THE PETROLEUM INDUSTRY AND THE MARINE HABITAT

The Exxon Valdez Catastrophe and California's Options

By Dario Frommer and Adam Torem

On March 24, 1989, the largest oil spill ever recorded in American history occurred in one of the United States' most pristine marine environments. The *Exxon Valdez*, piloted by an inexperienced seaman, ran aground on Bligh reef spilling over 10 million gallons of North Slope crude oil into Alaska's Prince William Sound. The town of Valdez, celebrating its 25th anniversary of rebuilding from a catastrophic earthquake, woke to find its existence threatened again. This time, however, the disaster was manmade.

A Precedent for Disaster

In 1978 the world witnessed the worst oil spill ever when the single rudder of the *Amoco Cadiz* failed. The ship ran aground off the Brittany coast of France, spilling its entire cargo of 69 million gallons. Currents and winds blew the oil out to sea one month after the spill, sparing the shore extensive damage. But the next year, an offshore Mexican well, *Ixtoc I*, blew out 140 million gallons of oil, surpassing that infamous record. Here again, nature prevented the harshest consequences as ocean currents and winds kept the oil from reaching the shore.

The *Exxon Valdez* 's 10 million gallons seems paltry in comparison to previous spills, but here nature refused to help. This tanker grounding came when seas were calm and currents weak, allowing the oil to reach the shoreline and wreak havoc on its inhabitants. A quick response by Exxon or an appointed oil spill task force could have kept much of the 1100 miles of coastline from being blackened, but as the oil spread at least 1000 otters, 33,000 birds and 140 bald eagles, our national symbol, died. The Sound and its wildlife may never recover.

The Litigation

The grounding of the *Exxon Valdez* led to more than the obvious environmental damage reported in the media. Presently, almost 150 lawsuits have been filed against Exxon and its industry affiliates. Handling the flood of complaints against Exxon is the firm of Faulkner, Banfield, Doogan and Holmes, who have classified all of the actions into three main types: suits filed by government entities (State of Alaska), suits filed by environmental groups, and class action or individual suits filed for personal damages incurred in the wake of the spill.

The State of Alaska filed a 17 count suit parens patriae on behalf of its citizens, alleging "intentional and negligent acts" by Exxon and its co-defendants, including Alyeska Pipeline Service Company, the operator of the Trans-Alaska Pipeline System (TAPS). Alaska seeks economic damages (including loss of oil taxes and royalties) as well as environmental damages (use, nonuse, and aesthetic values of the ecosystems destroyed). Alaska contends that "the oil industry repeatedly assured the State and others that they would take all actions that would ensure an oil spill would not occur and, if it did, that they could and would promptly and completely contain and clean up all spilled oil." The required oil spill contingency plan, periodically updated since TAPS began operations in June 1977, gave further assurance of Big Oil's ability to handle a large spill. The state contends that Exxon and its colleagues' inability to respond to the Valdez incident was due to "conscious, deliberate, negligent and reckless" decisions to save money, thus reducing manpower, training, maintenance, and equipment needed in the event of such a spill. Alaska also contends that Exxon failed to institute adequate and prudent measures to prevent drug and alcohol abuse at the time of the accident. Additional counts cover trespass (oil in the waters), public nuisance complaints, and a count for intentional infliction of emotional distress, while others are based on the strict liability imposed by Alaska's Environmental Conservation Act and the TAPS right-of-way lease, and the "inherently dangerous activity" of oil transportation, loading, and shipping.

The Sierra Club Legal Defense Fund is representing myriad environmental groups in a cause of action for declaratory and injunctive relief and penalties under the Federal Water Pollution Control Act of 1972 (Clean

Water Act) 33 U.S.C. Sections 1311(a), 1319(d), 1365(a) and the Solid Waste Disposal Act (Resource Conservation and Recovery Act) 42 U.S.C. Section 6972(a)(1)(B). The complaint alleges that Exxon and Alyeska's clean up efforts were insufficient, pointing out that the fishermen of Alaska did more themselves in the first 48 hours than Exxon did. Exxon's shoreline cleanup plans are attacked as possibly more damaging to the environment than the oil itself. The suit seeks a fine against Exxon for each day the oil remains in Prince William Sound and an injunction for Exxon to continue its cleanup efforts into the winter. The suit points out that neither the EPA nor the State of Alaska have attempted to force compliance with the CWA or RCRA or the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

Finally, the fishing industry around Prince William Sound had filed a class action suit seeking damages from both Exxon and Alyeska under the Trans Alaska Pipeline Authorization Act, 43 U.S.C. Section 1651, *et. seq.* The Act established the Trans Alaska Pipeline Fund, funded by a 5 cent per barrel charge on oil transported through the pipeline, up to a $100 million limit. Under Section 1653(c) of the Act, both Exxon and the Fund are strictly liable, jointly and severally, for the first $14 million in damages, with the fund strictly liable for the balance up to $100 million. In addition, Alyeska is strictly liable for damages up to $50 million under Section 1653(a). Additional damages over the limits of Section 1653(a) and (c) are available "in accord with the ordinary rules of negligence."

Exxon has been trying desperately to settle most of the suits by opening claims offices throughout the state and has counterclaimed against the State of Alaska, claiming the state hindered its cleanup efforts by preventing the use of chemical dispersants. However, Alaska claims that Exxon and Alyeska didn't have enough dispersants stockpiled to do any good anyway, possibly making the point moot. Clearly, the litigation surrounding the Valdez spill will continue for a long time. The damage to Prince William Sound will continue even longer, possibly forever.

Effects of Oil's Invasion of the Sea

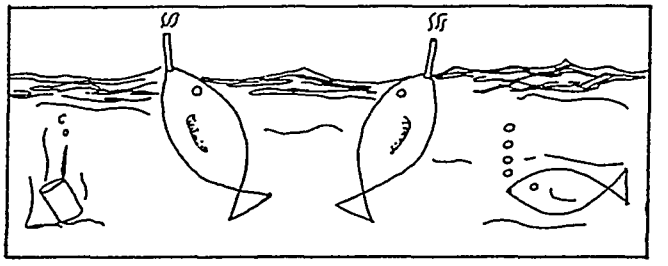
The immediate effects of oil are obvious. The ocean darkens and froths. Seabirds and otters find their insulating plumage and fur weighted down with a pungent black tar, pulling them under to drown or left to freeze in the cold temperatures. On shore, scavengers consume these washed up carcasses, dying from the oil's toxic effects. The bald eagle, after getting its fill of the toxic carrion, returns to its nest with stained feathers to warm its egg. As the oil seeps from the mother's feathers into the egg's breathing pores, the unborn chick suffocates. On land, the human residents scramble to save their beaches and their livelihoods. The fishing industry in Alaska has been the hardest hit, with the town of Cordova nearly shut down for the season. The fishing boats are stained as they travel through the oiled waters, booming off sensitive areas and looking for animals rather than harvesting the season's catch. The future of other fishing villages remains uncertain.

The biochemical consequences of an oil spill could prove even more lethal than the gruesome short-term effects. The toxic chemicals in any spill vary with the origin of the oil itself, but aromatic compounds such as toluene and benzene are associated with most spills. As the oil thins, the zooplankton and phytoplankton begin to ingest this poison. These animals form the base of the food chain and many scientists wonder what effect petroleum compounds will have on the top carnivores. DDT nearly eliminated many of our larger birds earlier this century, and many predictions point to ingested oil causing similar complications. Ingested oil may weaken immune systems of mammals as well.

The oil not skimmed from the water by cleanup efforts eventually sinks to the bottom of a beach or the ocean itself. There, it enters the benthos (bottom)

community and enters the food chain from yet another level. Experience from ocean dumping sites has demonstrated that this delicate ecosystem is easily disturbed and destroyed. In cold water ecosystems like Alaska or California, the breakdown of the oil by photochemical and microbial degradation is slow and toxicity remains in the area longer. Once in the benthos, it can be a source of pollution for years.

Scientists can't say how long recovery will take, if the area recovers at all. Animal communities may take decades to return to their original pre-spill populations. Some will never recover, but will be replaced by competing species. Any predictions necessarily involve significant speculation, since a spill of this magnitude has never occurred before in such a pristine environment.



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Prevention: California's Response

Each year, 1.6 billion tons of oil move through the world's oceans via tankers; 102 million tons of that oil passes through U.S. ports, and a high percentage of that commerce passes dangerously close to California's coastline. This activity results in 13% of the 924 million gallons of hyrocarbons which enter our seas annually. Clearly there are many other sources of ocean pollution, but none with such concentrated power to suffocate the food webs of our coastal and tidal zones. The Valdez incident demonstrated how immediate and devastating a mistake can be if we in California are not adequately prepared.

California's last major oil spill occurred in 1968 in the Santa Barbara Channel. While the odds of such a spill have greatly increased, the state's coastline remains as unprepared and unprotected as it was 20 years ago. Over the past decade, California has become a primary destination for Alaskan crude oil. Each year, tankers the size of the *Exxon Valdez* make over 2500 trips off the California coast, depositing 100 billion gallons in state ports. The *Exxon Valdez* itself was on the way to Long Beach.

Scientists estimate that a spill the size of the Alaskan disaster would destroy over 1100 miles of California shoreline and coastal waters, an area equivalent to the stretch between Mendocino and Pt. Conception. However, there are few industry clean-up barges in state waters, and none berthed north of the Santa Barbara Channel, leaving the entire Northern California coast at risk. In March, California State Controller Gray Davis and a handful of other elected officials realized the similarities between the California and Alaskan coastlines: "The potential damage to the California coast from a tanker collision is staggering. Beaches would be devastated and thousands of birds, otters and sea lions would be destroyed. All types of marine life from the tiniest bay shrimp to the mightiest gray whale would be threatened," said Davis.

Davis, along with Lt. Governor Leo McCarthy, State Finance Director Jesse Hutt and members of the State Lands Commission are responsible for state waters, which extend three miles from the coastline. In March, Davis and McCarthy proposed the Oil Spill Response Act. This Act would create a $500 million dollar oil spill "Superfund" and an oil spill response program to prepare California for what its proponents view as a highly likely tanker spill. The fund would be created through a 50 cent per barrel fee on oil transported into or out of the state. The vast majority of the money would sit in an emergency reserve fund to pay for the clean up and restoration of coastal environs in the event of a major spill. A smaller amount would go towards preparing the state agencies and workers for such an emergency clean up. The oil companies would pay into the fund as an "environmental security deposit" for transporting crude oil across state waters and utilizing state ports and terminals. In doing this, California officials hope to avoid the delays and lack of funding which crippled the Valdez cleanup efforts in Alaska.

The Act would also require that parties transporting oil across tidelands and state waters carry insurance. In order to receive a "certificate of financial responsibility" from the state allowing them to operate in State waters, operators of large tankers would be required to show indemnification in excess of $400 million. In addition, the Act would require marine pipeline operators to post $50,000 in liability funding.

The Oil Spill Response Act also emphasizes a larger role for the state in enforcing principles of tanker

safety. In order to avoid the lack of preparation, planning and defined authority which hamstrung the Alaskan clean up effort the Act would create a single administrator for oil spill response. A state task force would design and execute oil spill contingency plans.

The act would prohibit marine terminals from loading or unloading tankers which do not have spill containment equipment such as booms, auto-pilot alarms, traffic control devices, and at least one English speaking officer on board who can communicate with the ship's master. The last provision addresses a collision off the Santa Barbara channel in 1987, where a tanker with no English speaking crew member was unable to heed accident avoidance instructions from authorities. In addition, key crew members, including the master and first mate, would be required by California law to take drug and alcohol tests before boarding their ships. Davis has also proposed training members of the California Conservation Corps in oil spill clean up and animal rescue.

If passed by the California Legislature and signed into law, California could become the first state to impose such strict financial liability on oil transporters. However, the proposal faces some tough challenges. While federal law gives states title to and the rights to develop submerged lands in coastal waters, a state's right to assert authority over those parties using state waters for commerical purposes is more problematic. In 1953, Congress gave coastal states the right to assign leases and collect royalties for oil and mineral development off their coastlines. However, imposing a per barrel fee and mandating liability floors creates significant problems under the Commerce Clause of the U.S. Constitution as well as possible preemption by the Clean Water Act. In addition, legislation now pending before Congress would create a federal oil spill response fund, again preempting the California Act.

Conclusion

The old maxim that "oil and water don't mix" is just as true today, but perhaps it has more meaning for us now. Our country has chosen to move vast amounts of oil through sensitive marine environments. The Valdez spill graphically illustrates the disasterous costs of unpreparedness. If we are to continue transporting oil this way, we must thoroughly prepare for every possible contingency. Despite its problems, the California proposal represents a positive first step in protecting our precious marine resources.

ACKNOWLEDGEMENTS

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