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EcoLogic

Wrapping up efforts to clean oil spill

ow clean is clean? Well, it's about as clean as it's going to get when it comes to the oil spill, it seems.

The Puerto Rico Tourism Company staged a press conference Thursday morning to announce that the oil hurdle had been cleared and to congratulate the U.S. Coast Guard for leading efforts to clean up the 700,000-odd gallons of heavy oil that assaulted Puerto Rico's coast after a barge crashed into the reefs off Escambrón Beach on Jan. 7.

'You and your team approached this crisis like it was a war, and today we are here to declare victory with you," said Secretary of State Baltasar Corrada del Ríó. "Today, the vast majority of our beaches are back to their pristine condition.'

Officials regaled Coast Guard Commander Bob Ross with a glass cube containing a sand painting by Old San Juan artisan Eduardo Berríos, a creative way to thank him for heading the cleanup effort. About \$39 million and 700,000 work hours have been committed to the cleanup, which will continue in a reduced manner for at least the next few weeks.

Ross, in turn, praised the Oil Pollution Act of 1990 for requiring a regional spill response plan. The act, known as OPA, arose in response to the 1989 Exxon Valdez spill of 11 million gallons of oil into Alaska's Prince William Sound.

"If this spill had happened two years ago, I can assure you that the outcome would have been quite different," Ross told the group of about a dozen officials and media representatives, a much smaller turnout than the hundreds who filed into press conferences in the wake

of the spill.

Members of the international media poured into Puerto Rico to capture the immediacy of the spill, and their numbers helped inflate hotel bookings, according to Tourism Company Executive Director Luis G. Fortuño. Hotel occupancy ran 7 percent higher than last year for January, and it was registering at 6.6 percent higher for February, he said Thursday.

Fortuno was carrying on the Tourism Company's practice of combating negative publicity with public relations, an exercise that had led earlier to

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sending out information about the island's remaining pristine beaches and busing guests to them. The latest tactic involves plans to hire a private company to maintain the beaches in the Condado area, where half of the island's hotel rooms are concentrated, he said.

Keeping that area free of litter could be especially important considering the island's desire to attract more tourists from Germany, where cleanliness is a way of life and neatness counts. Germans accounted for 40 percent more hotel reservations in 1993 than they had the year before, said Fortuno, who intends to fly to Berlin for a trade conference on Thursday, the day after he returns from an official excursion to Mexico.

It's understandable — and commendable — that officials want to put their best foot forward when it comes to tourism, and report that the coast has been degreased.

But are the beaches really clean?
In anticipation of this concern, Ross provided a copy of the Coast Guard's guidelines on "How clean is clean" during an hour-long interview Wednesday in his Old San Juan office. The guidelines note that tar balls might pop up even on "clean" beaches, and that rocks might appear oily.

Ross said he has to weigh the cost of human risk — broken legs, and other injuries that might result if workers were to scrub rocks along the shore — against the benefit to the environment of hurrying the process along.

In the case of contaminated rocks, such as those along Surfer's Beach bordering Aguadilla and Isabela, the Coast Guard depends on nature's wave action to do the cleaning after an initial scrubdown using water pressure.

Stretches of beach in the Aguadilla-Isabela region joined the contaminated

club following the Jan. 15 disposal of the offending ship, the Morris J. Berman. Officials towed the Berman northeast to sink it about 20 miles north of Luquillo in an explosives dumping ground 6,000 feet below the surface.

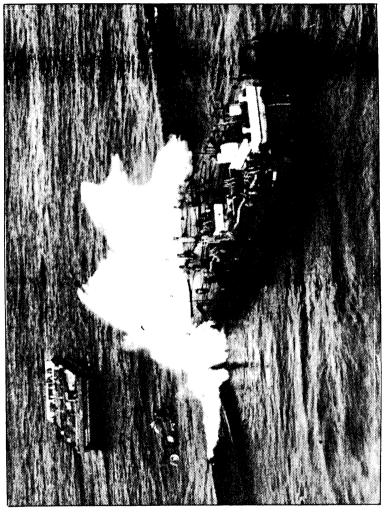
Most of the oil that remained on the barge — after the crew pumped out some 882,000 gallons in the week following the collision — was lost to the sea during the towing operation, Ross said, where it fanned out along the coast from Aguadilla to Río Grande. Oil that has turned up in Culebra and Vieques, however, definitely did not come from the Berman, he reiterated Wednesday.

Ross explained that the numerous commonwealth and federal agencies decided to head northeast rather than straight out to sea partly to take advantage of the Department of

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Defense's dumping ground (I shudder to think what other horrors rest there) and partly to prevent the oil from hitting other islands. Given the chosen path, the Coast Guard could keep tabs on the oil and avoid international incidents, he said.

The cleanup has not yet inc**laded** the use of "bioremediation," the **employing** of oil-eating organisms such as **bacteria**, fungi and yeast to clear things up. Several environmental activists in the island's northwestern region have been



Waves batter the Morris J. Berman just before the Coast Guard began to tow its remains out to sea on Jan. 15. Officials have declared most beaches clean.

promoting the concept, which was used on shore in the aftermath of the Exxon Valdez spill and in open waters for the first time in 1990 after the Mega Borg spill in the Gulf of Mexico.

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A video promotion of the product, AE Biosea, reported amazing results after the Mega Borg spill. Even Popular Science (July 1992) notes that oil in an experimental area disappeared soon after application of microbes gathered from various corners of the globe, although it adds that skeptics are reluctant to make a cause-and-effect connection.

Similar products have been hailed for their ability to clean tainted soils, such as those beneath underground gasoline tanks. An Environmental Protection Agency guidebook describes the use of bioremediation of soils but doesn't cover marine applications.

In fact, Ross said the Coast Guard is mulling the possibility of using bioremediation to cleanse the soiled sand removed from island beaches. This sounds like a good idea.

About 2,500 cubic yards of sand are being stored in Ponce at Browning-Ferris Industries' landfill, BFI General Manager José Ayala said Thursday. This translates to about 3,000 tons. Ross said it eventually will be put to bid and will likely end up fueling the island construction industry.

Bioremediation remains experimental, Bioremediation remains experimental, especially for open waters, I can relate to the Coast Guard's hesitation to apply hungry microbes to the ocean surface despite the lure of relatively effortless

cleanup.
Until more experiments are conducted that show the microbes will stop feasting before developing a taste for coral reefs or blossoming into something akin to suffocating algal blooms, I have to agree with the Coast Guard that manual labor will have to do. (And the island sends its thanks to all the dedicated workers who provided this labor.)

For now, let's limit the coastal cleanup to elbow grease — old-fashioned human effort