UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

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OFFICE OF ENFORCEMENT

MEMORANDUM

SUBJECT: Environmental Protection Agency Office of Federal Activities' Guidance on Incorporating EPA's Pollution Prevention Strategy into the Environmental Review Process

FROM: Richard E. Sanderson
Director
Office of Federal Activities

TO: Federal Agency NEPA Liaisons
Federal Agency Environmental Roundtable Members
(see Attachment 1 for lists of addressees)

The Office of Federal Activities (OFA) has issued pollution prevention guidance for Environmental Protection Agency (EPA) reviewers (Attachment 2) to promote a clearer understanding of how pollution prevention can be incorporated into the National Environmental Policy Act (NEPA) and the Clean Air Act Section 309 environmental review processes. We welcome your comments and suggestions on the guidance and will consider revising this guidance to address any substantive concerns you may raise.

The guidance discusses: the EPA definition of pollution prevention; how to incorporate pollution prevention into the EPA environmental review process and interagency liaison functions; and federal pollution prevention awards programs. Specific examples of pollution prevention and mitigation measures for various types of projects and agency actions are given that distinguish between source reduction and treatment technologies.

OFA's guidance is consistent with the Council on Environmental Quality's (CEQ) guidance memorandum to federal agencies that discusses how to incorporate pollution prevention principles, techniques, and mechanisms into agencies' planning processes and NEPA documents. The CEQ memorandum was published in the Federal Register on January 29, 1993.

Any comments should be submitted by April 16, 1993, to Susan Offerdal, U.S. Environmental Protection Agency, Office of Federal Activities (A-104), 401 M Street, S.W., Washington, DC 20460, telephone: (202) 260-5059/FAX (202) 260-0129. If you have any questions on the document, please contact me at (202) 260-5053, or have your staff contact Susan Offerdal.

Attachments

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ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF FEDERAL ACTIVITIES

Guidance on Incorporating EPA's Pollution Prevention Strategy into EPA's Environmental Review Process

The Office of Federal Activities (OFA) is issuing guidance which incorporates the Environmental Protection Agency (EPA) Pollution Prevention Strategy into the Agency's National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act review processes. To implement the Pollution Prevention Act of 1990, this guidance focuses primarily upon influencing federal agencies' policies, practices, and regulatory functions to incorporate pollution prevention into their planning and decision-making.

Background

The EPA is embarking on the implementation of its 1990's pollution prevention initiative to integrate pollution prevention throughout the Agency's activities. During the 1970s and 1980s, EPA focused on regulatory requirements to reduce or eliminate the sources of existing pollution. This approach has been effective. EPA is continuing its efforts to reduce or eliminate pollution by also focusing on pollution from diffuse sources and cross-media transfers.

Congress, recognizing the national and global implications of this initiative, passed the Pollution Prevention Act of 1990. The Act establishes an environmental protection hierarchy, with pollution prevention/source reduction as the most desirable environmental management option. If pollution cannot be prevented then, in descending order of preference, environmentally sound recycling, treatment, and disposal are listed as alternative waste management options.

In January 1991, EPA issued a national Pollution Prevention Strategy describing its goals and objectives and providing broad guidance to the Agency's headquarters and regional offices to institutionalize pollution prevention. The Strategy furthers the voluntary industrial toxics reduction project and discusses future actions. The EPA strategy requires that separate EPA pollution prevention strategies be developed for sectors of society having potential environmental impacts and opportunities for pollution prevention. These sectors include: the federal government, agriculture, energy/transportation, and consumers.

The draft Federal Sector Strategy dated June 5, 1992, calls for federal agencies to lead the Nation, by implementing pollution prevention policies and practices across all federal government sector missions, activities, and functions in order to promote the sustainable use of natural resources and to protect human health and the environment.

The Federal Sector Strategy states that one of the ways EPA addresses pollution prevention is through the environmental review process, pursuant to the NEPA and Section 309 of the Clean Air Act. The NEPA incorporates pollution prevention language into its regulations (see 40 CFR Part 1500.2 (f)):

> *"Federal agencies shall to the fullest extent possible... use all practicable means, consistent with the requirement of [NEPA] and other essential considerations of national policy, to restore and enhance the quality of the human environment and avoid or minimize any possible adverse effects of their actions upon the quality of the human environment." (Emphasis added).*

The following guidance provides: the EPA definition of pollution prevention; discusses how to incorporate pollution prevention into the EPA environmental review process, and interagency liaison functions; and addresses federal pollution prevention awards programs.

What is pollution prevention?

On May 28, 1992, in a memorandum from the Deputy Administrator, EPA issued its Pollution Prevention: EPA Statement of Definition. The following description is given:

> *"Under Section 6602(b) of the Pollution Prevention Act of 1990, Congress established a national policy that:*
>
> - *pollution should be prevented or reduced at the source whenever feasible;*
> - *pollution that cannot be prevented should be recycled in an environmentally safe manner whenever feasible;*
> - *pollution that cannot be prevented or recycled should be treated in an environmentally safe manner whenever feasible; and*
> - *disposal or other release into the environment should be employed only as a last resort and should be conducted in an environmentally safe manner.*
>
> ***Pollution prevention means "source reduction,"*** *(emphasis added) as defined under the Pollution Prevention Act, and other practices that reduce or eliminate the creation of pollutants through:*
>
> *--increased efficiency in the use of raw materials, energy, water, or other resources, or*
> *--protection of natural resources by conservation.*

The Pollution Prevention Act defines "source reduction" to mean any practice which:

--reduces the amount of any hazardous substance, pollutant, or contaminant entering any waste stream or otherwise released into the environment (including fugitive emissions) prior to recycling, treatment, or disposal; and
--reduces the hazards to public health and the environment associated with the release of such substances, pollutants, or contaminants.

The term [pollution prevention] includes: equipment or technology modifications, process or procedure modifications, reformulation or redesign of products, substitution of raw materials, and improvements in housekeeping, maintenance, training, or inventory control.

Under the Pollution Prevention Act, recycling, energy recovery, treatment, and disposal are not included within the definition of pollution prevention (emphasis added). Some practices commonly described as "in-process recycling" may qualify as pollution prevention. Recycling that is conducted in an environmentally sound manner shares many of the advantages of prevention-- it can reduce the need for treatment or disposal, and conserve energy and resources.

Pollution prevention approaches can be applied to all pollution-generating activity, including those found in the energy, agriculture, federal, consumer, as well as industrial sectors. The impairment of wetlands, ground water sources, and other critical resources constitutes pollution, and prevention practices may be essential for preserving these resources. These practices may include conservation techniques and changes in management practices to prevent harm to sensitive ecosystems. Pollution prevention does not include practices that create new risks of concern."

EPA's efforts in environmental protection span a variety of activities, all aimed at averting environmental contamination and degradation. Each type of environmental protection activity may be seen as falling somewhere on a continuum, ranging from employing pollution prevention and source reduction (to anticipate and avoid the generation of pollutants and limit the cumulative impacts of pollution); to using control, treatment, and disposal (to stop already existing pollutants from contaminating the environment). Pollution prevention encompasses the human and the natural environment as a whole, since exposure to pollutants can occur through multiple, complex paths, in spite of stringent controls, through transfer from one medium to another -- air, water, land and the food chain.

Under the Pollution Prevention Act, recycling is second in the environmental protection hierarchy, when pollution cannot be prevented or reduced at the source. Recycling can play an important role in the federal sector. On October 31, 1991, the President issued Executive Order No. 12780, Federal Agency Recycling and the Council on Federal Recycling and Procurement Policy. The purpose of this Order is to promote cost-

effective waste reduction and recycling, encourage market demand, develop and study policy options and procurement practices, integrate recycling and waste management programs throughout the federal government and contractor operated government facilities, and establish federal leadership for state and local governments.

Incorporation of Pollution Prevention into the Environmental Review Process

It is EPA's goal to encourage the incorporation of pollution prevention/source reduction into the practices of federal agencies. Environmental reviewers can raise awareness of pollution prevention initiatives identified in the NEPA and Section 309 review processes by:

- recognizing and giving written credit for pollution prevention measures incorporated into a proposal;

- identifying further pollution prevention measures that can be incorporated into the proposal; and,

- identifying actions that may have unintentional or previously unrecognized pollution prevention results.

For the purposes of this guidance, references to the identification of pollution prevention measures refer to any of these activities undertaken by the EPA environmental reviewer.

During all stages of the NEPA and 309 review processes, from early planning and scoping through final environmental impact statement review, EPA should seek opportunities to encourage agencies to incorporate pollution prevention into their programs. EPA should counsel federal agencies on the pollution likely to be generated by a proposed action and request that pollution prevention be included in all alternatives, whenever feasible. Where actual pollution prevention methods cannot be instituted, recycling, energy recovery, treatment and disposal actions should be employed as much as practicable.

While the pollution prevention initiative provides an exciting opportunity to help federal agencies consider and reduce pollution, this guidance should not be interpreted as taking precedence over the existing environmental review policies and procedures. Where a project has potential adverse environmental impacts but also has a good pollution prevention element, the reviewer can recognize the pollution prevention element but should not allow that element to override the other significant environmental issues. The formal rating of the project should be based on the use of the EPA Policy and Procedures for the Review of Federal Actions Impacting the Environment, dated October 3, 1984.

Appendix A provides specific examples of pollution prevention and mitigation measures for various types of projects and agency actions. The examples highlight the

distinction between source reduction and treatment technologies. This appendix will be periodically updated as more creative pollution prevention measures are identified. As users of this guidance become aware of any additional pollution prevention examples which could be added to the appendix, please inform the OFA Federal Agency Liaison Division Director.

The following list describes areas where pollution prevention opportunities may be appropriately addressed during the NEPA scoping and subsequent environmental review phases:

- the definition of the project's purpose and need (it should be clearly identified and not caveated to support the proponent's desires, which could limit pollution prevention options);

- the project design specifications and standards;

- the sizing of a project (e.g., a smaller dam may affect less habitat, have lesser impacts on soil erosion and water quality, and/or result in less induced growth);

- the location of a facility (e.g., away from sensitive habitats, close to centralized transportation or industry which can use the proposal's byproducts);

- the range of alternatives (e.g., whether pollution prevention opportunities are included);

- an agency's rejection of certain alternatives (e.g., because of an alternative's potential to cause pollution);

- an agency's approach or emphasis for meeting environmental requirements (whether the focus is on pollution prevention, source reduction, innovative technologies or traditional end-of-pipe, add-on controls);

- the capability of the proposed action to prevent pollution;

- the secondary effects of a proposed action which may discourage pollution prevention;

- The type of economic analysis being considered for the proposed action, and whether it calculates the full life-cycle costs of each option and adequately characterizes the benefits/damages of options (reference the EPA Regulation Development Pollution Prevention "Check List");

- the mitigation measures incorporated into the proposal (e.g., some mitigation measures may have more pollution prevention benefits than others, and significant pollution prevention may require a basic change in the project).

As a general policy, EPA should emphasize that pollution prevention analyses and pollution prevention measures be incorporated into all alternatives carried forward for detailed analysis in NEPA documents. Wherever possible, reviewers should ask the action agency to incorporate the pollution prevention measures into the project as definite project features. This will help ensure that the features are not dropped and definite pollution prevention commitments are made when the Record of Decision or Finding of No Significant Impact (FONSI) is developed, and the proposal implemented.

It is necessary to look beyond the direct effects of a potential pollution prevention option. Secondary and cumulative impacts and, particularly, cross-media transfers may convert a short-term, potentially attractive prevention measure into a long-term contributor to pollution. Therefore, reviewers should carefully reflect upon this issue and, where possible, suggest specific options and ask the action agency to evaluate the trade-offs in light of pollution prevention as well as other concerns (e.g., short- and long-term financial benefits, costs or liabilities). A decision tree for guiding the review of pollution prevention considerations during the NEPA and Section 309 review processes is provided in Appendix B, as an informal, optional guide to assist the reviewer.

Appendix C provides details on a future resource for pollution prevention information, the EPA Pollution Prevention Information Clearinghouse's (PPIC's) Federal Facilities Mini-Exchange database. Regions are requested to provide examples of federal facilities' pollution prevention, recycling, and waste minimization efforts. The information will be put into the Mini-Exchange database which will become a part of the PPIC's Pollution Prevention Information Exchange System (PIES). PIES is an easy-to-use, interactive, personal computer-based system which can be accessed by federal agencies and industry. People will be able to use personal computers to instantly access technical and programmatic information, order documents, locate expert assistance, and solve technical and policy questions.

Incorporating Pollution Prevention into Liaison Functions

Outreach/Education: Headquarters and regional NEPA coordinators should, in consultation with regional pollution prevention coordinators, schedule outreach meetings with all federal agencies to discuss the pollution prevention initiative (e.g., the Pollution Prevention Act of 1990, EPA's Pollution Prevention Strategy, the Federal Sector Strategy, OFA guidance, Council on Environmental Quality's pollution prevention guidance and the EPA awards programs).

The EPA environmental reviewer can suggest to agencies that they review current practices and technologies and compare them with historical practices and technologies to identify pollution prevention opportunities. Substitution of new practices at existing facilities or ongoing projects may be an excellent means of pollution prevention. EPA reviewers can: discuss the pollution prevention features they will want to find during the NEPA/309 reviews; describe incentives to adopt pollution prevention; and suggest open communications

and dialogue between agencies on ways to incorporate pollution prevention into planning and decision-making.

Pollution Prevention Awards Programs

There are two separate EPA awards programs which recognize achievements in pollution prevention.

The OFA annual Outstanding NEPA Compliance Recognition Program provides recognition to federal agencies at two levels. Both the EPA Regions and Headquarters Federal Agency Liaison Division will recognize exemplary projects in the categories of: pollution prevention; biodiversity and habitat protection; and long range planning and geographic analysis. Regional recognition will be announced and submitted to EPA headquarters in the month of November. National recognition will be made during the month of January.

The Pollution Prevention Act of 1990 requires EPA to establish an annual awards program to recognize a company or companies which operate outstanding or innovative source reduction programs. The Administrator's 1992 Awards Program focused on pollution prevention with award categories in: government; educational institutions, business, industry, trade/professional organizations; and individual citizens.

Attachments (Appendices A, B and C)

APPENDIX A OF GUIDANCE ON INCORPORATING EPA'S POLLUTION PREVENTION STRATEGY INTO THE ENVIRONMENTAL REVIEW PROCESS

The following two sections in Appendix A provide specific examples of pollution prevention and mitigation measures for various types of projects and agency actions. The first section provides specific mitigation examples which highlight the distinction between pollution prevention/source reduction and recycling/treatment technologies for various types of projects which may occur in more than one agency. The second section concentrates on agency specific mitigation guidance. During all EPA liaison activities it should be emphasized that the education of agency project managers and field personnel on awareness of pollution prevention opportunities in the environment is critical to institutionalizing pollution prevention.

SPECIFIC ILLUSTRATIVE EXAMPLES OF MITIGATION MEASURES FOR TWO CATEGORIES OF ACTIONS: POLLUTION PREVENTION/SOURCE REDUCTION AND RECYCLING/TREATMENT

(Federal agency reviewers are asked to submit any additional examples for the following categories:)

Project/Action types:

Agriculture/Land Management:

Source Reduction: During the planning stage, prevent or minimize land-disturbing activity; protect sensitive areas; minimize the use of water and chemical inputs; if pesticides are required, encourage agencies to use environmentally-sound alternatives in land management programs (e.g., cultivate crop strains with natural resistance to pests).

Treatment: Incorporate best management practices, anti-runoff techniques and other non-point source controls.

Airports:

Source Reduction: Encourage water/energy conservation programs, waste reduction plans (to include conservation devices in terminals and hangers), and the use of mass transit mechanisms for travelers to the airport. Encourage airport officials to examine flight tracks which minimize the noise impacts to local communities. Incorporate features to reduce exhaust emissions to the air by optimizing airplane and automobile engine operations.

Treatment: Ask if all sensitive noise receptor locations have been modeled and if there are industrial areas where night flights could be routed over.

Dredging Projects:

Source Reduction: Encourage ports/marinas to conduct audits to determine and stop potential sources of contaminated sediment.

Treatment: If appropriate during standard navigation dredging projects, encourage the Corps of Engineers, local sponsor, or permit applicant, to remove contaminated or polluted sediment from a waterway (i.e., that material beyond the original scope of the project) and assist the identification of appropriate treatment or disposal. Turbidity-control measures, such as screens, should be encouraged to contain contaminated sediments within the project area.

Energy and Water Supply Projects:

Source Reduction: Increase energy efficiency to reduce the use of fuels that release pollutants when they are consumed during extraction, processing, transport and combustion. Substitute environmentally benign fuel sources or less harmful fuel sources and supply systems (solar, wind, and hydro-generation projects when such projects are consistent with the pollution prevention goals). Implementation of conservation measures may reduce demand and therefore delay or negate the need for new dams or other facilities that may cause pollution.

The Federal Energy Management Executive Order 12759, dated April 17, 1991, directs agencies to implement strategies to: participate in demand side management services, establish energy efficiency goals and requirements, minimize use of petroleum in federal facilities, increase vehicle fuel efficiency, procure energy efficient goods and products and alternative fueled vehicles.

General Construction Activities:

Source Reduction: During the planning stages design the project to avoid environmental degradation. Review the project's design and siting specifications, standards, project sizing and the location of the facility.

Treatment: Reduce and mitigate fugitive dust. Encourage the use of recycled materials in the project and promote the recycling of construction debris.

Habitat Rehabilitation Projects:

Source Reduction: Encourage agencies to minimize the use of pesticides and use environmentally-sound alternatives in land management programs.

Treatment: If treatment is necessary, mimic natural processes and promote native species. Restore habitats through seedlings, plantings, and physical or chemical treatment to maintain foliage, fish and wildlife diversity. Disturbed areas may be regraded to contours for an optimal habitat or to restore the original condition. The rotation cycle and method of

timbering and the rest-rotation method of grazing can both be used to allow growth of degraded areas. Buffer zones may also be designated to protect highly damaged areas. It is crucial to minimize fragmentation of the environment and promote connectivity of natural areas.

Highways and Mass Transit:

The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 gives state and local officials the flexibility to either spend highway funds for transit projects or vice versa. This new authority enables EPA staff to ask for greater analysis of multi-modal and inter-modal alternatives to highway projects.

Source Reduction: Recommend emission prevention measures for the project (e.g., parking freezes, ban on radial highway expansion, mass transportation alternatives to include high occupancy vehicle lanes, downsizing the road pavement or choosing an alignment that neither threatens the water supply nor has other environmental consequences). Encourage the use of plastic tapes and other alternatives to highway paints which are sources of volatile organic compounds. In addition to NEPA reviews, look for opportunities to become involved in the transportation planning process to broadly encourage source reduction policies, i.e., transportation demand management policies, at the state, metropolitan, and local levels.

Treatment: Review highway/roadway treatment programs -- assess how treatments are handled near reservoirs, lakes, wetlands, and other bodies of water, with devices to channel run-off away from water resources. Recommend replanting of native trees/shrubs/other plants lost to these projects. Reused materials should be recommended for use as road and railroad construction materials (e.g., the use of scrap tires in asphalt pavement, as required by the ISTEA). Used concrete and other demolition materials could be considered for such use (e.g., pavement recycling is a mature, closed-loop recycling practice). Include noise reduction features and features that result in smooth flow of traffic and thus minimize idling of engines.

Housing:

Source Reduction: Encourage HUD to incorporate pollution prevention criteria into future HUD-financed construction to:

- avoid lead and radon hazards;
- incorporate water/energy conservation programs and waste reduction plans to include water/energy conservation devices (e.g., insulation, use of solar energy to include solar water heaters where practical, low-flow shower heads and toilets, energy-efficient lighting systems to include bulbs and skylights);
- encourage the use of products made from recycled materials (e.g., park benches, waste receptacles, paper products) and from non-toxic/environmentally-sound materials (paint, stripper);

- minimize the use of water-consuming landscaping (e.g., lawns in arid climates) and recommend use of native plant material (hardy and climate adapted);
- community planning that minimizes the need for automobile transit.

Treatment: Existing housing should be retrofitted/rehabilitated to incorporate the above mentioned items and in addition:

- check water supply pipes for lead and check houses for radon;
- examine best management practices for anti-runoff techniques and other non-point source controls.

Hydropower Generation:

Source reduction: Pumped Storage Hydroelectric Projects can generate electricity from water in a closed loop system. (Warning: These projects can also have significant impacts on wetlands, anadromous fisheries and other habitats, therefore exercise caution when reviewing and commenting on their pollution prevention merits.)

Treatment: Maintain downstream flows that mimic the natural hydrologic regime. Regulate flows to maintain downstream dynamics (e.g., aggradation and scouring). Use bioengineering techniques on downstream banks and project site to prevent erosion. Use non-toxic chemicals to remove algae instead of algicides.

Mining:

Source Reduction: Design mine entrances and workings to minimize future mine drainage. Also during the initial mine design, closure may be planned to address hydrology, geochemical controls, and treatment, with subsequent restoration of surface water hydrology.

Treatment: Use mine water as process water. Treat neutral or acidic toxic metal-bearing drainage through lime neutralization or other techniques. Replenish surface waters and groundwater with treated effluent. Apply new mining techniques to improve conditions at older mines. Include remediation of existing hazardous materials and water problems as an integral part of the approval of the plan of operations for new mines.

Natural Gas Pipelines:

Source Reduction: Utilize excess transportation capacity in existing pipeline systems, rather than build new pipelines. Encourage conservation and energy efficiency measures to minimize the need for gas.

Treatment: Use of directional drilling under sensitive areas (e.g., stream crossings, wetlands, groundwater and drinking water sources) can minimize the effects on the impacted area. Urge implementation of measures to minimize spill potential and minimize spill impact. Line

waste and venting pits at compressor stations. Utilize environmentally safe treatment and disposal of PCB contaminated pipes.

Oil/Gas:

Source Reduction: Flaring of waste gases at high temperature may reduce emission of the products of incomplete combustion. Minimize the area disturbed by each activity and locate facilities at the edge rather than the center of habitat types as much as possible to protect sensitive areas.

Treatment: Construct diversion ditches and containment berms to reduce run-off volume leaving a site. Time activities to avoid disturbing plants and animals during crucial seasons in their life. Utilize spill prevention and minimization measures. Use of directional drilling under sensitive areas (e.g., stream crossings, wetlands, groundwater and drinking water sources) can minimize the effects on the impacted area. Design and site the facility and well pads to avoid or minimize impacts. Use of the sweetening process will lower the hydrogen sulfide and carbon dioxide content in natural gas emissions and will remove impurities to meet specifications for pipeline sales and requirements for field fuel use.

Rocketry and Missile Projects:

Source Reduction: During the planning stages design the project to avoid/minimize environmental degradation. Review the project's design specifications, standards, fuel source to eliminate or minimize toxic, hazardous and radioactive materials and wastes.

Treatment: Ask if all sensitive noise receptor locations have been modeled and minimize noise impacts to the public and wildlife.

Wetlands:

Source Reduction: Creation or restoration of wetlands may be a pollution prevention measure if the wetland is designed to perform water quality functions.

Treatment: Encourage the development of permanent buffers around wetlands.

AGENCY ACTIONS:

(Federal agency reviewers are asked to submit any additional information/examples for the following categories:)

Bureau of Reclamation: Identify whether efficient water delivery systems are in place or required by conservation plans. (Low energy application processes for irrigation not only

reduce water used for crops but also reduce pesticide application and non-point source pollution.)

Bureau of Land Management: Ask for the purpose and need of individual projects and how design parameters correspond to the standards and guidelines of applicable resource management plans. All areas under the control of the BLM have some form of best management practices (BMPs) for all activities requiring NEPA analysis. Review how the BMPs will be applied.

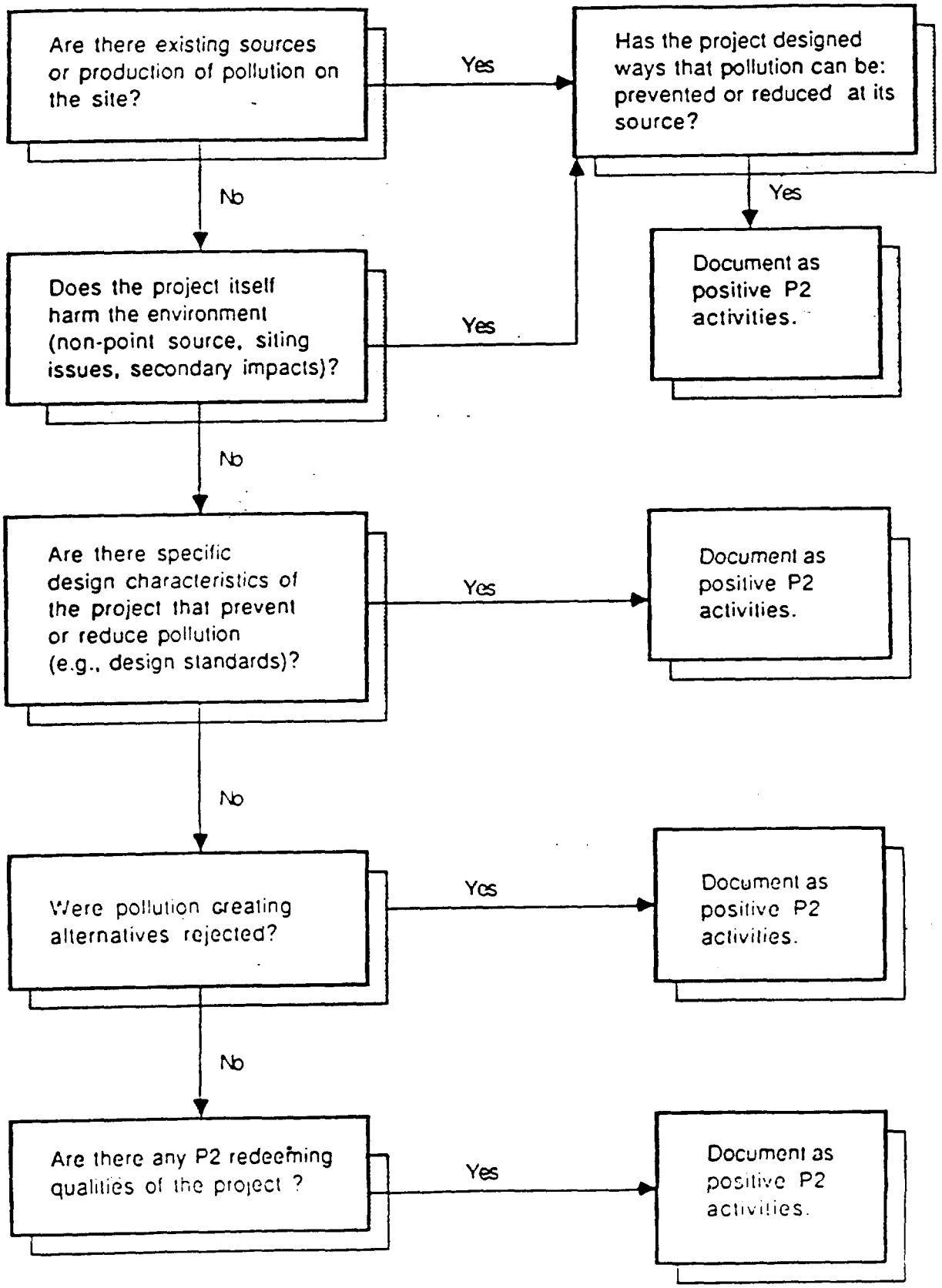
Corps of Engineers: During permitting actions, request permit applicants to identify erosion control methods under the description of construction practices. If feasible, recommend that demolition/construction waste material from one project site be considered for use as construction material for other Corps projects (e.g., highway repair or construction material could be used in other erosion or flood control projects). Implementation of non-structural measures to achieve flood protection can often be pollution preventing measures. Emphasize protection of the natural and beneficial values of floodplains.

Utilize the growing role of local cost-sharing sponsors. Urge local sponsors to commit to zoning and to mitigate induced growth in floodplains and other sensitive habitats. Urge the Corps to incorporate local mitigation commitments into their documents and to evaluate the feasibility and likelihood of implementation.

Federal Emergency Management Agency: If EPA is requested to participate on a Hazard Mitigation Team, look for measures that protect the natural and beneficial values of floodplains. Suggest changes in zoning ordinances and other measures that could result in habitat protection as well as other pollution prevention activities.

Forest Service: Ask for the purpose and need of individual projects and how design parameters correspond to the standards and guidelines of applicable forest plans. All national forests have some form of BMPs for all activities requiring NEPA analysis. Review how the BMPs will be applied.

DECISION TREE FOR REVIEWING POLLUTION PREVENTION (P2) CONSIDERATIONS



Clearinghouses and Associations

Pollution Prevention Information Clearinghouse

The Pollution Prevention Information Clearinghouse (PPIC) is dedicated to reducing or eliminating industrial pollutants through technology transfer, education, and public awareness. It is a free, nonregulatory service of the U.S. EPA, and consists of three components: a repository, a telephone hotline and computerized information exchange system.

PPIC Repository

Repository: The repository of the PPIC is a hard copy reference library, housed at the U.S. EPA Headquarters Library, containing the most current pollution prevention information. This information exists in the form of case studies, fact sheets, programmatic and legislative information, training materials and videos. The repository can be visited at the Headquarters Library, Room M2904 (401 M. Street, NW, Washington, D.C.). For use outside the Washington, DC area, the Library maintains cooperative agreements with many academic, public, and special libraries to borrow or lend books, journals, and other research materials through interlibrary loan. Abstracts and titles of holdings can be viewed by accessing PIES (see below).

Hotline: Telephone service is avaliable to answer or refer questions on pollution prevention or the PPIC and take orders for documents distributed by the PPIC.

Hotline

202-260-1023
202-260-0178 Fax

Mail

Pollution Prevention Information Clearinghouse
Environmental Protection Agency, PM 211-A
401 M Street, SW
Washington, D.C. 20460

Pollution Prevention Information Exchange System (PIES)

Pollution Prevention Information Exchange System (PIES): A 24-hour electronic network consisting of technical databases, mini-exchanges that focus on specific pollution prevention issues, a calendar of events, hundreds of case study abstracts on pollution prevention, and message centers for interaction and exchange with participants. ICPIC and OzonAction are now also available by accessing PIES.

Users With a Personal Computer and a Modem

Anyone can access the PIES using either an IBM PC (or compatible), Apple, or a dumb terminal equipped with a modem (1200 or 2400 baud), and appropriate communications software. PIES is accessible through a regular telephone call, the SprintNet network and the EPA x.25 wide area network (for EPA employees only).The following communications software settings are required if you are calling the PIES on a regular telephone line:

Regular Phone Line

PHONE NUMBER:	703-506-1025
SPEED:	1200 or 2400
DATA BITS:	8
PARITY:	None
STOP BITS:	1

Note: Additional steps may be needed if you are accessing the PIES through a local area network (LAN) or a port selector. Consult your computer support personnel if you have one of these configurations. Contact the PIES Technical Support Office for information on how government employees can access PIES toll-free.

Upon first calling the PIES, you must answer some brief questions, and then select and enter a password (you must remember your password for subsequent calls to the system).

PIES Technical Support Office

703-821-4800
703-821-4775 Fax

SprintNet℠

SprintNet℠ is a data network subscription service that enables you to access PIES in most major metropolitan areas using a local telephone call. Users are billed for connect time through U.S. Sprint, thus saving long distance telephone charges. To access PIES through SprintNet℠ you must first obtain a SprintNet℠ account. If you already subscribe to this service, dial your local SprintNet℠ access number. At the @ prompt, type: c 202561311 (your SprintNet℠ account number)(your personal SprintNet℠ password to access the PIES). If you would like to receive information about how to subscribe to SprintNet℠, contact the PIES Technical Support Office. Note: SprintNet℠ is not affiliated with the U.S. EPA or the PPIC.

PIES User Guide

A PIES User Guide is available and may be obtained free of charge by leaving a message on the system addressed to "Sysop", or by writing or calling the Clearinghouse.