water discharges from the affected deinking mills. The survey disclosed that there were 20 deinking mills potentially subject to the TSCA 3 ppb PCB discharge limitation. The survey also disclosed that for all but one of the 20 mills, the state permitting authorities, in coordination with EPA Regional Offices, have been regulating PCB discharges to water in a manner that is essentially equivalent to or more stringent than the 3 ppb limit under TSCA. The state agencies have been controlling these discharges through a combination of specific PCB limits in discharge (NPDES) permits and/or monitoring and testing requirements in permits to ensure that no PCBs are detectable in the waste streams. Generally, the standards applied by the states are consistent with the approach (mass-based limits) toward effluent limitations taken under CWA regulations and guidelines.

In the final Uncontrolled PCBs Rule, EPA determined that the risks associated with "recycled PCBs" were not unreasonable (49 FR 28180). The elimination of the condition limiting releases of Aroclor PCBs in water discharges to 3 ppb will not affect this determination. EPA has concluded that PCB discharges from the affected pulp and paper products mills are being adequately regulated by state permitting authorities under standards that accomplish a level of environmental protection which is equivalent to or more stringent than that accomplished under the 3 ppb limitation. Moreover, under the recently enacted Clean Water Reauthorization Act of 1987, Congress now requires that all states adopt water quality criteria within two years for chemicals which have been evaluated by EPA. Since, water quality criteria have already been published for PCBs, there is additional assurance that all present and future PCB effluents from recycling processes will be controlled. Indeed, the retention of the TSCA 3 ppb effluent limitation may conflict with the state regulatory programs. Therefore, EPA is proposing the elimination of the 3 ppb water discharge limitation from the definition of "recycled PCBs" at 40 CFR 761.3. The Agency solicits comments on this proposal.

IV. Status of Products Containing Less Than 50 PPM PCBs

A. Background

On the effective date of the Uncontrolled PCBs Rule (October 1, 1984), the Court of Appeals for the District of Columbia Circuit lifted the stay of the mandate that had been in place since the *EDF* v. *EPA* decision. The result of the court's action was the elimination of the general 50 ppm cutoff for activities banned under TSCA section 6(e), except for the products of "excluded manufacturing processes," "recycled PCBs," and the other activities specifically authorized or exempted under the regulations at 40 CFR Part 761. The Agency alluded to this outcome when it explained in the preamble to the Uncontrolled PCBs Rule that upon the lifting of the court's stay, any activity involving any quantifiable level of PCBs would be banned unless the activity was specifically excluded, exempted, or authorized by regulation (49 FR 28174).

The practical effect of this action was to make illegal many activities which were neither anticipated nor evaluated during the Uncontrolled PCBs Rule's development. The primary emphasis of the Uncontrolled PCBs Rule was on "point sources," i.e., the manufacturing processes that generate "new" PCBs as inadvertent byproducts or impurities. Also, the rule regulated the "point sources" consisting of paper pulp and asphalt roofing materials manufacturers, whose processes recycled "old" Aroclor PCBs that entered their processes as contaminated raw materials. Nevertheless, many other activities involving low concentration PCBs are now prohibited, regardless of the fact that they may present no greater risk than the activities specifically excluded in the July 10, 1984 rule.

Particularly with regard to "old" PCBs, the present regulations could be construed to regulate even the "ambient" PCBs which have already been dispersed to the environment. Since the inception of commerce in PCBs in 1929, hundreds of millions of pounds of Aroclor PCBs were used in a variety of applications. Prior to the enactment of the TSCA bans, PCBs had been widely used in very dispersive applications, including uses in paints and coatings, plasticizers, adhesives, wax and pesticide extenders, carbonless copy papers, and lubricants. Even in the case of the more contained uses of PCBs (e.g., as a dielectric, hydraulic, or heat transfer fluid), many years of use, servicing, and fluid reclamation have resulted in widespread, but generally low level PCB contamination in some existing products. Under the present regulatory language, which prohibits activities involving PCBs at any quantifiable level, violations involving the use, processing, and distribution in commerce of products contaminated with "old" PCBs are potentially as widespread as the low level contamination problem itself. Many such violations could conceivably be based upon products and activities which present no unreasonable risk to health or the environment. The Agency did not intent this result.

Petitioner OMC and Intervenor CMA have raised the issue of the status under the PCB regulations of the use, processing, and distribution in commerce of products containing "old" PCBs at levels less than 50 ppm. The Agency is clarifying the status of these materials by affirming that the existing regulations prohibit these activities, unless specifically excluded or otherwise allowed by regulation. However, EPA is proposing an amendment which would exclude the majority of these activities from regulation.

B. General Exclusion For Low Concentration PCBs in Products

1. *Scope of proposed exclusion.* This proposal would amend the existing

regulations by generally excluding from the TSCA section 6(e) prohibitions the processing, distribution in commerce, and use of products containing less than 50 ppm PCB concentration, provided these products were legally manufactured, processed, distributed in commerce, or used prior to October 1, 1984. The term "legally," as used in this exclusion, includes activities allowed by EPA by regulation, by exemption petition, by settlement agreement, or pursuant to other Agency-approved programs.

The Agency believes that the majority of products containing less than 50 ppm PCBs trace their low levels of contamination to one of three sources:

a. The presence of non-Aroclor PCBs as a byproduct or impurity in chemical manufacturing processes.

b. The contamination of products with Aroclor or other PCB materials from historic PCB uses.

C. Contamination during recycling activities involving the products described in a and b above.

Obviously, EPA cannot identify and assess individually every conceivable type of product contaminated at these very low PCB levels. So, EPA is adopting a generic exclusion, based upon the Agency's determination that the use, processing, and distribution in commerce of products with less than 50 ppm PCB contamination will not generally present an unreasonable risk of injury to health or the environment. However, because EPA is aware that some product uses and processing, particularly burning and other recycling of used oil, may present unique exposure and risk considerations, the subject of used oil with less than 50 ppm PCBs is discussed in unit IV.E. Unit IV.E. solicits specific comments on the proposal to include recycled used oil within the terms of the generic exclusion for products with less than 50 ppm PCBs, as well as comments on possible conditions which might be imposed on used oil recycling.

The remainder of this section explains EPA's rationale for a generic exclusion affecting products containing less than 50 ppm PCBs, where such products were legally manufactured, processed, distributed in commerce, or used prior to October 1, 1984. In addition to the material in section E dealing with recycled used oil, sections C and D discuss the generic exclusion in the context of two types of materials which appear to be representative of products contaminated with very low level PCBs. These products are chemical products contaminated with inadvertently generated non-Aroclor PCBs, but which were generated before October 1, 1984, and investment casting waxes contaminated with PCBs as a result of the historic use of PCBs as a wax extender, and the subsequent reclamation of these waxes.

2. *Exposures and risks.* EPA cannot possibly identify and assess the exposures from all the varieties of products which may be contaminated with PCBs at less than 50 ppm. Nevertheless, EPA believes that the products evaluated during the development of the Uncontrolled PCBs Rule are representative of the class of products subject to this amendment. Therefore, the conclusions arrived at by EPA regarding products (less than 50 ppm) known or believed to contain inadvertently generated PCBs are relevant to this discussion.

In support of the July 10, 1984 rule, EPA developed hypothetical, reasonable worst-case exposure scenarios to estimate exposures believed to equal or exceed the real exposures associated with broad classes of product types and exposure conditions. This exposure assessment evaluated inhalation exposures and dermal exposures in both occupational and consumer settings. The assessed scenarios emphasized products whose potential for exposure is large because of high frequency or duration of use. Among the products assessed for PCB exposure were moth control agents, space deodorants, paints, aerosol products, cosmetics, printing materials, textiles, and cleaning products. The results of the 1984 exposure assessment are presented in Vol. 1 of the support document entitled "Exposure Assessment for Polychlorinated Biphenyls (PCBs): Incidental Production, Recycling, and Selected Authorized Uses."

EPA concluded that the majority of the hypothetical exposures were insignificant, and in instances in which higher exposures were calculated, further evaluation of the assumptions showed that the estimated exposures overestimated actual expected exposures from the products.

In addition to the magnitude of exposures from these products with low concentration PCBs, EPA also considered the effects of the inadvertently generated PCBs on health and the environment, and the economic impacts of the rule. In the July 10, 1984 rulemaking, EPA found that its quantitative exposure and risk assessments supported the qualitative assessment that the activities excluded by the definition of "excluded manufacturing processes" did not present unreasonable risks. In short, the incremental risks associated with these activities, including the generation and use of products with PCB levels up to 50 ppm, were outweighed by the tremendous costs that would be incurred by producers, processors, and users if PCBs at these levels were to be banned (see 49 FR 28179). In addition, the products themselves were found to be essential non-luxury items with great societal value, so that a ban would deprive society of the benefits of these products.

EPA believes that the qualitative conclusions reached in 1984 with regard to products (with PCB concentration up to 50 ppm) from excluded manufacturing practices apply with equal force to the products excluded by this proposal. The products and exposures evaluated in 1984 are believed by EPA to be representative in general of products with large exposure potentials at the 50 ppm level of contamination. Therefore, EPA believes that the conclusion that product exposures were in fact insignificant applies generally to the assessment of potential exposures presented by this class of materials.

Likewise, EPA concludes that the incremental risk reduction from continuing the prohibition of activities involving such products is outweighed by the tremendous costs that would be incurred by a strict prohibition. The total economic burden of a prohibition triggered at the limit of quantitation can not be estimated with any accuracy. However, EPA believes that a no unreasonable risk determination for the entire class of materials can be justified generally from a consideration of the total economic burdens incurred with regard to the types of materials discussed in IV.C., IV.D., and IV.E. These materials (pre-1984 inadvertently generated PCBs, investment casting waxes, and recycled used oil) were selected for this analysis because they represent actual materials which comments have indicated pose regulatory concerns, and because they illustrate graphically the low return from regulating at these very low PCB concentrations.

C. Exclusion of Additional Inadvertently Generated PCBs

Intervenor CMA's primary concern with the existing regulations was the uncertain status of products contaminated with inadvertently generated PCBs which were generated prior to the effective date (October 1, 1984) of the Uncontrolled PCBs Rule. According to CMA, the current regulations do not specifically authorize the continued processing, distribution in commerce, and use of these PCB materials. CMA asserts that these

materials were legally manufactured because they contained less than 50 ppm PCBs when generated, or because they were exempted when manufactured and comply with the current rule's product concentration requirements when the discounting factors for mono- and di- chlorinated congeners are taken into account.

EPA has evaluated CMA's claims, and the Agency agrees that an amendment to the current regulations is necessary to clarify the status of activities conducted with regard to inadvertently generated PCBs manufactured prior to October 1, 1984. EPA has determined that the further processing, distribution in commerce, and use of these materials will not present an unreasonable risk of injury to health or the environment. Therefore, the Agency is proposing to include specifically these materials within the terms of the general exclusion for "excluded PCB products".

Clearly, the manufacture of these materials was legal. In the preamble to the July 10, 1984 rule, the Agency explained that the 50 ppm regulatory cutoff established in the PCB Ban Rule remained in effect during the duration of the stay of the *EDF* v. *EPA* court's mandate (see 49 FR 28174). That stay, and the 50 ppm cutoff for PCB manufacture, was in place until October 1, 1984. Also, there is no question concerning the legal manufacture of products above 50 ppm generated prior to October 1, 1984, where the materials were manufactured pursuant to an exemption or other authorization. These products also qualify as inadvertently generated PCBs where they meet the Uncontrolled Rule's prescribed product limits after discounting mono- and di-chlorinated congeners.

The proposed amendment will specifically exclude from regulation activities involving any such materials generated prior to October 1, 1984 with PCB concentrations up to 50 ppm, calculated using the discounting factors specified in 40 CFR 761.3. These products were legally manufactured before the effective date of the requirements pertaining to "excluded manufacturing processes," including the requirement that PCB concentrations in products be limited to an annual average of 25 ppm. The 25 ppm annual average was intended, like the other specified PCB release limits, only to limit PCB releases at the site of manufacture. Individual products, where less than 50 ppm, are free of these restrictions, and may be freely used, processed, or distributed further in commerce.

EPA believes that inadvertent generation products legally manufactured before October 1, 1984 should enjoy the same excluded status under the PCB regulations. Activities involving these materials will present no greater exposures or risks than those already evaluated by the Agency in relation to "excluded manufacturing processes." In the July 10, 1984 rule, EPA found that the potential exposures and risks from products so generated were generally insignificant. EPA estimated that prohibiting activities (at detectable PCB levels) involving all such materials would eliminate at most 100,000 lbs./yr. of inadvertently generated PCBs at costs in the range of $950 million to $5.6 billion over 10 years.

Although the quantity of inadvertently generated materials manufactured prior to October 1, 1984 has not been identified, the costs of prohibiting activities involving these materials, relative to the quantity of PCBs eliminated, should bear the same ratio as that calculated for the inadvertently generated PCBs covered by the July 10, 1984 rule. The determination that excluded manufacturing processes would not present unreasonable risks to health or the environment was based upon EPA's rejection of this cost-effectiveness ratio. Today's proposal is similarly based upon the rejection of the cost-effectiveness of regulating activities involving this subset of inadvertently generated PCBs. The Agency requests comments on this proposal.

D. Investment Casting Waxes

Subsequent to the issuance of the Uncontrolled PCBs rule, EPA received inquiries concerning the effect of the rule on the use and reclamation of investment casting waxes. The July 10, 1984 rule contained no exclusion applicable to these activities, therefore, they were prohibited at the limit of quantitation after October 1, 1984.

EPA has examined the facts surrounding past uses of PCBs as a wax extender, as well as the circumstances of residual low levels of PCB contamination in the stocks of reclaimed waxes. EPA is today proposing to include specifically investment casting waxes among the class of "excluded PCB products." Activities involving these waxes would be excluded from the TSCA section 6(e) bans if the waxes contain less than 50 ppm PCBs. EPA has determined that the further use, processing, and distribution in commerce of these waxes will not present an unreasonable risk of injury to health or the environment. Indeed, the analyses of exposures and costs of regulation for these materials demonstrate amply the limited cost-effectiveness that generally results from regulating products contaminated at the less than 50 ppm level.

Investment casting is a process for fabricating high-quality metal parts and shapes utilizing wax patterns that are enveloped or "invested" with ceramic shells. The ceramic shells are then fired, thereby melting the wax, which is replaced by molten steel. The casting process is faciliated by the use of sprues and gates which channel the flow of wax and metal to and from the patterns. Spent waxes are typically reclaimed by foundaries, because of the large price differential (about 50 percent) in the cost of reclaimed wax relative to new wax. The reclamation process (usually done off-site) involves the removal of unwanted ceramic contaminants and moisture and the blending with new wax as needed. Occasionally, new fillers are also added to the reclaimed product. The result is a reclaimed product which is suitable for reuse in the sprues and gates.

Small amounts of PCBs at concentrations below 50 ppm are found in existing stocks of casting waxes. These residual PCBs trace their origin to a history of intentional use of PCBs as fillers in waxes, and to the subsequent reclamation and reuse of these contaminated waxes. The PCBs were added to casting wax in order to reduce the extent to which wax expanded when heated, thereby preventing breakage of ceramic molds.

The PCB added intentionally to casting waxes consisted of decachlorobiphenyl ("deka"), which is the fully chlorinated biphenyl congener. These "deka" waxes often contained 30% PCBs by weight, although some waxes reportedly contained up to 40 percent PCBs (i.e., 400,000 ppm). In addition, the industry suggests that additional PCB contamination occurred on account of the addition to waxes of polychlorinated terphenyls (PCTs), which reportedly contained between 0.5% and 10% PCBs as impurities. In 1976, Monsanto discontinued the domestic manufacture of the "deka" PCB formulation, and this event began a course of decline in the PCB contamination found in casting waxes. However, before this course of decline began, the industry's wax was estimated to contain at least 250,000 pounds of PCBs.

Despite the heavy PCB burden once borne by investment casting waxes, EPA believes that no more than 5% of the waxes being used currently by foundries are contaminated with residual PCBs. Among the contaminated waxes, EPA estimates that the level of PCB contaminated averages no more

than 10 ppm. The extent to which PCBs have been eliminated from the inventories of casting waxes now in use can be explained in part by the nature of the use and reclamation cycle. During each cycle of use, up to 10 percent of the wax volume may be lost during the wax melting stage of the casting process. A like fraction of wax is estimated to be lost in the processing of the spent waxes by reclaimers, and a substantial amount (over 16 percent) is disposed of rather than reclaimed. Since wax is recycled almost four times per year, the result is a significant "flushing out" of old waxes from the inventories of waxes available for reuse. The net effect has been a substantial decline in the levels of PCBs contaminating these waxes. Based upon a total estimated wax inventory of approximately 4.2 million pounds, the Agency estimates that the entire load of "pure" PCBs in existing waxes amounts to between 2 and 6.6 pounds.

The estimates of PCB levels in the current casting wax inventory are based upon a mathematical model and not upon actual sampling data. The model extrapolates from 1976 data indicating that only 25 foundries used PCB-containing wax; these 25 foundries would represent about 10% of the 230 foundries operating today. Since reclaimed wax is segregated by foundry, the model assumes conservatively that the foundries which used PCBs in 1976 would still possess PCB-containing wax today. The model then assumes that 5% of the industry's wax could contain PCBs today, a figure much higher than that suggested by the PCB detection frequency reported by the industry. The assumption of 10 ppm as the average level of PCB contamination is based upon data provided by one industry source (Solomon, 1985). Finally, using information supplied by industry concerning the annual flows of casting waxes during disposal and reclamation, the model generates a conservative estimate that some 203,163 pounds of wax would today contain PCBs at the 10 ppm level. This volume corresponds to about two pounds of "pure" PCBs. For a fuller understanding of the model used to generate these estimates, see the Support Document entitled: "Cost-Effectiveness Analyses and Estimates of Exposed Population," (Putnam, Hayes, and Bartlett, 1987).

EPA has concluded that the few pounds of PCBs in wax products contaminated at about 10 ppm present the potential for only trivial exposures. The minimal risks presented by such exposures are grossly outweighed by the enormous costs associated with continuing the ban on activities involving these casting waxes. The total costs of a prohibition were calculated by summing the estimated costs to industry of purchasing replacement wax, disposing of wax, testing of wax shipments before reclamation, and decontaminating plant equipment. These calculations produce a cost effectiveness ratio in the range of between $50,747 and $297,547 per pound of "pure" PCB removed. The Agency therefore has determined that the further use, processing, and distribution in commerce of investment casting wax products will not present an unreasonable risk of injury to health or the environment.

EPA requests comment on today's proposal to include these products among those excluded from regulation as "excluded PCB products." In particular, EPA requests recent sampling data that would verify or refute the Agency's estimates of current PCB contamination in investment casting waxes. Information concerning the frequency with which PCBs have been detected and the level of contamination found would be most helpful, as would any information concerning the sources of PCB contamination in the inventories of new or reclaimed waxes.

A significant assumption used by EPA in estimating that existing stocks of waxes bear only insignificant amounts of PCBs is the assumption that no new sources of PCBs were added to wax inventories after the mid-1970's, when domestic sources of new PCB fillers were no longer available. However, EPA has investigated circumstances which suggest that large quantities of additional PCBs may have been processed and distributed to foundries by casting wax manufacturers and reclaimers, even after the effective date of the TSCA section 6(e) prohibitions on further PCB processing and distribution in commerce. The Agency emphasizes that today's proposal to exclude from regulation products contaminated with less than 50 ppm PCBs is conditioned on the source of contamination having been "legal" prior to October 1, 1984. EPA reserves its enforcement remedies against those who may have processed and distributed in commerce PCBs illegally, thereby exacerbating the contamination of existing stocks of casting waxes.

E. Used Oil

1. *Background.* Under the current regulations, there is considerable confusion regarding the status of used oil containing less than 50 ppm PCBs. The 1979 PCB Ban Rule excluded from regulation all activities involving PCBs at less than 50 ppm, except the use of waste oil, which was prohibited at any detectable PCB level as a dust suppressant, sealant, or coating. In the Support Documents for the 1979 Rule, EPA noted expressly that waste oils with less than 50 ppm PCBs could continue to be used as a fuel and as a feedstock in rerefining processes.

With the overturning of the general 50 ppm regulatory cutoff by the *EDF* v. *EPA* decision, activities (use, processing, or distribution in commerce) involving less than 50 ppm PCBs became prohibited on October 1, 1984, unless specifically authorized, exempted, or excluded by regulation. To date, EPA has specifically authorized only three reuses of oil products with less than 50 ppm PCBs: (1) The reuse of dielectric fluids (as dielectrics); (2) the reuse of hydraulic and heat transfer fluids (as hydraulic and heat transfer fluids); and (3) the reuse of waste oil as a feedstock by manufacturers of asphalt roofing materials manufacturers, under the conditions set out in the definition of "recycled PCBs" processes. Therefore, other used oil recycling activities are currently prohibited by the TSCA PCB regulations at any quantifiable PCB concentration, where these activities may involve use, processing, or distribution in commerce of PCBs. However, activities consisting solely of "disposal" are not prohibited, because TSCA disposal requirements generally apply to PCBs in concentrations greater than 50 ppm.

The TSCA PCB regulations (40 CFR 761.3) define "disposal" in terms of acts which "complete or terminate the useful life of PCBs and PCB Items." Under the PCB disposal regulations, the Agency requires the disposal of PCB wastes (>50 ppm) by prescribed methods which terminate the useful life of PCBs. These methods consists of:

a. Thermal destruction in high temperature incinerators (§§ 761.60(a)(1) and 761.70).

b. Thermal destruction in certain "high efficiency boilers" (§ 761.60(a) (2) and (3)).

c. Placement in chemical waste landfills (§§ 761.60(a)(4) and 761.75).

d. The alternative methods of PCB destruction approved under § 761.60(e).

Under the PCB regulations, "regulated disposal" (i.e., disposal in TSCA-approved disposal facilities) is required only for materials which contain 50 ppm or greater PCBs, as well as for materials which contain less than 50 ppm PCBs on account of dilution. Nevertheless, where materials contain less than 50 ppm PCBs, their "unregulated disposal" status does not mean that EPA has authorized their indiscriminate dumping

or unrestricted use. The Agency construes "unregulated disposal" as meaning only that disposal need not occur in TSCA regulated disposal processes.

In this context, the Agency considers that used oil recycling activities which constitute reuse or processing for reuse to be subject to the current TSCA section 6(e) prohibitions, unless specifically authorized, exempted, or excluded. In other words, where recycling constitutes a reuse or a processing of used oil for reuse, and the recycled used oil contains PCBs at quantifiable levels, the current regulations prohibit such recycling, unless the recycling activity also terminates the useful life of the PCBs by fully destroying the PCBs.

Therefore, materials (including used oil) with less than 50 ppm PCB concentrations may, under the existing regulations, be burned in combustion units which accomplish PCB destruction. For example, the thermal destruction units approved for destruction of >50 ppm wastes are acceptable, as are other boilers and incinerators which meet the prescribed combustion criterial for high temperature incinerators or high efficiency boilers. Also, in the definition of "qualified incinerator" at 40 CFR 761.3, the Agency has stated that incinertors approved under section 3005(c) of RCRA are acceptable for destruction of PCBs at <50 ppm concentrations. However, except when burned in combustion units which in fact accomplish PCB destruction, EPA considers that burning PCB-containing used oil for energy recovery is a "use" that is unauthorized under the current regulations. This interpretation is not affected by the fact that burning fuels for energy recovery might also be regarded as a "disposal" activity because it terminates the useful life of the PCBs. Indeed, burning PCBs in combustion units which do not accomplish PCB destruction may only volatilize the PCBs and create an additional "point source" of PCBs, as well as a potential source of toxic products of incomplete combustion. Under such circumstances, EPA rejects the argument that the dissipation of PCBs during the use of a contaminated material eliminates EPA's TSCA section 6(e) jurisdiction over that use, simply because one might also view the activity as terminating the useful life of PCBs. In short, where an activity presents both "use" and "disposal" aspects, EPA may regulate the "use" aspect at levels less than 50 ppm, PCBs, despite the fact that PCB "disposal" is generally unregulated at PCB concentrations under 50 ppm. EPA has previously relied upon the TSCA "use" and "processing" prohibitions to regulate activities with less than 50 ppm of PCBs that could be viewed as "terminating the useful life" of PCBs by dispersing PCBs directly to the environment during use. The regulation prohibiting the use of waste oil as a dust suppressant, sealant, or coating as well as the restrictions imposed on asphalt roofing manufacturers (restricted "processing") are but two examples of instances in which EPA has construed the "use" and "processing" authorities broadly to prevent environmental degradation. See 40 CFR 761.20(d) and definition of "recycled PCBs" at 40 CFR 761.3.

The distinction made clear today between burning that accomplishes destruction and other burning for energy recovery (restricted under "use" authority) may serve as the first official notice to many in the regulated community that their used oil recycling activities may be in violation of TSCA section 6(e). Nevertheless, EPA believes that the distinction is consistent with both the intent of the TSCA section 6(e) prohibitions, and the meaning of recycling contemplated by Congress when it defined "recycled oil" in the Used Oil Recycling Act (UORA) (42 U.S.C. 6903(36) through (39), 6932). This provision clearly states that recycled oil means any oil which is reused following its original use for any purpose, including burning.

Likewise, the current TSCA regulations prohibit other ongoing used oil recycling activities involving less than 50 ppm oils, such as the re-refining of lubricants and the processing of oils for other, non-fuel industrial uses. The Agency acknowledges that these prohibitions are not generally understood by the regulated community. This lack of understanding may be attributable to the fact that the all-inclusiveness of the TSCA section 6(e) bans, as made effective on October 1, 1984, was not clearly articulated by EPA in the July 10, 1984 rule as affecting used oil recycling. This document both clarifies this situation, and proposes to amend the regulations to authorize generally used oil recycling activities (use, processing, and distribution in commerce) involving used oil containing less than 50 ppm PCBs. EPA proposes to include specifically used oil among products excluded from regulation under the definition of "excluded PCB products." However, as discussed below, EPA is proposing to restrict used oil recycling activities by prohibiting the burning of used oil containing any quantifiable level of PCBs in nonindustrial boilers.

2. *Other regulatory initiatives affecting used oil.* EPA is currently engaged in a more comprehensive evaluation of used oil management practices under other regulatory programs. Currently, there are regulations in place which prohibit the burning of hazardous waste and certain "off-specification" used oil fuel in "non-industrial boilers." These regulations, which were published in the **Federal Register** of November 29, 1985 (50 FR 49164), established management standards for recycled used oil under the authority of RCRA Subtitle C (the hazardous waste program) and UORA. EPA also published in the **Federal Register** of November 29, 1985 (50 FR 49212) proposed standards under RCRA and UORA which would have imposed comprehensive management standards for used oil generators and transporters, facility standards for oil recycling and storage facilities, and tracking requirements for off-site shipments. This proposal was closely associated with the proposal to list used oil as a Subtitle C hazardous waste. For the reasons discussed below, the proposal to "list" used oil as a hazardous waste has since been withdrawn, at least to the extent that a listing would include recycled oil. The notice announcing EPA's withdrawal of the listing proposal appeared in the **Federal Register** of November 19, 1986 (51 FR 41900). Further, the issuance of recycled oil management standards has been deferred pending further evaluation.

The UORA is codified at section 3014 of RCRA. This provision directs EPA to promulgate regulations as may be necessary to protect human health and the environment from hazards associated with recycled oil. The UORA requires the Administrator to consider the economic impact of these regulations on the oil recycling industry; EPA must ensure that any such regulations do not discourage the recovery of recycling of used oil consistent with the protection of human health and the environment. In addition, under the 1984 amendments to RCRA, Congress directed EPA to determine whether to list used oil as a hazardous waste under RCRA section 3001. This amendment was the impetus for the November 29, 1985 listing proposal.

The proposal to list used oil as hazardous waste (50 FR 49258) was premised on data which suggested to EPA that used oil typically and frequently contains significant quantities of lead, other heavy metals, chlorinated solvents, toluene,

naphthalene, and other toxic materials at levels of regulatory concern. These materials were found to pose a significant risk of harm if mismanaged, particularly the risk presented by releases of heavy metals when used oil is burned.

EPA decided not to list recycled used oil as hazardous waste (51 FR 41900) because of the severe economic impacts that would be incurred by the recycled oil industry, and the serious disruptive effects on recycling activities. Commenters expressed concern about the costs of compliance with full hazardous waste management standards and the chilling effect these costs would have on recycling activities. This, in conjunction with the stigma associated with handling "hazardous waste," would likely lead to a curtailing of recycling activities, and produce a net environmental detriment as generators disposed of their used oil in uncontrolled ways, such as by dumping. EPA stressed the adverse effects that would arise if burning as fuel were no longer a recycling outlet, since burning is the major end use of recycled oil, and re-refining capacity does not appear to be sufficient to absorb the volume of oil that could not be burned. (51 FR 41901). EPA explained that further study was required before recycled oil management standards could be issued, and that the Agency needed to develop an overall used oil strategy that would avoid piecemeal regulation (51 FR 41904).

This proposal would make the TSCA regulations more consistent with the Agency's overall strategy for regulating the recycling used oil. After evaluating the risks posed by these activities, EPA has determined that the use, processing, and distribution in commerce of used oil containing less than 50 ppm PCBs does not generally present an unreasonable risk of injury to health or the environment. The Agency's reasons for making this determination are set out in subsequent sections of this unit, which discuss the evidence of PCB contamination in used oil, estimates of exposures and risks presented by used oil recycling, and the economic impacts of maintaining the current TSCA ban.

On the other hand, the no unreasonable risk finding for used oil recycling activities does not extend to the burning of PCB-containing used oil fuels in combustion facilities which operate under inefficient combustion conditions which might promote the formation of highly toxic, polychlorinated dibenzofurans (PCDDs). In this proposal, EPA has singled out the burning of used oil fuels in nonindustrial biolers as an activity meriting regulatory controls. The rationale for this approach is discussed in unit IV.F.

3. *PCBs in used oil.* There is widespread, but generally low level, PCB contamination in the oils handled in the nation's used oil management system. The PCBs in used oil trace their origin to residual PCBs from prior intentional uses of Aroclor PCBs (e.g., in askarel transformers and hydraulic systems), from incidental contamination from other sources, and from intentional and unintentional mixing of used oils with PCB-containing oils. This PCB contamination has been documented in several studies of the "flows" in the used oil system. For the purposes of this rulemaking, estimates of average PCB concentrations and proportions of used oil samples containing PCBs were derived from actual PCB measurements published in these studies and from other source specific information. For a detailed description of these sources and the methodology used in evaluating current used oil flows, see the Support Document for this proposed rule entitled "Cost-Effectiveness Analyses and Estimates of Exposed Population," (Putnam, Hayes and Bartlett, 1987).

The used oil management system accounts for the disposition of approximately 59 percent of the more than 1,300 million gallons of used oil generated in the United States. The system consists of several components, beginning with the generators who sell their used oil to collectors, and ending with a variety of end users of the recycled product. Between collection and end use, there are the minor and major processors who employ fairly simple processes which eliminate water and sediment from the oils, or distill off the more volatile fractions. Much of this oil is prepared for blending and burning as fuel; some is sold to refiners for additional processing into lube oils. End uses other than as fuels and re-refined lube oils include non-fuel industrial uses, road oiling, and disposal in incinerators or landfills. The used oil flow studies track the volumes of oil and their PCB concentrations as the oil moves among the components of the used oil management system to the various end uses. In this discussion, EPA distinguishes used oil which is collected, processed, and distributed within the used oil management system from that used oil which is discarded, burned, or otherwise recycled by the generator of the oil.

The oil not handled by the management system (41 percent) is reused on-site by generators or discarded. Of the quantities discarded by generators, over two-thirds is dumped. Of the quantities reused on-site by generators, the majority (65 percent) is burned as fuel.

The used oil products handled by the used oil management system were estimated to total about 788 million gallons, of which about 72 percent was burned as fuel, while 19 percent was reused as lubricants or in non-fuel industrial uses, and 5 percent was disposed of in disposal facilities. The dominance of burning among the end uses from oil recycling becomes apparent when one considers the totals for oils handled in the management system and burned on-site by generators. When the volumes which are dumped or disposed of are disregarded, burning accounts for fully 76 percent of all amounts reused, compared to only 20 percent used in re-refined lubricants and in non-fuel industrial uses.

The used oil flow studies also discloses much information about the extent of PCB contamination in the used oil system. When all used oil products were considered, PCBs were detected in 10.87 percent of samples, and among samples containing PCBs, the average concentration was 13.38 ppm. Even among the automotive sources of used oil, PCBs were detected in 5.6 percent of samples at an average concentration of 5 ppm. This fact suggests that PCB contamination may occur beyond the site of generation, as a result of mixing by collectors and processors.

4. *Exposure estimates in used oil recycling*—a. *Inhalation exposures from used oil burning.* Because burning is the dominant end use for recycled used oil, EPA believes that the greatest potential for human exposures to PCBs arises from these operations. This is particularly true for burning that occurs in small and medium boilers, where inefficient combustion of used oil fuels poses the greatest potential for volatilization and inhalation exposures. EPA used dispersion models to estimate ambient inhalation exposures resulting from burning used oils in a variety of boilers and space heaters. For this rulemaking, EPA adapted modeling work that was done by PEDCo Environmental, Inc., in 1984 for EPA's Office of Solid Waste. (See Final Report entitled: "A Risk Assessment of Waste Oil Burning in Boilers and Space Heaters," (PEDCo. 1984)). The PEDCo modeling work was the basis for a risk assessment used by EPA to estimate the risk associated with certain contaminants (e.g., lead, toluene, barium) other than PCBs which frequently appear in used oil fuels. The

PEDCo modeling work has been adapted for this proposal because the model boiler parameters used in the study were designed to represent reasonable, worst-case operating conditions. These modeling parameters were used in conjunction with dispersion models to derive estimates of annual average air concentrations within 5 km of an emission source (or group of sources). For a complete description of the modeling assumptions and input parameters used for this assessment, see the Support Document for this proposal entitled: "Assessment of Exposure Resulting from Recycle/Reuse of Dielectric Fluid Containing PCBs at Levels Less Than 50 ppm," (Versar, 1987).

Various configurations of small and medium sized boilers and space heaters (single and multiple sources) were modeled to estimate exposures in a densely populated urban area, particularly, the Central Park area of New York City. Boiler sizes represented ranged from $.1 \times 10^6$ Btu/hr to 100×10^6 Btu/hr; stack heights were varied from 2 to 30 meters. The conservative modeling assumptions included:

i. The assumption of a constant 50 ppm PCB concentration in all oils burned, with no subsequent dilution by mixing.

ii. The assumption of a 99 percent Destruction and Removal Efficiency (DRE) to account for poorly functioning small boilers and space heaters.

Under these modeling assumptions which were designed to produce reasonable, worst-case exposure estimates, the highest exposure estimates were generated by the larger boilers with lower stack heights. The highest exposure estimate for a single source (50×10^6 Btu/hr boiler with 10 m stack) was 7.34×10^{-4} mg/yr PCB. Of the multiple source runs, the highest exposure estimate (5.66×10^{-3} mg/yr) was generated by a configuration of 16 boilers, each with a 9.3×10^6 Btu/hr rating and a 10 m stack. These estimates may also be expressed in terms of an LADD, which for ambient inhalation exposures, is calculated under the assumption that a 70-kg person is exposed for 365 days per year over a lifetime measured by 70 years. When these calcuations are performed, the maximum exposure estimates may be expressed in terms of LADDs of 2.87×10^{-8} mg/kg/day (for the single source boiler) and 2.21×10^{-7} mg/kg/day (for the multiple source configuration).

EPA uses LADD estimates to derive estimates of the increased risk of developing cancer associated with the calculated PCB exposures. This is accomplished through a mathematical process which utilizes the LADD estimates and certain cancer potency factors which have been determined through exhaustive analyses of animal studies. Values for PCB cancer potency factors have been calculated by the Office of Research and Development (EPA, 1980b) to be 4.34 $(mg/kg/day)^{-1}$ and by the Office of Toxic Substances (EPA, 1985b) to be 3.57 $(mg/kg/day)^{-1}$. Currently, it is the Agency's practice to use an average of these values, or 4.0 $(mg/kg/day)^{-1}$, to derive its estimates of carcinogenic exposure risks. The Agency notes, however, that a more recent study (Norback and Weltman, 1985) reports a carcinogenic potency factor for PCBs of 7.7 $(mg/kg/day)^{-1}$. This study is under peer review within the Agency.

When the LADDs developed under the worst-case combustion conditions assumed in the modeling work are factored by the PCB cancer potency factors, the results are risk estimates which EPA believes to be insignificant. Therefore, EPA concludes that the ambient inhalation exposures associated with the volatilizing of PCBs during the burning of used oil (with PCBs at the 50 ppm level or lower) in small boilers are insignificant from a risk assessment standpoint. However, this analysis does not account for the potential inhalation exposures presented by certain products of incomplete combustion, particularly, exposures associated with the formation of polychlorinated dibenzofurans (PCDFs).

PCDFs may be generated as products of incomplete combustion in the burning of organic liquids containing PCBs or chlorinated benzenes. PCBs have been shown to be precursors of PCDFs when PCBs are heated in the presence of oxygen at 270 to 700 °C. Studies (Erickson et al. 1984) indicate that production of PCDFs during the combustion of PCBs in mineral oil is optimized when combustion occurs at 675 °C, with 8 percent excess oxygen, and a residence time in the combustion zone of about 0.8 seconds. The maximum conversion efficiency of PCBs in mineral oil to PCDFs was reported by the Erickson studies to be about 1 percent. Because the Erickson experiments were designed to find optimum conditions for PCDF formation, the 1 percent PCDF conversion efficiency result must be regarded as a very conservative estimate. Under actual boiler operating conditions, one would generally expect a PCDF conversion efficiency of much less than 1 percent.

Any potential for PCDF formation from the incomplete combustion of used oil containing PCBs is a regulatory concern, because these compounds are believed to exhibit extreme toxicity. The suspected toxicity of PCDFs was discussed at length in the preamble to the "PCB Fires Rule" published in the **Federal Register** of July 17, 1985 (50 FR 29170). The discussion in the PCB Fires Rule emphasizes that the majority of toxicological testing of products of incomplete combustion (PICs) has been limited to 2,3,7,8,–TCDF and 2,3,7,8–tetrachlorodibenzo-p-dioxin (TCDD). The toxicological testing of PCDFs, specifically 2,3,7,8–TCDF, has been more limited than testing of 2,3,7,8–TCDD. The acute oral LD50 in the guinea pig is reported to be 5 micrograms per kg bw (compared to 0.6 micrograms per kg bw for 2,3,7,8–TCDD). Also, subchronic testing of 2,3,7,8-TCDF in rhesus macaques indicated that the compound is extraordinarily toxic, producing effects which are clinically and morphologically similar to acute or chronic ingestion of 2,3,7,8–TCDD. In fact, for most of the observed biological effects, the potencies of the two compounds are within an order of magnitude of each other, with 2,3,7,8–TCDF being somewhat less toxic than 2,3,7,8–TCDD.

The available information on 2,3,7,8–TCDD, however, indicates that it is one of the most toxic substances known to man. It exhibits delayed biological response in many species and is highly lethal, at low doses, to aquatic organisms, birds, and mammals. It has been shown to be acnegenic, fetotoxic, teratogenic, mutagenic (limited evidence), carcinogenic, and it adversely affects the immune response in mammals. The evidence suggesting the extreme toxicity of 2,3,7,8–TCDD is discussed at length at 50 FR 29174.

Based on the Agency's assessment of the available literature on the toxicity of 2,3,7,8–TCDF and its structural similarity to 2,3,7,8–TCDD, EPA has concluded that it is prudent to assume that exposures to 2,3,7,8–TCDF would pose risks to similar toxic effects as exposures to 2,3,7,8–TCDD. Further, based on structure-activity relationships and limited in-vitro studies, EPA assumes that other PCDF congeners may also pose risks of similar toxic effects as exposure to 2,3,7,8–TCDF and 2,3,7,8–TCDD.

For the purposes of this proposal, EPA estimated hypothetical, worst-case exposures to PCDFs generated during the burning of PCB-containing used oil in small and medium boilers and space heaters. EPA calculated these PCDF exposure estimates by applying very conservative assumptions to the

modified PEDCo model used to estimate exposures to volatilized PCBs. In addition to the conservative assumptions used to develop the estimates of potential PCB exposures, EPA assumed the presence of the combustion conditions which optimize the formation of PCDFs. In other words, the risk assessment assumed that combustion occurred under inefficient conditions producing maximum PCDF formation (1 percent of the PCB feed rate). Also, all of the PCDFs formed are assumed to consist of the most potent PCDF isomer, namely, 2,3,7,8–TCDF. Finally, in order to derive risk estimates, the carcinogenic potency of 2,3,7,8–TCDF was assumed to be one-tenth that of 2,3,7,8–TCDD. This latter assumption results in cancer potency factor for PCDFs of 1.6×10^{4} $(mg/kg/day)^{-1}$.

A worst-case estimate of potential PCDF exposures can be derived by assuming that all the PCDFs formed during burning exit in the boiler's stack gas, and that the PCB to PCDF conversion efficiency is 1 percent. These assumptions indicate a PCDF emission rate of (.01 × PCB feed rate), which is equivalent to the PCB emission rate when a boiler DRE of 99 percent is assumed. In other words, the ambient inhalation exposure models predict worst-case PCDF emissions and exposures equal to the maximum ambient PCB emissions and exposures presented in the preceding assessment of ambient inhalation exposures from volatilized PCBs. Therefore, the maximum PCB LADDs estimated above for the single source and multiple source boiler configurations (respectively, 2.87×10^{-8} mg/kg/day and 2.21×10^{-7} mg/kg/day) are also representative of the worst-case LADDs for PCDFs associated with the burning of used oil containing 50 ppm PCBs in inefficient boilers. However, when these LADDs are factored with the PCDF cancer potency factor [1.6×10^{4} $(mg/kg/day)^{-1}$], one may calculate estimates of worst-case carcinogenic risks in the 1×10^{-3} to 1×10^{-4} range. To the extent that there are combustion units which actually operate at or near the inefficient combustion conditions assumed in the risk assessment, the worst-case, the PCDF inhalation exposures predicted by the models are in a range which EPA considers to be significant. However, EPA believes that under the combustion conditions which actually obtain for most boilers, the rate of PCDF formation would be much lower than the maximum conversion efficiency (1 percent of PCB feed rate) assumed in the assessment. In particular, the following factors support this belief:

(1) The assessment assumes a constant 50 ppm PCB concentration in all oil samples burned. In fact, the sampling data available to EPA discloses that on average, only about 10 percent of used oil samples contain PCBs, and that among these samples, the observed PCB concentration avarages about 13 ppm. This correction for actual PCB distribution among used oil samples reduces the calculated risk estimates by more than an order of magnitude.

(2) The assumed 99 percent DRE probably exaggerates the inefficiency of most boilers and space heaters in destroying organic wastes. Actual field studies (Fennelly et al. 1984) performed on small (0.4×10^{6} to 25×10^{6} BTU/hr) commercial boilers resulted in DREs for organics ranging from 99.82 percent to higher than 99.9 percent. In only one case was a DRE below 99.9 percent reported. With a DRE of 99.9 percent (attainable by many boilers), the PCDF risk estimate is an additional order of magnitude less than that calculated under the assumed 99 percent DRE.

(3) The assumption that optimal conditions for furan formation occur during the entire burn period, producing PCDFs at the maximum generation rate (with all congeners exhibiting the toxicity of 2,3,7,8–TCDD), also tends to overstate the potential risk. In fact, "optimal" conditions for PCDF formation might only occur during brief burn upset conditions, and the PCDF's generated would likely consist of less potent congeners than 2,3,7,8–TCDF).

Because of the compounding effects of these assumptions, EPA believes that the worst-case exposure estimates for PCDF formation greatly overstates the actual inhalation exposure risks posed by these compounds during the burning of used oil fuels. EPA believes that, when the actual PCB concentration distribution in used oil samples is taken into account, as well as the actual combustion efficiency attainable by most boilers, the potential for PCDF formation during the burning of used oil fuel is in fact insignificant.

Nevertheless, as developed more fully in unit IV.F, EPA is concerned about the potential for PCDF formation posed by burning PCB-containing used oils in those small boilers which may operate under very inefficient combustion conditions. So, while the exposure assessment supports the conclusion that the burning of used oil (with <50 pp PCBs) generally presents insignificant PCB and PCDF inhalation exposures, the information currently available to EPA does not enable EPA to conclude that the burning of used oil in all types of combustion units does not present significant exposures. The final rule, therefore, may include restrictions on used oil burning in the smaller combustion units that EPA believes, as a class, are likely to pose the greatest potential for PCDF exposures. The proposed restrictions on used oil burning in these facilities (the "nonindustrial boilers") are explained in unit IV.F., entitled "Proposed Restrictions On Burning Oil in Nonindustrial Boilers."

b. *Occupational dermal exposures.* EPA also examined the waste oil management system to determine whether waste oil management activities present occupational, dermal exposures of regulatory significance. Conservative estimates of occupational, dermal exposures were calculated using assumptions designed to generate "worst-case" estimates. Immediate and total absorption of PCBs was assumed over the entire surface area of both hands, without the use of protective clothing, for a period of 38.5 years. Using these modeling assumptions, EPA calculated LADDs on the order of 10^{-3} to 10^{-4} mg/kg/day.

In determining the significance of these exposures, EPA must take into account any reliable information which suggests that the "worst-case" asssumptions overstate actual exposures. In addition, EPA must consider estimates of the worker population potentially exposed to PCBs in the used oil management system. EPA believes that the following factors result in "worst-case" occupational, dermal exposure estimates which greatly overstate the actual PCB exposures attributable to the management of waste oil:

i. The used oil flow data (Franklin, 1984) suggest that PCBs are found on average in about 10 percent of used oil samples at concentrations of about 13 ppm, rather than in all samples at 50 ppm. Moveover, barring the illegal introduction of additional PCB wastes (>50 ppm) used oil supplies, the concentration of PCBs in used oil would be expected to diminish further to approach de minimis levels.

ii. The assumption that the potentially exposed population (estimated at about 3,565 workers) would be exposed daily over a period of 38.5 years probably bears little relationship to the typical employment histories for workers in this field.

iii. The "worst-case" exposure estimates assumes no mitigation attributable to industrial hygiene practices and to the extensive

automation practiced in the collection and transport of used oil.

When these factors are taken into account, EPA believes that the "worst case" estimates overstate actual exposures by at least one order of magnitude. After considering the exposure estimates, the mitigating factors, and the size of the potentially exposed population, the Agency concludes that the likely occupational, dermal PCB exposures associated with used oil management activities are insignificant from a regulatory standpoint.

5. *Regulatory impact analysis.* EPA evaluated the inhalation and dermal exposures discussed in the preceding section because the Agency believed that these exposure pathways presented the greatest potential for significant exposures. However, the Agency's exposure evaluations have led EPA to conclude that these potential exposures are generally insignificant from a risk standpoint. One exception to this general conclusion is the potentially significant PCDF exposures presented by burning PCB-containing used oils in small, nonindustrial boilers. To deal with this exception, EPA is proposing specific restrictions on used oil recycling activities (reuse, processing, and distribution in commerce) that involve burning PCB-containing used oils in nonindustrial boilers. These restrictions are discussed in unit IV.F., entitled "Restrictions on Used Oil Burning in Nonindustrial Burners." The remainder of this section, however, addresses the Agency's rationale for generally excluding used oil products from the TSCA section 6(e) prohibitions as a form of "excluded PCB products."

In addition to a consideration of the toxicity of PCBs and the magnitude of exposures to humans and the environment, the TSCA unreasonable risk standard requires EPA to consider the economic impacts and other societal costs associated with the regulation of a chemical.

EPA evaluated the economic impacts of maintaining the current prohibition of all used oil recycling activities. (See Support Document entitled "PCB Rule Revision: Cost-Effectiveness Analyses and Estimates of Exposed Population.") Estimates were developed to reflect the costs associated with testing ($116.7 million), disposal ($128.6 million), lost resource value ($8.4 million), and cleaning ($36.1 million). In sum, EPA estimates that the total costs associated with the current prohibitions amount to $289.8 million. Based upon used oil flow data, the Agency estimates that a total population would have the effect of removing 8,428 additional pounds of "pure" PCBs which might otherwise be released to the environment. This reduction is achieved at a cost of $34,385 per pound of "pure" PCB.

In addition to these costs, society would lose the benefits derived from the recycling of used oil. Additional virgin oil would necessarily be consumed to replace the shares of fuel oil, re-refined lube oil, and other industrial oils which are now comprised of recycled used oils. Most significantly, the costs associated with the current prohibitions would discourage recycling, and give rise to backups in the used oil management system. Generators not able to distribute their used oils in commerce to recyclers will be tempted to resort to dumping and other types of uncontrolled disposal of their oil. This could lead to a net reduction in the level of environmental protection associated with used oil disposal.

EPA concludes that the risks associated with the recycling (use, processing, and distribution in commerce) of used oil products containing less than 50 ppm PCBs are generally outweighed by the enormous costs associated with prohibiting such activities, the costs associated with depriving society of the benefits of recycled oil products, and the net reduction in environmental protection associated with a curtailment in recycling activities. EPA concludes that the use, processing, and distribution in commerce of used oil containing less than 50 ppm PCBs do not generally present unreasonable risks of injury to health or the environment. Therefore, EPA proposes to include used oil products containing less than 50 ppm PCBs within the class of "excluded PCB products."

EPA requests comments on this proposal. Specifically, the Agency requests comments on these issues:

a. The exposure assessment relied on by EPA in this proposal concludes that the "worst-case" hypothetical exposures calculated by using conservative modeling assumptions overstate actual PCB exposures because of the assumption that all used oil samples contain PCBs at the ppm level. Used oil flow data available to EPA suggest that PCBs will be present in approximately 10 percent of oil samples, at an average concentration of about 13 ppm. EPA solicits any additional information regarding the distribution of PCBs (i.e., proportion of samples with PCBs and concentrations detected) among the components of the used oil management system. Are there sectors of the system which may contain a disproportionately greater proportions or concentrations of PCBs? If so, what are the sources contributing disproportionate amounts of PCBs to the used oil?

b. Under assumptions designed to develop hypothethical, worst-case exposure estimates, occupational, dermal exposures presented by used oil collection and processing activities approach levels of regulatory concern. What are the typical work practices (e.g., protective clothing, extensive automation, personal hygeine measures) that obtain in the used oil collection and processing industries that would enhance or mitigate the potential for these exposures? Are there particular segments of the used oil management system where the potential for occupational, dermal exposures may be greater than average?

Should comments convince EPA that these exposures may be significant, what restrictions (e.g., protective clothing) might EPA impose to guard against such exposures? Also, what would be the incremental costs associated with any such restrictions?

c. The proposal to exclude generally recycled used oil with less than 50 ppm PCBs from regulation would not affect the existing prohibitions (§ 761.20(d)) on the use of waste oil containing any detectable level of PCBs as a dust suppressant, sealant, or coating. These uses were singled out in the PCB Ban Rule because of their potential for direct and widespread dispersion of PCBs to the environment. Are their additional uses of waste oil which EPA should prohibit at PCB levels under 50 ppm, and which are not covered by the § 761.20(d) prohibitions. EPA solicits particular comment on whether there are waste oil uses that pose the potential for PCB contamination of human food or animal feed, or, marine uses of waste oil that pose the potential for significant exposures to water supplies or marine life. Responsive comments should identify with specificity the use or uses of concern, the potential PCB exposure pathway, and the nature of the animal feed, human food, water supply, or marine life that would be protected by any additional use prohibition.

F. Proposed Restrictions on Burning Used Oil In Nonindustrial Boilers

As explained in unit IV.E., this proposal would generally include used oil products within the class of "excluded PCB products" defined in 40 CFR 761.3. The effect of being so classified will be to exclude such products generally from the TSCA section 6(e) prohibitions relating to use, processing, and distribution in commerce. However, EPA is also proposing to except from the regulatory

exclusion those used oil recycling activities that involve the burning of PCB-containing used oils (<50 ppm) for energy recovery in nonindustrial boilers.

This approach is consistent with a final regulation published by EPA in the **Federal Register** of November 29, 1985 (50 FR 49164), relating to EPA's regulation of used oil burning under the authority of the UORA.

The November 29, 1985 rule (the "Burn Ban Rule") represents the first phase of EPA's efforts at developing a comprehensive regulatory program addressing the recycling and disposal of used oil. The Burn Ban Rule is an interim measure designed to protect the public health from the substantial hazards believed to be associated with the burning of hazardous waste fuels and certain used oil fuels in combustion units which were not designed to burn the hazardous contaminants which may appear in the fuels. The Burn Ban Rule is supported by a risk assessment (the PEDCo study) which enabled EPA to identify contaminants in used oil which may pose increased risks at levels of regulatory concern, particularly in urban areas where large numbers of potentially exposed individuals reside. The rule established "specification" levels for those toxic contaminants (lead, chromium, arsenic, and cadmium) identified by the risk assessment as being likely to appear in used oils at levels which could pose substantial risks. The specifications were established at levels which would be protective in virtually all circumstances, so that fuels meeting the specifications could be burned in any facility, including the nonindustrial boilers found in apartment buildings and office buildings. The levels specified are based upon the level corresponding to the 95th percentile detected in virgin oil, since regulating at levels less than those commonly found in virgin oil (which would replace prohibited fuels) would not provide any additional protection to health or the environment.

The Burn Ban Rule establishes certain controls, tracking mechanisms, and recordkeeping requirements, the total effect of which is to prohibit the buring of used oil fuels not meeting the specifications in "nonindustrial" boilers. The prohibition is accomplished by limiting the availability for burning of "off-specification" fuels to only the acceptable industrial boilers, utility boilers, and industrial furnaces which have notified EPA of their burning activities. The brunt of the controls are imposed on used oil marketers, who are responsible for determining that fuels meet or fail the specifications, and for directing any "off-specification" fuels to the acceptable combustion facilities.

The Burn Ban Rule prohibits the use of nonindustrial boilers, because EPA found that as a class, these boilers pose the most significant and immediate health risks when they burn off-specification used oil fuels. The rule explains that nonindustrial boilers include units located in single or multifamily residences; in commercial establishments such as hotels, office buildings, laundries, or service stations; and in institutional establishments such as colleges, hospitals, and prisons (50 FR 49193). Rather than defining the prohibited nonindustrial boilers, the rule identifies and defines the acceptable devices which may burn off-specification used oil fuels: industrial boilers, utility boilers, and industrial furnaces.

The Burn Ban Rule designates nonindustrial boilers for the prohibition because they are typically very small and unsophisticated units which may not achieve complete combustion of toxic organics. Complete combustion is not assured, because these units possess inadequate controls to maintain optimum combustion conditions when they are firing contaminated fuels. Moreover, nonindustrial boilers are seldom equipped with emissions control equipment which might control to some extent their toxic emissions. In addition to these design considerations, the Burn Ban Rule points out that the risks posed by nonindustrial boilers may be compounded by the typical location of these units in urban areas where sources are frequently clustered together. The typical urban locations may therefore result in increased ambient concentrations caused by overlapping plumes as well as exposures of individuals to higher emission levels at above-ground locations (50 FR 49191). Obviously the typical urban location of these facilities also gives rise to larger potentially exposed populations.

Because of the potential for PCDFs formation in inefficient combustion facilities burning PCB-containing used oil, EPA believes that a prudent course to follow in today's proposal is an approach consistent with that adopted in the Burn Ban Rule for burning hazardous waste and off-specification used oil fuels. Given the present uncertainty about the ability of smaller, unsophisticated boilers to maintain efficient combustion conditions to destroy toxic organics such as PCBs, EPA can not now conclude that allowing the burning of PCB-containing used oils in such units would not present an unreasonable risk to health or the environment. Further, EPA believes that the rationale set forth in the Burn Ban Rule preamble for designating nonindustrial boilers as the prohibited class of combustion facilities (50 FR 49191) provides an equally compelling argument for similarly restricting the burning of used oil products containing PCBs at the <50 ppm level. The proposed prohibition will afford an interim measure of prudent control, pending developments in EPA's ongoing, comprehensive evaluation of combustion conditions in various boilers and furnaces. This evaluation will result in the promulgation of rules prescribing combustion performance standards under RCRA. When these rules are effective, combustion facilities will be either allowed or not allowed to burn hazardous waste fuels based on their actual combustion capabilities, rather than on their classification as "industrial" or "nonindustrial" boilers or furnaces. These facilities will also become available for burning used oil fuels with <50 ppm PCBs under today's proposal.

In order to avoid duplicative or inconsistent approaches to the regulation of used oil burning, today's proposal under TSCA refers to and tracks the significant provisions which implement the nonindustrial boiler prohibition under UORA.

1. *Identification of acceptable burners.* First, this proposal identifies the classes of combustion facilities which are eligible to burn used oil fuels containing <50 ppm PCBs. One class of eligible facilities consists of the "qualified incinerators" defined in 40 CFR 761.3. Although this definition was originally intended to identify combustion units suited for the disposal of wastes from "closed waste manufacturing processes" (47 FR 46987), the combustion facilities covered by the definition were found to be adequate to accomplish the safe destruction of wastes containing PCBs at levels between the limit of quantitation (generally 2 ppm) and 50 ppm. These units were found to be adequate not only to ensure the safe destruction of PCBs in these wastes, but also to prevent the formation of dibenzofurans and other potentially toxic products of incomplete combustion.

The proposal would amend the definition of "qualified incinerator" codified at 40 CFR 761.3. The current definition states that only those high efficiency boilers specifically approved to burn PCBs present in fluids other than mineral oil (see § 761.60(a)(3)) are included within the class of "qualified

incinerators." Under the carefully controlled combustion criteria spelled out in § 761.60(a)(2)(iii)(A) and § 761.60(a)(3)(iii)(A), however, EPA believes that the combustion of used oil fuels with <50 ppm PCBs will not pose significant exposure risks. So, EPA is proposing to delete the reference to approved high efficiency boilers under § 761.60(a)(3), and to replace the deleted language with a reference to the high efficiency boiler criteria and notification requirements spelled out in § 761.60(a)(2). This amendment would require the attainment of the same combustion conditions as previously required, but it will replace the approval requirement with the simpler requirement of notification to the EPA Regional Administrator as stated in § 761.60(a)(2)(iii)(B).

Thus, the amended definition of "qualified incinerator" would designate one of the classes of combustion units eligible for burning used oil fuels with <50 ppm PCBs. The "qualified incinerator" class includes: (1) Incinerators approved for PCB destruction under § 761.70; (2) high efficiency boilers which operate under the conditions of § 761.60(a)(2)(iii)(A) and which have notified EPA of their used oil burning activities under § 761.60(a)(2)(iii)(B); and (3) incinerators approved under the authority of RCRA section 3005(c).

Second, this proposal would make another class of combustion facilities eligible for the burning of used oils with <50 ppm PCBs. The proposal includes the class of combustion facilities recognized as acceptable for burning off-specification "used oil fuels" under 40 CFR Part 266, Subpart E. This second class consists of the "industrial furnaces" and "boilers" which are identified in 40 CFR 266.41(b), and which have notified EPA of their used oil burning activities.

These boilers and furnaces are identified in 40 CFR 260.10 and § 266.41(b). Under § 260.10, "industrial furnaces" mean those devices specifically listed by EPA as enclosed devices that are integral components of manufacturing processes and that use controlled flame devices to accomplish recovery of materials or energy. EPA has also identified criteria for listing other devices as industrial furnaces. To date, the list of industrial furnaces includes cement kilns, lime kilns, phosphate kilns, aggregate kilns (including asphalt kilns), coke ovens, blast furnaces, and smelting, melting, and refining furnaces.

The definition of "boiler" is also set out at § 260.10 of the RCRA regulations. These "boilers" are described as enclosed devices using controlled flame combustion and having specified characteristics. The unit must have physical provisions for recovering and exporting thermal energy in the form of steam, heated fluids, or heated gases. The unit's combustion chamber and primary energy recovery section(s) must be of integral design, and it must maintain a thermal energy recovery efficiency of at least 60 percent while in operation. Also, units qualifying as RCRA "boilers" must export and utilize at least 75 percent of the recovered energy, calculated on an annual basis. (40 CFR 260.10). Moreover, under the criteria set out in 40 CFR 260.32, the Regional Administrators may designate additional enclosed, controlled flame combustion devices as "boilers" on a case-by-case basis.

The Burn Ban Rule implements the restrictions on the burning of used oil fuels by designating a subset of "boilers" which, in addition to "industrial furnaces," may lawfully burn off-specification used oil fuels. Acceptable boilers are those units which meet the criteria for "boilers" set out at § 260.10, and which are identified as:

a. Industrial boilers located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes.

b. Utility boilers used to produce electric power, steam, or heated or cooled air or other gases or fluids for sale.

c. Used oil-fired space heaters which meet the specified conditions on heater size, source of oils burned, and venting of combustion gases. (40 CFR 266.41(b)(2)).

The Burn Ban Rule's prohibition on burning off-specification used oil fuels in "nonindustrial" boilers is made effective by the imposition of a variety of controls on marketers and burners. "Marketers" generally include any persons who market used oil fuels to burners or other marketers, and may include the generator of the fuel if it markets the fuel directly to a burner. Under § 266.41, the marketing of off-specification fuels is limited to other marketers and the acceptable burners who have notified EPA of their activities. Used oil fuels are presumed to be off-specification, unless the marketer has obtained the necessary analyses or other information documenting that the fuel meets the specifications. (40 CFR 266.43(b)(1)). Before a marketer initiates its first shipment to a burner, he must obtain a one-time, written certification from the burner stating that the burner has notified EPA of his used oil burning activities, and that it will burn the fuel only in an industrial furnace or boiler identified in § 266.41(b). (See 40 CFR 266.42(b)(5)). A similar certification requirement applies to shipments between marketers.

Testing is ordinarily used by marketers to demonstrate compliance with the specifications. The Burn Ban Rule requires that the first person (marketer or burner) claiming compliance with the specifications must obtain the analysis or other information which supports his claim. In addition to testing of representative samples, the "other information" may include personal, special knowledge of the oil's source and composition, or a certification from the generator claiming the oil meets the specification. (See 50 FR 49190).

EPA believes that a prohibition of the burning of PCB-containing used oil fuels in nonindustrial boilers is necessary in order to exclude from the universe of eligible combustion facilities those units which, as a class, have been identified as posing the greatest likelihood of operating under combustion conditions and in locations which could result in significant PCDF exposures.

2. *Regulatory impacts.* EPA believes that the net regulatory impact of these restrictions will be insignificant. This proposal makes PCB-containing used oils (<50 ppm) available to a much larger universe of eligible combustion facilities than allowed under the current regulations. The availability of these combustion facilities (qualified incinerators, industrial furnaces, industrial boilers, utility boilers, etc.) and the availability of other recycling markets (e.g., other industrial uses and rerefining) should provide more than adequate capacity to handle any market shifts caused by the prohibition on burning in nonindustrial boilers. EPA believes that the used oil management system has already responded to the Burn Ban Rule by diverting the bulk of used oil fuels away from the nonindustrial boiler market; any further diversion caused by today's proposal should be minimal. For all these reasons, EPA concludes that allowing the burning of PCB-containing used oil fuels (.50 ppm PCBs), under the conditions proposed in this document, will not present an unreasonable risk of injury to health or the environment.

3. *Implementation.* Consistent with the approach adopted in the Burn Ban Rule, EPA is proposing to implement the prohibition on burning in nonindustrial boilers through a combination of limited

testing requirements, prohibitions, and recordkeeping requirements.

Used oil fuels are presumed to contain PCBs above the practical limit of quantitation (i.e., 2 ppm), and therefore would be subject to these restrictions, unless the marketer obtains PCB analyses (testing) or other information documenting that the used oil fuel does not contain detectable levels of PCBs. The first person who claims that a used oil fuel does not contain quantifiable levels of PCBs must obtain the analysis or other information to support his claim. The "other information" could include personal, special knowledge of the source and composition of the used oil or a certification from the generator claiming that the oil does not contain PCBs above the practical limits of quantitation (2 ppm).

The proposal would require that testing be performed on individual oil samples. The Agency solicits comment on the appropriateness of including batch testing procedures (see, e.g., 40 CFR 761.60(g)(2)), or some other means of designating representative samples. Oils not containing quantifiable levels of PCBs would be free from further regulation, unless they fail to meet one of the used oil fuel specifications or contain a hazardous waste.

To avoid confusion and inconsistency, the proposal references the terms "marketer" and "market," as well as the standards prescribed for used oil fuel marketers at 40 CFR 266.43. The term "market" connotes the "processing" and "distribution in commerce" activities associated with the blending, treating, processing, distribution, or other preparation of used oil fuel for burning.

The proposed prohibitions would apply to both burners and "marketers." A person may market (process or distribute in commerce) used oil containing PCBs at levels between the practical limits of quantitation (2 ppm) and 50 ppm for energy recovery only to burners who qualify either as a "qualified incinerator" under 40 CFR 761.3, or as a combustion device identified in 40 CFR 266.41(b). Generators who market used oil directly to burners would be deemed "marketers" for the purposes of this regulation. Before an eligible burner accepts its first shipment of used oil fuel containing <50 ppm PCBs from a marketer, he would be required to provide the marketer a one-time written and signed notice certifying that he will burn the used oil only in a qualified incinerator (§ 761.3) or in a combustion device identified in § 266.41(b). Marketers would be required to retain copies of their used oil analyses (or other information relating to PCB levels in oil) for 3 years; they would also be required to retain a copy of each certification that they have received from burners for three years from the date they last engaged in used oil marketing transactions with the burner sending the certification.

EPA requests comments on the proposal to prohibit the burning of PCB-containing used oil in nonindustrial boilers. Specifically, EPA requests comments on the following issues:

a. The proposal excludes nonindustrial boilers from the universe of eligible combustion facilities because these units as a class are unlikely to consist of small, unsophisticated boilers which may not be able to attain the controlled, efficient combustion conditions necessary to avoid the formation of PCDFs. Such units could present significant PCDF exposures if their operating conditions should approach those which optimize PCDF formation. Based on recent studies, EPA believes that PCDF formation is optimized when PCBs are burned at 675° C (1,250° F), with 8 percent excess oxygen, and a residence time of about 0.8 seconds. On the other hand, formation of PCDFs from PCBs would be expected to be far from optimal when combustion occurs at temperatures of 1,000° C (1,832° F) or greater.

Are there other classes of combustion facilities which operate under conditions which would minimize PCDF formation but which are not included within the definitions of qualified incinerator, utility boiler, industrial boiler, and industrial furnace? What are the combustion conditions of any such facilities, in terms of boiler size (Btu/hr), combustion temperature, residence time, excess oxygen, and availability of equipment and operators to control and monitor the fuel feed rate and the carbon monoxide and excess oxygen in the stack gas?

b. EPA has proposed to prohibit the burning in nonindustrial boilers of used oil fuels containing any detectable level of PCBs. The Agency could designate some PCB concentration greater than 2 ppm as the level above which this prohibition would apply. For example, if one assumes a linear relationship between available PCBs and for the formation of PCDFs, an order of magnitude reduction in the estimated exposure risk (from that calculated with an assumed 50 ppm PCB concentration) could be achieved by specifying 5 ppm as the maximum level which could be burned in nonindustrial boilers. What would be the impacts of designating 5 ppm or some other PCB concentration in terms of the proportion of oils affected and the additional amounts of oil that would be available for burning in nonindustrial boilers? What would be the incremental costs incurred by those persons who must already incur the testing costs and other costs associated with the November 29, 1985 regulation? Does a viable market still exist for distributing used oil fuels for burning in nonindustrial boilers? Should EPA allow fuels to be blended to comply with the concentration limit?

c. Athough this proposal calls for restrictions on the burning of used oil products with less than 50 ppm PCBs, comments received in response to this notice will be considered by EPA in determining the appropriateness of this approach. Comments regarding actual boiler combustion conditions and overall impacts of the proposal on the recycling of used oil may persuade EPA that the potential for PCDF exposures does not warrant the controls contained in this proposal. In that event, the final rule could adopt the option of excluding all used oil products (with <50 ppm PCBs) from regulation, without any restrictions on burning or other recycling activities.

G. Electrical Equipment Components

The definition of "excluded PCB products" in this document would extend to those products which consist of component parts derived from the rebuilding or salvaging of electrical equipment containing PCBs at levels less than 50 ppm.

In previous rulemakings, EPA has referred to electrical equipment containing quantifiable PCB levels less than 50 ppm as "non-PCB" electrical equipment, in the sense that the PCB levels are below the regulatory cutoff prescribed by the PCB disposal program under TSCA. The "non-PCB" status of such equipment is a favored status under the TSCA PCB regulations. Indeed, the regulations encourage owners and operators of electrical equipment to perform servicing that "reclassifies" their more highly contaminated equipment as "non-PCB" equipment, which equipment is essentially free form TSCA regulation. The significance of the various regulatory classifications of electrical equipment, including the "non-PCB" class, is more fully articulated in the Electrical Equipment Rule published in the **Federal Register** of August 25, 1982 (47 FR 37342).

The Electrical Equipment Rule defines the significant categories of regulated electrical equipment, and it prescribes conditional use authorizations which attach to each affected category. In several instances (e.g., PCB

Transformers in locations posing a risk to food and feed), the prescribed conditions on equipment use require the phase-out of equipment and installations identified as presenting particularly significant risks. Generally, however, the use conditions relate to inspection, maintenance, servicing, and recordkeeping requirements which must be performed in order to maintain the electrical equipment in service. For example, most PCB Transformers (those containing dielectric fluid with >500 ppm PCBs) may remain in service for the remainder of their useful lives, contingent upon performing quarterly inspections and maintaining the equipment in a state of repair free from leaks. See 40 CFR 761.30(a)(1). Also, while PCB Transformers may be serviced with dielectric fluid containing PCBs at any concentration, the regulations prohibit rebuilding or other servicing that involves the removal of the transformer's core. 40 CFR 761.30(c)(2).

The Electrical Equipment rule authorized indefinitely the use of many types of "non-PCB" (<50 ppm PCBs) electrical equipment. Authorized "non-PCB" equipment includes transformers (§ 761.30(a)); electromagnets, switches, and voltage regulators (§ 761.30(h)); capacitors (§ 761.30(l)); and circuit breakers, reclosers, and cable (§ 761.30(m)). For each of these categories, the Electrical Equipment Rule authorized use at the <50 ppm level, without any corresponding use conditions restricting that use. In other words, as long as no fluids with greater than 50 ppm PCBs are introduced to such equipment, there are no restrictions on the servicing of this equipment, including its rebuilding. Intact "non-PCB" electrical equipment is also free from any requirement to obtain exemptions from the processing and distribution in commerce bans under TSCA. Thus, this equipment is essentially free from TSCA regulation.

Moreover, it is the Agency's position that the July 10, 1984 rule (and the elimination of the 50 ppm cutoff) was not intended to affect the activities authorized under the PCB Electrical Equipment Rule. So, the distribution in commerce and processing of PCBs (<50 ppm) in connection with the use and servicing of "non-PCB" equipment remains free of the TSCA section 6(e) bans, despite the elimination of the 50 ppm cutoff on October 1, 1984.

Nevertheless, the elimination of the 50 ppm cutoff has raised doubts about the continued legality of the reuse of equipment components derived from the salvaging of "non-PCB" equipment. Since the promulgation in 1979 of the PCB Ban Rule, the Agency has recognized that drained, obsolete transformers (formerly containing <500 ppm PCBs) may be disposed of as salvage. Although described as a form of unregulated disposal, a qualification on permissible salvage operations is that they must bring about the termination of the useful life of PCBs or PCB Items. So, salvaging which accomplishes metals recovery through the smelting of transformer components generally qualifies as "disposal" under TSCA, because the PCBs are eliminated by the smelting process. On the other hand, where drained equipment is merely dismantled to recover components for further processing, distribution in commerce, and reuse, the salvaging activities constitute an unauthorized recycling (i.e, reuse) of PCBs under the existing regulations. As in the case of used oil recycling discussed in unit IV.E. above, such recycling activities possess a dual "use" and "disposal" nature, enabling EPA to regulate the use aspect at PCB levels under 50 ppm, despite the fact that disposal is unregulated below 50 ppm. Currently, there is no specific authorization or exclusion in the PCB regulations that allows the recycling of such components.

The proposed exclusion for "excluded PCB products" will have a limited impact on salvaging and rebuilding activities involving "non-PCB" electrical equipment. The Agency has previously authorized the unrestricted servicing (including rebuilding) of electrical equipment with less than 50 ppm PCBs, and the Agency is not reevaluating in this proceeding that authorization or the determination that allowed the salvaging of drained equipment. Rather, this discussion only clarifies that the components, when generated by authorized rebuilding or salvaging activities, are "excluded PCB products" within the meaning of the exclusion proposed today. As such, any impediment to their further use, processing, or distribution in commerce would be removed; these components could be freely incorporated into other electrical equipment, or distributed in commerce for the purpose of reuse in electrical equipment. EPA does not believe that recycling activities involving these components present any significantly greater risks than other activities connected with the unrestricted use of "non-PCB" electrical equipment.

H. Land Application of Solid Wastes

The proposal relating to "excluded PCB products" would not extend to those "products" consisting of non-hazardous solid wastes (including sewage sludges) which contain PCBs and which are applied to land used for the production of food chain crops. This exception is expressed in the proposed definition of "excluded PCB products" to emphasize that land application practices involving wastes which contain PCBs at levels under 50 ppm are governed exclusively by the provisions of non-TSCA regulatory programs. The exception merely codifies this Agency's traditional practice of deferring to other statutory programs (e.g., CWA and RCRA) that regulate the management of sewage sludge (and like wastes) containing less than 50 ppm PCBs. See 43 FR 24804.

EPA currently regulates land application practices involving non-hazardous solid wastes (including sewage sludge) under a regulation codified at 40 CFR 257.3–5. This regulation prescribes restrictions on the application of sewage sludges and other non-hazardous wastes to land used for the production of food-chain crops. The regulation was promulgated on September 13, 1979 (44 FR 53438) under both the RCRA Subtitle D authority to prescribe solid waste management criteria and the authority of section 405(d) of the CWA to issue guidelines for the disposal and utilization of sewage sludge.

The land application criteria of 40 CFR 257.3–5 were interim rules designed to balance the benefits of resource conservation against the potential threat to the human food chain caused by improper land application practices. The application of sewage sludge and other solid wastes may provide significant benefit through the addition of organic matter, nitrogen, phosphorous, and certain other essential trace elements to the soil. On the other hand, improperly managed wastes may introduce toxic elements, compounds, and pathogens into the food chain. See 44 FR 53449.

The Part 257 land application rules specifically address the application of non-hazardous wastes (including sewage sludge) containing PCBs to fields growing animal feeds. 40 CFR 257.3–5(b). Under this regulation, land used for growing animal feeds includes any land used for a crop grown for consumption by animals, including land used to grow pasture crops upon which graze animals raised for milk (40 CFR 257.3–5(c)). The regulation generally requires that such wastes be "incorporated into the soil" if the wastes contain 10 ppm or more of PCBs, unless the applier can ensure that his application of wastes to land will not result in the PCB content exceeding specified FDA tolerances for PCBs in

animal feed or milk. See 40 CFR 257.3–5(b).

Although the reliance on FDA tolerances as a performance standard defining permissible land application practices is premised on protection of human health and the environment, the existing Part 257 standards are not truly risk-based in the same sense that TSCA evaluates risk. These standards are not derived from a balancing of the magnitude of exposure, the probability of harm, and the economic impacts of regulation.

EPA could use its TSCA section 6(e) authority as the basis for requirements governing the land application of sewage sludge and other materials contaminated with PCBs at levels under 50 ppm. As with used oil recycling (unit IV.E.) and the recycling of electrical equipment components (unit IV.G.), there are "use" and "disposal" aspects to the land application of such materials. Thus EPA could regulate the use aspect under TSCA at levels under 50 ppm regardless of whether these activities were also considered to be disposal practices. Indeed, if EPA had not elected in the past to defer to its CWA and RCRA statutes as the authorities for regulating land application practices, TSCA section 6(e) would compel the conclusion that land application involving any quantifiable level of PCBs is currently an unauthorized use of PCBs.

However, EPA is dispelling any such construction of TSCA section 6(e) by reiterating in this notice that it regulates land application of sewage sludge and other materials containing less than 50 ppm PCBs according to the requirements specified under its CWA and RCRA programs, rather than under its TSCA jurisdiction to regulate PCB activities. Any concerns about the PCB exposure risks posed by land application practices can be addressed adequately in the relevant CWA and RCRA programs.

In November, 1984, Congress enacted the Hazardous and Solid Waste Amendments of 1984 (HSWA). HSWA directed EPA to study and revise the existing Subtitle D solid waste management criteria. Although the emphasis of the HSWA mandated studies and revisions is the protection of ground water, the Congressionally mandated study includes Part 257 land management units within its scope.

Moreover, EPA's current plans call for the promulgation of a risk-based PCB standard in the context of new regulations required under section 405(d) of the CWA, as amended by the Water Quality Act of 1987. Congress intended the section 405(d) provisions to serve as authority for the comprehensive regulation of sewage sludge use and disposal practices. Land application restrictions are one aspect of the sewage sludge program under section 405(d), which requires EPA to prescribe sewage sludge management practices and maximum numerical concentrations for toxic pollutants, as necessary to protect human health and the environment.

The regulatory agenda for EPA's Office of Water anticipates the publication of proposed section 405(d) rules in late summer or early fall of 1987. In support of these rules, the Agency has already conducted risk assessments for some 32 toxic pollutants (including PCBs) that are relevant to land application practices, including the distribution and marketing of sewage sludge. The Agency expects that its first round of section 405(d) rulemaking will include new provisions which pertain to the land application of sewage sludges containing <50 ppm PCBs, and which will be codified in final form at 40 CFR 503. These provisions will specify management practices and risk-based maximum PCB concentrations in sewage sludge which will affect sewage sludge use practices more comprehensively than the previously issued Part 257 rules. When these new land application regulations pertaining to PCBs in sewage sludges are issued, they will govern land application practices involving sewage sludge and supersede in part the existing Part 257 regulations. In any event, land application practices involving PCBs at levels less than 50 ppm will continue to be regulated under the appropriate Part 257 and Part 503 regulations, rather than under the TSCA regulations of Part 761.

V. Materials Decontaminated Pursuant to Spill Cleanup Policies

EPA is proposing an amendment which would affect an additional class of materials contaminated with PCBs at the less than 50 ppm level. Unlike the products discussed in Unit IV, however, the PCB levels for the materials discussed in this Unit are not simply residual levels of contamination resulting from historic manufacturing, use, or recycling activities. Rather, the <50 ppm PCB concentration levels for these materials are achieved through purposeful decontamination activities performed in accordance with applicable PCB Spill Cleanup policies.

This proposal would formally exclude from the TSCA section 6(e) prohibitions on use and distribution in commerce, certain equipment and other materials contaminated with PCBs, and not otherwise authorized by 40 CFR Part 761, provided that these materials were decontaminated in accordance with applicable PCB cleanup policies in effect at the time of decontamination. Today's proposal also would formally exclude from regulation the use of materials or equipment which became contaminated with PCBs prior to the effective date of the TSCA section 6(e) bans, and which have not undergone decontamination under any EPA PCB cleanup policy. However, before any of these materials could be distributed in commerce, this amendment would require that they be decontaminated in accordance with the PCB cleanup policies in effect at the time of distribution in commerce.

The Agency emphasizes that this proposal is intended to embrace only equipment, structures, and other materials that have inadvertantly become contaminated with PCBs (>50 ppm) on account of spills from, or proximity to, a PCB Item. The "spills" giving rise to contamination must not have been the result of any intentional discharge of PCBs, and the contamination must be attributable to PCB Items and activities which are themselves authorized. Typically, the materials affected by this proposal would consist of equipment or structures in proximity to (or used to service) PCB-containing electrical equipment (e.g., transformers, capacitors) or hydraulic systems. However, this proposal is not intended as a means of decontaminating PCB Equipment, PCB Articles, or other PCB Items (see § 761.3) which deliberately or unintentionally contain or have as a part of them any PCBs. The availability of decontamination as a means of allowing the further use and distribution in commerce of PCB Items is limited to the decontamination procedures specified in 40 CFR 761.79 for PCB Containers and movable equipment used in storage areas.

This proposal would merely codify an existing (though not specifically authorized) practice. Currently, eligible materials are decontaminated to standards set by the EPA Regions on a case-by-case basis. Although there may be some variation among the Regions in specifying the required cleanup levels in particular cases, in each case, cleanup standards specified under existing Regional cleanup policies are established at levels intended to ensure compliance with the PCB disposal regulations.

Moreover, the Agency has recently published its nationwide PCB Spills Cleanup Policy, which established uniform cleanup levels for specified spill types and locations. This nationwide policy prescribes cleanup levels for different types of "spills" according to

the PCB concentration involved in the spill, the type of material contaminated, and the spill location. In developing the nationwide policy, EPA considered modeling done of typical leaks and spills during EPA-authorized activities. The Agency evaluated these typical spills to assess the potential routes of exposure, the risks associated with these exposures, and the costs associated with attaining cleanup to particular levels. The cleanup levels that were specified for particular spill types, locations, and materials resulted from a balancing of the exposures, risks, and costs. In other words, the designation of cleanup levels in each case followed from a determination that the residual PCB levels would not present unreasonable risks of injury to health or the environment. Implicitly, the further use, processing, and distribution in commerce of materials decontaminated in accordance with the nationwide cleanup policy will not present an unreasonable risk.

When the nationwide PCB cleanup policy becomes effective, the cleanup levels specified by it will supersede the Regional policies. The proposed amendment will of course specifically exclude from regulation eligible materials already decontaminated in conformity with Regional policies. Also, in the case of materials not yet decontaminated, they must be decontaminated in accordance with the cleanup policy in effect at the time of distribution in commerce. This language allows for the eventuality that the nationwide policy supersedes the various Regional cleanup policies. EPA solicits comment on this proposed amendment.

VI. Official Rulemaking Record

In accordance with the requirements of section 19(a)(3) of TSCA, EPA is issuing the following list of documents, which constitutes the record of this proposed rulemaking. This record includes basic information considered by the Agency in developing this proposal, including appropriate Federal Register notices, published and unpublished reports, economic and exposure analyses, and various communications before proposal. A supplementary list or lists may be published any time on or before the date the final rule is issued.

A full list of these materials will be available on request from EPA's TSCA Assistance Office listed under **"FOR FURTHER INFORMATION CONTACT."** However, any Confidential Business Information (CBI) that is a part of the record for this rulemaking is not available for public review. A public version of the record, from which CBI has been deleted, is available for inspection.

A. Previous Rulemaking Records

(1) Official Rulemaking Record from "Polychlorinated Biphenyls (PCBs); Disposal and Marking Rule," Docket No. OPTS–68005, 43 FR 7150, February 17, 1978.

(2) Official Rulemaking Record from "Polychlorinated Biphenyls (PCBs); Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions Rule," 44 FR 31514, May 31, 1979.

(3) Official Rulemaking Record from "Polychlorinated Biphenyls (PCBs); Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions; Use in Electrical Equipment," Docket No. OPTS–62015, 47 FR 37342, August 25, 1982.

(4) Official Rulemaking Record from "Polychlorinated Biphenyls (PCBs); Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions; Use in Closed and Controlled Waste Manufacturing Processes," Docket No. OPTS–62017, 47 FR 46980, October 21, 1982.

(5) Official Rulemaking Record from "Polychlorinated Biphenyls (PCBs); Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions; Amendment to Use Authorization for PCB Railroad Transformers," Docket No. OPTS–62020, 48 FR 124, January 3, 1983.

(6) Official Rulemaking Record from "Polychlorinated Biphenyls (PCBs); Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions; Response to Individual and Class Petitions for Exemption," Docket No. OPTS–66008A, 49 FR 28154, July 10, 1984.

(7) Official Rulemaking Record from "Polychlorinated Biphenyls (PCBs); Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions; Exclusions, Exemptions, and Use Authorizations," Docket No. OPTS–62032A, 49 FR 28172, July 10, 1984.

(8) Official Rulemaking Record from "Polychlorinated Biphenyls (PCBs); Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions; Use in Electrical Transformers," Docket No. OPTS–62035D, 50 FR 29170, July 17, 1985.

(9) Official Rulemaking Record from "Polychlorinated Biphenyls (PCBs); Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions; Response to Exemption Petitions," Docket No. OPTS–66008E, 51 FR 28556, August 6, 1986.

B. Federal Register Notices

(10) 46 FR 27617, May 20, 1981, USEPA, "Polychlorinated Biphenyls (PCBs); Manufacture of PCBs in Concentrations Below Fifty Parts Per Million; Possible Exclusion from Manufacturing Prohibition; Advance Notice of Proposed Rulemaking.

(11) 44 FR 31514, May 31, 1979, USEPA, "Polychlorinated Biphenyls (PCBs); Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions."

(12) 44 FR 53438, September 13, 1979, USEPA, "Criteria for Classification of Solid Waste Disposal Facilities and Practices."

(13) 47 FR 46980, October 21, 1982, USEPA, "Polychlorinated Biphenyls (PCBs); Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions; Use in Closed and Controlled Waste Manufacturing Processes."

(14) 48 FR 55076, December 8, 1983, USEPA, "Polychlorinated Biphenyls (PCBs); Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions; Exclusions, Exemptions, and Use Authorizations; Proposed Rule."

(15) 49 FR 28172, July 10, 1984, USEPA, "Polychlorinated Biphenyls (PCBs); Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions; Exclusions, Exemptions, and Use Authorizations; Final Rule."

(16) 49 FR 28154, July 10, 1984, USEPA, "Polychlorinated Biphenyls (PCBs); Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions; Response to Individual and Class Petitions for Exemptions."

(17) 50 FR 19170, July 17, 1985, USEPA, "Polychlorinated Biphenyls in Electrical Transformers; Final Rule."

(18) 50 FR 49212, November 29, 1985, USEPA, "Hazardous Waste Management System; Recycled Used Oil Standards; Proposed Rule."

(19) 50 FR 49258, November 29, 1985, USEPA, "Hazardous Waste Management System; General, Identification and Listing of Hazardous Waste; Used Oil; Proposed Rule."

(20) 50 FR 49164, November 29, 1985, USEPA, "Hazardous Waste Management System; Burning of Waste Fuel and Used Oil Fuel in Boilers and Industrial Furnaces."

(21) 51 FR 28556, August 8, 1986, USEPA, "Polychlorinated Biphenyls (PCBs); Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions; Response to Exemption Petitions."

(22) 51 FR 41900, November 19, 1986, USEPA, "Identification and Listing of Hazardous Waste; Used Oil;" Notice Announcing Decision Not To Adopt

Proposed Rule Listing Used Oil as Hazardous Waste.

(23) 52 FR 10688, April 2, 1987, USEPA, "Polychlorinated Biphenyls Spill Cleanup Policy."

C. Support Documents

(24) August 7, 1986 Settlement Agreement filed with United States Court of Appeals for the District of Columbia Circuit, in Docket Nos. 84–1481 and 85–1118.

(25) USEPA, OPTS, EED, Versar, Inc., "Assessment of Exposures Resulting from Recycle/Reuse of Used Oil Containing PCBs at Levels Less Than 50 PPM" (January, 1987).

(26) USEPA, OPTS, ETD, Putnam, Hayes and Bartlett, Inc., "PCB Rule Revision, Cost-Effectiveness Analyses and Estimates of Exposed Population" (March, 1987).

(27) USEPA, OTS, Versar, Inc., "Development of a Study Plan for Definition of PCBs Usage, Wastes, and Potential Substitution in the Investment Casting Industry" (January, 1976).

(28) USEPA, OPTS, ETD, ICF, Inc., "Costs of Prohibiting Reclaimed Investment Casting Wax Containing PCBs Below 50 PPM" (DRAFT) (September, 1985).

(29) USEPA, OPTS, EED, January 17, 1985 letter from Honorable Ralph Regula to William Prendergast, EPA, forwarding January 10, 1985 letter from constituent, Charles LeBeau, Cambridge Mill Products, Inc.

(30) USEPA, OPTS, EED, Letter from John A. Moore, EPA, to Honorable Ralph S. Regula (January 3, 1985).

(31) USEPA, OPTS, EED, "Potential PCDF Formation during Combustion of Used Oil Containing Low Levels of PCBs."

(32) USEPA, OPTS, EED, "Exposure Estimates for the Amendment to the PCB Regulation" (November 20, 1986).

(33) USEPA, OPTS, EED, "Exposure Estimates for the Amendment to the PCB Regulation" (December 23, 1986).

(34) USEPA, OPTS, EED, "A Manual for the Preparation of Engineering Assessments" (September 1, 1984).

(35) USEPA, OPTS, EED, Letter from C. Nelson Schlatter, Edmont Corporation to Dr. John Moore, EPA (October 15, 1984).

(36) USEPA, OPTS, EED, Letter from Dr. John A. Moore, EPA to C. Nelson Schlatter, Edmont Corporation (November 15, 1984).

(37) USEPA, OPTS, EED, Letter from Oswald Schindler, Intermarket Latex, Inc. to Martin Halper, EPA (November 13, 1984).

(38) USEPA, OPTS, ETD, "Addendum to the Heat Transfer and Hydraulic Systems RIA" (undated).

(39) USEPA, OPTS, ETD, "PCB Glove Requirement Costs: Present Value" (February, 1987).

(40) USEPA, OW, PCB Information Survey, Deink Direct Dischargers by Region and NPDES Permit Numbers (November, 1984).

(41) USEPA, OPTS, EED, Letter from Richard S. Wasserstrom, American Paper Institute, Inc. to Alan Carpien, EPA (October 11, 1984).

(42) USEPA, OPTS, EED, Letter from Richard J. Kissel, Attorney for ADCI and OMC, to John A. Moore, EPA (October 24, 1984).

(43) USEPA, OPTS, EED, Letter from Alan Carpien, EPA to Richard J. Kissel, Attorney for ADCI and OMC (November 20, 1984).

(44) USEPA, OPTS, EED, Letter from Timothy S. Hardy, Attorney for CMA to Alan Carpien, EPA (November 27, 1984).

(45) USEPA, OPTS, EED, Letter from Richard S. Wasserstrom, API to Alan Carpien, EPA (August 20, 1985).

(46) USEPA, OPTS, EED, Letter from Timothy S. Hardy, Attorney for CMA, to Alan Carpien, EPA (August 28, 1985).

(47) USEPA, OPTS, EED, Letter from Jeffrey C. Fort, Attorney for ADCI and OMC, to Alan Carpien, EPA (November 22, 1985).

(48) USEPA, OPTS, EED, Letter from Suzanne Rudzinski, EPA to Timothy S. Hardy, Attorney for CMA (January 21, 1986).

(49) USEPA, OPTS, EED, Letter from Robert J. Fensterheim, CMA to Suzanne Rudzinski, EPA (March 19, 1985).

(50) USEPA, OPTS, EED, Letter from Robert J. Fensterheim, CMA to Suzanne Rudzinski, EPA (June 17, 1985).

(51) USEPA, OPTS, EED, Letter from Suzanne Rudzinski, EPA to Robert J. Fensterheim, CMA (July 17, 1985).

(52) USEPA, OPTS, EED, Letter from Toni K. Allen, Attorney for USWAG, to Lee M. Thomas, Administrator, EPA (August 12, 1986).

(53) USEPA, OPTS, EED, Letter from John A. Moore, EPA to Toni K. Allen, Attorney for USWAG (September 9, 1986).

(54) USEPA, OPTS, EED, Letter from Suzanne Rudzinski, EPA to George Fekete, Jr., Pennwalt Corporation (October 22, 1986).

(55) USEPA, OPTS, EED, Letter from Suzanne Rudzinski, EPA to Paulette Vest, Vest Metal Company (October 22, 1986).

(56) USEPA, OPTS, EED, Letter from Suzanne Rudzinski and John J. Neylan III, EPA to Lt. General Vincent M. Russo, Defense Logistics Agency (August 28, 1986).

VII. Other Regulatory Requirements

A. Executive Order 12291

Under Executive Order 12291, issued February 17, 1982, EPA must judge whether a regulation is a "major rule," and therefore, subject to the requirement that a Regulatory Impact Analysis be prepared. EPA has determined that this proposed rule is not a "major rule" because it does not meet the criteria set forth in section 1(b) of the Executive Order.

The effect on the economy will be the avoidance of significant costs which would otherwise be incurred if EPA maintained the existing use authorizations for hydraulic and heat transfer systems, which include the Viton glove requirement. Likewise, the proposed rule avoids the substantial costs associated with maintaining the existing prohibitions of activities involving products containing low levels (under 50 ppm) of PCB contamination.

No significant increases in prices are expected to occur as a result of this rule. No significant adverse effects are expected on competition, employment, investment, productivity, innovation or on the ability of United States-based enterprises to compete with foreign-based enterprises.

This proposed regulation was submitted to the Office of Management and Budget (OMB) for review as required by Executive Order 12291.

B. Regulatory Flexibility Act

Section 603 of the Regulatory Flexibility Act (the Act) (15 U.S.C. 601 et seq., Pub. L. 96–534, September 19, 1980), requires EPA to prepare and make available for comment an regulatory flexibility analysis in connection with rulemaking. The initial regulatory flexibility analysis must describe the impact of the proposed rule on small business entities. Section 605(b) of the Act "shall not apply to any proposed or final rule if the Agency certifies that the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities."

In accordance with section 605(b) of the Act, EPA certifies that this rule, if promulgated, will not have a significant impact on a substantial number of small businesses. The rule is in fact non-discriminatory in its impact on business entities, and the impact on all business entities is generally to exclude from regulation activities currently prohibited under TSCA section 6(e), and not previously authorized, exempted or excluded by regulation. Small businesses will share equally in the benefits of this rule, including the

elimination of the Viton glove requirement in the use authorization for hydraulic and heat transfer systems, and the general exclusion for products contaminated with PCBs at levels below 50 ppm. To the extent that regulatory controls are retained over the burning of PCB-containing used oil in nonindustrial boilers, any impact on small business entities is not appreciably greater than the impact already being borne by these entities under the existing prohibition on burning off-specification used oil in nonindustrial boilers. Moreover, the rule would implement the limited restrictions on burning PCB-containing used oil (under 50 ppm) in a manner such that any additional economic burdens would be borne primarily by the marketers of used oil, rather than by the small business entities who may burn used oil fuels in nonindustrial boilers.

EPA solicits comments from interested persons concerning the economic impact of this proposed rule on small business entities.

C. Paperwork Reduction Act

The Paperwork Reduction Act of 1980, 44 U.S.C. 3501 *et seq.*, authorizes the Director of OMB to review certain information collection requests by Federal Agencies. Under OMB Control Number 2070–0008, OMB has approved an information collection request submitted by EPA in connection with the recordkeeping and reporting requirements which facilitate the implementation and enforcement of the Uncontrolled PCBs Rule. Further, under OMB Control Number 2050–0047, OMB has approved the information collection requirements (including invoice shipping papers, certifications, and used oil analysis) which facilitate the implementation of the prohibition on burning certain used oil fuels in nonindustrial boilers. OMB has also approved the provisions of this proposed rule, which requires that information related to PCBs in used oil fuels be added to the existing information collections previously approved by OMB.

List of Subjects in 40 CFR Part 761

Environmental protection, Hazardous materials, Labelling, Polychlorinated biphenyls, Recordkeeping and reporting requirements.

Dated: June 15, 1987.

Lee M. Thomas,

Administrator.

PART 761—[AMENDED]

Therefore, it is proposed that 40 CFR Part 761 be amended as follows:

1. The authority citation for Part 761 continues to read as follows:

Authority: 15 U.S.C. 2605, 2607, and 2611.

2. Section 761.1 is amended by adding paragraph (f)(4) to read as follows:

§ 761.1 Applicability.

* * * * *

(f) * * *

(4) Except as provided in § 761.20 (d) and (e), persons who process, distribute in commerce, or use products containing excluded PCB products defined in § 761.3 are exempt from the requirements of Subpart B of this Part.

3. Section 761.3 is amended by adding and alphabetically inserting a definition for "Excluded PCB products" and revising the definitions for "qualified incinerator" and "Recycled PCBs" to read as follows:

§ 761.3 Definitions

* * * * *

"Excluded PCB products" are defined as PCBs which appear at concentrations less than 50 ppm in products, including but not limited to inadvertently generated PCBs as defined in this section, investment casting waxes, and used oils, provided:

(1) The products were manufactured, processed, distributed in commerce or used before October 1, 1984.

(2) The products were manufactured, processed, distributed in commerce or used pursuant to authority granted by EPA by regulation, by exemption petition, by settlement agreement, or pursuant to other Agency-approved programs.

(3) No provision specifying a PCB concentration may be avoided as a result of any dilution, unless otherwise specifically provided by regulation.

Note.—This rule does not affect land application practices involving sewage sludge or other non-hazardous solid wastes which contain PCBs at concentrations less than 50 ppm. These activities are regulated under other EPA programs, particularly, solid waste management criteria promulgated under Subtitle D of the Resource Conservation and Recovery Act (RCRA), and regulations controlling the use and disposal of sewage sludges under section 405(d) of the Clean Water Act (CWA). Existing regulations which govern land application practices involving these materials are codified at 40 CFR 257.3–5.

* * * * *

"Qualified incinerator" means one of the following:

(1) An incinerator approved under the provisions of § 761.70. Any concentration of PCBs can be destroyed in an incinerator approved under § 761.70.

(2) A high efficiency boiler which complies with the criteria of § 761.60(a)(2)(iii)(A), and for which the operator has given written notice to the Regional Administrator in accordance with the notification requirements for the burning of mineral oil dielectric fluid under § 761.60(a)(2)(iii)(B).

(3) An incinerator approved under section 3005(c) of the Resource Conservation and Recovery Act (42 U.S.C. 6925(c)) (RCRA).

* * * * *

"Recycled PCBs" are defined as those PCBs which appear in the processing of paper products or asphalt roofing materials from PCB-contaminated raw materials. Processes which recycle PCBs must meet the following requirements:

(1) There are no detectable concentrations of PCBs in asphalt roofing material products leaving the processing site.

(2) The concentration of PCBs in paper products leaving any manufacturing site processing paper products, or in paper products imported into the United States, must have an annual average of less than 25 ppm with a 50 ppm maximum.

(3) The release of PCBs at the point at which emissions are vented to ambient air must be less than 10 ppm.

(4) Disposal of any other process wastes at concentrations of 50 ppm or greater must be in accordance with Subpart D of this part.

4. Section 761.20 is amended by revising paragraph (a) and the introductory text of paragraph (c), and adding paragraphs (c)(5) and (e) to read as follows:

§ 761.20 Prohibitions.

* * * * *

(a) No person may use any PCB, or any PCB Item regardless of concentration, in any manner other than in a totally enclosed manner within the United States unless authorized under § 761.30, except that:

(1) An authorization is not required to use those PCBs or PCB Items which consist of excluded PCB products defined in § 761.3.

(2) An authorization is not required to use those PCBs or PCB Items resulting from an excluded manufacturing process or a recycled PCBs process defined in § 761.3, provided all applicable conditions of § 761.1(f) are met.

* * * * *

(e) No person may process or distribute in commerce any PCB, or any PCB Item regardless of concentration, for use within the United States or for export from the United States without an exemption, except that an exemption

is not required to process or distribute in commerce PCBs or PCB Items resulting from an excluded manufacturing process as defined in § 761.3, or to process or distribute in commerce recycled PCBs as defined in § 761.3, or to process or distribute in commerce excluded PCB products as defined in § 761.3, provided that all applicable conditions of § 761.1(f) are met. In addition, the activities described in paragraphs (c)(1) through (5) of this section may also be conducted without an exemption, under the conditions specified therein.

* * * * *

(5) Equipment, structures, or other materials that are contaminated with PCBs, and which are not otherwise authorized for use or distribution in commerce under this Part, may be distributed in commerce, provided that these materials were decontaminated in accordance with applicable PCB spill cleanup policies in effect at the time of decontamination or, if not previously decontaminated, at the time of distribution in commerce.

* * * * *

(e) In addition to any applicable requirements under 40 CFR Part 266, Subpart E, marketers of used oil are subject to the following requirements when they market (process or distribute in commerce) for energy recovery used oil containing any detectable level of PCBs:

(1) *Restrictions on marketing.* Used oil containing any detectable level of PCBs may be marketed only to:

(i) Qualified incinerators defined in 40 CFR 761.3;

(ii) Other marketers identified in 40 CFR 266.41(a)(1); or

(iii) Burners identified in 40 CFR 266.41(b).

(2) *Testing of used oil fuel.* Used oil to be burned for energy recovery is presumed to contain detectable levels of PCBs unless the marketers obtains analyses (testing) or other information documenting that the used oil fuel does not contain detectable levels of PCBs.

(i) The person who first claims that a used oil fuel does not contain detectable PCBs is subject to the requirement to obtain analyses or other information to support his claim.

(ii) Testing to determine the PCB concentration in used oil may be conducted on individual samples, or in accordance with the testing procedures described in § 761.60(g)(2).

(iii) Other information documenting that used oil fuel does not contain detectable levels of PCBs may consist of either personal, special knowledge of the source and composition of the used oil or a certification from the person generating the used oil claiming that the oil contains no detectable PCBs.

(3) *Restrictions on burning.* (i) Used oil containing any detectable level of PCBs may be burned for energy recovery only in the combustion facilities identified in § 761.20(e)(1). Owners and operators of such facilities are "burners" of used oil fuels.

(ii) Before a burner accepts from a marketer the first shipment of used oil fuel containing detectable PCBs (<50 ppm), he must provide the marketer a one-time written and signed notice certifying that:

(A) He has complied with any notification requirements applicable to "qualified incinerators" (§ 761.3) or to "burners" regulated under Subpart E of Part 266; and

(B) He will burn the used oil only in a combustion facility identified in § 761.20(e)(1).

(4) *Recordkeeping requirements.* (i) The marketer who first claims that used oil fuel contains no detectable PCBs must include copies of the analysis or other information documenting his claim among the records to be kept under 40 CFR 266.43(b)(6)(i).

(ii) Burners must include a copy of each § 761.20(e)(3)(ii) certification notice that he sends to a marketer among the records required to be kept under 40 CFR 266.44(3).

(iii) A marketer must include a copy of each certification notice relating to transactions involving PCB-containing used oil among the records required to be kept under 40 CFR 266.43(b)(6)(ii).

§ 761.30 [Amended]

5. Section 761.30 is amended by removing paragraphs (d) (6) and (7) and by removing paragraphs (e) (6) and (7).

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