

# **Risk Reduction Options for Immediate or Sustained Implementation**

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Preliminary Recommendations of the  
Cook Inlet Risk Assessment Advisory Panel

**July 8, 2013**

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## 1. Introduction

The Cook Inlet Regional Citizens Advisory Council, Alaska Department of Environment Conservation, and the U.S. Coast Guard launched the Cook Inlet Risk Assessment (CIRA) in 2011 to examine the risk of oil spills posed by the marine vessels transiting through, near and/or servicing the region. The Cook Inlet Risk Assessment is overseen by a Management Team and informed by the input of an Advisory Panel.

The Advisory Panel met in February 2013 to review and consider potential risk reduction options that had been suggested via a public solicitation process (December 2012 – February 2013), the Coast Guard Authorization Act of 2010 (which provided partial funding for this project), the Cook Inlet Safety of Navigation Forum (1999), and the Ports and Waterways Safety Assessment (2000). During the meeting, four additional RROs were suggested by Advisory Panel members.

This document describes the risk reduction options that the Advisory Panel recommends should be implemented immediately, without requiring further study or consideration. Many of the items listed are already underway and simply need to be sustained; others require either an expansion of existing efforts, or will require action by another entity for which there is already a clear mechanism or pathway.

### **Risk Reduction Options Proposed for Immediate or Ongoing Implementation**

- Establish Process Improvements for all of Cook Inlet
  - Establish a harbor safety committee for Cook Inlet
  - Harbormasters/port directors should notify the U.S. Coast Guard if they deem a vessel to be unsafe or unseaworthy
- Enhance Navigational Safety
  - Review and consider revisions to NOAA's Coast Pilot
  - Add sub-sea infrastructure identified in Cook Inlet to NOAA's Automated Wreck and Obstruction Information System (AWIOS)
  - Continue to update and improve winter ice guidelines as needed
  - Improve cell coverage on marine waters in Cook Inlet
  - Sustain and expand training for pilots, captains, and crew
  - Maintain project depth in Cook Inlet, especially at Knik Arm Shoal
- Improve Spill Response Planning and Capabilities
  - Ask the federal government to promulgate final response planning regulations for non-tank vessels
  - Update and improve the Subarea Oil and Hazardous Substance Contingency Plan
  - Seek continuous improvements in spill response equipment appropriate to Cook Inlet conditions

This document does *not* address the RROs which will be given further consideration and analysis as part of the project, including:

- Increase rescue towing capability in Cook Inlet
- Construct cross-Inlet pipeline from Drift River to Nikiski
- Enhance situational awareness and communications through application of two-way AIS technology
- Improve ice monitoring capability
- Encourage third party inspections or audits of workboats.

The Advisory Panel also discussed the following proposed RROs but decided not to pursue or recommend further action on these items as part of the project:

- Traffic Separation Scheme (TSS) and Vessel Tracking Service (VTS)
- Establish an International Maritime Organization (IMO) Particularly Sensitive Sea Area (PSSA)
- Satellite tracking of vessels
- Long-range identification and tracking system (LRIT)
- Improve aids to navigation
- Remove out-of-service platforms and subsea pipelines
- Place quick-release mooring line hooks at the Port of Anchorage
- Position/pre-approve use of Oil Spill Eater Product.

Additional information about the discussion of these issues can be found in the summary of the February 22, 2013 Advisory Panel Meeting.

## 2. Establish Process Improvements for all of Cook Inlet

Two items were recommended as general process improvements throughout Cook Inlet: establishing a harbor safety committee and encouraging harbors and ports to notify the U.S. Coast Guard if they deem a vessel unseaworthy. While the latter is a focused procedural change, a harbor safety committee will require ongoing commitment by key stakeholders throughout the region. The benefit of this effort, however, will be that a harbor safety committee would provide a forum for a stakeholder group similar to the CIRA Advisory Panel and Management Team to convene periodically to provide continued input on the risk reduction options here.

### 2.1 Establish a harbor safety committee for Cook Inlet

**Summary:** The Advisory Panel recommends that a Harbor Safety Committee (HSC) be established for Cook Inlet. A Cook Inlet HSC would maintain momentum started by the CIRA to continue the process of gathering a group with diverse perspectives to identify potential problems, develop or recommend non-regulatory mitigation measures, and evaluate the success or, if needed, reformulation of these measures with the goal of continuous improvement. The Cook Inlet HSC would provide a means of streamlining the consideration of issues and mitigation measures. HSCs can provide input on issues at

both the Captain of the Port level and related regulations. (For example, the winter ice guidelines could be addressed through such a group in the future.)

HSC are widely implemented around the U.S., require no regulatory changes, and can be done with minimal cost (especially if housed in an existing organization) assuming the parties are willing to commit their participation. This recommendation seeks to reduce the likelihood of a wide range of potential accident types, depending on the measures the HSC chooses to address.

**Background:** The complexity of port areas and heavily used waterways means that there are multiple groups with different perspectives and information about risks and potential safety improvements in any given location. All too often, these groups do not have a mechanism to communicate important information or ideas until a problem has already happened. In addition, users of ports and waterways are always responding to changing circumstances, whether changing weather or ice conditions, changing vessel traffic patterns, or even changing personnel who must be integrated into the system.

HSC provide a venue for groups who share an interest in safe maritime operations within a particular area to share information and develop and implement policy. An HSC can be a small group with limited scope and only occasional meetings, or it can be a more formal group that raises its own funds, has dedicated staff, meets regularly, and has multiple subcommittees to address specific issues. HSCs can operate as independent organizations, but more often are operated by a marine exchange or other organization that has experience with maritime operations in the targeted area.

There are HSCs in dozens of coastal and inland waterways around the country, although their level of activity varies widely. An ad-hoc group of HSCs on the West Coast of the U.S. meets annually to share information and lessons learned from their efforts to improve marine safety in both small and large areas. There is also a national conference (most recently held in 2012) for HSCs.

HSCs essentially operate at two levels:

- **Coordination.** An HSC can provide a basic forum for the exchange of information among people who rely on the resources of a waterway, whether for transport, resource extraction, or other activities. These groups can, if they choose, seek input from the *public* on certain issues. Keys to successful coordination include: (1) clear expectations for participation that includes representatives of the needed stakeholder groups; (2) regular means of communication, whether meetings (sometimes as often as once a month, but can be less frequent), website, email lists/listservs, and/or newsletter updates; and (3) high quality information that is understood and trusted by all key participants.
- **Policy development and implementation.** Even when operating outside of the regulatory process, HSCs may develop voluntary policies and procedures. These may include establishing standards of care or voluntary guidelines for certain operations, or identifying and clarifying important safety messages to waterway users (ranging from tanker operators to recreational boaters). HSCs often develop Harbor Safety Plans that encompass the practices that they develop to mitigate the potential for accidents or other unsafe operations. In addition to the

items described for coordination, above, keys to successful policy development and coordination include: (1) establishing a clear and transparent process for prioritizing problems or policies to be addressed, and (2) establishing a method for gaining feedback on policy implementation and modifying the approach as needed for improvement.

HSCs have many different structures. They may be housed within an existing organization, rely on staffing from an existing organization (essentially providing financial and administrative support), or be an independent organization. Funds may be raised through annual dues (or even voluntary annual dues that are not required for participation) or to support specific projects or needs.

Typically, HSCs operate in a manner that is *complementary to* but *outside of* the regulatory structure, so an HSC would not be housed in a state or federal agency. Instead, these agencies tend to serve in an advisory or observer capacity depending on the issues being discussed. The U.S. Coast Guard encouraged the creation of HSCs over the last decade with the issuance of an NVIC 1-00<sup>1</sup> and creation of a blog designed to encourage HSCs to exchange information, among other tools. However, as made clear in the NVIC, the Coast Guard neither mandates the establishment of HSCs nor does it take a direct management role within an HSC.

## 2.2 Harbormasters and port directors should notify the U.S. Coast Guard if they determine a vessel to be unsafe or unseaworthy

**Summary:** The Advisory Panel recommends that harbormasters and Port Directors in Cook Inlet contact the U.S. Coast Guard when they turn away a vessel that they determine to be unsafe or unseaworthy.

This recommendation does not involve additional regulations or costs, but simply encourages improved communications between harbormasters or port directors and the U.S. Coast Guard. This recommendation seeks to reduce accidents associated with vessels of concern by facilitating action from the U.S. Coast Guard based on harbormaster observations.

**Background:** It is common practice for harbormasters and port directors to turn away vessels that they determine to be unsafe or unseaworthy. When these vessels are denied moorage in a safe harbor, they may seek moorage or anchorage at a place that is less safe, more environmentally sensitive, and/or has less oversight from authorities. By promptly contacting the U.S. Coast Guard's Port Safety Office or Marine Safety Detachment when they deny access to a "vessel of concern," harbormasters will facilitate the Coast Guard's ability to mitigate or address mechanical problems (such as poorly functioning radar or steering) or potential pollution. The U.S. Coast Guard would then proceed to contact the vessel owner and seek to address the situation.

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<sup>1</sup> See: <http://www.auxpa.org/resources/tools/NVIC%20Circular%201-00%20Harbor%20Safety%20Committees.pdf>

The procedure for harbor masters or port directors to notify the U.S. Coast Guard when they turn away a vessel for the reasons mentioned above should be incorporated by the adoption of language describing this procedure into ports' and harbors' standard operating procedures and/or this policy could be added to the Alaska Clean Harbors program certification checklist.<sup>2</sup>

This step is one piece of the larger puzzle of how to address abandoned and derelict vessels in Alaska's ports and harbors. Ongoing discussions and data collection are underway through the Clean Harbors program.<sup>3</sup> Legislation introduced in 2013 seeks to give the State and municipalities greater authority to address the problem. HB 131, An Act relating to abandoned and derelict vessels, passed the House and Senate earlier this year with support from the Alaska Association of Harbor Masters and Port Administrators.

### 3. Enhance Navigational Safety

Preventing oil spills requires, among other things, safe navigation of vessels carrying petroleum as fuel or cargo. Several recommendations relate in some way to navigational safety, ranging from ensuring that the National Oceanic and Atmospheric Administration (NOAA) has the best possible information about Cook Inlet in its existing Coast Pilot and subsea mapping to dredging Knik Arm.

#### 3.1 Review and consider revisions to NOAA's Coast Pilot

**Summary:** The Advisory Panel recommends that Cook Inlet mariners convene to review the relevant sections of the NOAA Coast Pilot and suggest changes as appropriate. In the future, this process could be conducted periodically through a Harbor Safety Committee.

This recommendation has only minimal associated expense<sup>4</sup> and does not require any regulatory changes. This recommendation seeks to further enhance the Coast Pilot as a valuable resource for those using Cook Inlet's waterways by providing clear information and standards of care to reduce the likelihood of accidents such as groundings.

**Background:** NOAA surveys coastal and marine areas to update navigational charts. Cook Inlet was last surveyed in 2007, with another survey of Upper Cook Inlet and the area north of the Forelands scheduled for 2013. Kachemak Bay was last surveyed in 2010-2011. Dangers to navigation are published in a Notice to Mariners within a week of detection. Charts are updated every 2-3 years. NOAA's surveys focus on primary shipping routes.

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<sup>2</sup> The Homer Harbor Master will propose adding a chapter on abandoned and derelict vessels/vessels of concern to the Alaska Clean Harbors program as part of the Clean Harbors Advisory Committee and will also propose at the 2013 AAHPA conference of Harbor Masters and Port Administrators that a task force of stakeholders be formed to work on additional legislation directed at addressing derelict and abandoned vessel issues.

<sup>3</sup> Recent discussions on the issue are summarized in the Alaska Clean Harbors newsletter at: <http://alaskacleanharbors.org/wp-content/uploads/2010/05/2013-Spring-Currents.pdf>

<sup>4</sup> This could be conducted under the CIRA, if funding allows.

NOAA's Coast Pilot, updated weekly, describes ports, harbors, and other waterway features, including information about potential hazards and recommended routing. Although these guidelines are non-regulatory, large vessels are required to have the Coast Pilot on board [33 CFR 164.33(a)(2)(i)]. If a vessel operator ignores the Coast Pilot recommendations, then they are essentially violating a standard of care and increasing their liability if something goes wrong as a result of that choice. The Coast Pilot that includes Cook Inlet was most recently published April 21, 2013 (U.S. Coast Pilot 9, Chapter 4). NOAA's Office of Coast Survey welcomes information from mariners.<sup>5</sup> Pilots are required to memorize the relevant sections of the Coast Pilot for their pilotage areas, and frequently suggest updates to NOAA.

### 3.2 Add sub-sea infrastructure identified in Cook Inlet to NOAA's Automated Wreck and Obstruction Information System (AWIOS)

**Summary:** The Advisory Panel recommends that information from Cook Inlet operators about subsea infrastructure should be added to the NOAA Office of Coast Survey's Automated Wreck and Obstruction Information System (AWOIS).

This recommendation takes advantage of an existing system to combine and share information about subsea infrastructure, and does not require additional cost or regulation. It is intended to prevent collisions with underwater infrastructure.

**Background:** There are numerous subsea wells and pipelines in Cook Inlet, both those in use currently and those that are not being used at this time. There is the potential for vessels to hit underwater wellheads,<sup>6</sup> or to drop anchor onto a pipeline or other infrastructure. (Global Diving and Salvage does its own surveys before dropping anchor.)

NOAA's Office of Coast Survey directs field programs for ship- and shore-based hydrographic survey units; develops hydrographic survey specifications; conducts technological development and application programs to increase efficiency in survey data acquisition, data processing, and chart production; and carries out research to develop techniques and methods for accomplishing these objectives.<sup>7</sup> The information gathered during NOAA surveys is entered into Automated Wreck and Obstruction Information System (AWOIS) and can be accessed on the Internet at the following website: <http://www.nauticalcharts.noaa.gov/hsd/hydrog.htm>. The map identifies the locations of submerged wrecks or other obstructions. Mariners can also report missing items to NOAA.

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<sup>5</sup> For the relevant section of the Coast Pilot, see:

[http://www.nauticalcharts.noaa.gov/nsd/coastpilot/files/cp9/CPB9\\_E30\\_C04\\_20130420\\_1212\\_WEB.pdf](http://www.nauticalcharts.noaa.gov/nsd/coastpilot/files/cp9/CPB9_E30_C04_20130420_1212_WEB.pdf) To suggest updates, see:

<http://ocsddata.ncd.noaa.gov/idrs/discrepancy.aspx>

<sup>6</sup> Soon after the Advisory Panel met on February 22, a workboat collided with an inactive, subsea wellhead off the coast of Louisiana. See: <http://abcnews.go.com/US/coast-guard-responds-oil-spill-off-louisiana-shore/story?id=18609482>

<sup>7</sup> NOAA Office of Coast Survey homepage: [www.nauticalcharts.noaa.gov](http://www.nauticalcharts.noaa.gov)



### 3.3 Continue to update and improve winter ice guidelines as needed

**Summary:** The Advisory Panel recommends the continued review and, when needed, revision of the winter ice guidelines for Cook Inlet. (The most recent version was issued just three months before the Advisory Panel considered suggested risk reduction options in February 2013, so no specific changes were suggested for the current version.) The proposed harbor safety committee could contribute to future reviews.

This recommendation builds on current measures and does not require additional cost or regulations. This recommendation seeks to reduce accidents in ice conditions.

**Background:** Ice conditions in Cook Inlet have long been identified as a navigational safety concern. The U.S. Coast Guard developed the current guidelines in 2012 with input from the Southwest Alaska Pilots Association and Cook Inlet maritime operators. The “Operating Procedures for Ice Conditions in Cook Inlet” (November 20, 2012) establish procedures for the Upper Inlet (Phase I) and Lower Inlet (Phase II) based on the U.S. Coast Guard’s determination that ice conditions warrant activation of the guidelines. The guidelines are at:

[http://www.uscg.mil/d17/SectorAnchorage/prevention/icedocs/iceguidelinesinterpretation\\_3.pdf](http://www.uscg.mil/d17/SectorAnchorage/prevention/icedocs/iceguidelinesinterpretation_3.pdf)

The U.S. Coast Guard also has the authority to stop cargo operations or close a terminal or port due to ice or other hazardous conditions under 33 CFR 160.111.

### 3.4 Improve cell coverage on marine waters in Cook Inlet

**Summary:** The Advisory Panel recommends that communications companies expand cellular coverage to cover the entire shipping route in Cook Inlet. While policies prohibiting the use of email or text messages for personal reasons are critical and must remain in place, having access to information (including visual information), such as ice monitoring imagery, will help to enhance mariners’ situational awareness and facilitate communications.

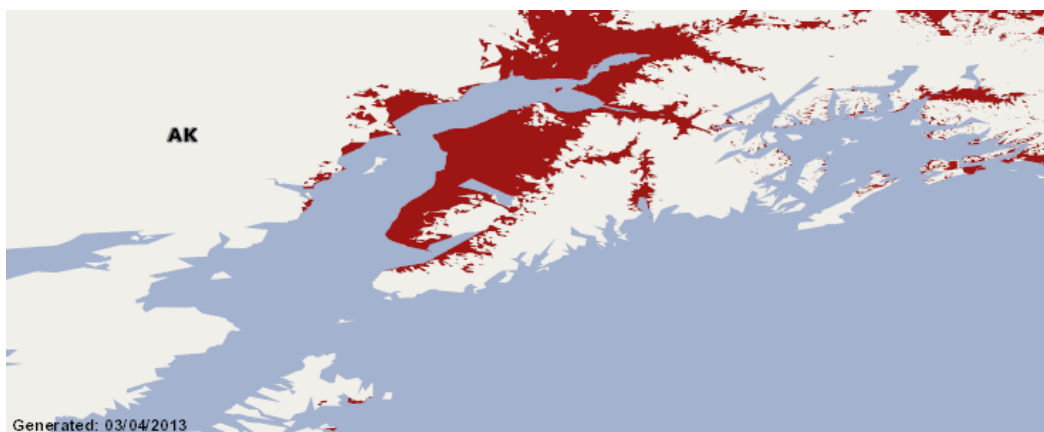
This suggestion would require a company to make a business decision to construct a new tower or enhance existing equipment; it is not something that can be imposed under current regulation.

**Background:** When all towers are functioning, there is cell phone coverage in most of Cook Inlet north of Homer. However, there is a dead spot along shipping route from Middle Ground Shoal to Fire Island. The extent of cell coverage in this area is determined by the location and number of towers placed by the cellular service providers (as well as terrain, number of users, and other conditions that can limit coverage), and is essentially a corporate business decision made by the service provider (ACS, AT&T, GCI, or Verizon).<sup>8</sup>

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<sup>8</sup> Service providers who want to access government funds intended to ease access for underserved populations must meet certain standards established by the Regulatory Commission of Alaska and the Federal Communications Commission. The Regulatory Commission of Alaska designates “eligible telecommunications carriers” (ETC) and sets the standards they must meet in order to receive this designation. The requirements include providing

The cellular providers decide to put in new towers or enhance existing towers if they believe it will expand their customer base. One option for expanding coverage is to use a repeater either on a vessel or (if coverage reaches far enough) a platform near the shipping route. Currently, vessels do not use repeaters as use of cellular phones is discouraged in safety management systems.



**Figure 1. Verizon coverage as an example (from website: <http://www.verizonwireless.com/b2c/CoverageLocatorController>)**

### 3.5 Sustain and expand training for pilots, captains, and crew

**Summary:** The Advisory Panel recommends that Cook Inlet pilots, captains, and crew should all have the highest possible level of training, including taking advantage of the services available through the Alaska’s Institute of Technology (AVTEC) facility in Seward.

This recommendation seeks to enhance maritime safety overall through rigorous training of all parties to a high standard and in Cook Inlet-specific conditions. This will have a cost, but both the costs and benefits (training modules or materials, as well as the enhanced training) should be shared among companies.

**Background:** Well-trained captains, pilots, and crew are critical to safe maritime operations of large vessels. U.S. Coast Guard and Alaska Department of Commerce, Community and Economic Development regulations establish the basic training and/or licensing requirements for marine pilots, deputy marine pilots, vessel masters, and crew. (International requirements are codified in the U.S. at the federal level.) These requirements vary depending on the role being played, but, for pilots, includes years of experience as a mariner, simulations, supervised operations on-water, and extensive oral and written tests.<sup>9</sup> At the state level, the Board of Marine Pilots establishes specific

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coverage maps, allowing a trial period, transparent costs and the presentation of charges on the billing statement, and customer service. They are currently set a 3 AAC 53.450, though may be changed in the near future to align with rule changes at the federal level. A telecommunications company will be a designated ETC in certain geographic areas; currently, there are not companies designated as ETCs between Anchorage and Homer. (Communication with John Paul Manaois, Regulatory Commission of Alaska, April 16, 2013.)

<sup>9</sup> See “Statutes and Regulations: Marine Pilots” (June 2012) from the Alaska Department of Commerce, Community, and Economic Development.

training requirements, including training related to the operating conditions in the region in which in the pilot will operate.

In addition to licensing and training mandated by the state or U.S. Coast Guard (which implements training standards from the International Maritime Organization in the U.S.), the pilots and shippers are conducting additional training together. This training, along with as much of the mandated training, is conducted at AVTEC in Seward where they have state-of-the-art simulators that allow personnel to safely practice anchoring, docking and other procedures in challenging conditions at specific docks or other areas of Cook Inlet. AVTEC will also start offering a Coast Guard-approved ice navigation course based on 2010 updates to the International Maritime Organization's Standards for Training, Certification, and Watchkeeping (STCW), known as the Manila amendments, which include requirements for training in ice conditions.

In addition, Tesoro has created a training video on Cook Inlet's ice conditions. The whole video is 1 hour 45 minutes, but it can be viewed in chapters (for example, following weekly fire drills). Cook Inlet operators can request a copy of the video from Tesoro.

### 3.6 Maintain project depth in Cook Inlet, especially at Knik Arm Shoal

**Summary:** The Advisory Panel recommends that Knik Arm be dredged as needed to maintain project depth. This will reduce the chance of grounding in this area. The annual cost will be \$15.4 million.

**Background:** An extraordinary amount of glacial silt flows into Cook Inlet for its entire length, including silt from the Knik Glacier and the Mat-Su river drainages. In addition, one of the highest tidal ranges in the world scours and re-deposits prodigious amounts of this silt every tide cycle. In recent years, Knik Arm Shoal and Port McKenzie Shoal have been growing much more quickly and have required increased dredging. The U.S. Army Corps of Engineers (USACE), which is responsible under Section 10 of the Rivers and Harbors Act of 1899 for maintaining vessel access to the Port of Anchorage (POA)<sup>10</sup>, has gone from dredging 300,000 cubic yards of material annually from the channel to nearly 2 million cubic yards. When first dredged in 2000, the area dredged was 1,017 feet wide, 38 feet deep and 6,500 feet long. Approximately 2.6 million metric tons of material was removed at a cost of \$8.7 million U.S. dollars. The work area has increased since 2000: approximately 11 million cubic yards of material will have to be removed.<sup>11</sup>

The USACE identifies dredging projects that need funding. The projects are aggregated under the Water Resources Development Act, which provides the funding. The federal government cost shares with state and/or local governments in obtaining project funds.

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<sup>10</sup> Anchorage is by far the largest port in the state, with upwards of 85% of the cargo coming into the state. In August 2004, the POA became one of 19 ports in the U.S. designated a "Strategic Port" by the Dept. of Defense (DOD). Over 50,000 personnel man an extensive and strategically important military presence requiring immense logistical support, much of which passes through the POA.

<sup>11</sup> Public Notice #ER-13-02 USACE AK. Dist.

The annual cost for dredging the POA is now \$15.4 million. Manson Construction Co. dredges the POA and will be paid an additional \$3.5 million to assist the federally owned dredge, M/V Essayons, to dredge the Knik Shoal this summer (2013).<sup>12</sup>

Obtaining annual funding from the federal government for dredging the critical navigation areas of upper Cook Inlet has become a challenge. In 1986, Congress enacted the Harbor Maintenance Tax to recover the federal costs of dredging. The tax is paid by the shipper at a rate of 0.125% of the cargo value. Alaska's ports, including the POA, are exempt from this tax.

## 4. Improve Spill Response Planning and Capabilities

Two of the suggestions related to oil spill response are already in process: the Subarea Contingency Plan is on track to be updated in 2013-2014, and the promulgation of U.S. Coast Guard regulations for non-tank vessels is expected in 2013. The third recommendation, to ensure that the best possible response equipment (for Cook Inlet conditions) is being used, is essentially on-going.

### 4.1 Ask the federal government to promulgate final response planning regulations for non-tank vessels

**Summary:** The Advisory Panel recommends that the federal government finalize the vessel response plan regulations for non-tank vessels. Compliance with these regulations across all covered non-tank vessels will help to reduce the consequences of a potential non-tank vessel spill and promulgation of the regulations will create certainty for the regulated community.

**Background:** At the national level, large vessels carrying oil as cargo have been the top priority for federal regulations related to vessel preparedness and response requirements. The "vessel response plan" (VRP) regulations for tank vessels have been in place since the 1990s. These were enhanced with requirements related to salvage and marine firefighting in 2008. However, even vessels carrying other types of cargo, including passengers, can have significant quantities of petroleum on board as their own fuel.

The Coast Guard and Maritime Transportation Act of 2004 called on the U.S. Coast Guard to expand the VRP requirement to include non-tank vessels (NTV).<sup>13</sup> Subsequent to issuing guidance about the VRP requirements for non-tank vessels larger than 400 GT (referred to as "NTVRPs") in 2005,<sup>14</sup> the U.S. Coast Guard indicated in June 2008<sup>15</sup> that it would begin enforcing the requirement for self-propelled vessels of 1,600 GT or larger that carry oil as fuel or cargo, although the final rules will apply to vessels of 400 GT or larger. (Draft rules were proposed in 2009,<sup>16</sup> though are not yet final.)

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<sup>12</sup> E. Allen Churchill, Jr. PE, Chief, Ops. Br. USACE, AK. Dist.

<sup>13</sup> 33 U.S.C. 1321(j)(5)

<sup>14</sup> Navigational and Vessel Inspection Circular (NVIC) 01-05 (modified in January 2006 with "Change 1")

<sup>15</sup> 73 FR 35405

<sup>16</sup> 74 FR 44970

In 2010, fifteen vessels made 80% of Cook Inlet port calls for vessels 300 gross tons or larger. Ten of these were NTV larger than the 400 GT that are subject to the proposed federal regulations (all were also larger than the 1,600 GT that is the focus of U.S. Coast Guard's enforcement of the interim guidance). Combined, these non-tank vessels spent an estimated 695 days in Cook Inlet that year, while the five tank vessels that frequent the Inlet spent a combined, estimated 234 in the Inlet. In addition, there were NTV that made infrequent port calls to Cook Inlet or passed through lower Cook Inlet without stopping.<sup>17</sup>

The State of Alaska has had contingency planning regulations in place for non-tank vessels since 2003, but the federal NTVRP require planning for a larger potential spill. For example, the *Midnight Sun* and the *North Star* -- the container ships that made the greatest number of calls to Cook Inlet in 2010 -- must submit contingency plans to both the Alaska Department of Environmental Conservation and U.S. Coast Guard. The vessels have the capacity to carry 12,589 bbl. of fuel oil. Under State of Alaska requirements, the operator of these vessels is required to have contracts in place to ensure that sufficient equipment to contain and control 1,888 bbl. in 48 hours (with equipment in the region by 24 hours). Under the proposed federal regulations, the operator of these vessels is required to have contracts in place to ensure that enough resources are on-scene in 24 hours to be able to recover the entire 12,589 bbl. fuel oil capacity.<sup>18</sup>

In addition, federal NTVRP must identify the company that will provide salvage, lightering, and marine firefighting services. Those non-tank vessels with an oil capacity (fuel and/or cargo) of 2,500 bbl. or greater must meet the same standards as tank vessels.<sup>19</sup> These requirements include emergency towing, and require that vessels be able to have emergency towing with adequate horsepower and bollard pull to assist the vessel by 12 hours when they are within 12 miles of Anchorage, or 18 hours when within 50 miles of Anchorage.<sup>20</sup> Regulations define emergency towing as "the use of towing vessels that can pull, push, or make-up alongside a vessel...to ensure that a vessel can be stabilized, controlled or removed from a grounded position. Towing vessels must have the proper horsepower or bollard pull compatible with the size and tonnage of the vessel to be assisted."<sup>21</sup>

The final promulgation of the regulations will create a more certain regulatory environment for vessel operators and ensure that even vessels smaller than 1,600 GT are in compliance. Next year mark 10 years since the passage of the statutory requirement for NTVRP.

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<sup>17</sup> All Cook Inlet vessel traffic data referenced here comes from: Eley, David. 2011. Cook Inlet Vessel Traffic Study. Report to Cook Inlet Risk Assessment. See:

<http://www.cookinletriskassessment.com/documents/120206CIVTSvFINAL.pdf>

<sup>18</sup> Worst-case discharge planning requirements are found in current regulations at 33 CFT 155.1050(f). The time by which equipment must be on-scene is in the proposed 33 CFR 155.5050(g). This applies to locations within 50 miles of shore, which would be the case in Cook Inlet. (Note that the time requirements are different for higher volume port areas,

<sup>19</sup> 33 CFR 155.5050(i)(1) (proposed). Smaller vessels do not need to have services on contract, but must identify the service providers they would likely use.

<sup>20</sup> 33 CFR 155.4030(b); Regulations refer to the Captain of the Port Zone city (Anchorage)

<sup>21</sup> 33 CFR 155.4025

## 4.2 Update and improve the Subarea Oil and Hazardous Substance Contingency Plan

**Summary:** The Advisory Panel recommends that the Cook Inlet Subarea Contingency Plan (SCP) be reviewed and updated as needed. This will enhance response preparedness for the region, and is on track to begin in the Fall of 2013.

**Background:** The Cook Inlet Subarea Contingency Plan (SCP) supplements the Alaska Federal/State Preparedness Plan for Response to Oil and Hazardous Substance Discharges/Releases (the Unified Plan). The SCP, in conjunction with the Unified Plan, describes the strategy for a coordinated federal, state, and local response to a discharge or substantial threat of discharge of oil or a release of a hazardous substance from a vessel, offshore or onshore facility, or vehicle operating within the boundaries of the subarea. The SCP is used as a framework for response mechanisms and as a pre-incident guide to identify weaknesses and to evaluate shortfalls in the response structure before an incident. The plan also offers parameters for vessel and facility response plans under the Oil Pollution Act of 1990.

The SCP is slated for review and updating beginning as soon as Fall 2013. The last update was completed in December 2010. The update should incorporate information and findings from the CIRA project reports, identify any new section(s) to be developed such as a prevention section which includes general ice rules and guidelines and nearshore operations response strategies. The Subarea Committee should also review the need for additional geographic response strategies, updates to infrastructure maps and hazard/vulnerability analysis, and the set of four Cook Inlet Environmental Sensitivity Index (ESI) maps.

## 4.3 Seek continuous improvements in spill response equipment appropriate to Cook Inlet conditions

**Summary:** The Advisory Panel recommends that response resources in Cook Inlet be continually tested and assessed to validate and improve on its effectiveness and to ensure that the best available technology is being utilized in the Cook Inlet operating environment.

**Background:** Overall, the spill response resources currently available in Cook Inlet are adequate to meet any foreseeable federal and state contingency plan requirements. Currently, Cook Inlet Spill Prevention and Response Incorporated (CISPRI) and Alaska Chadux Incorporated are federally certified Oil Spill Response Organizations (OSRO) and State of Alaska Primary Response Action Contractors (PRAC) for the region. Both organizations are member owned, non-profit corporations providing oil spill planning, training, and response services to facilities and vessels throughout the Cook Inlet region. CISPRI is certified to operate in the offshore, nearshore, ocean, inland and river/canal environments. Alaska Chadux is certified for the inland and river/canal environments. Each organization has mutual aid agreements in place with other Alaska OSROs to supplement response capabilities. Both CISPRI and Alaska Chadux maintain an inventory of response resources strategically located in caches or warehouses throughout the Cook Inlet region, which they are ready to deploy on behalf of their member companies.

In its ongoing efforts to improve oil spill response capabilities for Cook Inlet, CISPRI built a test tank in 2011 at their facilities in Nikiski. The tank is filled with saltwater that is mixed to replicate the salinity of Cook Inlet.<sup>22</sup> CISPRI has tested numerous skimmers at their facility, including highly efficient disc skimmers that reduce the volume of water recovered resulting in less on-water storage requirements. These highly efficient disc skimmers coupled with a harbor or current buster system allows for oil to be recovered at an increased speed. The combination of these tools being used as an open water and nearshore tactic has resulted in CISPRI and Tesoro to obtain approval of a 70% oil efficiency rating from the State of Alaska.

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<sup>22</sup> The tank measures 12 feet by 12 feet and is 4 feet deep. The tank serves two purposes. First, CISPRI has the opportunity to test its equipment to verify that it will perform as expected. Second, the spill technicians are able to use the equipment to actually clean up oil. The tank facilitates adherence to American Society for Testing and Materials F2709 standards for skimmer performance. Besides this tank, several smaller ones capture and measure the product produced by the skimmers by allowing the water to be decanted to better calculate skimmer efficiency. Another advantage of the Nikiski facility is that the state has requested information on such testing in Alaskan weather conditions.