

ENVIRONMENTAL LEADERSHIP PROGRAM

SUMMARY OF THE 1995-96 PILOTS

Introduction

Fifteen facilities representing twelve companies or organizations participated in the year-long pilot phase of EPA's Environmental Leadership Program (ELP). Located in 11 states, the facilities selected to participate represent a variety of industry groups, including utilities, chemical manufacturing, electronics, waste management, printing, and pulp and paper. In addition, two federal facilities were selected to participate in the pilot. The specific facilities included:

- *Arizona Public Service (APS), Deer Valley Facility* (Arizona)
- *Salt River Project (SRP)* (Arizona)
- *Duke Power River Bend Steam Station* (North Carolina)
- *Ocean State Power (OSP)* (Rhode Island)
- *Ciba-Geigy St. Gabriel Facility* (Louisiana)
- *Motorola Oak Hill facility* (Texas)
- *WMX Technologies, Inc.* (2 facilities in Oregon)
- *The Gillette Company* (South Boston, MA; North Chicago, IL; and Santa Monica, CA manufacturing facilities)
- *The John Roberts Company* (Minnesota)
- *Simpson Tacoma Kraft Company* (Washington)
- *McClellan Air Force Base* (California)
- *Puget Sound Naval Shipyard* (Washington).

All of the facilities selected for the pilot

showcased at least one or more of the characteristics EPA considered indicative of environmental leadership. Those characteristics included implementation of: 1) environmental management systems (EMSs), 2) environmental auditing, 3) community outreach and employee involvement programs (including public accountability), 4) mentoring, and 5) pollution prevention.

ENVIRONMENTAL MANAGEMENT SYSTEMS (EMS)

Nine of the ELP pilot participants demonstrated their EMSs (APS, Ciba-Geigy, Duke, Gillette, John Roberts, McClellan, Motorola, OSP, and WMX). Specifically, McClellan and Motorola compared their EMSs to the emerging ISO 14001 EMS standards; APS demonstrated an EMS assessment tool at three of its Arizona facilities (each of a different size). APS then implemented changes identified through the assessment process.

WMX focused on the compliance management aspects of its EMS. Specifically, it demonstrated its compliance management process, including two databases -- the Compliance Management System (CMS) and the Corrective Action Reporting System (CARS) -- that help it track compliance and corrective action. The compliance management process implemented by WMX included several steps: 1) identifying new regulatory requirements to which their facilities would be subject, 2) using a technique called "Info-Mapping" to convert regulatory requirements into distinct tasks for facility personnel, and 3) tracking compliance and corrective action using the two databases. Also during the pilot, the CMS was the subject of a quality assurance check. The check was conducted at both WMX pilot facilities by EPA and state team members, as well as by WMX facility and corporate staff. CMS tasks were reviewed against source documents (e.g., regulations, rules, permit requirements, and corporate policy) for accuracy and completeness.

Several of the EMSs demonstrated during the pilot, including those at APS, Gillette, Motorola, and WMX, were developed at the corporate level and then specifically implemented at the facility level. Others, including John Roberts, McClellan, and OSP, developed and implemented their own facility-specific EMSs. In yet another case, Ciba-Geigy based its EMS on the requirements of the Chemical Manufacturers Association's Responsible Care Program. The John Roberts' EMS demonstrated that an EMS can be sized for a small- to mid-sized facility. The EMSs demonstrated during the pilots generally were found to be effective in identifying the significant environmental impacts of the facilities' operations and preventing, detecting, and correcting compliance issues on an on-going

basis.

EMS-associated products resulting from the pilots include:

- ◆ *Ocean State Power: Development of an EMS*, this manual discusses factors to consider when developing an EMS and, once implemented, how to sustain an EMS
- ◆ Rewrote in "plain English" an Oregon solid waste regulation (Division 95) and selected sections of the *Guidance for Oregon Permitting Rules* using the InfoMap technique
- ◆ Modified version of CARS for use by the Oregon Department of Environmental Quality in tracking its inspection and enforcement activities.

Auditing

Twenty-one EMS, compliance, or combined EMS/ compliance audits were conducted during the pilot phase of the ELP. For the most part, all of the audits yielded positive results. These audits were led by a variety of individuals, including facility staff, corporate auditors, auditors from another ELP pilot facility as part of an auditor exchange program, or external environmental auditors. The six external environmental audits were conducted at John Roberts (by the Printing Industry of Minnesota), at Ciba-Geigy, Gillette, and SRP by EPA's National Enforcement Investigation Center (NEIC), and also at the Gillette facilities by ERM, an environmental auditing firm. EPA and state staff participated in all of the audits.

As a result of these audits, an approximate total of 31 compliance issues were identified at the 15 participating facilities. Examples of the compliance issues identified include:

- *Incomplete list of materials used*
- Missed weekly self-inspections
- Late submittal of reports to local agencies
- Missing drum labels
- Equipment leaks.

It should be noted that all compliance issues through the audits were corrected within the 90-day correction period provided through the ELP pilot agreements.

In addition to the compliance issues identified, there were also positive findings regarding facility EMSs. Examples of those include:

- Well-defined operational control procedures
- Excellent internal communication processes
- Ability to identify and correct deficiencies, including the need for additional benchmarking and better assessment of the facility's training needs.

Although the pilot leadership agreements indicated EPA's and the states' intent not to conduct discretionary inspections, some of the facilities offered, or agreed, to be inspected as a further demonstration of their leadership status. During the pilot phase of the program, the Texas Natural Resource Conservation Commission (TNRCC) conducted multimedia compliance inspections at both the Ciba-Geigy and Motorola facilities. Both facilities were found to be in compliance with all environmental requirements.

Audit-related products resulting from the pilots included:

- ◆ Compliance and EMS Auditing Guidances (produced by the Gillette team)

- ◆ *Model for Self-Certification of Environmental Compliance (SRP)*
- ◆ An Audit-Sharing Matrix (Simpson), which identified audit findings and shared information with the community.

Community Outreach, Employee Involvement, and Public Accountability

Every pilot facility demonstrated some aspect of this element of the ELP. However, the most extensive examination occurred on those programs implemented by Ciba-Geigy, McClellan, Motorola, and Simpson.

Ciba Geigy developed an extensive community and employee outreach program. For the past 8 years, it has conducted a survey of the residents of East Iberville Parish asking general and specific questions on local problems, pollution, employment, emergency response, education, and public perception of the facility. It has also developed a series of community outreach programs, including a citizens advisory panel, community newsletter, odor response program, summer teachers program, and employment opportunities for local residents. Ciba also has the Ciba Ambassadors Program, which addresses employees' environmental concerns and trains and encourages employees to act as ambassadors to the public. Specifically, the program encourages employees to be active in the community and share information on the environmental aspects of the facility, including pollution prevention and waste management activities.

McClellan's initiatives included college intern partnerships, pollution prevention grant projects with community colleges, and sponsorship of teacher training in

environmental studies. Motorola also worked with local schools, although at another level. It provided all 4th graders in the area with "Discovery Packs," which contained pollution prevention information and hands-on experiments. Motorola also conducted ELP-related presentations, presented its "Protecting Our Environment" course for members of the "Leadership Austin" class, and worked with the TNRCC to develop a small business assistance conference.

Simpson continued to work with its community advisory group throughout the ELP pilot. The group provides feedback to Simpson regarding environmental activities. The purpose of the group is to keep community members informed, as well as to establish and expand relationships with the local community.

During the pilot phase of the ELP, four public forums were held -- one each in Baton Rouge, Louisiana; Phoenix, Arizona; Austin, Texas; and Washington, DC. The first forum, in Baton Rouge, was held in February 1996 and was sponsored by Ciba-Geigy, EPA, and the State of Louisiana. It was attended by approximately 60 people representing the local community, local and regional environmental groups, academia, and industry groups. The last forum was held in November 1996 in Washington, D.C. It was designed as a national stakeholders conference and was attended by 160 people.

Mentoring

Five of the pilot facilities conducted the majority of mentoring activities associated with the pilot -- John Roberts, Motorola, Ocean State Power, SRP, and Simpson. Mentors not only provided guidance on basic technical and environmental practices,

but also shared their knowledge and expertise in environmental management and pollution prevention with companies who have more limited resources.

Through the five specific mentoring projects, hands-on assistance was provided to 10 facilities. The environmental manager at John Roberts provided hands-on assistance to four smaller printers in the Minneapolis, Minnesota, area. Simpson assisted its mentoree, a local supplier, with the development of a spill response plan. The plan was modeled after one already implemented at the Simpson facility. Simpson also developed a format for the mentoree's oil/water separator inspection maintenance records. Motorola also provided assistance to a firm in its supplier/distributor chain. The company provided equipment maintenance services to Motorola.

The focus of OSP's mentoring project was to provide a network of experts on various topics to its mentoree. The mentoree had specific issues and was seeking assistance on those issues. OSP attempted to match the needs of the mentoree to its network of experts.

At no cost to the attendees, SRP sponsored three, 4-hour environmental awareness workshops. More than 60 companies attended. Three companies requested follow-up site visits for hands-on assistance. SRP learned that one facility modified and upgraded its compliance procedures as a result of the workshop and site visit.

Due to the benefits that resulted from the pilots' mentoring activities, EPA decided the full-scale ELP should include an expectation that facilities mentor or make a good faith effort to mentor during their participation in ELP.

Pollution Prevention

This aspect of environmental leadership was not assessed to the same degree as some of the other aspects in the pilot phase. This is due to the wealth of information available on the benefits of and opportunities for pollution prevention that have been garnered from a variety of other pilots and case studies. There were, however, several pollution prevention activities undertaken or demonstrated during the pilots. For example, Ciba-Geigy conducted a pollution prevention assessment at its facility. Other pilot facilities shared previously identified pollution prevention opportunities and the resulting steps to reduce or eliminate pollution at the source.

McClellan Air Force Base demonstrated its Pollution Prevention Program, which is implementing more than 100 projects to reduce or eliminate hazardous materials. In addition, it has the largest operating alternative vehicle fleet in the world with 60 electric vehicles. These vehicles log more than 5,000 miles monthly and reduce an estimated 2 tons of pollution annually.

OSP eliminated oil waste by capturing the oil for reuse. The plant performs test oil firing on the turbines for 15 minutes each week. If ignition does not occur within the programmed time, the unit automatically shuts down and the oil has to be purged from the system to allow for a clean refiring. In the past, the plant disposed of this oil as waste.

Puget Sound Naval Shipyard is the only U.S. Navy shipyard that "recycles" entire ships. During the ELP pilot, PSNS worked to identify laws and regulations that may be contradictory or impede pollution prevention, used stakeholder teams to

provide green solutions to such problems, and was developing procedures and metrics to demonstrate the suitability of these proposed solutions.

Additional Information

Detailed final reports on each of the twelve pilots are available on the Internet at <http://es.inel.gov/elp> or from the Pollution Prevention Information Clearinghouse, Environmental Protection Agency, 401 M Street, S.W., Washington, D.C. 20460, phone (202)260-1023.

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