

US EPA ARCHIVE DOCUMENT

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Regulatory Reinvention Pilot Projects Docket
FRL-5197-9
Water Docket
Mail Code 4101
US EPA
401 M Street, SW.
Washington, DC 20460

Rec'd

AUG 22 1995

Introduction

Monsanto Company and the Pollution Prevention Pilot Project (4P Project) are pleased to submit this proposal to the Agency's Regulatory Reinvention Pilot Projects XL program for the Pensacola Monsanto facility. We are submitting this initial proposal in accordance with the May 23, 1995 Federal Register notice, for the Agency's consideration.

Proposal Statement

The 4P project is a collaborative study project focused on pollution prevention, which includes the review of two specific facilities for pollution prevention opportunities, and a review of the current environmental regulatory framework imposed on those facilities. Attachment #1, entitled Project Summary, describes the 4P Project in detail. One of the study facilities is Monsanto's Pensacola plant.

Monsanto and the 4P Project group propose to submit a Pensacola site proposal for the XL project based on some of the specific findings of the 4P project study. The 4P project study involves a detailed facility pollution prevention audit. This audit is currently in progress, and will result in specific pollution prevention opportunities which may be practical to implement. The Pensacola proposal would explore the feasibility of implementing one or more projects for pollution prevention at the site as identified in the audit, in lieu of a regulatory requirement which would also be identified at that time.

4P Project Background

The 4P project, as described in Attachment #1, is a joint effort of members of the environmental community, industry, and government regulators. The 4P objective is to identify alternatives to the current regulatory framework which can provide greater environmental benefits while reducing compliance costs. This unique effort is directly aimed at the same target as the XL project objective of "cleaner, cheaper, smarter" results compared to the current system.'

Phase I of the 4P project involves detailed studies of two facilities. Extensive information is

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gathered and analyzed on the study facilities relative to emissions, environmental permits, historical, current and future plans for pollution prevention, and regulatory drivers or barriers to pollution prevention (see Attachment #2, "The 6 Questions"). This information provides an in depth perspective of the current regulatory framework effects on a specific facility, as well as providing baseline information for a pollution prevention audit. The audit, conducted by a pollution prevention consultant, provides greater detail about the processes and wastes produced, to enable identification of potential PP project ideas. The generation and development of these project ideas are conducted with facility personnel. The combination of a new outside perspective and a thorough collection of mass balance data, with a solicitation of ideas from facility technical, regulatory, and manufacturing personnel, creates a powerful synergy for problem solving.

Pensacola Facility Description / Monsanto

Monsanto's Pensacola plant is a major manufacturing facility for many chemical products, including adipic acid, nylon, and nitric acid. The plant has been operating since 1953, and has a history of excellent environmental and safety performance. The plant engages the community in dialogue in several ways. One of the communication pathways is through a Citizens Advisory Program, where community leaders meet routinely with representatives of the plant to share information and thoughts about the plant operations and plans, and community concerns. Pensacola has long been engaged in pollution prevention, and recently achieved targets in the Monsanto initiative for reduction of SARA air emissions by 90%.

Proposal Relationship to XL program criteria

The 4P / Pensacola proposal fulfills the XL program criteria in the following ways:

Environmental Results: The pollution prevention audit will include review of source reductions as well as technologies for waste treatment as potential projects. Specific and measurable emissions reduction targets may be possible through implementing a project.

Cost savings and paperwork reduction: The options presented by the audit will be those which afford the combination of pollution prevention and cost savings. The relief of a regulatory requirement portion of the project will seek to reduce paperwork requirements, both from the Agency and facility perspectives.

Stakeholder support: The 4P project is a unique collaborative effort among industry, regulators, and the environmental community. The group operates by consensus, and with the support of an Advisory Group, which represents a very diverse group of stakeholders. State regulatory agencies are represented both on the Core Group and the Advisory Group. The Pensacola facility recognizes the importance of community support for their right to operate, and is involving the CAP with this project to hear their ideas and concerns. In addition, environmental issues were discussed by members of the 4P team with local environmental leaders.

Innovation/Multi-Media Pollution Prevention: This pilot project is taking a holistic approach to PP options presented at the facility. A complete picture of wastes generated and emitted to all media is being reviewed prior to any recommendations. This thorough process of review, while not inherently innovative, is unique in most manufacturing businesses today. The results derived from such a process have the potential to be truly innovative, as they are the product of extensive research and idea generation from many people.

Transferability: The objective of the 4P project is to provide results that can be widely used to promote more environmental protection for lower overall costs. This project allows unique resources to be applied to this study and documenting the results so that they may have broad applicability for future benefit.

Feasibility: The 4P project study resources are supported through funding mechanisms in place. Monsanto will provide technical feasibility review of the pollution prevention proposed. The proposal will have financial merit to Monsanto.

Monitoring, reporting and evaluation: The proposed pollution prevention project will have detailed performance targets for level of emissions reduction, and will be evaluated to determine project success.

Shifting of risk burden: No disproportionate environmental impacts will be incurred as a result of this project.

Summary of Proposal

The 4P project and Monsanto's Pensacola facility propose this submittal to the Agency's project XL. A detailed proposal will be submitted to the Agency after the pollution prevention audit is conducted and the findings are reviewed, provided that a beneficial pollution prevention project can be identified and implemented from the audit results.

The 4P project is uniquely positioned to provide impetus to industrial pollution prevention efforts. Acceptance of this submittal by the Agency would merge two independent efforts (XL and 4P), aimed at the same objective, and has potential to provide greater net results in a shorter timeframe for both.

Supporting Details -- List of Attachments

4P Project Summary

Core Group Member List

The "6 Questions" facility information request

PROJECT SUMMARY POLLUTION PREVENTION PILOT PROJECT

The Pollution Prevention Pilot Project (4P Project) is a joint effort undertaken by representatives of the environmental community, industry, and government regulators. The objective of the Project is to determine whether and under what circumstances facility-specific environmental management can be accomplished with greater benefits at lower costs in a credible, enforceable, and predictable manner. It will serve as a follow-up to the Amoco Yorktown study by examining the lessons learned there, the applicability of those lessons to other types of facilities, and appropriate next steps that should be taken by environmental policymakers.

The 4P Project is designed to consider and develop innovative approaches that would integrate pollution prevention and control, and facility-specific environmental regulation, in a cost-effective and environmentally beneficial manner. The Project will:

(1) Identify opportunities for pollution prevention, recycling and emission controls at a second industrial facility, and conduct a literature search for other case studies, to compare with the findings at Yorktown;

(2) Determine whether there are significant gaps or constraints within the present statutes, regulations and permitting procedures to either pollution prevention or efficient and effective multi-media facility-specific environmental decision making;

(3) Identify promising alternative mechanisms and develop methodologies to compare the results of alternative systems to otherwise applicable environmental controls; and

(4) Develop a framework for a federal pilot program that would allow a limited number of facilities to participate in an alternative facility-specific, multi-media/pollution prevention regime for several years so that affected communities and workers, environmental organizations, states, EPA, and industry can evaluate the results.

Successful completion of the 4-P Project should yield the following benefits: the more efficient use of human and financial resources devoted to environmental protection, greater reliance on pollution prevention and innovative emission control measures, minimization of cross-media transfers of pollutants, and a sharper focus on actual performance in achieving environmental protection.

The 4P Project will be conducted in two phases. In Phase I, a study facility will be selected, an audit of the facility will be performed to identify pollution prevention and emission reduction opportunities, a facility pollution prevention plan will be prepared, and alternative approaches to reducing pollution at the facility will be identified and assessed. As part of this assessment, impediments in statutes, regulations, and permitting procedures to implementing advantageous alternatives will be identified. In addition, a literature search and evaluation will be conducted to incorporate comparable case studies or experiences at other

Rayonier. A fourth industrial participant will be added shortly. The state participant is from New Jersey.

Core Group participants were carefully selected based upon their willingness to commit the necessary time and effort to this Project, their expertise in specific areas of pollution prevention and control, and their ability to work together over the anticipated two year life of this Project. Core Group participants will be meeting at least monthly, and taking into account travel and activities between meetings, are expected to devote 10-20% of their time to this effort during the Project's duration. In addition, environmental representatives on the Core Group are responsible for obtaining the funds necessary to undertake the Project. Company representatives are expected to provide process engineers and other expertise to the Core Group on an as needed basis. In addition, company representatives are responsible to the Core Group for providing an appropriate facility for study as discussed above.

The Core Group intends to operate by consensus, and is responsible for conducting the 4P Project and preparing all work product. However, recognizing that the 4P Project can greatly benefit from the wisdom and experience of a larger and more diverse group of people, the Core Group will form an Advisory Council consisting of approximately 25 people.

These 25 people will be carefully selected so that they represent a cross section of interests and expertise. Included in the Advisory Council will be representatives of federal and state regulatory agencies, technical consulting firms, academia, organized labor, industry, environmental justice organizations, and national and local environmental organizations not represented on the Core Group. Members of the Advisory Council will meet approximately twice per year to discuss 4-P Project activities and preliminary findings, and are expected to comment on work product and respond to Core Group Questions as requested. Travel expenses for some members of the Advisory Council will be reimbursed, as needed, by the 4P Project.

The 4-P Project presents a unique opportunity to consider the development of an alternative environmental regulatory structure that can provide greater environmental benefits while reducing compliance costs. To be successful, this structure must earn the credibility and trust of all interested parties, therefore, the consensus building aspect of the Project and the active participation of diverse interests are extremely important. Toward that end, the 4P Project was recently designated an affiliated project of the President's Council on Sustainable Development.

4P Core Group Members

Ric Olson, The Dow Chemical Company (Co-chair)
Linda Greer, Natural Resources Defense Council (NRDC) (Co-chair)
Steven Anderson, State of New Jersey Dept. of Environmental Protection & Energy
William Bilkovich, Environmental Quality Consultants
David Hawkins, NRDC
Jessica Landman, NRDC
David Lennett
Paula Menten, Monsanto Company
Karen St. John, Amoco Corporation
David Tudor, Rayonier
Chris Van Loben Sels, NRDC

4P Project
Facility Information Request
"The 6 Questions"

1. Emissions

Please provide the SARA 313, Criteria Air pollutants (incl VOCs, HAPs), and permitted water releases (incl BOD5, TSS and priority pollutant) for the last 5 years at the plant, summarized by media and, if possible process line. Please also supply your RCRA hazardous waste generation figures. Please provide any information you may have on non-TRI releases by media and waste generation prior to recycling or treatment, summarized, if possible, by process line. Also, please provide any information on toxic chemicals used at the plant but not required to be reported.

2. Permits

What operational permits does the facility currently hold under the Clean Air Act, Clean Water Act, and RCRA? How many outfalls/emission points are included in each? What permits or modifications to existing permits has the facility applied for?

3. Historical Pollution Prevention

What have you done in the plant to control emissions or decrease toxic chemical use over the last 20 years? Organize by media and, if possible, line, unit or source. Why did you take these actions? - eg federal/state regulatory requirement, voluntary initiative, etc. How do you quantify your pollution prevention progress (eg, chemical use per unit of production)? Please list the most significant tasks to achieve this reduction and any significant regulatory barriers you encountered in undertaking this work.

4. Current Pollution Prevention Plans

What are your current release and toxic chemical use reduction plans? (Please indicate which are air, water, or land, and provide your waste minimization plan, if you have one) Why are you undertaking these initiatives? What regulatory actions are required to achieve these plans? Are you being delayed in these projects because of regulatory requirements? Are you avoiding a project that would achieve release reductions because of permitting or other regulatory requirements?

5. Future Pollution Prevention Plans

What future release reductions or toxic chemical use reductions do you anticipate at the plant? What will drive these activities? eg, upcoming regulatory requirements, public pressure to respond to TRI releases, etc. What is the measurement to quantify your future reduction goals?

6. Regulatory Barriers/ Drivers

If you had been freed from regulatory pressure and public opinion over the last twenty years, what would you have done differently to ensure environmental protection at the plant? et prioritized different/larger sources of emissions, used different control approaches for identified sources, etc. Were there opportunities to more cost-effectively control important sources that were overlooked by the regulatory community and the public? Are there currently opportunities at the plant to more effectively provide environmental protection that you cannot implement? If so, what are they, and what are the barriers to doing them?