

Creating Jobs, Partnerships, and Awareness through a Native American Recycling Facility

Abstract:

The Nambé Recycling Facility is an innovative project that addresses two problems facing northern New Mexico: high unemployment and poverty, and increasing strains on waste management infrastructure. Nambé Pueblo, in partnership with Los Alamos National Laboratory and Johnson Controls Northern New Mexico, has stepped forward to help reduce waste and pollution, build community awareness, and create viable economic opportunities in the region. These partners have launched a recycling facility that provides jobs, services recycling needs of surrounding communities, redirects landfill waste and construction debris to alternative uses, and promotes education and outreach.

Nomination Description:

In the mid-1990's, Nambé Pueblo of northern New Mexico began looking for alternatives to landfill disposal. At the same time, the Department of Energy (DOE) and Los Alamos National Laboratory (the Laboratory) were seeking ways to build partnerships with groups in neighboring communities. In 1998, Nambé Pueblo Development Corporation entered discussions with JCI (parent company of the Laboratory's recycling contractor, Johnson Controls Northern New Mexico [JCNNM],) regarding the establishment of a materials recycling facility at Nambé Pueblo.

The Nambé Recycling Facility is now in full operation and has made great strides towards two goals. The first is to raise awareness in the community about recycling in particular and environmental sustainability in general. The second is to provide greatly needed recycling services to northern New Mexico pueblos and communities, thereby diverting materials from landfills. The Pueblo is excited to be implementing an industry that is consistent with tribal values and protects the environment. Due to rising landfill permit fees, the Facility gives the entire region a sustainable and financially feasible of minimizing waste. It is especially inspiring that the Facility is building a viable industry in an area suffering from a severe shortage of economic opportunities.

The Laboratory's partnership in this outreach project advances objectives of Executive Order 13101. The goals of the Facility match those of the executive order by acquainting the local communities of the environmental and economic benefits of recycling. The Facility also is working to fulfill EO 13101 procurement objectives by creating markets in the region for recycled material.

Prior to this, residents in the area had only one option: the landfill. Currently, landfill fees are \$12.50 per ton and are expected to increase as much as \$50 per ton by 2004. Redirecting waste to the Nambé Recycling Facility will help the Laboratory and other residents and businesses reduce costs. It does this by lowering costs associated with purchase or lease of a new landfill site, or costs associated with transportation of waste 45 miles to a distant landfill.

The Facility provides collection, sorting, baling, and market identification services for recyclable materials. Currently, Nambé Recycling Facility processes 350 tons per year of paper products, all glass, plastic types 1 and 2, and aluminum and other scrap metals (see Figure 1). The process starts when MCT, a local hauling company, transports materials to the Facility. Once material is baled and processed, it is sent to various off-site facilities that further process it and sell it for use in the creation of consumer goods (see Figure 2). Outside markets are still being identified to purchase other materials handled by the Pueblos facility. These include 5,000 tons per year of concrete and asphalt, which is currently crushed and reused by the Pueblo as paving fill. Soil and organic waste will later be processed into compost and ultimately sold. The Facility will also install a glass pulverizer that produces a useful aggregate. The crushed glass can be used in glass-crete, as a reflective agent in paint for crosswalks and curbs, as a landscape groundcover, and on roads during icy conditions.



Figure 1. Recycling product is processed at Nambé Facility



Figure 2. Process and baled material is ready to be shipped to the next facility and then will be used in manufacturing consumer good.

Nambé Recycling Facility currently provides services to Los Alamos County, Los Alamos National Laboratory, the City of Española, and businesses within Tesuque and San Ildefonso Pueblos. It was established with support from the Laboratory through Johnson Controls Business Development. Johnson Controls financed approximately \$349,000 in construction and equipment for the Facility and provides ongoing technical support. The Northern New Mexico community will see economic benefits through reduced costs for waste disposal. Nambé Recycling Facility will also benefit from the income from sales to commercial manufacturing markets.

At Nambé Recycling Facility, creating jobs and building community awareness about recycling and the environment are high priorities. Eight new jobs have already been filled in an economically depressed area of the state. Employees are also provided with professional development opportunities. By working at the Facility, staff members can earn credit in the environmental management program at Northern New Mexico Community College.

To educate the community and share information about environmental programs, Nambé Recycling Facility has helped organize numerous events. It has held community meetings, participated in two Student Recycling Fairs (see Figure 3), aired radio spots, was featured in local newspaper articles, and conducted a large brochure mailing to households in the area. These efforts are also helping to combat community problems like illegal trash dumping. Through these kinds of efforts, the Facility is building productive partnerships with groups like Northern New

Mexico Recycles, the New Mexico Recycling Coalition, and Southwest Public Recycling Association. Together they are working to support local, state-wide, and regional recycling initiatives to show communities that recycling is an attractive, affordable option.

Future plans for Nambé Recycling Facility include a clean-industry Eco-Industrial Park that could serve as a market for the materials processed at the Facility. They have held discussions about a business partnership with Tewa Technology Corporation—a company that uses plastics to develop more durable road-paving materials. They also plan to expand services into other geographic areas that lack recycling options. The Facility's goals are to create a profitable business for Nambé Pueblo by 2003; through outreach and education, decreasing solid waste sent to the landfill by 25%; and becoming recognized as the recycling leader in northern New Mexico.



Figure 3. Recycling art objectives at the Northern New Mexico Student Recycled Art and Science Fair

This project is a very successful result of the Laboratory, JCNNM, and Nambé partnership. It advances the Laboratory's goal to build awareness about the importance of pollution-prevention and environmental stewardship. It also advances the objectives of Executive Order 13101 by developing local recycling infrastructure and procurement markets. The outcome will be enormous economic and environmental benefits for a Native American community, Nambé Pueblo. Through the Pueblos ongoing education, outreach, and information sharing programs, the benefits will be felt throughout the region as a whole. The person nominated for the award is Mike Shepard, JCNNM-MGPM. For more information, please contact Tom Starke, Environmental Stewardship Office, (505) 667-6639, tps@lanl.gov.