

Sustainability In-depth: The Pollution Prevention Pays (3P) Program

3M pioneered the concept of pollution prevention with the creation of the pollution prevention pays (3P) program in 1975. The 3P program is based on the reality that pollution prevention is more environmentally effective, technically sound and economical than conventional pollution control equipment. Natural resources, energy and money are used to build conventional pollution controls, and more resources are consumed operating them. Conventional controls are temporarily and do not eliminate the problem. 3P seeks to eliminate pollution at the source through product reformulation, process modification, equipment redesign, and the recycling and reuse of waste materials.

In 2005, 3M's Pollution Prevention Pays (3P) program celebrated its 30th anniversary. Over the last 34 years, the program has prevented 2.9 billion pounds of pollutants and saved more than 1.2 billion dollars worldwide. These pollution and cost reductions include only first-year savings. Although not counted in 3P tallies, significant repeat savings occur through lower operating costs for pollution treatment facilities, decreased raw material requirements, reduced fuel consumption, and increased sales of existing or new products. The 3P program continues to be a success worldwide because of its program design, measurable results and benefits, and integration into business processes and corporate culture.

3P Program Design

The term "pollution prevention" had been around for years, but 3M was one of the first to make it an integral part of how the company does business. In 1975, 3M adopted a global corporate environmental policy and launched the 3P program. One of the directives in the 1975 corporate policy, which has not changed in 30 years, is that 3M "will prevent pollution at the source wherever and whenever possible." The 3P program is one of the major ways that directive is put to action.

The 3P program's success and longevity can be attributed to its simple, inclusive program design. The 3P program depends directly on the voluntary participation of 3M employees. Projects may be completed by employees at any level and from any area of the company. Over the last 32 years, 3M employees have completed more than 6,300 3P projects. Each of these projects was reviewed and recognized as an official 3P project by the 3P Coordinating Committee which is comprised of representatives from 3M's engineering, manufacturing, laboratory, and Environmental, Health and Safety organizations. Projects must meet the following fundamental criteria to receive formal 3P recognition:

- Eliminate or reduce a pollutant.
- Benefit the environment through reduced energy use or more efficient use of manufacturing materials and resources.
- Save money - through avoidance or deferral of pollution control equipment costs, reduced operating and materials expenses, or increases sales of an existing or new product.

In 2002, the program was updated to provide more opportunities for participation by our research and development, logistics, transportation, and packaging employees with the addition of new, special award criteria discussed below. Projects that satisfy the fundamental 3P requirements and meet one of the following special criteria will receive special recognition.



3P Special Criteria Categories

Excellence:

Utilize a unique or original design and involve significant technical accomplishment.

Green Step:

Illustrate a reduction in emissions during manufacturing over a similar family of products or a reduction in releases for the customer.

** All Green Step projects must have also completed a 3M Life Cycle Management (LCM) Review. LCM review, a formal part of 3M's new product introduction process worldwide, allows 3M to systematically and holistically address the environmental, health and safety (EHS) and energy opportunities and issues from each stage of their product's life. 3M's LCM process focuses on the broader impact of products and processes over their entire life cycle: from development and manufacturing, through distribution and customer use, and to disposal.

Guardian:

Reduce or eliminate toxic emissions during manufacturing, reduce or eliminate toxic releases for the customer, or introduce a new product that has no toxic releases.

Mover:

Demonstrate improvement in goods distribution.

Example:

Innovative Truck Decking System Decreases Air Emissions and Saves Fuel Costs

3M's St. Ouen l'Aumone, France, developed and installed a new decking system in the trucks that transport finished products from the facility. The decking system allows the facility to pack more materials into any one truck. The system is made of adjustable racks that can be easily and quickly assembled while pallets are loaded. The decking system allows one truck to carry two levels of load without stacking the pallets on each other and damaging the products. This new system has reduced the number of daily truckloads by 40 percent, saving about 12,500 gallons of fuel and \$110,000 per year.

Mobius:

Incorporate recyclable or reuse benefits into product packaging or reduce the amount of packaging materials required for products.