

The port of San Juan should be improved to reduce the possibilities of having another accident of this nature. Although navigation through the channel was possible on the dawn of March 3rd, 1968, we cannot disregard the difficulty of entering the harbor.

MR. POLANCO-ABREU. I strongly endorse Secretary Lizardi's recommendations and in particular the urgent need for acquiring greater scientific and technical know-how with which to combat the immediate effects of a massive marine oil spillage.

The only practical defense against this kind of menace today rests in the hands of the scientists. It was a recognition of this fundamental fact that was a consideration in the introduction of my bill.

It is important to clarify the liability of a vessel owner or operator. It is important to authorize the Federal Government to act immediately to counteract the pollution threat.

But a community afflicted with a massive maritime oil spillage is interested in only one thing. It is interested in cleaning up the mess as quickly and completely as possible.

PUERTO RICO EXPERIENCE INDICATES COMMUNITIES UNPREPARED

Based on Puerto Rico's experience, I believe that few maritime communities in the United States today are prepared to cope with an oil spillage of the *Ocean Eagle's* magnitude. And this 12,065-ton, 15-year-old ship was a small tanker by today's standards, to say nothing of tomorrow's standards.

The reasons for this lack of preparedness are simple. First, the terms of the disaster dictate the terms of the response. And the terms are as changeable as the sea, the weather, the nature of the pollutant, and the situation. Secondly, we have found that there is today no single mechanical method or safe, effective, economical and stable chemical that a community can stockpile in advance and that will work under all circumstances.

The ruptured tanks of the *Ocean Eagle* leaked nearly 3.5 million gallons of Venezuelan crude oil into the waters around San Juan during the month that the broken sections lay grounded at the harbor's entrance. Floating oil fouled the harbor and over 15 miles of resort beaches with a sticky, black, paraffinlike substance, ranging in thickness from a thin film to more than 6 inches deep in some places.

The *Ocean Eagle* turned Puerto Rico into a laboratory for testing the common—and not so common—methods of pollution control: Pumping and skimming the oil from the surface, containing the spill with various floating booms, applying chemical dispersants, detergents, nontoxic absorbents, and even a special catamaran-type oil-skimming vessel. All of these methods were tried with varying degrees of success. The objective was to prevent the oil slick from reaching shore and, failing in this, to remove the sludge.

Judging by the number of detergent salesmen who descended on San Juan, Federal and Commonwealth authorities must have tested nearly every known brand. Unfortunately, most of the products failed to be safe or effective. The use of detergents was discontinued when laboratory tests showed some to be as much as 30 times as harmful to marine life as the oil itself. Detergents, under the conditions found in Puerto Rico, also coagulated the petroleum into heavy balls which