

THE OBSERVER

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Council and partners work to permit oil spill simulant for response training

By **JEREMY ROBIDA**
Council project manager

Because evaluating the effectiveness of oil recovery efforts during trainings and drills can be difficult, the council has been working to find an appropriate oil simulant. A simulant would mimic oil on water and provide responders with a practice target and help to increase proficiency with response gear and tactics.

In March, the council partnered with Cordova's Oil Spill Recovery Institute and the Spill Control Association of America to host a workshop to address this topic. The workshop was held at the Seattle campus of the National Oceanic and Atmospheric Association, or NOAA.

Although the council is interested in improving training locally, the broader goal of the part-

nership and workshop was to address simulant use on a national level.

Twenty-seven people participated, and the workshop featured two panels that addressed the need for simulants, permitting and other regulatory requirements, and concerns related to their use. The panels were composed of representatives from spill response organizations, NOAA, the Environmental Protection Agency, the Bureau of Safety and Environmental Enforcement, representatives from the U.S. Coast Guard's National Response Team, and the council, among others.

The workshop concluded with a final group discussion on the next steps for this effort and

See page 7, **OIL SIMULANT**

Review of proposed contingency plan shows some areas improved, others need more detail

By **LINDA SWISS**
Council project manager

The council has been analyzing proposed changes to the Valdez Marine Terminal Oil Discharge Prevention and Contingency Plan during a recent public review.

This plan, created and managed by Alyeska Pipeline Service Company, describes how the company would contain and clean up oil spilled from the terminal in Valdez.

The current plan is being reformatted into four separate volumes. One of the new volumes describes tactics specific to oil spilled on land. The council applauded creation of this user-friendly manual.

The council also supports the addition of a technical manual which focuses on marine spill response operations. This manual is part of the tanker oil spill contingency plan, which underwent a similar review process in 2012.

The council has expressed concerns that the

proposed new plan may not contain enough detail to demonstrate Alyeska's ability to fully respond to a spill as required by state and federal regulations.

The review was extensive, requiring a page-by-page comparison between the proposed plan and the previous plan. The changes were significant enough to require a separate document explaining why some information was deleted and where that information, if still required, now appears in the plan.

During the first phase of the public review, the council submitted requests for additional information to the Alaska Department of Environmental Conservation, the agency in charge of the review process. The council was looking for more information on prevention and response training, facility descriptions, and additional details on preventing a spill.

See page 5, **OIL TERMINAL PLANS**



Valdez students make adjustments to a remotely operated vehicle they designed and built during a recent program by the Prince William Sound Science Center. The students used the vehicles to respond to a mock oil spill. For more on this program, see page 6. Photo by Kara Johnson.

Colder and saltier water increases toxic effects of dispersed oil

Temperature and salinity of water can have an effect on how toxic dispersed oil is to organisms in the environment, a council study has found.

The Canadian Centre for Offshore Oil, the Bedford Institute of Oceanography and Department of Fisheries and Oceans conducted a council-sponsored study to look at the absorption of dispersed crude oil during the early life stages of herring, salmon and cod when the fish are most sensitive to toxins.

See page 6, **COUNCIL STUDY**

AK Chamber of Commerce - AK Wilderness Recreation & Tourism Assoc. - Chenega Bay - Chugach Alaska Corp. - Cordova - CDFU - Homer - Kenai Peninsula Borough - Kodiak - Kodiak Island Borough - Kodiak Village Mayors - OSREC - Port Graham Corp. - PWS Aquaculture Corp. - Seldovia - Seward - Tatitlek - Valdez - Whittier

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Volunteer Spotlight

New council committee member has long history of volunteering in Prince William Sound communities

Harold Blehm, newest member of the council's Terminal Operations and Vessel Traffic System committee is passionate about using his time to help make Valdez, Prince William Sound, and the Chugach mountains a better place.

Blehm first moved to Alaska in 1982, after he graduated from Colorado State University's School of Forestry with a degree in outdoor recreation administration.

Colorado's population has grown so much that Blehm said he doesn't think he could ever return there.

"All the lakes we used to fish in are now inside city limits and you can't fish there anymore," Blehm said, "It's sad."

For his first few years in Alaska, Blehm worked for the City of Valdez as a firefighter, emergency medical technician and police officer. In 1988, Blehm finally got his dream job with the Alaska State Parks as district ranger for the Copper Basin Ranger District in Tazlina, Alaska.

"I got that job in '88, and in '89, guess what happened?"

After the spill, he returned to the Valdez area to help with recovery efforts.

Blehm worked for a short time as a medic with VECO, the company who hired most of the Exxon Valdez spill cleanup workers. He spent one week on a housing facility boat, treating oil spill workers with "horrible, wet coughs."

"They would come in asking what to do," Blehm said, "They had to go back to work because the money was good."

Blehm said the boats were crowded and dirty. He left the job after one week and returned to his previous position with the City of Valdez.

That year, Blehm and several other Prince William Sound residents, including former council board member Stan Stephens, helped form a non-profit organization called the Prince William Sound Conservation Alliance.

"We just had the urgency to do something environmentally," Blehm said.

The alliance worked on projects related to the spill before the group dissolved a few years later. Some of the organization's work was taken on by other organizations and continued.

Today, Blehm volunteers for several organizations, working to protect Prince William Sound and support environmentally responsible development in the region.

One such group is the Prince William Sound Marine Trail Steering Committee. The committee is working to create a marine recreation trail to promote sustainable tourism. The trail will link a series of public use cabins, campsites and day use areas accessible by kayak, sailboat or small motorized watercraft.

"The idea is to have a marine trail, similar to the trails in Southeast Alaska, that will connect Whittier to Valdez to Chenega and ultimately, hopefully Cordova," Blehm said.

Blehm also volunteers for the Prince William Sound Resource Advisory Committee for the Chugach National Forest. The committee reviews proposals regarding land use, rehabilitation of salmon streams, and the rehabilitation or obliteration of existing roads. One recent project he is excited about is the rehabilitation of Eshamy Bay and the building of a new cabin for public use. The cabin will be on the marine recreation trail.

Blehm also volunteers for the Valdez Local Emergency Planning Committee, where he gets to practice his training in the standardized emergency management structure known as the Incident Command System (see page 6 for more on this system). This committee is responsible for letting the community know about hazardous materials and helps respond to hazards that come up.

"It draws together people from the private sector, people from industry, the state, the Coast Guard, and the community," Blehm said.

"Periodically, we have practice drills," Blehm said, "It keeps us brushed up so there is no return of the chaos that followed the [Exxon Valdez] oil spill."

Blehm talked about a council project that is helping facilitate communication between the Valdez Fire Department and the Alyeska Fire Brigade. Should a fire break out on the terminal, the two entities would work together to fight the fire.

"They would have to set up joint operations to deal with it through the Incident Command System," Blehm said.

Blehm said the committee has been discussing the need for each entity's responsibilities to be more clearly spelled out.

As a firefighter, Blehm participated in marine firefighting symposiums in the 1990's. Blehm sees the council's upcoming symposium as an important contribution to safety.

"Marine firefighting is pretty scary," Blehm said, "It's the obscured visibility, the heat, and the tendency to get turned around, not knowing fore from aft, because there are very few landmarks."

The level of professionalism and archival knowledge among members of his committee, the board and staff has impressed Blehm.

"I see my role with the council as a foot soldier," Blehm said, "If there's anything I can do, I want to do it."



Harold Blehm

Council studies effects of low level exposure to chemically dispersed crude oil on zooplankton

The long and short term effects of low level exposure to chemically dispersed crude oil on zooplankton needs more research, according to the council's science committee.

Studies have been conducted on the effects of high-level exposure to crude oil on large animals, such as sea otters and birds. However, not as much is known about the effects of oil on smaller species, such as zooplankton.

Zooplankton and other small species are important to the health of any marine ecosystem. They are the building blocks of the food chain, providing food for larger animals.

One of the first steps in beginning such research is finding out what information already exists. This step helps identify gaps where more research is needed.

A recent council report put together information about research on the effects of chemically dispersed oil on zooplankton and fish larvae.

Chemical dispersants are substances applied

to spilled oil with the goal of dispersing oil into the water column rather than leaving it floating on the surface in a slick to be removed or to disperse naturally. Oil slicks treated with dispersants can create underwater plumes of tiny droplets of dispersed oil.

The report indicated that an application of dispersants after an oil spill in Alaska and Prince William Sound could lead to the formation of dispersed oil droplets which could be ingested by zooplankton and other small species.

The researchers looked at the results of studies conducted after large spills such as the Exxon Valdez spill and BP's Deepwater Horizon explosion in 2010.

The previous research showed three main points that need to be considered in future council studies:

1. An underwater plume of dispersed oil can form after application of dispersant to a large oil spill.

2. Zooplankton have been shown to ingest dispersed oil both in the field and laboratory.

3. Studies carried out after oil spills treated with dispersants have shown effects on growth and reproduction of zooplankton.

The study also identified priority areas for future research on effects of dispersed oil on zooplankton, including effects on growth and reproduction and whether the cold water zooplankton found in Prince William Sound would respond differently to exposure than warmer water zooplankton.

The council is interested because dispersed oil can impact important subsistence, sport and commercial fisheries species such as herring and salmon.

To read more about the council's studies on the effects of crude oil, visit our Hydrocarbon Toxicity project page: www.pwsrca.org/programs/environmental-monitoring/hydrocarbon-toxicity/

From the Executive Director

Sustaining our resolve to push for improvements in the face of lingering complacency

Another year has passed marking yet another anniversary of the Exxon Valdez oil spill. That spill changed everything about the way spills are prevented and cleaned up, not only for the U.S. but worldwide.

24 years later, much has changed for the better, but we are still confronting many familiar concerns about industry, regulatory and even public complacency. We have a great system of spill prevention and response. We also have many areas where we have unaddressed vulnerabilities where we can and must do better. Often, there doesn't seem to be sufficient interest or an obvious mechanism to drive the needed improvements. Here are just a few examples.

We know there are internationally recognized best practices available to make the Prince William Sound escort tugs safer and significantly increase their capabilities in rough conditions. Unfortunately, both industry and regulators have expressed their comfort with the current system and have questioned the timing and definition of best available.

Both regulators and industry acknowledge that existing regulations requiring routine inspections of the 800 mile pipeline do not apply to pipes at the terminal. As a result, many pipes at the terminal have gone uninspected for three and a half decades, allowing, in one instance, corrosion to consume almost 70% of the original steel on a few overwater piping welds. Regulators feel compelled to accept assurances of rigorous maintenance and inspection processes in lieu of explicitly requiring actual maintenance and inspection.

We still cannot effectively clean up oil at night, pick up oil in rough weather, or achieve anywhere near the recovery rate that our contingency plans assume. However, many regulators fret that there is insufficient leverage to challenge long standing assumptions and require substantial amendments to these cleanup plans.

We have cold oil in the pipeline with associated issues that have resulted in damage to cleaning pigs and elements of the safety systems at the Valdez Marine Terminal. Many of these risks of cold oil and some potential solutions, including heaters, were identified over 25 years ago. Alyeska is starting to address these risks by recirculating oil at pump stations, which helps, and by studying longer-term solutions.

The terminal has 18 crude oil tanks that can each hold half a million barrels of oil. The tank roofs are not rated for the heavy snows routinely seen in the Valdez area and often must be shoveled to stay within safety margins. While only 14 tanks are still in active use, routine once-a-decade inspection of internal tank structures does not actually include a detailed verification of the internal tank roof structures.

We have a terminal designed for magnitude 8.5 earthquakes in a region that has historically experienced magnitude 9.2 and greater earthquakes.

Sometimes, the known remaining risks are being comprehensively addressed albeit slowly. Objectively, older ships are riskier to operate than newer ships. As a result, most major oil companies will no longer charter oil tankers over 20 years old. In Prince William Sound, a few carefully maintained but nonetheless 35 year old tankers still continue to operate. Brand new tankers are currently being constructed to replace these older ships and should be in service in Prince William Sound sometime in the next 2 or 3 years.

The council continues to work to bring issues and concerns to the attention of the public, regulators and industry. Objectively, we can be glad that overall we have a good prevention and response system in place. We also have areas of complacency with well-known vulnerabilities and risks that industry and regulators and even the public have been unable or unwilling to address.

It's not a question of just endlessly pushing for additional prevention and response measures. Many risks have been understood for a long time and are still inadequately addressed. So, how does one sustain the resolve to push for improvements and to patch the known holes and thin spots in an otherwise sound system of prevention and response?

Perhaps the answer is by focusing on the stark reality of the consequences if we don't.

Another spill could happen.

The achievements of the oil industry in Alaska and its contributions to the state are tremendous. We should all be justifiably proud of what has been achieved and optimistic about what we may continue to achieve, but we shouldn't get overly comfortable that all risks of oil spills have been reduced or eliminated. They have not. Overcoming complacency is seldom easy. We need to simply remember that accepting and living with complacency has costs. Let's continue to work hard and work together with regulators, industry, and the public to try to avoid another real life reminder about the tremendous costs of getting complacent with undermanaged risks.

• Mark Swanson is executive director of the Prince William Sound Regional Citizens' Advisory Council.



Mark Swanson

From Alyeska Pipeline

Trans Alaska pipeline important to Alaska's economy

A central topic of this year's Legislative session in Juneau is what to do about declining throughput in the Trans Alaska Pipeline System. This ongoing problem drives much of our daily work at Alyeska Pipeline Service Company. We all want the pipeline to safely transport Alaskan crude oil long into the future. That's the best outcome for both our owner companies and for Alaska. From our pump stations, to our Valdez Marine Terminal, to our urban offices in Anchorage and Fairbanks, to the Capitol in Juneau, there is a shared understanding among Alaskans that bringing on more oil production from new and legacy fields is the best way to extend the life of the pipeline, maintain the health of the Alaska economy and sustain domestic crude oil supply.

The challenges from declining throughput

confront us today. Until new production is on line, Alyeska will continue to apply our professional expertise and innovation to address the pipeline's unique challenges, as we have for decades. We will research the smart paths forward and implement effective solutions.

Because the pipeline is so critical for all Alaskans, we all have a role to play toward its successful future. For the people of Alyeska Pipeline Service Company, that means continued commitment to safe operations, environmental stewardship, reliability and efficiency. For Alaskans, it means understanding our challenges and the importance of the pipeline to our state. For our elected officials, it means enacting laws that will help drive an increase in production and reinforce the prosperity of Alaska. At Alyeska, we will continue to do

our job every day.

We look to our fellow Alaskans to help us out by supporting steps needed to stop the decline in the line.

• Thomas Barrett is president of the Alyeska Pipeline Service Company.



Thomas Barrett

Guest Opinion

Citizens' council calls for increased oil spill funding

A universal truth in all major oil spills is that once the oil is spilled, the damage is done. In Alaska, damage from the 1989 Exxon Valdez persists today, 24 years later. In the Gulf of Mexico, serious impacts from the 2010 Deepwater Horizon blowout are well documented, and will almost certainly persist for decades as well. Despite the billions of dollars spent on these two response efforts, both failed to prevent severe, long-term impacts.

It is important to admit that spill response and restoration are largely ineffective, so we need to do everything possible to prevent spills from ships, pipelines, and drilling.

But although we know exactly how to better reduce spill risks, we are continually told that there is not enough money available to do so, particularly with current federal budget problems. The federal government's Oil Spill Liability Trust Fund, which collects 8 cents per



Rick Steiner

barrel on oil nationwide, is authorized to pay for spill prevention measures, but such requests must first go through a politicized congressional appropriations process. Because of this, the fund is virtually never used for spill prevention, and almost always just for after-spill response costs—a politically easier lift in Congress. Thus, many necessary prevention measures are either left to be paid from government general funds (e.g. us taxpayers), or are left unfunded altogether. Clearly, this is bad economics, and needs to be fixed. It is high time that industry begins to pay its spill prevention bill in full.

Last month, the Prince William Sound Regional Citizens' Advisory Council took a big step toward fixing this long-standing problem, by unanimously adopting a resolution propos-

ing to amend the fund and the Oil Pollution Act of 1990, in four ways:

1. Increase the oil fee paid into the fund;
2. Institute a spill fee on cargo ships, which are covered by the fund but do not currently pay into it;
3. Make the fund easily accessible for spill prevention measures nationwide;
4. Increase the Act's financial liability limits for spills.

If the U.S. Congress passes legislation based on the council's resolution, it would constitute the most significant increase in oil spill prevention and response preparedness funding in U.S. history, while actually reducing government costs.

The expanded fund would support additional safety measures in Prince William Sound, Cook Inlet, the Aleutians, the Arctic, and all the nation's waterways. It could pay for such safety measures as risk assessments, vessel traffic systems, continuous

ship tracking, routing agreements, rescue tugs, escort tugs, weather buoys, enhanced ship inspection, aids-to-navigation, enhanced oversight of offshore drilling facilities and pipelines, additional citizens' councils, expanded response capabilities, and so on.

To do such, the fund needs to become easily accessible by the Coast Guard and other federal agencies, coastal states (including Alaska), and local governments without having to go through the congressional appropriations process. The Coast Guard needs discretionary authority to put the fund to work implementing necessary spill prevention measures.

And while there is presently about \$2.7 billion in the fund, if the council's proposal is adopted and the fund becomes available for

enhanced spill prevention measures nationwide, it would be depleted fairly quickly. Thus, it will be necessary to increase the revenue into the fund. On specifics, I would suggest the following:

1. Increasing the current oil fee from 8 cents per barrel to say 20 cents per barrel (only 0.2% of current oil price, or less than one cent per gallon of gasoline)
2. Instituting a fee on cargo ships, say 10 cents per ton of cargo shipped through U.S. ports.
3. Tar sands oil and shale oil projects, which are now exempt from the fee, need to begin paying into the fund.

These three enhancements would more than double income into the fund from the current \$500 million per year to over \$1 billion per year, and again, at no cost to the federal budget. In fact, this additional industry funding would help offset and replace current government spill prevention budgets. This would transfer the current costs of spill risk reduction from government and the taxpayers, directly to the industry posing the risk, something that should resonate with both sides of the political aisle. Reducing the risk of spills while reducing government costs – a win-win.

The council's resolution also proposes that the current Act's financial liability limits be significantly increased, as they do not currently provide sufficient incentive for responsible corporate behavior. Many suggest that spill liability limits be eliminated altogether.

Through this resolution, the council is again providing exemplary leadership in securing the safety of the seas and coasts of Alaska, and the rest of the nation. If Congress and the administration adopt the proposal, then we won't have to just sit around waiting to mount a multi-billion dollar, ineffective response to the next Exxon Valdez or Deepwater Horizon – we may just be able to prevent such costly disasters in the first place.

• Rick Steiner was a marine conservation professor from 1980-2010, and is now an environmental consultant with Oasis Earth, based in Anchorage.

New deputy director for administration to lead council staff in Anchorage

Former Coast Guard commander Stephen Rothchild has been hired as administrative deputy director for the council. Rothchild began work in the Anchorage office on April 1.

He replaced Stan Jones, who retired after 17 years with the council.

"We are delighted to have someone with Steve's knowledge of Prince William Sound taking over this position," said Mark Swanson, executive director of the council, "Stan will of course be a hard act to follow, but Steve is so easy going and brings such a great skill set, I'm sure everyone will enjoy working with him."

Rothchild comes to the council from Juneau where he has been a tour boat captain for the past several years.

In 2008, Rothchild retired from the Coast Guard after 23 years, ten of those years stationed in Alaska. While in Alaska, he spent time as captain of Coast Guard Cutters Sweetbrier and Sycamore in Cordova.

His career experiences include a broad mix of management, vessel operation, strategic planning, and leadership roles.

Patience Andersen Faulkner, council rep-

resentative for the Cordova District Fishermen United, remembers Steve and his family from his days in Cordova fondly.

"Steve brings with him great skills working with communities," Andersen said, "In Cordova, he led a crew of Coast Guard recruits who joined in and became part of the Cordova/Prince William Sound community."

Rothchild combines his familiarity of Prince William Sound with his management skills to fill the critical role of administrative deputy director at the council. He oversees staff administration, provides media relations and public information for the council, and leads the Anchorage staff office.

"Steve's leadership on the Sycamore was reflected in his crew's involvement and engagement with Cordova and Prince William Sound residents," Faulkner said, "I know he will be bringing those relationship and leadership skills to the council."

Rothchild is a native of New York City. He graduated in 1985 from the U.S. Coast Guard Academy with a Bachelor of Science degree in Chemistry and holds a Master's degree in

Business Administration from the University of Phoenix.

His first taste of Alaska was as a senior Coast Guard academy cadet on a vessel patrolling fisheries in the Bering Sea and Bristol Bay during the summer. As his last duty with the service, he patrolled king crab fisheries on board the Munro, which had just moved to Kodiak.

Rothchild and his wife, Mimi, will be finishing their relocation to Anchorage this summer and are looking forward to learning all about what Alaska's only big city has to offer.



Stephen Rothchild

Possible funding shortfall for state spill prevention and response on the horizon

Funding for the state agency in charge of oil spill prevention and response is projected to go into the red within three years if no action is taken by the Alaska Legislature.

The Department of Environmental Conservation's Spill Prevention and Response Division, known as SPAR, is the agency in charge of oil spill prevention and response capabilities for Alaska.

SPAR reviews and approves oil spill prevention, response and contingency plans for oil terminals, pipelines and other oil industry facilities. SPAR is also responsible for ensuring a rapid spill response to protect human health and the environment.

SPAR's programs are supported by a nickel surcharge added to each barrel of oil produced in Alaska. That revenue, known as the "470 Fund," pays for prevention program costs as well as costs the state would incur in the event of an oil or other hazardous material spill. One penny per barrel of oil funds the ability for SPAR to respond to spills and is capped at \$50 million. Four cents per barrel goes towards prevention and funds the day to day activities of SPAR. The prevention account has no cap.

Over the years the funds available to SPAR

have been reduced by a substantial amount due to inflation, decreased oil through the pipeline, and diversion of funds into other programs such as contaminated site cleanups and litigation. An estimate by the department shows the funding will soon fall below the amount needed to keep current operations fully funded.

When the fund was created by the Alaska Legislature in 1986, the amount that could be collected for the response account was capped at \$50 million. Almost 28 years later, the cap is still at \$50 million. The council's position is that that the response cap should be increased to match its original value in current dollars and adjusted annually for inflation. In addition, once the increased cap is met on the response side the one cent could be transferred to the prevention account to narrow the inflation gap.

In February, council board members Steve Lewis, John Velsko and Patience Andersen Faulkner, along with council staff and the council's legislative monitor Doug Mertz met with elected officials in Juneau. They expressed the council's concern that both prevention work and the state's ability to respond to a major spill would be compromised by the potential shortfall.

New website technology helps keep public better informed about council issues and activities

The council's home on the web has recently undergone a major redesign. The new site is designed to help us keep you better informed about our work.

The last major upgrade of the website was done in 2006.

Visitors to the site will encounter a number of new features:

- You can now subscribe to news and announcements by email or RSS feed. To subscribe by email, enter your email address at the bottom of any page on the site. An RSS feed subscription link is located in the sidebar of each page.
- The site has improved search capabilities,

including a special search feature that allows visitors to search for individual reports and documents.

- The most popular pages are now highlighted in the sidebar of each page.
- A new calendar feature now lists upcoming meetings and events in the sidebar on each page.

Potential contractors can now subscribe to receive new Requests for Proposals by email or RSS feed. An RSS feed link is located in the sidebar. To subscribe by email, visit our website: www.pwsrca.org/programs/requests-for-proposals/.

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Oil terminal plans: Council review of proposed plans shows some improvements, some detail lacking

Continued from page 1

The council identified several areas of concern, including:

- Integrity of the secondary containment liners for the terminal's crude oil storage tanks. The liners serve as a barrier in the event a tank ruptures, and must remain "sufficiently impermeable" according to state regulations. If the liner is considered still in good condition, Alyeska is able to plan for a smaller spill, thus requiring less personnel and equipment for a response.
- Whether adequate equipment and personnel with the necessary level of training are available to respond to a spill.
- Lack of details on prevention and response training.
- Specifics on handling, transporting and disposing of waste generated from a spill, available in the current plan, are not included in the proposed plan.
- Making sure that enough detail exists on required prevention measures such as leak detection, tank overflow alarms, and inspection schedules.

Information that was previously available in the plan such as facility diagrams and maps have been removed.

The plan is reviewed and updated every five years. The last time the plan was renewed was 2008.

The first version of the proposed new plan was submitted by Alyeska to the agency for a "sufficiency review" in October 2012. That review was to determine whether the plan contained sufficient information for the next step of the process, the public review. The agency found that the draft plan needed additional information before being reviewed by the public. Alyeska revised the plan and the agency deemed it satisfactory for review on February 14, 2013.

The council submitted requests for information in March. Once the Alaska Department of Environmental Conservation reviews all input from the public, they will determine areas where more detail is needed, and issue requests for more information to Alyeska.

The next step will be for Alyeska to respond to the department.

The current plan expires on May 9, 2013.

Invasive species bill introduced to Alaska legislature

In February, Representative Paul Seaton of Homer introduced House Bill 89 to the Alaska legislature. This bill, if passed, would direct the state's Department of Fish and Game to set up a plan for an interagency rapid response to an invasion of non-native species. The bill called for funding to support the response efforts.

The bill passed through the House Fisheries and Resource Committees unopposed and was still in its final House committee, Finance, when the legislature adjourned. The council expects the committee to take it up when the legislature reconvenes in January and pass it. So far there has been no opposition to the bill, except for the fact that it will require a modest short-term expenditure to draft an interagency response plan.

Aquatic invasive species are a well-known problem in Alaska. Once introduced, aquatic invaders are difficult to eradicate, and can have a permanent effect on the environment including catastrophic damage to local fisheries.

In June 2010, researchers discovered Didemnum vexillum — also known as "rock vomit" — in Whiting Harbor near Sitka. This species, which can cover large areas of the seafloor, is an aggressive invader and a potential threat to shellfish farms, groundfish fisheries, fish spawning and other resources.

The council is particularly concerned about invasive species such as European green crab which can potentially travel in the ballast water of oil tankers and be released into Prince William Sound.

For more on aquatic invasive species in Prince William Sound, visit our website: www.pwsrca.org/programs/marine-invasive-species

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Youth Involvement

Kodiak and Valdez students build remotely controlled vehicles to respond to mock oil spill

By MEGAN MILLIGAN
Education Assistant, Prince William Sound Science Center

In March, educators from the Prince William Sound Science Center took their Discovery Outreach programs on the road to Kodiak and Valdez. They worked with high school and middle school students, teaching them about remotely operated vehicles, known as ROVs, and the challenges these vehicles face operating in Arctic ecosystems.

An ROV is a tethered underwater robot that can be operated from a boat or from shore. It is a valuable tool for exploring the ocean where it is either too dangerous or expensive for human divers. These vehicles can be used for a wide variety of tasks, including exploring shipwrecks, discovering deep sea animals and assisting with oil spill cleanups.

The students learned about the difficulties of operating in the Arctic environment, where hazards include incredibly harsh winters, extended periods of darkness and often unpredictable icepacks. Students then designed and built their own vehicle to respond to a mock oil spill. After splitting into "companies," each group was given a bag of parts and a controller with three motors. The groups were free to build their own design with only a few restrictions.

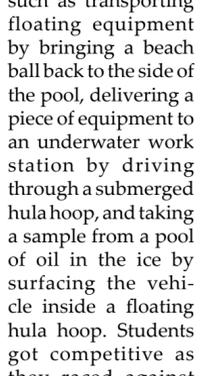
After building their vehicles, the students migrated to the pool, where the groups tested the buoyancy and balance of their machines. After some adjustments, students were ready to tackle the mock oil spill. The vehicles completed mock tasks

challenges as possible within the time limit. Groups also received points for good teamwork.

One of the most remarkable things was the wide variety of solutions the students came up with. No two vehicles were the same. All of the groups developed different strategies to accomplish the challenges as they were forced to think about new design and engineering problems. The students learned



Kodiak students add a net to help their vehicle respond to a mock oil spill. Photo by Megan Milligan.



Students test their creations during the competition in the pool. Photo by Megan Milligan.

Valdez graduate chosen to sail with Polar Tankers' cadet program

A 2010 graduate of Valdez High School, Kathryn "Katie" Miller, was chosen to sail with Polar Tankers, Inc. as a deck officer cadet last fall.

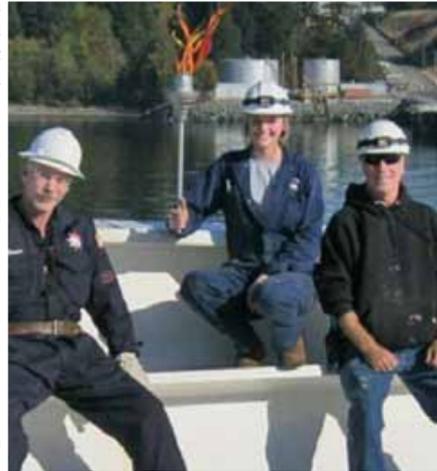
During her 90 day tour, Miller learned about navigation, seamanship and cargo handling operations. Her experiences helped satisfy her requirements to become a person-in-charge of loading and discharging cargoes on tank ships and she acquired sea time needed to obtain her United States Coast Guard license upon graduation.

"We do a presentation for the Valdez High School Marine Tech class every year to let the students know of the opportunities in the marine field," said Monty Morgan, Marine Superintendent for Polar Tankers in Valdez.

"Maritime academies offer a wide range of degrees, from international trade to sea going careers, and are often not utilized

enough by Alaska students. Hopefully, Katie's return to Valdez will generate more interest by the future graduates of Valdez High about careers in shipping," said Morgan.

Miller is the first Valdez High School graduate to participate in this program. She returned to school at the United States Merchant Marine Academy in Kings Point, NY in November.



Miller carried the Ayeska torch to Washington and California. Photo courtesy of Polar Tankers.

Staff attends Coast Guard training on incident command system

By ALICIA ZORZETTO
Council Digital Collections Librarian

Five council staff members participated in U.S. Coast Guard sponsored training on how to manage emergencies such as oil spills. The training events took place in late March and early April.

The training focused on the Incident Command System, a standardized emergency management structure first developed in the early 1970's to manage rapidly moving wildfires, later adopted to manage all types of emergencies

and incidents.

During an oil spill, this management system provides the framework for federal, state and local representatives to work with the spiller, and other resource providers, to respond in a highly organized and somewhat standardized manner.

Council staff along with other attendees from the government and private industry reviewed the basic incident command system principles used to manage an effective response to an incident.

COUNCIL STUDY: Spilled crude oil more toxic than previously thought

Continued from page 1

For example, the study found two main causes of higher toxic effects on herring:

1. Herring in cold waters develop at a slower rate than their warm water counterparts.
2. The breakdown of chemicals in cold water is significantly slower than in warm water.

These two factors mean the herring are exposed to toxins for a longer period during their early, more sensitive, life stages.

The study also found that her-

ring were 200 times more sensitive to chemically dispersed crude oil than previously reported.

The council has long endorsed mechanical recovery as the primary tool to combat an oil spill. Unlike dispersant use, which spreads the oil through the water, mechanical recovery with booms and skimmers removes oil from the water.

For more on the council's research on oil spill dispersants, visit our Dispersants project page: www.pwsrccac.org/programs/environmental-monitoring/dispersants/

OIL SIMULANT: Council and partners looking for appropriate material for spill response training

Continued from page 1

consensus was reached on a number of items including:

1) There is a need for simulants. Some of the possible uses are: a training aid for practice with boom deployment, skimmer testing, recovery of spilled oil in arctic conditions, and tracking spilled oil.

2) Different materials have unique characteristics useful for varying goals and conditions. For example, floating wood chips could work for boom practice, but might not be practical for certain skimmers.

3) There is a difference between particle based simulants such as wood chips, pine needles or oranges, and liquid based simulants such as fish oil, or vegetable oil. This distinction could complicate the permitting process.

4) Raising public awareness of simulants and their benefits to spill response preparedness would be

positive.

At the end of the workshop, the group had unanswered questions, such as:

- Can an ongoing blanket permit for certain particle based simulants be achieved?
- Do simulants need to be used in every exercise and deployment?
- Would responders be liable if only a portion of the simulant were recovered?

While the idea seems simple, the issue is complex. Federal and state laws regarding permitting are unclear and full of potential obstacles.

The next stage of the project will be a white paper which will describe the topics and consensus items discussed at the workshop, and next steps. The council hopes that the paper can be presented at an upcoming oil spill response conference. Work continues with the goal of enhancing oil spill recovery efforts in Prince William Sound.

Council Board Meetings

The citizens' council board of directors meets three times annually. The January meeting is held in Anchorage, the May meeting in Valdez, and the September meeting is rotated among the other communities affected by the Exxon Valdez oil spill.

Here is the tentative board meeting schedule for the coming year:

- *September 19-20, 2013: Seward
- January 16-17, 2014: Anchorage
- May 1-2, 2014: Valdez

Board meetings are open to the public, and an opportunity for public comments is provided at the beginning of each meeting.

Agendas and other meeting materials are available on our website:

www.pwsrccac.org

You may contact either council office for a printed copy: Anchorage, 907-277-7222, or Valdez, 907-834-5000.

*Please note that there has been a change in this schedule. The 2012 meeting in Seward was moved to Anchorage due to a weather-related emergency. The 2013 September meeting will be held in Seward, and the rotation of the September meeting location for all subsequent years will be pushed back one year thereafter.



Members of the council's board and committees at the May 2012 meeting at the Valdez Civic Center. Photo by Amanda Johnson.

ABOUT THE COUNCIL'S ADVISORY COMMITTEES

Much of the council's work is done through permanent volunteer committees made up of board members, technical experts, and citizens with an interest in making oil transportation safer in Alaska.

These standing committees work with staff on projects, study and deliberate current oil transportation issues, and formulate their own advice and recommendations to the council's full board of directors.

Our committees provide an avenue for public participation in the council's work.

The council has five technical committees:

Terminal Operations & Environmental Monitoring:

The Terminal Operations and Environmental Monitoring (TOEM) Committee identifies actual and potential sources of episodic and chronic pollution at the Valdez Marine Terminal.

Members:

- Chair: Bob Benda, Valdez
- Vice-chair: Harold Blehm, Valdez
- Amanda Bauer, City of Valdez*
- Jo Ann Benda, Valdez
- Stephen Lewis, Seldovia*
- George Skladal, Anchorage

Port Operations and Vessel Traffic Systems:

The Port Operations and Vessel Traffic Systems (POVTS) Committee monitors port and tanker operations in Prince William Sound. POVTS identifies and recommends improvements in the vessel traffic navigation systems and monitors the vessel escort system.

Members:

- Chair: Bob Jaynes, Valdez
- Vice-chair: Bill Conley, Valdez
- Kari Anderson, Seward
- Cliff Chambers, Seward
- Pat Duffy, Valdez*
- Jane Eisemann, Kodiak*
- Pete Heddel, Whittier
- Orson Smith, Seward

Scientific Advisory:

The Scientific Advisory Committee (SAC) sponsors independent scientific research and provides scientific assistance and advice to the other council committees on technical reports, scientific methodology, data interpretation, and position papers.

Members:

- Chair: John Kennish, Anchorage
- Vice-chair: Paula Martin, Soldotna
- Roger Green, Hope
- Dorothy M. Moore, Valdez*
- Debasmita Misra, Fairbanks
- Dave Musgrave, Palmer
- Walt Parker, Anchorage*
- Mark Udevitz, Anchorage

Oil Spill Prevention and Response:

The Oil Spill Prevention and Response (OSPR) Committee works to minimize the risks and impacts associated with oil transportation through strong spill prevention and response measures, adequate contingency planning, and effective regulations.

Members:

- Chair: John LeClair, Anchorage
- Vice-chair: Gerald Brookman, Kenai
- David Goldstein, Whittier
- Darryl Jenkins, Anchorage
- Walter Parker, Anchorage*
- Gordon Scott, Girdwood
- John Velsko, Homer*

Information and Education:

The Information and Education Committee's mission is to support the council's mission by fostering public awareness, responsibility, and participation in the council's activities through information and education.

Members:

- Chair: Patience Andersen
- Faulkner, Cordova*
- Jane Eisemann, Kodiak*
- Cathy Hart, Anchorage*
- Mary Katze, Anchorage
- Ruth E. Knight, Valdez
- Savannah Lewis, Seldovia
- Allen Marquette, Cordova
- Kate Morse, Cordova
- Lanette Oliver, Valdez
- Mary Wasche, Eagle River

*council director

THE OBSERVER is published in January, May, July and September by the Prince William Sound Regional Citizens' Advisory Council. Except where credited to others, articles are written by Amanda Johnson, public communications project manager for the council.

Questions or comments about anything in The Observer? Another topic that you want to hear about? We want your feedback. Send your comments to newsletter@pwsrccac.org

Community Corner

Group plans update for oil spill educational curriculum

By **LINDA ROBINSON**

Council Outreach Coordinator

A group interested in creating new educational materials about oil spills met in the council's Anchorage office this past March.

Three of the organizations represented, the Prince William Sound Science Center, the Alaska SeaLife Center, and the council were already working on their own projects to create materials on oil spills. The science center's plan was to compile a database of oil spill educational material focusing on all of Alaska, including the Arctic. The Alaska SeaLife Center, using funding from a grant from National Oceanic and Atmospheric Administration, or NOAA, was planning to create materials on spills that occurred in the United States to help train staff to interact with the public on difficult, controversial or complicated topics. The council was just beginning the process of updating our Alaska Oil Spill Curriculum, which focused on the Exxon Valdez oil spill region. A collaborative effort by the Prince William Sound Science Center, the Oil Spill Recovery Institute and the council created that curriculum and last updated it in 2007.

The three organizations decided to once again pool resources into one project and invited representatives from Kodiak College, the Sitka Sound Science Center, and NOAA's Auke Bay Lab to join the discussion.

Also joining the meeting was Katie Gavenus, project director for Children of the Spills, one of the council's youth involvement projects. Katie interviewed people in the Exxon Valdez oil spill region who experienced an oil spill as a youth. You can find some of the project's videos and interviews at:

www.childrenofthespills.org/.

The group talked about goals for the new collaborative curriculum. In order to appeal to a broad audience, large spills around the U.S. will be included. Lesson plans will cover a variety of subjects such as science, writing and history so teachers don't have to find time in their schedules for a separate curriculum.



Linda Robinson

The curriculum is expected to focus on the beauty, intricacy and science of ecosystems, how everything is inter-related, and why we should care about and protect it. The group is also working to include some information from the perspective of the oil industry such as what oil is, how it is produced, products we use that are made from oil and current oil spill prevention and response capabilities.

The curriculum will also include energy conservation and renewable energy topics. Older students will study more technical information and learn about oil spills as technological disasters. They will learn how people respond differently to natural disasters than to technological (or man-made) disasters and how important it is to be aware of this and to teach proper response. Information for this part of the curriculum will be taken from the council's Coping with Technological Disasters Guidebook. For more information on this guidebook, visit our website - www.pwsrccac.org/programs/oil-spill-prevention/coping-with-technological-disasters/

The old curriculum is still available on our website, but will be updated within the next few months. If you have questions or comments, please email me at Robinson@pwsrccac.org. Have a wonderful summer!

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 19 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.

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

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Secretary: Thane Miller - Prince William Sound Aquaculture Corp.
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Larry Evanoff - Community of Chenega Bay
Patience Andersen Faulkner - Cordova District Fishermen United
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Blake Johnson - Kenai Peninsula Borough
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Walter Parker - Oil Spill Region Environmental Coalition
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Email: newsletter@pwsrccac.org

Linda Robinson talks with Jim Herbert at council's information booth at the Kodiak ComFish conference in April. Herbert has been named by the City of Seward to represent the city on the council's board of directors. He will be replacing John French, who resigned from the board in January after 10 years on the council's board. Photo by Lynda Giguere.

