Report analyzes the human factor in marine oil spills

When the Exxon Valdez impaled itself on Bligh Reef 17 years ago, every piece of equipment on the ship was working perfectly. What didn’t work right was the crew. It was a navigational mistake, not a hardware malfunction, that put the ship on the reef.

Like most non-natural disasters, North America’s worst oil spill was caused by human error. The same is true of more recent accidents in Alaska waters, including the incidents involving the cargo vessels Selendang Ayu and Cougar Ace in the North Pacific.

Now, a 50-page study commissioned by the council reviews the role of human error in oil spills and other marine accidents, and attempts to identify ways to reduce it.

Among the study’s key findings:
- Up to 80 percent of oil spills and other marine accidents can be attributed to human factors, either individual error or organization failure.
- Technological improvements such as double hulls on tankers can reduce the severity of an oil spill, but they cannot interrupt the chain of events leading to the accident. In fact, technological improvements can have the perverse effect of making an accident more likely, because the ship becomes more complicated to operate, because the ship owner may conclude crew size can be reduced, or because a perceived higher level of safety results in the crew being more willing to take chances.

The study lists several recommendations for finding out more about the human factor in oil spills, and reducing its role in accidents. They include:
- Among other things – creating a mandatory near-miss reporting system; promoting and applying industry practices known to reduce accidents risks from human factors; and incorporating an analysis of human factors in risk assessments for oil spills from vessels.

The study, titled “An Assessment of the Role of Human Factors in Oil Spills from Vessels,” was prepared by Nuka Research and Planning Group. It is available as a 1.1 megabyte download from www.pwsrcac.org/docs/d0028900.pdf.

Legislature approves a partial fix to oil-spill office’s funding problems

Gov. Frank Murkowski last month signed into law a bill that increases funding for the state agency in charge of oil-spill prevention and response.

That agency – the Division of Spill Prevention and Response in the Department of Environmental Conservation – until now has been financed primarily by a surcharge of three cents per barrel on crude oil produced in Alaska. The levy will increase to four cents per barrel under the new law, which the Legislature passed in early August during its second special session this year. Murkowski signed it on Aug. 19.

The surcharge change was a relatively minor provision in an oil tax bill that had tied the Legislature up almost from the time the regular session started in January. The bill raises taxes on oil-industry production profits and is projected by Murkowski to increase state income by as much as $2.2 billion a year at current oil prices.

Executive Director John Devens met with Rep. Kevin Meyer, shown here, and other legislators to discuss funding for the state spill-response office. Photo by Stan Jones

Drill will test response capabilities

At five o’clock on the morning of September 26, a tanker called the SeaRiver Carrier will strike an unknown object in the shipping lanes between Bligh and Montague islands, and spill crude oil into Prince William Sound.

But only on paper. The SeaRiver Carrier doesn’t exist and neither will the oil.

It will all be part of a two-day drill being mounted by SeaRiver Maritime, the shipping arm of ExxonMobil.

The drill won’t involve any actual on-water activities. All of the simulated action – tugs and response barges rushing to the scene, helicopter overflights, network television crews flying in from around the world – will take place indoors at two sites in Valdez: Ayleska’s emergency operations center near the small-boat harbor, and the city’s convention center. There, drill participants will practice what they’d do in an actual spill: interacting to collect information about the accident, analyze the information, and decide how to respond, all while ensuring that the responders are fed, housed and paid, and that reporters and the public can inform themselves about the spill.

Even though the spill is imaginary and the action simulated, the exercise will raise issues likely to be important in any real spill response.

One is the use of chemical oil-spill dispersants. Plans call for their “use” during the exercise. The council’s position is that dispersants should be banned in area waters until solid science shows they will work. However, for now, they do remain in the contingency plans that guide oil-spill response, and drill participants will go through the steps outlined in those plans to decide if conditions in the drill scenario would justify dispersant use.

The drill will also provide an opportunity to test one of the most critical phases in spill response management. It’s called ‘transition,’ and refers to the point at which operational control passes from Ayleska Pipeline’s Sheep
By SUSAN SOMMER
Project Manager

Bill Conley operated a small boat and worked on cleaning up crude oil as part of the massive clean-up effort after the Exxon Valdez spill in 1989. He joined the citizens’ council when it formed a few months later and has volunteered on the Port Operations and Vessel Traffic Systems Committee ever since. For the last nine years, Bill has served as the committee’s chair.

Bill spent his college years at the University of Washington in Seattle while working for the airlines. He first came to Alaska in 1953, and knew he had to return someday. The airline he worked for transferred him to New York City. “But being a pilot,” says Bill, “I couldn’t stand it any more and Alaska was obviously the best option.”

He moved to Alaska in 1960, where he spent four years as an Alaska State Trooper, and worked in the construction industry in Anchorage and Girdwood, and on the North Slope. Relocating, which is nothing new to Bill, whose father was in the Army. Says Bill, “I grew up where the Army sent us.”

In 1973, Bill moved to Valdez and helped build the dock at Old Town used to unload rail car barges from Whittier. He then worked as a contract administrator building the loading docks at the Valdez Marine Terminal. After that, he worked for Alyeska for 19 years, 10 of them in the company’s marine department.

Bill leads the council’s Port Operations and Vessel Traffic Systems Committee, which is called POVTS. The committee monitors and tracks the shipping industry, the Automatic Identification System that was installed in the Valdez office this year. New committee projects include a study of aquatic noise pollution, and addressing the response gap that exists when tankers are allowed to haul oil across the Sound in weather conditions too severe to permit a response to an oil spill.

The committee, as well as the council, benefits from Bill’s knowledge of tanker operations, tanker loading, and challenges faced by tanker operators. It’s a mutually rewarding relationship; Bill says what he likes most about volunteering for the committee is that it keeps him “informed concerning changes in the shipping industry, the U.S. Coast Guard Vessel Traffic System, the tugs, and Alyeska.”

Bill also looks forward to working with the council’s new project manager for maritime operations, Bill Abbott. The committee “needs fresh input and a fresh outlook,” he says, and thinks the newcomer can help provide that.

Bill was selected as volunteer of the year in 2001 by his committee, Bill says, “It meant a lot to me to be recognized by my peers for the accomplishments of the POVTS committee while I was chair.”

As a representative of the committee and the council, Bill has attended many meetings regarding what are called potential pot holes of refuge – shipping in areas with deep enough water to permit repairs to a disabled or leaking vessel. He was on the steering committee for a Pacific States/British Columbia Oil Spill Task Force project that established places of refuge guidelines for the West Coast and Canada. A working group was formed by the citizens’ council and the Alaska Department of Environmental Conservation that established guidelines and selected potential ports of refuge within Prince William Sound.

Bill’s volunteer efforts don’t stop with the citizens’ council. He is materials and supply officer for the Prince William Sound region’s Coast Guard Auxiliary Flotilla, a group he’s been associated with for 25 years. He also helps at the Valdez Museum Annex by sorting, unrolling/relaxing, and cataloging maps and charts; is president of the Valdez Senior Citizens Center; and volunteers as treasurer and grant writer for the Valdez Historical Preservation and Restoration Society.

For the historical society, Bill helped locate the community’s original cemetery, which was begun in 1897 but abandoned in 1915. They cleared two and half acres, replaced original wooden headboards, rebuilt grave fences, located and put headboards on unmarked graves, and placed informational signs throughout the cemetery.

A few years ago, Bill was elected president of the Valdez Senior Center to help with the organization’s financial difficulties. He served three years in that capacity, then switched positions there to raise funds for an assisted living center. He is now once more the senior center’s president.

Bill lives with his wife, Betty, in Valdez. Their son, Don, lives with his wife and daughters in Colorado. Bill and Betty like to spend summers cruising and fishing Prince William Sound on their cabin cruiser; then they escape to Seattle for a couple of months during the long Alaskan winter.

The best thing about living in Valdez, says Bill, is the friendly small-town atmosphere, and the recreational opportunities in the Sound, like boating and fishing. The downside? “It’s 600 miles round trip to do any decent shopping.”

COUNCIL MEETING SCHEDULE

The citizens’ council board of directors meets three times annually. Here is the tentative schedule for the coming year:

- May 25-26, 2007: Anchorage
- May 3-4, 2007: Valdez
- September 20-21, 2007: Kodiak

For more information, visit the council’s Internet site, www.pwsrcac.org

Volunteer Profile
Original committee member is now its veteran chair

Bill Conley, chair, Port Operations and Vessel Traffic Systems Committee

SPILL OFFICE: Legislature provides a partial fix, but more work may be needed in future years

Continued from Page 1

The state oil-spill response fund currently financed by a crude oil tax of two cents per barrel. That fund is capped at $50 million. The tax is suspended when the fund reaches that level, then resumes if an oil-spill response draws it down. The council had proposed immediately raising the cap to about $70 million. The tax is suspended when the spilled oil could be contained there, rather than response capability in Sound

BillConley_chair_Ports_and_Vessel_Traffic_Systems_Committee.jpg

Continued from Page 1

SEARIVER DRILL: Testing response capability in Sound

Escort/Response Vessel System – which is required to make the initial response to all spills – to the actual spill, which is SeaRiver in this drill.

In addition, the drill will test the Port of Refuge concept. This involves pre-identifying bays and inlets where a leaking tanker could be towed so that the spilled oil could be contained there, rather than staining hundreds of miles of shoreline as happened after the Exxon Valdez. The council helped regulatory agencies devise a list of potential places of refuge. The process was sensitive because shoreline landowners are naturally concerned about the prospect of a leaking tanker being towed in and anchored nearby.

Some of the citizens’ council staff will be part of the team charged with evaluating the success of the drill, while other staffers will observe the drill for the council’s own independent report.

“I’m eager to see how the transition goes,” said Roy Robertson, the council’s project manager for drills. “I haven’t seen that before – the spiller actually participating,” Roy said. Bill also looks forward to working with the council’s new project manager for maritime operations, Bill Abbott. The committee “needs fresh input and a fresh outlook,” he says, and thinks the newcomer can help provide that.
When BP announced last month it planned to shut down the Prudhoe Bay oil field because of widespread pipeline corrosion problems, our phones began ringing off the hook with calls from news people around the world.

Think about that for a minute: The oil industry has another embarrassment on the North Slope and reporters call a group 800 miles away for the citizen viewpoint.

Doesn’t that seem odd? We are based in Prince William Sound, and we have no oversight power whatever on the North Slope. Our jurisdiction is the oil tankers operating in the Sound, and the Valdez terminal where they load cargo.

We take these calls from reporters as a sign that news organizations have figured out something that still eludes the oil industry and its regulators: Citizen oversight is needed on the North Slope, just like it is in Prince William Sound.

This is nothing we haven’t said before, but we feel it’s worth saying again. Citizen oversight is the all-important third leg of the stool when it comes to environmental safety.

The industry’s experts and regulators are the other two legs. But regulators are always subject to political interference, budget squeezes, and industry lobbying. Industry, meantime, must always seek to maximize profits. These pressures can prevent them from acting in the public interest and sometimes, it would appear, even in their own interest.

The question is, why would citizen oversight be any different?

It’s simple: Citizens, unlike regulators, aren’t subject to lobbying or to political interference. And, unlike industry, citizens aren’t shackled to a bottom line. As a result, properly constituted citizen oversight is virtually immune to the pressures that so often distort industry and government from proper conduct. A citizen group’s sole mission is preventing environmental catastrophe by advising regulators and industry on how to do their jobs right and avoid the kind of neglect we’re seeing now on the North Slope, and the kind of complacency that brought us the Exxon Valdez oil spill 17 years ago.

While it’s not yet fully clear what combination of pressures produced the latest crisis at Prudhoe Bay, it does seem beyond doubt that it represents a failure of oversight by regulators, and a failure of professional diligence by BP.

One question we’ve been asked by reporters is worth repeating and answering here: Since there aren’t any citizens – i.e., permanent local residents – in the North Slope oil fields, how exactly would citizen oversight work there?

It’s true, most of the time there wouldn’t be very many citizen muklucks on the tundra at Prudhoe, Kuparuk, Milne Point and the other North Slope fields. But that doesn’t mean citizen oversight couldn’t be effective.

Take the corrosion issue, for example. The first move of a North Slope citizen oversight group would likely be to demand that BP and the other field operators prepare and put out for review a comprehensive plan for preventing, detecting, and correcting pipeline corrosion. Then the citizen group would go over that plan with a microscope – probably with the assistance of independent expert contractors – and recommend revisions to guarantee the plan would work.

Once the plan was put into action, the citizen group would make sure the plan was being followed. The citizens would zealously monitor the field opera-
tors’ required reports on the implementation of the plan. Are required inspections – including smart-pigging – done on schedule? If they show problems, are the problems addressed promptly and aggressively? As experience exposes defects in the plan, are they promptly remedied through open and public amendment processes?

The citizen group would have no power to make any of these things happen. As is the case with our organization, its only power would be to bring deficiencies to the attention of the industry, the regulators, and the public, and demand that they be corrected. That’s what we do, and it has turned out to be remarkably effective. The power of well-founded technical analysis, combined with public opinion, is nearly irresistible.

Most of this could be done without citizen overseers being physically present in the oilfields, though of course they would go there for inspections or research as specific needs and circumstances arose.

So we end on the same note we’ve sounded before: Citizen oversight is long overdue on the North Slope. Congress, regulators, and the oil industry should immediately start the process of forming an independent, multi-stakeholder, amply funded citizens’ advisory council for America’s biggest oil patch. We’d be happy to help.

• John Devens is executive director of the Prince Will-
iam Sound Regional Citizens’ Advisory Council.

The Valdez Marine Terminal (VMT) Oil Spill Response Training Management Program addresses an important area of emergency preparedness: within Alyeska’s operations and maintenance. While emergency preparedness is a best practice, it is also regulated by both federal and state governments. Compliance with state and federal oil spill response regulations, such as 18 AAC 75, 40 CFR 112, and OPA 90, require Alyeska to have trained oil spill response personnel. The regulations also require that training be documented and adequate numbers of trained responders are available for response. Alyeska’s grant and lease requirements trained and qualified personnel to be available for the effective operation and maintenance of the Trans Alaska Pipeline System (TAPS). By meeting these requirements, Alyeska maintains its license to operate TAPS and....

Last year, as a result of internal and external reviews, the VMT launched a project to analyze and detail oil spill response needs for the termi-
nal that resulted in recommendations for some major revisions in the oil spill response training management program. After a year of effort, the VMT response training has been substantially updated and systematic processes for sustaining the program were included.

To initiate the project, the first objective was set to re-define and develop a program to assure personnel involved in oil spill response and incidentmanage-
ment team functions described in the VMT Oil Spill Con-
tingency Plan were appropriately documented. This included documentation of the system defining the annual training requirements for Alyeska. As result, the first step was to be very clear about response job roles as well as who is assigned to each role. This first objective was substantially completed and this cleared the way for the second objective: making certain that personnel identified in response roles are qualified.

The second objective was fulfilled by identifying the minimum training requirements for each role defined in the response. Once roles were compared against the identified training requirements, the project team was able to identify any personnel identified in response roles who were not qualified.

Besides assisting tankers in distress, Alyeska’s escort tugs can also start the response to an oil spill. Photo courtesy of Alyeska Pipeline.
Summertime In Alaska

Left, top to bottom: Board member Sharry Miller and daughter Rowan in Valdez.
Staffer Stan Jones at the beach with Susan, Sydnie, and Gypzy.
Staffer Tamara Byrnes with daughters, Delaney Miklusak and Jaime Arciniega.
Chenega Bay military veterans on July 4: Bob Cedeen, Larry Evanoff, Pete Kompkoff, Ron Trumblee, John Christensen, and Tom Sherman.
Summer in Alaska would be unimaginable without fishing, lots of fishing. Top center: Purse seiners fish for pinks at Chenega Bay. Above, left to right: Council staffer Jacquelyn Olson, board member John Velsko, and staffer Donna Schantz show off their catches.

Left: Staffer Susan Sommer displays the chives and fiddlehead ferns she picked at the family fish camp on Kalgin Island in Cook Inlet.

Right, top: Committee volunteer Leslie Morton and family went dipnetting on the Kenai River. Center: Council staffer Mary Schonberger entered her Siberian husky, Gabriella, in a show at the Tanana Valley Kennel Club in Fairbanks and won! Bottom: Board member Al Burch relaxed with Barbara, his wife of 47 years, at their home in Kodiak. Also shown Lily, Lady Bug, and Truk.

Photos by, or courtesy of, Stan Jones, Leslie Morton, Bishop Photography, Bill Burch, Crystal Beeman, Damian Weaver, John Velsko, Donna Schantz, Pete Kompoff, Tamara Byrnes, Sharry Miller.
Summertime In Alaska
(continued!)

Counterclockwise from top right: Board member Steve Lewis took a break from working on a well repair at the Milne Point oil field on the North Slope.

Committee volunteer Bob Benda drove his motorcycle in the annual Gold Rush Days parade in Valdez.

Staffer Linda Swiss landed a nice silver at the family fish camp at Polly Creek in Cook Inlet.

Committee volunteer Agota Horel worked in her lab at the University of Alaska Fairbanks. She appears here with a group of microbes known as 7S, which she describes as “my favorite.”

Executive Director John Devens was interviewed by a television crew during a visit to Chenega Bay in late August.

Photos by, or courtesy, of Steve Lewis, Tamara Byrnes, Tyler Swiss, Shawna Laderach, and Darrell Totemoff
Community Corner

Council participates in East Coast conference on human dimensions

The Coastal Response Research Center at the University of New Hampshire in Durham invited the council to participate in a Human Dimensions Workshop in June. Participants included social scientists, National Oceanographic and Atmospheric Administration, industry, agencies, students, and I was there to represent the public for the council. The goal was to develop research projects that might provide information to improve spill response and restoration decisions. Topics included valuing natural resources, coordination in response and restoration, social impacts, risk communication, subsistence, and environmental ethics.

I felt that it was beneficial that the council was included in this workshop to ensure that public input was part of the discussion.

In July, Lisa Ka’a’ihau and I gave a presentation to guests at the Alaska Wildlands Adventure resort in Cooper Landing. They were all from outside of Alaska, and we gave them an overview of the Exxon Valdez oil spill, the formation of the council, some of the council’s successes, a slide-show tour of a few of the communities that are members of the council, and invasive species. Be sure to contact us if you would like a presentation on any of these topics in your school or community.

In September, the council hosted five Russian delegates from the Open World Program. The theme of their trip was environmental education, and their interests range from environmental and wildlife protection and the national park service, to access to resources. We hosted a public reception at the American Russian Center at the University of Alaska, visited the Anchorage Museum, and drove to Seward for a visit with Peter Armato, a volunteer on our council’s Scientific and Learning Center. We also took the behind-the-scenes tour of the Alaska SeaLife Center.

We spent time in the Anchorage School District’s Russian Immersion Class at Turnagain Elementary school, conversing with the students in Russian (not me!), before driving to Valdez. In Valdez we met with a number of industry and agency folks and toured the Valdez Museum as well as the Valdez Museum and Historical Archive. We also enjoyed a tour on Stan Stephens’ cruise boat on Prince William Sound. This is the third year a delegation of Russians has visited our region.

A trip to Chenega Bay on August 29 turned into a very pleasant visit with board member Pete Kompkoff, Darrell Tote-moff, and other community members. John Devens, Joe Banta, Stan Jones, and I made the trip. John was interviewed by a television crew about oil-spill issues and I spent time with the school students discussing the Exxon Valdez oil spill, invasive species, and other topics. One student wondered whether, if double-hull tankers are better than single-hulls, we should have triple-hulls. The weather was spectacular and we spent time on the dock watching purse seiners catch pink salmon. The day ended at a community potlatch featuring wonderful dishes of fresh salmon, halibut, moose, and delicious desserts such as wild berry cobbler and aquatuk, a Native treat made of shortening, sugar, and wild berries.

Upcoming Events

September 27-28 the council will have a booth at the Alaska State Chamber of Commerce convention and trade show in Anchorage. In late October, John Devens and I plan to visit Seldovia to make presentations at the school and to the city council. The council’s information booth will be at the Society for Environmental Toxicology and Chemistry’s 27th Annual meeting in Montreal from November 5-9, and at the Pacific Marine Expo in Seattle from November 16-18. And our annual volunteer workshop and appreciation party takes place in Anchorage on December 8.

The council’s mission: Citizens promoting environmentally safe operation of the Alyeska terminal and associated tankers.

Prince William Sound
Regional Citizens’ Advisory Council

The Prince William Sound Regional Citizens’ Advisory Council is an independent, non-profit corporation formed after the 1989 Exxon Valdez oil spill to minimize the environmental impacts of the trans-Alaska pipeline terminal and tanker fleet. The council has 18 member organizations, including communities affected by the Exxon Valdez oil spill and groups representing Alaska Native, aquaculture, environmental, commercial fishing, recreation and tourism interests in the spill region.

The council is certified under the federal Oil Pollution Act of 1990 as the citizen advisory group for Prince William Sound, and operates under a contract with Alyeska Pipeline Service Co. The contract, which is in effect as long as oil flows through the pipeline, guarantees the council’s independence, provides annual funding, and ensures the council the same access to terminal facilities as state and federal regulatory agencies.

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