# Environmental Justice through Pollution Prevention

### Introduction

Reducing pollution at its source is one of the best ways to improve environmental and health protection. The generation of waste and by-products can be avoided. Harmful emissions can be eliminated. Accidental releases or spills can be reduced. The regulatory system can become more efficient by reducing the need for end-of-pipe environmental control. To be effective, measures used to prevent pollution should be developed in cooperation with facilities seeking to prevent pollution, regulatory agencies, and the community where the facility is located. Ultimately, pollution prevention offers the opportunity to provide a variety of benefits to people overburdened with pollution.

#### What is Pollution Prevention?

Pollution prevention can be defined both as a technical approach and as a participatory process. As a technical approach, pollution prevention is defined as "source reduction" 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. It involves the reduction or elimination of wastes and pollutants at the source, and includes a wide array of activities, such as:

- More efficient use of materials, water, energy and other resources
- Substituting less harmful substances for hazardous ones
- Eliminating toxic substances from the production process
- Developing new uses for existing chemicals and processes
- Recycling of materials
- · Reusing materials
- Conserving natural resources

As a participatory process, pollution prevention can be defined as "activities that include community participation and involvement in decision-making to reduce, minimize and eliminate pollution through sustainable practices that demonstrate sustainable development and activities."

#### Pollution Prevention and the Law

When federal environmental laws were first adopted in the 70's, the approach to protection of the environment and human health was to control pollution after its creation "at the end of the pipe." The focus was on limiting how much pollution was discharged into the environment. It was not on controlling the amount of pollution that was created in the first place. Over time, the need to expand this approach became obvious. Regulatory control activities were modified to include innovative activities that address pollution before its release into the environment.

Thus, in 1990, Congress passed the Pollution Prevention Act. This law seeks to prevent pollution from being generated in the first place. To do this, the law directed EPA to

- Develop and implement a strategy to promote source reduction
- Establish a database that contains information on source reduction
- Provide grants to the States to promote source reduction by businesses

The law also required owners and operators of businesses that are required to file a toxic chemical release form to include a toxics reduction and recycling report.

It is important to note that other federal environmental laws now include pollution prevention as a means of protecting human health and the environment. These include:

**Clean Air Act** (e.g., EPA must establish a national research and development program for prevention and air pollution control)

**Resource Conservation and Recovery Act** (e.g., owners and operators of facilities that produce hazardous waste must certify that they have a plan to reduce waste)

**Clean Water Act** (e.g., EPA must, in cooperation with federal, state and local agencies and industries, develop programs for preventing, reducing or eliminating pollution of the navigable waters and ground waters)

#### Pollution Prevention and Environmental Justice

The Principles of Environmental Justice, prepared in 1991 at the First National People of Color Environmental Leadership Summit, recognize the concept of pollution prevention as an element of environmental justice. For example, Principle 4 emphasizes a right to "ethical, balanced and responsible uses of land and renewable resources in the interest of a sustainable planet." Principle 6 demands the "cessation of the production of all toxins, hazardous wastes, and radioactive materials." Several important principles can guide the implementation of pollution prevention in a manner that achieves environmental justice. These include:

1) Protection of human health and the environment can be achieved through pollution prevention. The health and quality-of-life concerns of the impacted communities must be closely tied to pollution prevention activities.

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- 2) The importance and value of community knowledge and experience must be recognized, and full participation of the impacted community must be incorporated into pollution prevention projects. Collaboration between all stakeholder groups should be included, and capacity for participation ensured.
- 3) Pollution prevention activities can be achieved without sacrificing jobs, economic stability, or environmental quality.
- 4) Enforcement of environmental laws remains an important tool that is not replaced by pollution prevention.
- 5) Pollution prevention is essential for sustainable community development. It should be proactive, positive, solution-oriented, and holistic in approach (i.e. multi-media).
- 6) Pollution prevention must address the needs of special populations, such as children, the elderly, individuals with compromised immune systems and other susceptible populations. It must also address cumulative risks and impacts.

#### Conclusion

Pollution prevention, when properly implemented, can lead to reduced pollution exposures, holistic community development, and economic sustainability for communities overburdened with pollution. Ultimately, it is a tool that can be used by community residents to achieve environmental justice.