



**Regional Citizens' Advisory Council** / "Citizens promoting environmentally safe operation of the Alyeska terminal and associated tankers."

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**MEMBERS**

February 2, 2015

Alaska State  
Chamber of Commerce

Commander, 17th Coast Guard District (M)  
P.O. Box 25517  
Juneau, AK 99802

Chugach Alaska  
Corporation

**SUBJECT: Recertification Application**

City of Cordova

Dear Sir:

City of Homer

The Prince William Sound Regional Citizens' Advisory Council (PWSRCAC or Council) hereby applies for recertification as the alternative voluntary advisory group for Prince William Sound, per Sec. 5002 (o) of the Oil Pollution Act of 1990, or OPA90.

City of Kodiak

City of Seldovia

This application is submitted under the guidelines in the U.S. Coast Guard's September 16, 2002, Federal Register notice, which established a streamlined recertification process for two years out of every three. The notice stated that a streamlined application need only "describe any substantive changes to the information provided at the last triennial recertification." The year covered by this application falls under the guidelines for the streamlined process. Substantive changes are summarized below.

City of Seward

City of Valdez

City of Whittier

Community of  
Chenega Bay

**Broad Representation Of, And Involvement With, Our Region**

General

Board membership continues to remain strong with all seats continuously being filled even as some longer standing members have stepped down for age and health reasons. New members are quickly recommended by the member entities and approved by the board. While the names of the members may change, the commitment to maintaining a broad based approach remains the same. Members have worked with staff to make sure their entities are visited regularly, and this past year we held meetings and receptions in Port Graham, Seldovia, Chenega Bay and Tatitlek, as well as most of the larger communities around Prince William Sound. Board meetings remain well attended by the members and we have added many new citizen volunteers to our technical committees.

Community of  
Tatitlek

Cordova District  
Fishermen United

Kenai Peninsula  
Borough

Kodiak Island  
Borough

Kodiak Village Mayors  
Association

Oil Spill Region  
Environmental  
Coalition

Youth Involvement Program

Under this program, we help fund educational opportunities for students from our region to study topics related to our mission. This year, funding awarded included an oil spill science themed discovery lab for the public led by students in Homer, remotely operated vehicle oil spill response design competition led by the Prince William Sound Science Center, and summer marine science camps in Kodiak and Valdez.

Port Graham  
Corporation

Prince William Sound  
Aquaculture  
Corporation

This year, the K-12 oil spill curriculum was revised and placed on line for public use. The new curriculum was presented to grade school students in Tatitlek, Homer, Seward, Chenega Bay, Whittier and Anchorage, with more schools scheduled this coming year.

The Council initiated a youth intern program this year for both college and high school aged students. The high school intern assisted in aquatic invasive species monitoring in Cordova and made presentations to the Board, while the college intern assisted the staff working on the “analysis of fishing vessel types and numbers vs. response tactics” project hosted by the oil spill prevention and response committee.

### **Partnership with Stakeholders and Affiliates**

#### 25<sup>th</sup> Anniversary of the Exxon Valdez Incident

March of this past year marked the passing of 25 years since the Exxon Valdez ran aground on Bligh Reef. The Council commemorated the significance of this event by holding a series of talks titled “25 years of prevention” throughout the Exxon Valdez spill affected region. The talks not only reminded attendees of the damage caused by the accident, but also focused on the great strides made by industry, regulators and the Council in preventing this kind of tragedy from ever happening again, and detailed the degree of overall readiness for response now in place should another significant oil spill occur. Presentations were given in Valdez, Cordova, Kodiak, Homer, Seward, at the Alaska Wilderness and Recreation Tourism Association conference in Girdwood, in Glennallen in partnership with the Wrangell Institute for Science and the Environment, and finally at the Loussac Library in Anchorage. Each presentation included a public reception, and the Anchorage event also had a display of related memorabilia and an exhibit from our Project Jukebox verbal history effort with the University of Alaska that is based on the voices of those involved and affected by the spill. Project Jukebox was fully launched and made public on the University’s website in July, 2014.

This year, the Council produced the report, *Then and Now - 25 years of citizen involvement following the Exxon Valdez oil spill*. The Council has produced “Then and Now” reports every five years since the Exxon Valdez oil spill. This one took on special significance and effort due to the 25-year timespan since the spill. It was provided to the public, board and volunteers at the December 2104 volunteer workshop.

#### Dispersant Guidelines

Staff attended meetings throughout the area in response to the Alaska Regional Response Team’s proposed new guidelines for the use of dispersants. Additionally, staff responded to requests from cities including Valdez, Cordova, Homer, and the native Village of Eyak tribal council to give presentations about the guidelines at meetings in order for community leaders to properly understand the issues and respond to the request for public input by the Alaska Regional Response Team (ARRT). When the initial draft plan was promulgated, with dates for open, public discussions, the dates were not widely advertised. With permission from the ARRT, the Council distributed public service announcements within the communities we serve to help get people interested in the meetings and informed about the proposed public response policy changes. As a result of the PWSRCAC ‘s educational efforts, stakeholder, public and tribal participation in the public comment process was exceptionally robust with over 55 individual comment letters and hundreds of comments received by the ARRT.

### Dispersant Toxicity

For many years, PWSRCAC has been pursuing answers to questions surrounding dispersant effectiveness and toxicity in the cold waters of our region. This pursuit has led to a number of studies on subjects including swirling flask laboratory testing, photo-enhanced toxicity, test tanks, re-surfacing of dispersed oil, dispersants policy and other related subjects.

The Council maintains a comprehensive database of dispersants research reports that is updated annually. The most recent update was received in January of 2015 covering through December 2014. The database is complemented by a valuable literature survey and synthesis that summarizes the state of science of dispersants—"A Review of Literature Related to Oil Spill Dispersants 1997-2008." This year, the Council received an update of this 2008 PWSRCAC oil dispersants literature survey and synthesis, our more detailed review of dispersants literature through 2008 that is often cited by others as a key review and synthesis of dispersants research. The update is titled "A Review of Literature Related to Oil Spill Dispersants 2011-2014", and includes a review of the literature on oil spill dispersants published from 2011 to June 2014. It also identifies and focuses on recent advances in dispersant effectiveness, toxicity, and biodegradation. Other topics such as behavior and fate are also covered. It is an important update as there has been significant research conducted since the BP Deepwater Horizon spill.

The Council accepted a report on the subject of incomplete biodegradation / mineralization of hydrocarbons including recommendations on the best technologies to most accurately measure this biodegradation. Recommendations from the report have been transmitted to industry and agency stakeholders and posted on the PWSRCAC website and it was presented at the 2014 Arctic Marine Oilspill Program.

Information on the Council's work on dispersants is available on our website: [www.bit.ly/OilSpillDispersants](http://www.bit.ly/OilSpillDispersants).

PWSRCAC, alongside the State of Alaska, the USCG, the Oil Spill Recovery Institute and others, were invited by the Coastal Response Research Center (CRRC) to participate on the Organizing Committee for the State of the Science for Dispersants in Arctic Waters Initiative. This initiative is funded by NOAA and U.S. EPA. A workshop was held January 5-8, 2015 in Seattle entitled the "State of Science for Dispersant Use in Arctic Waters". Three PWSRCAC affiliated dispersants researchers were invited to attend. Initial information back from these researchers on the workshop was that the sessions were well balanced with good subject matter experts, and that the discussions were intense and the conclusions balanced and broadly supported. While the Council's geographical remit applies to the Exxon Valdez oil spill impacted region, the science needed to answer the pressing questions about dispersant use in the Alaskan Arctic and elsewhere, including spill worker health implications and other climate related issues, is closely related to and of significant importance to increasing dispersant knowledge applicable to the subarctic waters and species of Prince William Sound.

### Hydrocarbon Toxicity

This past year the Council accepted a final report on "Embryonic crude oil exposure causes cardiac hypertrophy and reduced aerobic performance in juvenile pink salmon and Pacific herring". Recommendations from the report have been transmitted to

industry and agency stakeholders and the report has been posted on the PWSRCAC website. The paper has been submitted for publication in the Proceedings of the Royal Society.

### Marine Firefighting Symposium

The Council is hosting its eighth Marine Firefighting Symposium for Land-Based Firefighters in Valdez, Alaska in May 2015. This three-day conference is an industry recognized effort to provide the best available marine firefighting information and practices to shore-based firefighters, using both classroom and field experiences. Partnering with stakeholders in our region and with the companies and agencies involved with us in the area of marine safety has always been a top priority for PWSRCAC. The biannual marine firefighting symposium is our premier event entailing the broad participation and support of communities, regulators and the marine industry from across Alaska coming together to improve their preparedness for a shipboard fire in Alaskan waters.

### Weather Data, Weather Gap Analysis and Forecast Models

These projects study wind, water current and other environmental factors near the Valdez Marine Terminal, in Prince William Sound, and in the Gulf of Alaska which may affect the ability to prevent, respond to, contain, and clean up an oil spill. The Council helps support the operation of two weather stations at Cape St. Elias and Port Etches. During 2014, the Council worked with University of Alaska Anchorage's Alaska Experimental Forecast Facility (AEFF) and the Alaska State Climate Center (ASCC). We supplemented already funded and ongoing projects to produce customized products for use by mariners and others visiting Prince William Sound. An overarching goal of this project with the University is to create better understanding of weather in Prince William Sound and the dissemination of Prince William Sound related weather data.

## **Oil Spill Prevention**

### Inspectability of Piping at the Valdez Marine Terminal

The Council completed a project titled Inspectability of Piping. The objectives of this project were to evaluate Alyeska's current and planned crude oil piping inspection programs at the Valdez Marine Terminal (VMT). It also served to enhance the Council's understanding of inspection technologies and regulatory trends regarding hazardous liquid piping inspection. Working with a contractor, Dynamic Risk Assessment Systems, Inc. (Dynamic Risk), the Council produced a report titled, "Review of Piping Inspection Programs at the VMT." Important findings from that project included:

- Alyeska is planning to internally inspect the onshore crude piping from East to West Metering with a magnetic flux leakage inline inspection tool (smart pig)
- Alyeska's plan to internally inspect the onshore crude piping is in line with accepted industry practice with respect to: technology selection, vendor selection, procedures for validating results, and reporting
- The annual hydrostatic pressure test performed at the USCG's direction on the crude piping from the East Tank Farm down to Berths 4 & 5 is procedurally inadequate and not in alignment with accepted industry standards

The findings and recommendations from this project have been disseminated to the Council's stakeholders and the public. The contractor gave a public presentation at the September 2014 PWSRCAC board meeting in Homer, Alaska. Alyeska was given the opportunity to review the accuracy of the report and provided a final copy. Copies of the report, along with specific recommendations, have been forwarded to regulators including USCG, ADEC, and Bureau of Land Management (BLM). The report is available online through the PWSRCAC website.

#### Response to Corrosion of Crude Oil Piping on Loading Berth 5

In October 2014 the Council was made aware of significant corrosion, entailing regions of up to 80% pipe wall thickness loss, found on crude piping near the end of Berth 5 at the Valdez Marine Terminal. Immediately after receiving this information, the Council wrote an email to regulators including USCG, BLM, and ADEC to ensure that they were aware of this development and the Council's technical and oil spill prevention-related concerns and to urge these agencies to discuss the issue further and facilitate a coordination of agency responses. Alyeska, USCG, ADEC and BLM had a meeting to discuss the corrosion on the piping and what actions Alyeska was taking to mitigate the potential for an oil spill from this corrosion-weakened section. In response to a letter sent by the Council, the USCG sent a thorough reply regarding this corrosion. This information was shared with the Council's Board of Directors. The Council kept in close contact with Alyeska to receive any updates on the actions being taken to address the corrosion, and within a week Alyeska had installed a temporary pipe clamp to mitigate a potential spill from the corroded pipe.

On numerous subsequent occasions, the Council staff has met with Alyeska management to receive updates on the actions taken and plans to mitigate a potential oil spill and permanently repair this piping.

#### Columbia Glacier Iceberg Monitoring Project

The Council continues efforts to determine the best and most appropriate way to utilize iceberg-detecting radar capability in the Prince William Sound safety system. Elements of this analysis include research into the future glaciology of central Prince William Sound, especially iceberg calving by Columbia Glacier. Columbia Glacier has retreated significantly and there is some concern that the size and mass of icebergs that break away from the glacier are changing and will change more as topography beneath the glacier alters. This project is updating the information developed in the original Iceberg Monitoring Project to better help the Council determine the future risk of Columbia Glacier icebergs on oil tanker traffic operating in the Sound. Initial findings show that there will be a significant retreat of the glacier over the next few years and the size of icebergs entering vessel traffic lanes will be limited by the glacier's terminal moraine.

#### Expanded Prince William Sound Navigational Database for Alaska's Institute of Technology (AVTEC) Ship Bridge Simulator

Safe navigation and bridge crew training is vital to ensuring safe shipment of oil in Prince William Sound. The Council has been working with Alaska's Institute of Technology (AVTEC) to upgrade the Prince William Sound navigational database used in their Kongsberg bridge simulator. AVTEC is actively involved in training shipping and response vessel crews that operate in the Sound. Project goals include acceptance of the AVTEC simulator program for mariner recency training and to explore use of the

simulator to facilitate ice navigation training as promulgated by the International Maritime Organization. Future work toward further uses of the expanded bridge simulator Prince William Sound database to help ship masters and pilots trial contingency ship movements to pre-identified “ports of safe refuge” is being explored.

### Combating Invasive Species

The Council continued to support citizen-based monitoring efforts, particularly for the European green crab and invasive tunicates. The green crab, a known ballast-water-borne invader, is an efficient and voracious predator that has invaded the West Coast from San Francisco to Vancouver Island. It is feared that the green crab will find its way to Alaska waters through tankers calling at the Valdez Marine Terminal.

The monitoring program has evolved into a self-sustaining grassroots system since the Council initiated it in 2000. Communities now run their own operations through local science centers in Homer and Seward. The Council continues to support some of the smaller communities to encourage participation for those areas. In 2014, Whittier was added to the list of monitoring sites. Through the end of 201, no green crabs have yet been captured in the Council region by these trapping efforts to date.

In 2014, the Council concluded and accepted a research report on plankton genomics titled “Nonindigenous Species (NIS) in Prince William Sound: Plankton” by Greg Ruiz of the Smithsonian Environmental Research Center and Jon Geller of the Moss Landing Marine Laboratory, California State University. The US Fish and Wildlife Service funded this project through a grant to PWSRCAC. The work in this report is some of the first ever, broad-scale identification of plankton using genetic methods. Eight potential non-native species were detected and identified in Prince William Sound across the various survey sites. All were benthic (bottom dwelling - planktonic as larvae) organisms. Recommendations from the report have been transmitted to industry and agency stakeholders and the report has been posted on the PWSRCAC website.

## **Preparing to Respond to Oil Spills**

### Drills & Exercises

The Council continues to monitor, evaluate and participate in many drills and exercises each year. Not only do we observe and critique, but we are also part of the team that helps in drill design and much of the pre-planning. The staff attended and in some way participated in the following drills and exercises this year:

- A large scale near shore exercise during February 2014. This three-day exercise involved two large spill response barges (500-2 and 450-7) and three near shore task forces (27 vessels each), and two sensitive area task forces (four vessels each)
- Cordova near shore exercise in March 2014. Approximately 29 fishing vessels, 500-2 barge, miscellaneous workboats off the 500-2 barge
- Drainage 58 and 450-6 barge training. This was an Alyeska’s Ship Escort/Response Vessel System (SERVS) training session more than it was an exercise.

- There were numerous 450-6 barge training events over the summer to practice with the new open water “Crucial” brand skimmers and “Ocean Buster” boom systems. Staff attended four of these events through the summer.
- There were numerous Port Valdez Duck Flats and Solomon Gulch Hatchery sensitive area protection strategies trainings over the summer. To practice with new development methods and hardware.
- There was a new SERVS was working and practicing a new system with for large fall tanker plan exercise in October 2014 hosted by SeaRiver Maritime. This three-day event was to exercise response planning activities in a near real-time scenario. No field deployments were associated with the exercise this year, but it did include the physical movement of the Incident Command within the city of Valdez.
- VMT fall field exercise in October 2014. This was a large exercise that ran both Incident Management Team and field sections. The Council had observers in both of these sections.
- Open water response exercise in December 2014 for the 450-6 barge that was a test of the new Crucial Skimming system. This drill lasted approximately 24 hours and included working in darkness and sea conditions of 3-4 feet in freezing temperatures and wind gusts to 30 knots.

#### Monitoring the fishing vessel response fleet

The Council continues to monitor the health of the fishing vessel spill response program. Staff was fortunate to have an intern from Massachusetts Maritime Academy this spring who worked with Council staff to produce an analysis of the fishing vessel types contracted by Alyeska Pipeline Company for oil spill response tactics described in the oil spill contingency plans for the Valdez Marine Terminal and the tankers transiting Prince William Sound. This analysis considered the best vessel types to perform each of the tasks required in the identified oil spill response tactics. The analysis also compared the number of vessels required to perform all of the identified tactics to the contracted and available fishing vessels of each type. The report was and will be used to monitor the Alyeska fishing vessel availability reports to determine and as needed to advise that the appropriate mixture of vessel types remain available to use in an oil spill response.

#### Valdez Marine Terminal Contingency Plan

The Council participated in reviewing the Valdez Marine Terminal Oil Discharge Prevention and Contingency Plan. This plan was originally set to expire in May 2013. Due to extensive changes to this plan, the review period was extended three times, ultimately leading to an 18 month extension. The Council spent considerable resources tracking information in this plan and following the Alaska Department of Environmental Conservation’s public review and requests for additional information in order to ensure adequate prevention and response planning is in place for the Valdez Marine Terminal. Of the over 40 comments submitted as part of the final review, approximately one-third were eventually incorporated into the final plan. During the entire review process, the Council participated in a workgroup consisting of industry, regulators and citizens to ensure the process was fully vetted and the revised plan in an effort to strengthen prevention and response measures.

### Prince William Sound Subarea Plan

The Council collaborated with the USCG and the State of Alaska on updating the Prince William Sound Subarea Plan, which was completed in June 2014. This review resulted in staff identifying several areas in the plan that were outdated, and helped to improve the plan overall. Council staff participated in working groups focused on planning, outreach, and response resources/training. Two staff members were presented with letters of appreciation by the Captain of the Port for Prince William Sound for their active participation and support during the plan update process.

### **Toward More Effective Communications**

#### Regular meetings with regulatory agencies and Alyeska senior managers

Over this past year the Council has continued on a series of bi-weekly informal meetings and telephone conferences with senior leaders from Alyeska and SERVS. The Council's board president has also been engaging with Alyeska's president for both formal and informal meetings when both are in Valdez. Council staff also periodically and routinely meets with regulatory agencies with cognizance over the Valdez Marine Terminal and associated tankers. The intent and the success of these regular meetings has been to review substantive issues of mutual concern, share ongoing projects and priorities, explore opportunities for alignment and cooperation, and reduce the chances for surprises and misunderstandings.

### **In Conclusion**

We have kept this application brief in accordance with this year's streamlined recertification process. This required the omission of many other worthwhile endeavors by our Council in our ongoing efforts to maximize the safety of terminal and tanker operations in Prince William Sound. We stand ready to furnish information on those as needed. Also, we would be happy to provide additional detail on any of the undertakings described above. I have enclosed a copy of our latest Annual Report, which highlights and expands on some of the work mentioned in this letter.

Sincerely,



Mark A. Swanson  
Executive Director

cc: Barry Roberts, Liaison, Alyeska Pipeline Service Co.