

Noble implements recycling on its Gulf fleet of rigs

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OVER THE LAST 20 years, an entire industry has developed around the need and desire to reduce and recycle the amount of waste that litters public spaces and clogs landfills. Today, there are many tools for collecting, sorting, compacting and recycling paper, plastic and metal products and other materials. The availability of these tools has made recycling routine in many homes, schools, businesses and communities.

Yet, until recently, there was one place where recycling proved difficult to put into practice. Isolated locations, transportation challenges and limited space were just a few of the challenges to bringing large-scale recycling to offshore drilling rigs.

One company, Noble Drilling (U.S.) Inc of Houston, overcame the challenges. In 2002, Noble successfully completed the implementation of a recycling program in its fleet of 22 rigs in the Gulf of Mexico. The implementation followed approximately six months of research, planning, coordination and pilot testing and made Noble the first offshore drilling contractor to initiate and implement fleet-wide recycling in the Gulf.

"In the first year of recycling in our Gulf fleet, we collected more than 525 tons of recyclable materials," said **Jimmy Puckett**, general manager of Noble's Gulf of Mexico operations. "We collected about 105,000 pounds of trash for recycling, even though most rigs didn't fully implement the program until the second quarter. With our full fleet recycling for a full year, we expect this number to be higher in 2003."

NOBLE, SHELL PARTNERSHIP

Noble's collaborators on the project were Shell Exploration & Production Company and Tech Oil Products of New Iberia, Louisiana. Solid waste recycling was pilot tested aboard the Noble Jim Thompson and Noble Paul Romano semisubmersibles operated by Shell. Tech Oil Products provides on-board compaction equipment, rig crew training and onshore collection and transportation of sorted recyclable waste.

To close the loop, recyclables are donated to the recycling center at The ARC of Iberia in New Iberia, Louisiana. At The ARC,

developmentally disabled people separate and process the recyclable materials and sell them to third parties for specialized handling. The work helps ARC's staff gain self-reliance, generates income for The ARC and provides a valuable service to the drilling industry and the community.

For both Noble and Shell, recycling is part of a larger strategy. It helps to achieve the waste minimization and pollution prevention goals in Noble's corporate Policy of Environmental Protection. The Gulf recycling project also dovetails with Noble's ISO 14001 certified environmental management system for its drilling units. For Shell, recycling is consistent with



Waste separators and compactors are installed on Noble Drilling's Gulf of Mexico rig fleet as part of its commitment to a clean environment.

its sustainable development principles and efforts.

THREE-PHASE IMPLEMENTATION

Noble implemented the full-scale Gulf of Mexico recycling program in three phases. In Phase I, which went into effect during the first quarter 2001, the company put in place procedures for managing used oil filters and oily waste, cooking oil, waste lead acid batteries, waste lamps and paint and related materials. Strategies for controlling NOx emissions and noise pollution were implemented at the same time.

In Phase II, Noble added procedures for disposing of medical waste and using environmentally friendly products on all of its Gulf rigs.

"Implementation of Phase III, called Recycle the Gulf, started in December 2001," Puckett said. "By year end 2002, all Noble's rigs in the Gulf of Mexico had adopted the program."

RECYCLE THE GULF

Recycle the Gulf® entails collecting waste and sorting it into commodity categories including aluminum cans; tin cans and containers; plastic; paper products; lightweight paperboard; and corrugated cardboard.

Separating trash into these categories is "the heart and soul of recycling," says Tamara Juckett, Tech Oil Products' recycling coordinator.



Workers at The ARC of Iberia gather recyclable materials from Noble's Gulf of Mexico rigs in preparation for separation and processing before selling them to a third party for specialized handling.

"About 80% of the separation is handled in the galley, so we have visited the Noble Jim Thompson to train the galley crew."

Crews then place the sorted waste into multiple-bin Tech Oil Products Enviro-Pak® trash compactors installed aboard Noble's rigs. Once compacted, recyclables are collected in green bags so they can be distinguished from non-recyclable waste. The bags are tagged to identify the rig and commodity.

Bags of compacted waste are transported to the dock and placed in storage bins until Tech Oil Products picks up the bags and delivers them to The ARC for final weighing, sorting and removing impurities.

LESSONS LEARNED

In pioneering recycling in the offshore drilling industry, Noble, Shell and Tech Oil Products learned valuable lessons that can facilitate wide-scale recycling in the drilling industry.

Make space for recycling. Limited deck space is a common obstacle to recycling. To ensure that there is enough space for recycling equipment, drilling contractors and operators should include areas for recycling into rig designs.

Develop a waste minimization plan. The less waste created, the less need there is for recycling. As part of the research for offshore recycling, Noble and Shell analyzed the types and volumes of waste generated aboard the drilling units.

With packaging accounting for a high volume of the waste, Noble switched to bulk purchasing in 2001 to eliminate some packaging. Simple acts such as replacing single-serving sugar packets with large containers of sugar led to a 45% reduction in packaging waste created on Noble's Gulf of Mexico rigs in 2002 compared to 2001.

The company also makes product substitutions to increase the amount of recyclable materials it uses. For example, Noble opts for tin instead of plastic packaging whenever possible to reduce the amount of plastic it uses and disposes.

Train and communicate for reinforcement. Like any program, employees and subcontractors need training and reinforcement to keep their awareness and motivation at a high level. Tech Oil Products (EnviroPak) provides initial training and awareness refreshers in their own offices and at their clients' training facilities or offices. EnviroPak personnel have also visited rigs to reinforce the proper procedures for collection, compacting and bagging.

Seek continuous improvement. Recycle the Gulf grew out of a combined effort to continuously improve environmental protection and performance. Noble and its clients review Recycle the Gulf periodically to ensure that the program meets business needs for efficiency while minimizing waste and preventing pollution.

Extend the benefits of recycling to the community. Reducing waste in landfills and other environmental benefits of recycling are the primary benefits to communities. By partnering with The ARC of Iberia, Noble, Shell Exploration & Production Company and Tech Oil Products are also able to broaden the benefits of recycling. ■