

**DEPARTMENT OF ENVIRONMENTAL CONSERVATION
STATE OF ALASKA**

NOTICE OF VIOLATION

Failure to comply with the terms of an approved Oil Discharge Prevention and Contingency Plan
under 18 AAC 75.490(a)

To:

**Mr. Eric Haugstad
Director, Contingency Planning & Response
Tesoro Maritime Company
19100 Ridgewood Parkway
San Antonio, TX. 78259**

Enforcement Tracking No. 12-0023-40-9616

File No. 302.75.500 (Tesoro CI)

The Alaska Department of Environmental Conservation (department) alleges that during an oil transfer operation conducted on January 13, 2012, Tesoro Alaska Company (Tesoro) continued to transfer oil products at the Kenai Pipe Line (KPL) dock during tidal currents and ice conditions in which their approved Tesoro Cook Inlet Tank Vessel Oil Discharge Prevention and Contingency Plan (plan) calls for them to discontinue all transfer operations. Failure to cease loading operations contributed to a near miss incident involving the Tesoro-chartered tank vessel *Overseas Martinez*.

The United States Coast Guard (USCG) annually promulgates a set of special operating procedures for winter ice conditions in Cook Inlet. Tesoro listed procedures in their department-approved plan that are based on the USCG procedures, and has stated that these procedures will be implemented. These procedures include, among other things, proper clothing for crew, protection of engines from failure due to ice, and specific procedures for mooring and conducting oil transfers at certain docks, including KPL. The USCG procedures are implemented through notifications to mariners in two phases which correspond to geographic areas. Phase One includes upper Cook Inlet and the Anchorage area. Phase Two includes the area where the KPL dock is located. Phase Two procedures had been in effect since January 3, 2012. The plan states that when USCG Phase Two special operating procedures are in effect, the flood current is forecast to be 4 knots or greater, and the vessel is encountering ice conditions alongside the KPL dock "all transfer operations will be discontinued" (p. 2.4-5, Tank Vessels at KPL Dock).

According to the National Oceanic and Atmospheric Administration (NOAA) current data referenced by the USCG in their special operating procedures; the predicted current on the

morning of January 13, 2012 was flooding, with slack water before the flood at 0155, a maximum current of 5.1 knots at 0507, and slack water before the ebb at 0843. During the incident that occurred at 0623 the current would have been at or above 4 knots. Information on tides and currents can be found on the NOAA website at <http://tidesandcurrents.noaa.gov/currents12/tab2pc4.html#144>.

On January 13, 2012 at 1335, Vince Kelly received a call from Erik Haugstad and Marc Bayer of Tesoro. They called to report a "near miss" at the KPL dock beginning at 0623. The *Vigilant*, a tug tethered to the starboard side of the *Overseas Martinez*, lost power while attempting to help relieve strain on the mooring lines attaching the ship to the dock. During this call, Mr. Haugstad and Mr. Bayer voluntarily stated that since ice was present and the predicted current was a flood current 4 knots or above, they believed Tesoro was out of compliance with their plan at the time of the incident.

The department requires that Tesoro submit to the department by February 10, 2012 all immediate measures that Tesoro will implement to ensure compliance with their plan. In addition, the department requires that Tesoro complete the items listed below within 30 days of the date of this Notice of Violation:

1. Perform a thorough investigation of the events of January 13, 2012 that led to an emergency shutdown of loading at the KPL dock and damage to the vessel *Overseas Martinez*.
2. Submit for the department's approval the results of the investigation, a comprehensive analysis of the investigation findings, including the propulsion failure of the *Vigilant*, and a corrective action plan which describes the actions that will be taken to prevent further occurrences of the causal factors identified by the analysis.
3. Submit for the department's approval a timeline for completion of all corrective actions identified under item 2.

Penalties for violation of State statutes and regulations can be quite serious. In a civil action, a person who violates or causes or permits to be violated a provision of this regulation, may be liable to the State for substantial monetary damages under AS 46.03.760. Depending on the nature of the violation, said person may also be liable for the State's response costs under AS 46.03.822, for spill penalties under AS 46.03.758-759, for administrative penalties under AS 46.03.761, or for other kinds of damages or penalties under other statutes.

In a criminal violation, a person who acts with criminal negligence may be guilty of a Class A misdemeanor, AS 46.03.790. Upon conviction, a defendant who is not an organization may be sentenced to pay a fine not exceeding \$10,000.00 and/or sentenced to a definite term of imprisonment of not more than one year. Upon conviction, a defendant that is an organization may be sentenced to pay a fine not exceeding the greater of \$500,000.00 or an amount which is three times the pecuniary damage or loss caused by the defendant to another or property of another, AS 12.55.035. Each day of violation may be considered a separate violation. Alaska laws allow the State to pursue both civil and criminal actions concurrently.

Nothing in this notice shall be construed as a waiver of the State's authority or as an agreement on the part of the State to forego judicial or administrative enforcement of the above-described violation(s) or to seek recovery of damages, cost and penalties as prescribed by law. In addition, nothing herein shall be construed as a waiver of enforcement for past, present, or future violations not specifically set forth herein.



John Kotula,
Marine Vessels Section Manager

(X) Sent by Certified Mail
() Sent by Registered Mail

#7010 2780 0000 2178 0232

on the 27 day of January 2012.

Electronic cc:

Marc Bayer, Tesoro Maritime Company
Steve Mulder, Department of Law
Betty Schorr, ADEC

STATE OF ALASKA

DEPT. OF ENVIRONMENTAL CONSERVATION
DIVISION OF SPILL PREVENTION AND RESPONSE
INDUSTRY PREPAREDNESS PROGRAM
Marine Vessels Section

SEAN PARNELL, GOVERNOR
PO Box 1709
Valdez, AK 99686
PHONE: (907) 835-4698
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<http://www.dec.state.ak.us>

February 27, 2012

File No.: 302.40 (Tesoro CI)

OIL DISCHARGE PREVENTION AND CONTINGENCY PLAN NOV COMPLIANCE

Mr. Eric Haugstad
Director, Contingency Planning & Response
Tesoro Maritime Company
19100 Ridgewood Parkway
San Antonio TX 78259

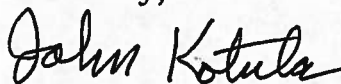
Subject: Notice of Violation, Enforcement Tracking No.: 12-0023-40-9616

Dear Mr. Haugstad:

The Alaska Department of Environmental Conservation (department) has reviewed the information Tesoro presented during the meeting held on February 24, 2012. The information presented adequately covered the investigations and findings. It went on to outline the immediate measures Tesoro has developed and is in the process of implementing for ensuring that compliance with its approved Cook Inlet Vessel Oil Discharge Prevention and Contingency Plan can be maintained. The department has determined that the information presented adequately addressed the Notice of Violation.

If you have any questions, please contact me at 907-835-3037 or john.kotula@alaska.gov. You may also contact Vince Kelly at 907-835-3038 or vince.kelly@alaska.gov.

Sincerely,



John Kotula
Section Manager

Electronic cc:
Marc Bayer, Tesoro
Betty Schorr, ADEC
Steve Mulder, DOL

cc:
Project File

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DEPARTMENT OF CHEMISTRY

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TESORO

Tesoro Companies, Inc.
19100 Ridgewood Parkway
San Antonio, TX 78259
210 626 6000

February 24, 2012

John Kotula
Marine Vessels Section Manager
State Of Alaska - Dept. of Environmental Conservation
P.O. Box 1709
Valdez, AK 99686

Subject: Notice of Violation
Enforcement Tracking No. 12-0023-40-9616
File No. 302.75.500 (Tesoro CI)

Dear Mr. Kotula;

Please find the results of Tesoro's investigation and findings per ADECs requirement in Tesoro's Notice of Violation dated January 27, 2012;

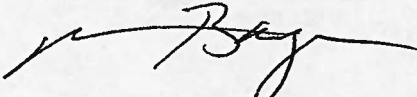
1. Submitting for the department's approval the results of the investigation, a comprehensive analysis of the investigation findings, including the propulsion failure of the Vigilant, and a corrective action plan which describes the actions that will be taken to prevent further occurrences of the causal factors identified by the analysis.
2. Submit for the department's approval a timeline for completion of all corrective actions identified under item 2.

The following attachments are provided for your review;

1. Near miss at KPL Terminal during Phase II – Lower Cook Inlet Ice Conditions
2. Cover letter from Captain Chris Petersen, Vice President Operations
3. Crowley Incident Investigation Report
4. 2011-2012 USCG Ice Guidelines for Cook Inlet
5. Tanker/ Ice Scout/ Assist Tug checklist during Phase II Procedures
6. Ice Scout Assist Tug Training
 - a. Training log – ice scout
 - b. Training log – assist tug

- c. Training log – Tesoro PIC
- 7. KPL Dock Ice Declaration Tanker
- 8. KPL Dock Ice Declaration Barge
- 9. Cook Inlet Ice DVD

Sincerely,

A handwritten signature in black ink, appearing to read 'Marc Bayer', with a stylized flourish at the end.

Captain Marc Bayer

cc: Eric Haugstad, Director Contingency Planning & Response
Shawn Brown, Manager Pipeline and Terminals
Jack Jensen, Alaska Marine Superintendent
Chris Petersen, Crowley
Greg Doyle, OSG



Near miss at KPL Terminal during Phase II – Lower Cook Inlet Ice Conditions

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1.0 Executive Summary

Two significant events occurred at the KPL dock on January 13th, 2012. The first is a near miss involving the tanker OS Martinez that was conducting cargo operations during Phase 2 ice conditions. The second was a loss of propulsion with the tug Vigilant. While the two events occurred at the same time, one did not cause the other. The purpose of this report is to examine the near miss, understand the root cause, and develop an action plan resulting in corrective and preventive actions to address both events.

The USCG Operating Procedures for Ice Conditions in Cook Inlet were developed by the Captain of the Port (COTP) Western Alaska through consultation with the Southwest Pilots Association (SWAPA) and Cook Inlet maritime operators for vessels operating in Cook Inlet during winter ice conditions. These Procedures represent a culmination of best practices for mitigating risk to life, property and the environment. Prior to the 2009-2010 winter season the Operating Procedures for Ice in Cook Inlet referenced "Guidelines for Vessels Moored at KPL and ConocoPhillips Docks". Commencing winter of 2009-2010 the Procedures were published and the word "Guidelines" was dropped from the document.

The 2006-2007 USCG Special Operating Procedures for Ice Conditions in Cook Inlet were adopted into the Tesoro Contingency Plan, covering Cook Inlet, for the State of Alaska Department of Environmental Conservation (ADEC) on January 12, 2007. The Procedures remained unchanged from 2006-2007 until the 2009-2010 winter operating season when they became known as USCG Operating *Procedures* for Ice Conditions in Cook Inlet.

The USCG Operating Procedures for Ice Conditions in Cook Inlet were last reviewed and modified for the 2011-2012 winter season on November 21, 2011 and were declared in effect on January 3, 2012. The revised Procedures now include Offshore Supply vessels.

The excerpt below highlights the procedures which were in effect at KPL on January 13, 2012.

USCG OPERATING PROCEDURES FOR ICE CONDITIONS IN COOK INLET

PHASE II - LOWER COOK INLET

South of 60° 45' N latitude (East and West Forelands)

SELF-PROPELLED VESSEL OPERATIONS

1. When Phase II procedures are in effect and the flood current is forecast to be **4 knots or greater** and the vessel is encountering ice conditions **alongside the KPL dock**, the following actions must be taken:
2.
 - a) **Discontinue all transfer operations.**

- b) **Make transfer hoses ready for immediate disconnect.**
- c) **Maintain a continuous watch (to include a pilot) to ensure the most expeditious means of mitigating ice conditions by relieving strain on mooring lines, getting the vessel underway, or both as appropriate. Place engines and propulsion systems in a status to ensure the most expeditious means of mitigating ice conditions by relieving strain on mooring lines, getting the vessel underway, or both as appropriate.**
- d) **Position a designated vessel up current of the moored vessel to serve as an ice scout. The ice scout should only work under the direction of the moored vessel's navigational watch. The ice scout should be positioned to ensure observed ice conditions are relayed to the moored vessel in a timely manner for effective risk mitigation efforts.**

Description of Incident

The OS Martinez docked port side to at the Tesoro KPL terminal on January 10, 2012. The vessel started cargo operations at 0812 and continued with no stoppages during a predicted 4 knot current episode between 0400 and 0624 on January 13.

On Friday, January 13, 2012, the OS Martinez was conducting cargo loading operations, crew members on board the tanker, the tug Vigilant, and the KPL PIC reported that ice was visible around the ship. The witness descriptions of the ice around the ship between 0400-0630 varied from 25% to 100% and from slush to solid pan ice.

At 0400 January 13, 2012 the Master and the SWAPA Pilot were manning the bridge of the OS Martinez, and monitoring the environmental conditions as required by the USCG Operating Procedures for Ice Conditions in Lower Cook Inlet . The predicted current speed for the flood current at 0400 was 4 knots and predicted to remain 4 knots or greater until 0624. The maximum predicted flood current was 5.1 knots at 0507. The Captain and Pilot were also monitoring the actual current speed with the ship's speed log and noted that the observed current was consistently 1 knot less than the predicted current. The Master reported that sometime just before 0600, ice started to increase in density around the OS Martinez and the tug Vigilant. At 0615 the Pilot had a conversation with the assist tug Vigilant about releasing the tug and shifting the tug to the starboard quarter. The Pilot said in an interview that from the Bridge at night it was hard to see if ice was in the water near the ship due to the blackout effect of the deck lights.

At 0400 the engineering watch on the OS Martinez was on station in the Engine Control Room and was prepared for immediate response with the main engine as per USCG Operating Procedures for Ice Conditions in Lower Cook Inlet. The Crowley assist tug, Vigilant was in place to assist the OS Martinez and was located on the starboard shoulder with one line up.

The CISPRI Ice Scout vessel Perseverance was on station as required by the USCG Operating Procedures for Ice Conditions in Lower Cook Inlet. The Perseverance was positioned about 1.5 miles south of the OS Martinez and was encountering brash ice and ice chunks.

Between 0530-0600 the Second Mate while conducting a deck round noted the presence of ice in the water. At 0620 the Second Mate returned to the Cargo Control Room (CCR). At this time the Second Mate observed the remote readout of the Mooring Load Monitoring System (MLMS) indicating all the mooring lines were lit green with a steady strain of 15 tons. The Second Mate was aware of the incoming tide and requested the deck watch, consisting of an Able-Bodied Seaman and Ordinary Seaman, to tend the mooring lines. Shortly after this order was given to the deck watch the Second Mate observed MLMS showing increased strain on the mooring lines with peaks to 30 tons. At 0624 the Master on the bridge observed what was happening to the strain on the lines and the Pilot requested the Vigilant to move into position to take the load off of the mooring lines.

When the Vigilant responded to the Pilot's order at 0624, the tug lost power to the starboard main engine due to overheating. This information was immediately relayed to the Pilot who then ordered the tug to retrieve its line. While the tug attempted to maneuver into position to retrieve its line from the OS Martinez's starboard forward bitts, the Vigilant lost power to the port main engine. The propulsion failure of the Vigilant resulted in the tug drifting with the current alongside the OS Martinez placing a shock load on the ship assist line. The force of the shock load on the ship assist line caused approximately 40' of ship's rail to be damaged and ripped the chock from the deck. The weight of the tug in the current caused the ship to shift north (astern) alongside the dock, from it's original position 10 to 15 ft. No one was hurt from the ensuing damage and the ship assist line remained attached to the ship's bitts.

The Master responded to the Vigilants loss of power called the engine control room and requested the main engine be placed on standby, ready for immediate use, and the Second Mate requested the Terminal Person in Charge (PIC) to shut down the cargo. Within a time span of 45 seconds the Chief Engineer switched control of the main engine to bridge control and at 0626 the Pilot requested a Dead Slow ahead bell to take the strain off the mooring lines. Sometime between 0626 and 0636 the pilot ordered a Slow ahead bell to counteract the weight of the tug and relieve the strain on the mooring lines.

The Master sounded the general alarm and called for all hands on deck at 0628. Tesoro tank farm personnel and Arctic Slope Regional Corporation (ASRC) dock line handlers arrived on the dock at 0630 to assist with hose removal, gangway removal, and letting go the mooring lines. 0641 the gangway was removed from the ship. 0645 the tug was able to regain reduced main engine function in order to take the weight off the ship assist line allowing the tanker deck watch to release the tug line.

Once the ship assist line was clear the tug drifted aft of the OS Martinez, to the north of the KPL dock, to cool the engines and assess the situation. The Vigilants Chief Engineer determined a sea chest vent was iced up and the sea chest vent was cleared of ice. The Vigilant Chief Engineer cycled between forced cooling and conventional cooling with the main engine water pumps to lower cooling water temperatures. The tug continued drifting until both main engines could run continuously within operational parameters.

The KPL dock hoses were voided at 0645. The KPL cargo transfer hoses were disconnected from the ship's headers and placed on the dock at 0715. The last line from the

OS Martinez was at 0730. The ship maintained position off the dock in ice waiting for the Vigilant or Perseverance to assist them away from the dock.

At 0730 the Pilot requested the Perseverance to move closer to KPL and break ice so the ship could depart the dock. This was the first contact the Perseverance had with the tanker since a radio check at 0400. At 0744 the pilot called the Perseverance and requested that they provide a line to assist the ship away from the dock. The Perseverance reported back to the pilot that the emergency towing wire had to be rigged and it would take 20 minutes to prepare the line and 20 minutes to come alongside due to the presence of heavy ice.

At 0800 the Vigilant had both engines back on line and was called in to assist the ship but at reduced power. At 0803 the Perseverance began conducting ice management operations off the starboard bow of the OS Martinez. 0815 the OS Martinez put an aft spring line back on the dock to assist with maneuvering from the dock. At 0818 the Vigilant put a line up to the OS Martinez bitts on the starboard side near the forecastle. The Pilot maneuvered the ship away from the KPL dock using the Vigilant and the ship's after spring line. At 0822 last line from the KPL dock and the ship departed for Homer. At 0823 the Vigilant ship assist line was released from the OS Martinez. At 0855 the Vigilant reported normal operations to the Pilot and proceeded with the ship to Homer. At 1505 the OS Martinez anchored in Kachemak Bay. At 1600 the tug Vigilant was all fast at the inside berth, deep water dock, Homer.

2.0 Incident Investigation Team

Name	Title	Capacity
Rob McCaughey	Manager West Coast Shipping	Team Leader
Deb Cobb	Manager Marine Assurance	Team Member
Ed Irish	Marine Superintendent	Team Member
Allan Casperson	Asset Training Supervisor	Team Member

3.0 Investigation Approach

ABS Consulting structured Timeline method was used as a tool in analyzing as this was the most appropriate method for this incident. This method follows the steps of Data gathering, Data analysis, Identifying Causal factors and developing recommendations. Causal factors identify potential cause for failure and as in Attachment A are represented as blocks that are organized in time sequence with Source of Information, Event/Description, and Date/Time as shown below:

Potential Causal Factors (CF) are marked with CF marking and later all Causal Factors are evaluated and those that reflect reasons for failure are numbered (e.g. CF#1).

All CF are evaluated in a three column evaluation (Attachment A) to identify path through root cause chart and based on this suitable recommendation was suggested,

4.0 Causal Analysis

Causal Factor	Paths through Root Cause Map	Corrective Actions
<p>Causal Factor #1</p> <p><i>USCG Ice "Procedures" for Cook Inlet were not consistently interpreted by the OS Martinez, Terminal PICs, Crowley, CISPRI and SWAPA pilot.</i></p> <p>Background</p> <ul style="list-style-type: none">Each year prior to the start of the Ice or winter season, a 'Pre-winter meeting' is held in Alaska with all stakeholders to <u>communicate</u> the operating procedures and to insure that everyone is current on any changes.Prior to December 2009 the USCG Operating Procedures for Ice Conditions in Cook Inlet	<p>Root Cause</p> <ul style="list-style-type: none">Front-line Personal Issue (3)Company Personnel issue (12)Procedure Issue (122)Appropriate Procedure Incorrect/incomplete (140)Requirements not updated (142)SPAC not strict enough (227)	<ol style="list-style-type: none">At the conclusion of every Pre-winter conference each stakeholder must make a <u>communication</u> to their operational personnel addressing new operational procedures and/or regulatory issues and review existing "USCG Operating Procedures for Ice Conditions in Lower Cook Inlet": Operational personnel to include Terminal PICs, OSG tanker crews, Assist tug crews

<p>were written as Guidelines and not procedures. On December 16, 2009, the USCG Captain of the Port clearly communicated in the 2009-2010 Operating Procedures for Ice Conditions in Cook Inlet documenting the change from "Guidelines" to "Procedures".</p> <ul style="list-style-type: none"> • A frequent comment throughout the interviews was "how much ice warrants a shutdown of cargo operations?" They were trained that there was no black and white directive constituting the definition of ice and when transfer operations should be stopped. 		<p>and Ice Scout crews.</p> <ol style="list-style-type: none"> 2. During the hours of darkness from sunset to sunrise "civil twilight" when USCG Phase II ice conditions are in effect, and the predicted current is 4 knots or greater, cargo transfer will be shutdown and hoses made ready for immediate disconnect. 3. Review and amend the "KPL Dock Port Information Guide" to reflect night time operations.
<p>Causal Factor #2</p> <p>Ice training provided to the PIC's stresses the USCG procedures as "Guidelines", NOT rules.</p> <p>Background</p> <ul style="list-style-type: none"> • The ADEC Cook Inlet Vessel Contingency Plan clearly states that all KPL Dock PIC's shall receive annual Cook Inlet and USCG Special Operating Procedures training prior to the upcoming Ice season; however, they lacked a clear understanding of the requirements. • During the interviews with the Terminal PIC's, they stated that the Ice training they received stressed that the procedures were guidelines and not the 	<p>Root Cause</p> <ul style="list-style-type: none"> • Front-line Personal Issue (3) • Company Personnel issue (12) • Training/Personnel Qualification issue. (171) • Training Implementation issue (176) • Training Program Design/Development issue (177) • SPAC not strict enough (227) 	<ol style="list-style-type: none"> 4. Revise the TPIC dock training curriculum to address the procedures as rules and not guidelines. This training shall be completed soon after the annual "Pre-winter meeting", however before the Winter Ice season begins.

<p>rule. One of the PIC's stated that the "Guidelines" made the decision making too subjective when considering how much ice is too much. The USCG procedures are clear in that, if the flood current is forecasted to be 4 knots or greater and the vessel is encountering ice conditions alongside then they must shut down cargo operations, drain the hoses, and be ready to disconnect as necessary.</p>		
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Causal Factor	Paths through Root Cause Map	Corrective Actions
<p>Causal Factor #3</p> <p><i>Not all of the participants inclusive of the OS Martinez, Terminal PICs, Ice Scout, SWAPA pilot and assist tug had a full understanding of the USCG Phase II Ice rules and had proper training of the rules which were in effect on January 3, 2012.</i></p>	<p>Root Cause</p> <ul style="list-style-type: none"> • Front-line Personal Issue (3) • Contract Personnel issue (13) • Training/Personnel Qualification issue. (171) • No Training (172) • Training requirements not completed (175) • SPAC not strict enough (227) 	<p>5. Tesoro to update and revise the training for KPL dock and tanker personnel regarding use of the KPL Dock-Declaration of Operating Procedures for Ice Conditions and institute a procedure to reconfirm and sign at each shift change.</p> <p>6. At the completion of each docking evolution at KPL and prior to the commencement of any cargo transfer operation, a meeting will take place and be documented in the deck log of the ice scout, tug and tanker. The meeting shall address the state of the tide and current while the vessel</p>

is alongside, communication procedures, Ice scout, and Assist tug functions and any other relevant information.

7. Tesoro will ensure vessels calling at KPL are provided with the Cook Inlet Ice DVD.
8. Annually OSG will ensure and document that their crews have viewed the pertinent ice sections of the Cook Inlet Ice DVD and received training on the USCG Operating Procedures for Ice Conditions in Lower Cook Inlet after the USCG publishes the annual procedures and before the USCG Procedures are implemented.
9. A Tesoro safety insight will be developed and distributed throughout Tesoro including the stakeholders to highlight stop work authority for anyone involved in an operation. If any stakeholder feels conditions are such that transfer operations be shutdown then the transfer shall not be restarted until all parties agree to resume.

Causal Factor	Paths through Root Cause Map	Corrective Actions
<p>Causal Factor #4</p> <p>Ice Scout stationed 1.5 m/o OS Martinez. Notes a lot of ice in water with good visibility - <u>only radio check and no ice warnings to OS Martinez</u></p> <p>Background:</p> <ul style="list-style-type: none"> As per the USCG Operating Procedures for Ice Conditions in Cook Inlet, an Ice Scout shall be used up-current of the moored vessel during the flood. The job of this vessel is to work under the direction of the moored vessel, or in this case the OS Martinez. This Ice Scout is positioned to ensure observed ice conditions are relayed to the OS Martinez in a timely manner for effective risk mitigation efforts. On the morning of the incident, the Captain and Pilot on the bridge of the OS Martinez were unaware of the Ice concentration ahead of the vessel as no communications were exchanged for 3.5 hours during the critical flood current. The only communications between the OS Martinez and the Ice scout were communication checks at the change of the watch. 	<p>Root Cause</p> <ul style="list-style-type: none"> Front-line Personal Issue (3) Contract Personnel issue (13) Procedure issue. (122) Appropriate Procedure incorrect/incomplete (140) Gaps in procedures (145) SPAC not strict enough (227) 	<p>10. The Ice Scout will radio the tanker and attending assist tug at a minimum every hour and report if ice is present or not. This report will contain details on the type and concentrations of the ice as it bears down on KPL.</p> <p>11. Work with CISPRI to develop Ice observation training for the crews aboard the Ice Scout</p>

- During the interviews with the Ice Scout's Chief Mate, who was on watch with his AB during the time of incident, both observed ice around their vessel, however, they were not watching for ice in the water near the OS Martinez. Ice at the time of the incident was reported as being heavy.

5.0 Items of note:

- Tug loses main engine and drifts back with current due to shock loading the tug assist line to the ship causing a mooring chock on the stbd side and 45' of railing to be torn from the deck of the OS Martinez.
- Pilot requests the Ice Scout to assist OS Martinez off dock. Emergency Towline not rigged and will take 20 min to rig and another 20 min to get alongside the OS Martinez.
- All operational plans are written to address identified risks, with the goal of having sufficient built in safety to survive a single point failure. Tesoro's plan for safely holding the vessel at the dock during phase 2 ice conditions involves numerous assets; the assist tug, Mooring Line Monitoring System, ice scout, SWAPA pilot, and ship and dock operating procedures. This event occurred as a result of a communication failure followed by a loss of propulsion aboard the assist tug Vigilant. As a result of the operating procedures, the vessels and personnel involved instituted the appropriate actions to safely disconnect and depart the dock. This is a significant affirmation of the effectiveness of the operating procedures.

6.0 Corrective Action Plan

No.	Corrective Action	Owner	Due Date	Status
1	At the conclusion of every Pre-winter conference each stakeholder must make a communication to their operational personnel addressing new operational procedures and/or regulatory issues and review existing "USCG Operating Procedures for Ice Conditions in Lower Cook Inlet": Operational personnel to include Terminal PICs, OSG tanker crews, assist	Tesoro Assist tug Ice Scout SWAPA Tanker	Annual pre-winter meeting	Closed 2011-2012 ice season

	tug crews and ice scout crews.			
2	During the hours of darkness from sunset to sunrise "civil twilight" when USCG Phase II ice conditions are in effect, and the predicted current is 4 knots or greater, cargo transfer will be shutdown and hoses made ready for immediate disconnect.	Tesoro	Immediate	Closed 2-14-2012
3	Review and amend the "KPL Dock Port Information Guide" to reflect night time operations.	Tesoro	7-31-2012 Verbally and pre-arrival communications to each tanker.	being communicated to each tanker by email, will change Port Information Guide by 7-31-2012.
4	Tesoro to revise the TPIC dock training curriculum to address the procedures as rules and not guidelines. This training shall be completed soon after the annual "Pre-winter meeting"; however before the Winter Ice season begins.	Tesoro	Annual	On going, see training log attached. Annual after each pre-winter meeting.
5	Tesoro to update and revise the training for KPL dock and tanker personnel regarding use of the KPL Dock-Declaration of Operating Procedures for Ice Conditions and institute a procedure to reconfirm and sign at each shift change.	Tesoro	Annual	Ongoing see attached training log.
6	At the completion of each docking evolution at KPL and prior to the commencement of any cargo transfer operation, a meeting will take place and be documented in the deck log of the ice scout, tug	Tesoro	February 20, 2012	Closed

and tanker. The meeting shall address the state of the tide and current while the vessel is alongside, communication procedures, Ice scout, and assist tug functions and any other relevant information.

7	Tesoro will ensure vessels calling at KPL are provided with the Cook Inlet Ice DVD.	Tesoro	February 20, 2012	Closed
8	Annually OSG will ensure and document that their crews have viewed the pertinent ice sections of the Cook Inlet Ice DVD and received training on the USCG Operating Procedures for Ice Conditions in Lower Cook Inlet after the USCG publishes the annual procedures and before the USCG Procedures are implemented.	OSG	February 20, 2012	Closed
9	A Tesoro safety insight will be developed and distributed throughout Tesoro including the stakeholders to highlight stop work authority for anyone involved in an operation. If any stakeholder feels conditions are such that transfer operations be shutdown then the transfer shall not be restarted until all parties agree to resume.	Tesoro	March 31, 2012	Open
10	The Ice Scout will radio the tanker and attending assist tug at a minimum every hour and report if ice is present or not. This report will contain details on the type and concentrations of the ice as it bears down on KPL.	CISPRI	February 14, 2012	Closed
11	Work with CISPRI to develop Ice observation training for the crews aboard the Ice Scout	Tesoro/CISPRI	March 31, 2012	Open

7.0 Attachments

1. 2011-2012 USCG Ice Guidelines for Cook Inlet
2. Tanker/ Ice Scout/ Assist Tug checklist during Phase II Procedures
3. Ice Scout Assist Tug Training
 - a. Training log – ice scout
 - b. Training log – assist tug
 - c. Training log – Tesoro PIC
4. KPL Dock Ice Declaration Tanker
5. KPL Dock Ice Declaration Barge
6. Cook Inlet Ice DVD

TRAINING ACTIVITY & AGENDA REPORT

TESORO ALASKA COMPANY

Kenai Refinery

Shaded Area for Training Department Use Only

Course Code: _____ Entered into TRAQS: ☐ Yes ☐ No Date Entered: _____

Training Hours: _____ Type of Training (Circle One) ☐ Classroom ☐ OJTT ☐ Event ☐ Other

Subject Area: _____ Company/Department: Kenai Refinery

Certificate Placed in Individual Training File: ☐ Yes ☐ No Assigned Training: ☐ Yes ☐ No

Instructor: Jack Jensen

Training Title/Topic: Ice Scout/Assist Tug Date of Training: 2/21/2012 to _____

Training Objectives and/or Agenda Topics

(What do you plan to accomplish)

Objectives: Ice Scout and Assist Tug Training for KPL Operations During USCG Phase II Ice Procedures

Documentation


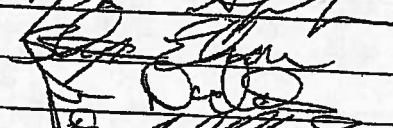
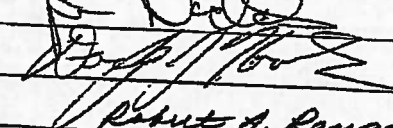
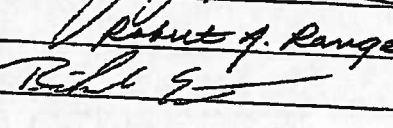
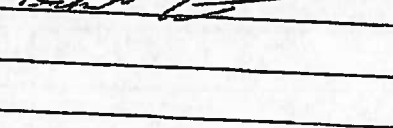
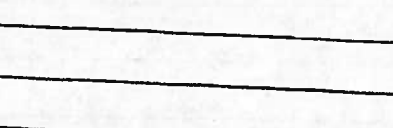
(List what Documentation/Presentation or Training Materials you used. Attach Copies)

Complete: 1. Powerpoint

2.

3.

NAME OF PARTICIPANT (S)

PLEASE PRINT		DATE	SIGNATURE
LAST NAME	FIRST NAME		
1	Speetjens, John	2/21/12	
2	ELMORE, Stephen	2/21/12	
3	DODDS - JAN	2/21/12	
4	KONDAK DOUG	2/21/12	
5	RANGE ROBERT A.	2/21/12	
6	Richard Estes	2-21-12	
7			
8			
9			
10			

(Participants continued on Page 2 & 3 if necessary)
Certification


Instructor: Department/Shift Supervisors Signature

Allen R. Casperson
Tesoro Training Department Supervisor

PLEASE RETURN TO THE TRAINING DEPARTMENT UPON COMPLETION OF TRAINING

TRAINING ACTIVITY & AGENDA REPORT

TESORO ALASKA COMPANY
Kenai Refinery

Shaded Area for Training Department Use Only

Course Code: _____ Entered Into TRAQS: Yes No Date Entered: _____

Training Hours: _____ Type of Training (Circle One) Classroom OJT Event Other

Subject Area: _____ Company/Department: Kenai Refinery

Certificate Placed in Individual Training File: Yes No Assigned Training: Yes No

Instructor: Jack Jensen
Training Title/Topic: Ice Scout/Assist Tug Date of Training: 2/20/2012 to _____

Training Objectives and/or Agenda Topics

(What do you plan to accomplish)




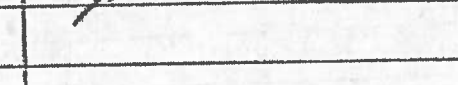
Objectives: Ice Scout and Assist Tug Training for KPL Operations During USCG Phase II Ice Procedures

Documentation

(List what Documentation/Presentation or Training Materials you used. Attach Copies)

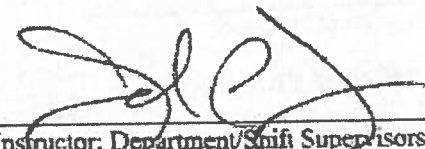
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3. _____

NAME OF PARTICIPANT (S)

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1	Macone, Marcia	2/20/12	
2	Mitchell, Max	2/20/12	
3	Pinsky, Jason	2/20/12	
4	WEBER, JOHN	2/20/12	
5			
6			
7			
8			
9			
10			

(Participants continued on Page 2 & 3 if necessary)

Certification


Instructor: Department/Shift Supervisors Signature

Allen R. Casperson
Tesoro Training Department Supervisor

PLEASE RETURN TO THE TRAINING DEPARTMENT UPON COMPLETION OF TRAINING

TRAINING ACTIVITY & AGENDA REPORT

TESORO ALASKA COMPANY

Kenai Refinery

Shaded Area for Training Department Use Only

Course Code: _____ Entered into TRAQS: ☐ Yes ☐ No Date Entered: _____

Training Hours: _____ Type of Training (Circle One) ☐ Classroom ☐ OJTT ☐ Event ☐ Other

Subject Area: _____ Company/Department: Kenai Refinery

Certificate Placed in Individual Training File: ☐ Yes ☐ No Assigned Training: ☐ Yes ☐ No

Instructor: JACK JENSEN

Training Title/Topic: REVISED ICE DECLARATION Date of Training: 14 FEB 2012

Training Objectives and/or Agenda Topics

(What do you plan to accomplish)


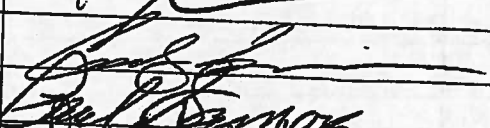
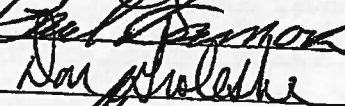
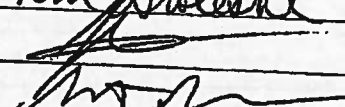
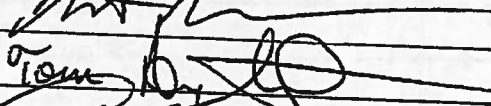
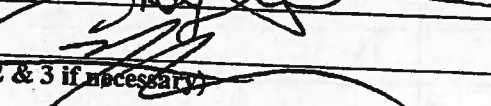
Objectives: UPDATED ICE DECLARATION FOR KPL DOCK
TIMES OF SHUTDOWN DURING CIVIL TWILIGHT

Documentation

(List what Documentation/Presentation or Training Materials you used. Attach Copies)

Complete: 1. REVISED ICE DECLARATION SHIP
2. " " " BARGE
3. _____

NAME OF PARTICIPANT (S)

PLEASE PRINT		DATE	SIGNATURE
LAST NAME	FIRST NAME		
1. <u>Wendt</u>	<u>Julie</u>	<u>2-14-12</u>	
2. <u>Cason</u>	<u>Clay</u>	<u>"</u>	
3. <u>Bra</u>	<u>Greg</u>	<u>2-14-12</u>	
4. <u>Seymour</u>	<u>Cody</u>	<u>2-14-12</u>	
5. <u>Samora</u>	<u>Paul</u>	<u>2-14-12</u>	
6. <u>Groleske</u>	<u>Don</u>	<u>2/14/12</u>	
7. <u>FELTMAN</u>	<u>JOSH</u>	<u>2/14/12</u>	
8. <u>PAGE</u>	<u>Scot</u>	<u>2-14-12</u>	
9. <u>Angleton</u>	<u>Tom</u>	<u>2-14-12</u>	
10. <u>McGowan</u>	<u>CARLTON</u>	<u>2-14-12</u>	

(Participants continued on Page 2 & 3 if necessary)

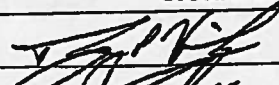
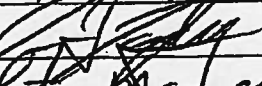
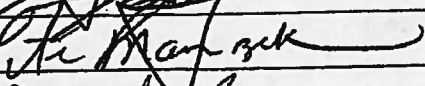
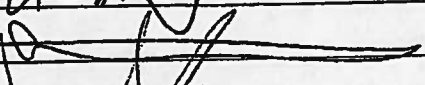
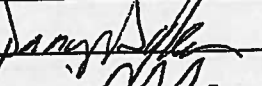
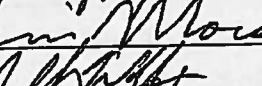
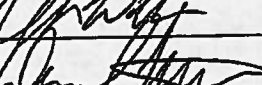
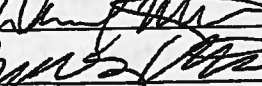
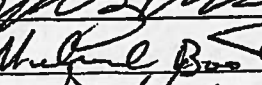
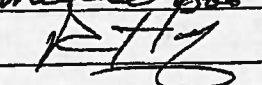
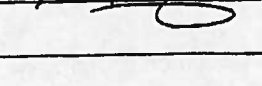
Certification

Instructor: Department/Shift Supervisors Signature

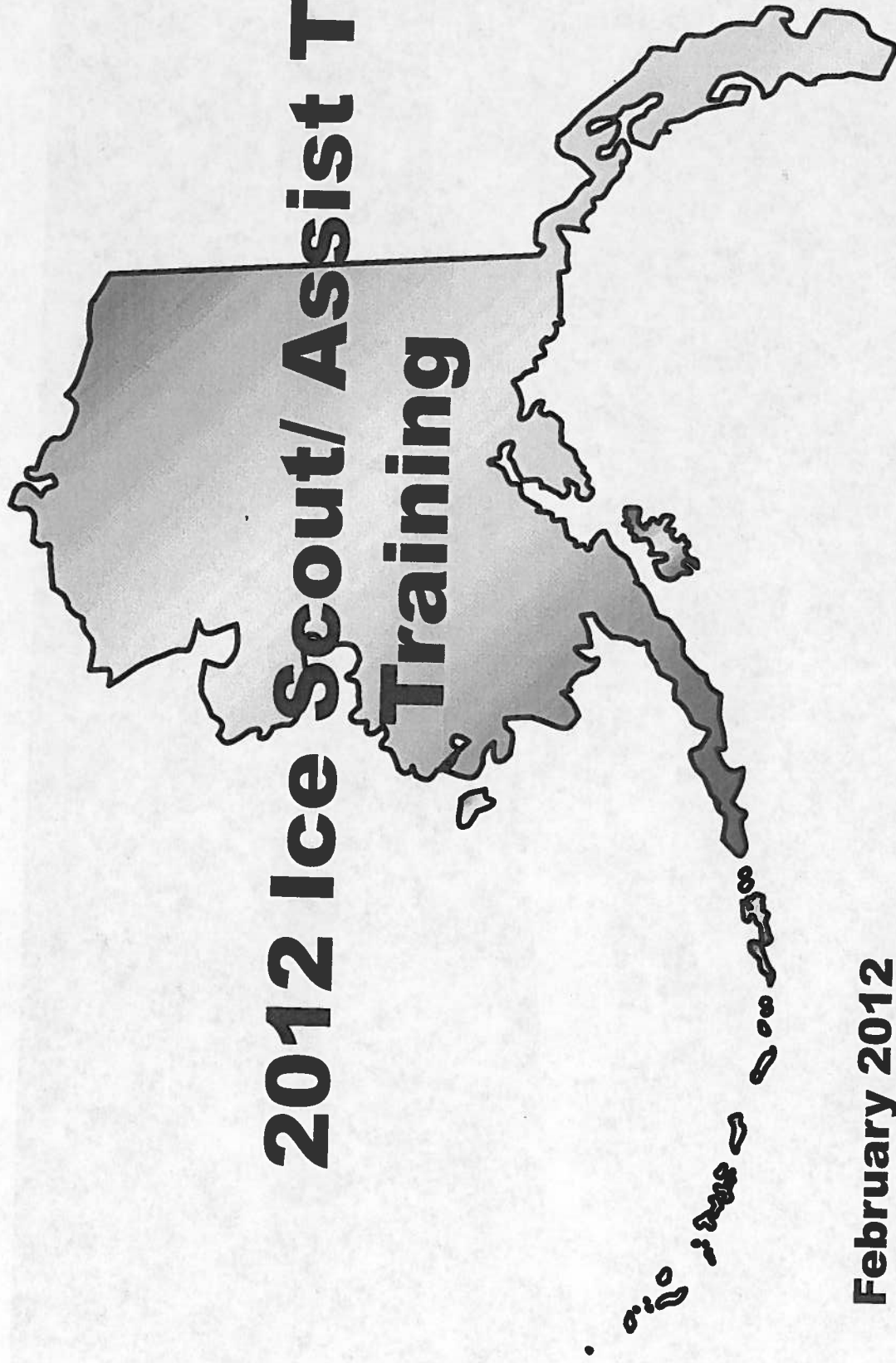
Allen R. Casperson
Tesoro Training Department Supervisor

PLEASE RETURN TO THE TRAINING DEPARTMENT UPON COMPLETION OF TRAINING

NAME OF PARTICIPANT (S) (CONT'D)

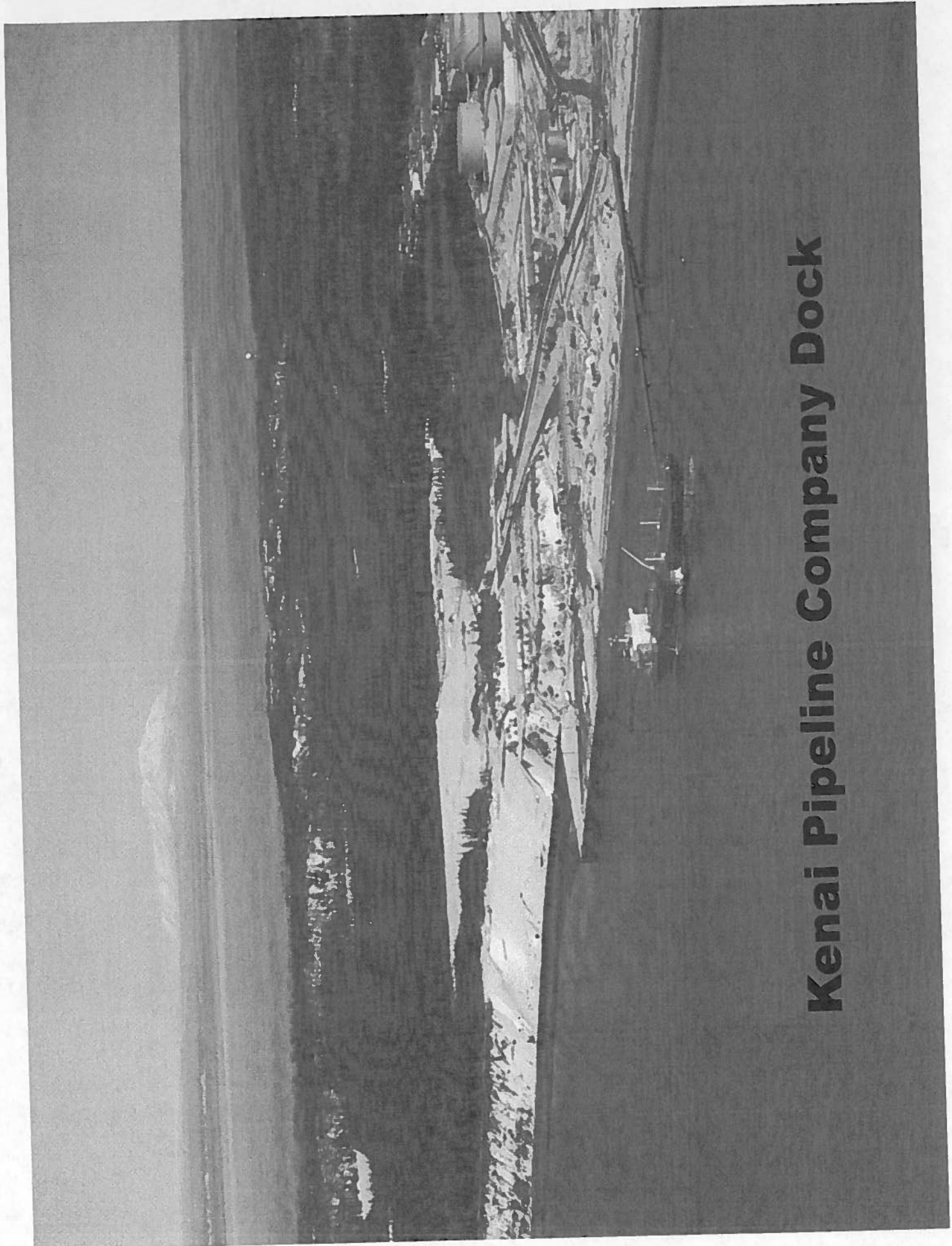
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	LAST NAME	FIRST NAME		
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12	Talley	Jesse	2/15/12	
13	Manzek	Peter	2/15/12	
14	Stankovic	Anthony	2/15/12	
15	Danny	Wykeura	2/15/12	
16	Morse	KEVIN	2/15/12	
17	Webb	Jeff	2/18/12	
18	Tuttle	Daniel	2/20/12	
19	Miller	Zac	2-21-12	
20	Booth	MIKE	2-21-12	
21	Huf	Rusty	2/21/12	
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2012 Ice Scout/ Assist Tug Training



**February 2012
Captain Jack E. Jensen
Alaska Marine Superintendent
Tesoro Alaska Company**





Kenai Pipeline Company Dock

Training Objectives

- Review of the 2011-2012 USCG Operating Procedures for Ice conditions in Cook Inlet
- Review of Tides and Currents in Nikiski
- Expectations of the Ice Scout and Assist Tug
 - When to be on station
 - Position of the vessel relative to current
 - Duties while on station
- KPL Dock/ Ice Scout/ Assist Tug Checklist
- Drift River Operations

*Vessel Officers and crew are to review the
Cook Inlet Ice DVD*

USCG Operating Procedures for Ice Conditions in Cook Inlet

The USCG Operating Procedures are included in the Tesoro Cook Inlet Vessel Oil Discharge Prevention and Contingency Plan and therefore must be followed.

Overview

1. The Captain of the Port (COTP), Western Alaska, through consultation with the Southwest Alaska Pilots Association (SWAPA) and Cook Inlet maritime operators, developed these operating procedures (hereafter, *Procedures*) for vessels operating in Cook Inlet during winter ice conditions. They represent a culmination of best practices for mitigating risk to life, property, and the environment.
2. As ice analysis, forecasts, and collective risk assessments dictate, the COTP will issue Navigation Safety Advisories to activate additional measures for ice conditions in two phases: Phase I for upper Cook Inlet and Phase II for lower Cook Inlet. The two-phased approach was established to facilitate more timely and appropriate risk mitigation strategies for ice conditions observed north and south of 60° 45' N latitude (East and West Forelands). These phases will be activated and deactivated as circumstances or industry input warrant.
3. Activation of Phase I and II measures for ice conditions is based on a number of factors, to include: observed and forecast severe sub-freezing temperatures, aerial observations, information and analysis provided by NOAA, SWAPA, and Cook Inlet maritime operators.

Overview

4. If ice conditions preclude the safe operation of vessels at berths in Nikiski, Drift River, Port Mackenzie, or the Port of Anchorage, the COTP may terminate cargo operations or close the terminal or port until conditions improve (33 CFR § 160.111).

5. *These Procedures supersede all previous Operating Procedures for Ice Conditions in Cook Inlet. We invite your feedback and proposed revisions. As best practices evolve and lessons are learned, we anticipate and welcome changes. If you have any questions concerning these Procedures, please contact the Sector Anchorage Waterways Management Division at (907) 271-6700, or the Marine Safety Detachment Kenai Supervisor at (907) 283-3292.*

Cook Inlet Ice Training

Procedures for all Vessels Transiting Cook Inlet during Ice Conditions

1. This section of the *Procedures* stays in effect throughout the ice season.
2. All facility operators will follow the ice operations sections of their Coast Guard approved Operations Manuals, as appropriate.
3. The master is ultimately responsible for the safe operation of their vessel at all times. Adherence to appropriate risk mitigation in accordance with these *Procedures* demonstrates *forehandedness on the part of the master and is in keeping with prudent seamanship. However, it is the master's responsibility to take all necessary steps to effectively mitigate risk in all circumstances.*
4. The master shall ensure proper operation of all vessel machinery and systems in ice-filled waters and ambient air temperatures to -40 degrees F. This includes but is not limited to emergency fire pumps, generators, and mooring winches.

Cook Inlet Ice Training

Procedures for all Vessels Transiting Cook Inlet during Ice Conditions

5. The master shall maintain adequate draft to keep the vessel's sea suction and propeller well below the ice to prevent ice from sliding under the vessel. If a non-tank vessel must deviate from normal ballast procedures to meet this requirement (i.e., place water ballast in a cargo hold), the master shall obtain approval from the vessel's classification society prior to transiting Cook Inlet.
6. The master shall ensure the vessel crew is equipped with adequate personal protection suitable for cold weather during deck operations.
7. When transiting Cook Inlet, vessels must not force ice at any time. For these purposes, "forcing ice" is defined as making way through ice that is substantial enough to significantly slow the speed of the vessel, or when the vessel slows to 50% or less of the speed being made before entering the ice. If the master, pilot, or both believe the vessel is forcing ice, the master shall abort the transit and navigate to safer waters until more favorable conditions are present (excluding Offshore Supply Vessels).

Cook Inlet Ice Training

Procedures for all Vessels Transiting Cook Inlet during Ice Conditions

8. Self-Propelled Vessels: While these Procedures are in effect, all self-propelled vessels transiting Cook Inlet for the first time are subject to examination in advance of arriving at the pilot station in Kachemak Bay. Vessel operators or their agents must contact the COTP at least 24 hours in advance of the vessel's arrival to the pilot station to determine if they must undergo examination. The examination is in addition to other Coast Guard inspections or examinations applicable to the vessel.

Procedures for all Vessels Transiting Cook Inlet during Ice Conditions

9. Vessels with Internal Combustion Engines:

- a. If fitted with a heat exchanger, the raw water must be kept at a sufficient temperature to prevent the accumulation of ice or slush ice within the system. This may be achieved by delivering a heated medium to both the primary and secondary sea chests. The medium should be continuously supplied to both sea chests from the time the vessel passes Anchor Point inbound until the time the vessel passes Anchor Point outbound. Only lines or hoses designed for their intended service will be in use. .
- b. Starting and control air tanks should remain peaked.
- c. All vessels propelled by gas turbines shall maintain the auxiliary gas turbine ready for immediate use and engagement in the event of main gas turbine failure.

Procedures for all Vessels Transiting Cook Inlet during Ice Conditions

10. Voyage Plans: All vessels arriving in Cook Inlet north of Homer, Alaska shall file a voyage plan with the COTP by email: Sector.Anchorage@uscg.mil or by fax: (907) 271-6765. Voyage plans must be submitted no less than 24 hours prior to arrival at or abeam the Kachemak Bay Pilot Station. Typically, the voyage plan will include an assessment of ice conditions based on aerial observation, National Weather Service reports, and observations by maritime pilots and other operators. Voyage plans must advise the COTP of intentions to contract with a tug to lead the vessel through ice when needed. A *Cook Inlet Voyage Plan template* is available at <http://homeport.uscg.mil/anchorage>.
11. To obtain forecast currents corrected for Nikiski, call the SWAPA office in Homer at (907) 235-8783, or visit the NOAA website at:
2011: <http://tidesandcurrents.noaa.gov/currents11/tab2pc4.html#144>
2012: <http://tidesandcurrents.noaa.gov/currents12/tab2pc4.html#144>
12. All vessels (including barges) should moor in such a fashion to mitigate "worst case" ice conditions expected. Typically, this is done with the bow facing the flood tide to stem the force of ice during the stronger flood tide.

Cook Inlet Ice Training

Procedures for all Vessels Transiting Cook Inlet during Ice Conditions

13. If ice builds up between a moored vessel (including barges) and the pier and threatens the integrity of the mooring, the vessel shall be pulled away from the berth prior to max current to flush away accumulated ice.

OFFSHORE SUPPLY VESSEL OPERATIONS

1. Shall maintain a full 24-hour crew compliment as specified on the vessel's Certificate of Inspection regardless of voyage distance or vessel automation.
2. Vessels hull shall be of sufficient strength to force ice without impacting its seaworthiness.

Phase I – Upper Cook Inlet Self-Propelled Vessel Operations While moored at Facilities in Upper Cook Inlet)

1. Vessels should maintain “underway” watches in both engineering spaces and on the bridge when ice conditions threaten a vessel's mooring arrangement.
2. While these guidelines are in effect, steam (or other heated medium) should be continuously delivered to both the primary and secondary sea chests.
3. Engines and propulsion systems should be in a status to ensure the most expeditious means of mitigating ice conditions by relieving strain on mooring lines, getting the vessel underway, or both as appropriate. A sufficient number of additional mooring lines shall also be immediately available.

BARGE OPERATIONS

There are no specific additional measures recommended for tug/barge operations. Mariners are to always exercise extreme caution during evolutions where ice is present.

Phase II – Lower Cook Inlet

(4 knots or Greater and vessel is encountering ice conditions)

1. When Phase II procedures are in effect and the flood current is forecast to be **4 knots or greater and the vessel is encountering ice conditions alongside the KPL dock, the following actions must be taken:**
 - a. Discontinue all transfer operations.
 - b. Make transfer hoses ready for immediate disconnect.
 - c. Maintain a continuous watch (to include a pilot) to ensure the most expeditious means of mitigating ice conditions by relieving strain on mooring lines, getting the vessel underway, or both as appropriate. Place engines and propulsion systems in a status to ensure the most expeditious means of mitigating ice conditions by relieving strain on mooring lines, getting the vessel underway, or both as appropriate.
 - d. Position a designated vessel up current of the moored vessel to serve as an ice scout. The ice scout should only work under the direction of the moored vessel's navigational watch. The ice scout should be positioned to ensure observed ice conditions are relayed to the moored vessel in a timely manner for effective risk mitigation efforts.

Phase II – Lower Cook Inlet

(4 knots or Greater and vessel is encountering ice conditions)

2. *This section pertains to Conoco Phillips dock and has been omitted for our purposes.*
3. The master, pilot, or person in charge shall discontinue transfer operations, disconnect hoses, and get the vessel underway any time circumstances warrant.

BARGE OPERATIONS

Nikiski Tug/Barge Operating Procedures

1. When Phase II Procedures are in effect, in addition to filing a voyage plan with the COTP the following actions shall be taken:
 - a. An “assist” tug shall assist the attending tug and barge to the facility.
 - b. When there is no ice at the dock and the barge has successfully moored, the assist tug should act as an ice scout should under the direction of the moored tug’s navigational watch. The ice scout should be positioned in the best location so that current ice conditions can be relayed to the attending tug in a timely manner, allowing tow response to expedite prudent risk mitigation.

BARGE OPERATIONS

Nikiski Tug/Barge Operating Procedures

1. When Phase II procedures are in effect, in addition to filing a voyage plan with the COTP the following actions shall be taken:
 - a. An "assist" tug shall assist the attending tug and barge to the facility.
 - b. When there is no ice at the dock and the barge has successfully moored, the assist tug should act as an ice scout under the direction of the moored tug's navigational watch. The ice scout should be positioned in the best location so that current ice conditions can be relayed to the attending tug in a timely manner, allowing tow response to expedite prudent risk mitigation.
 - c. When the vessel is encountering ice conditions while alongside the dock, the assist tug shall reposition alongside the moored tow in a timely manner.
 - d. When the flood current is forecast to be **2 knots or greater and the tow is encountering ice conditions, both the attending and assist tugs shall keep main engines running and ready for immediate operation.**
 - e. When the current is forecast to be **4 knots or greater and the vessel is encountering ice conditions, all transfer operations shall be discontinued, and transfer hoses made ready for immediate disconnect.**

BARGE OPERATIONS

Nikiski Tug/Barge Operating Procedures

2. The facility dock Person-in-Charge (PIC), Towing Vessel Operator, Tug Captain, or Barge Tankerman may determine it prudent to suspend transfer operations and disconnect hoses during maximum flood currents, since the ice floe is heavier on the flood tide at the Nikiski docks.

OFFSHORE SUPPLY VESSEL OPERATIONS

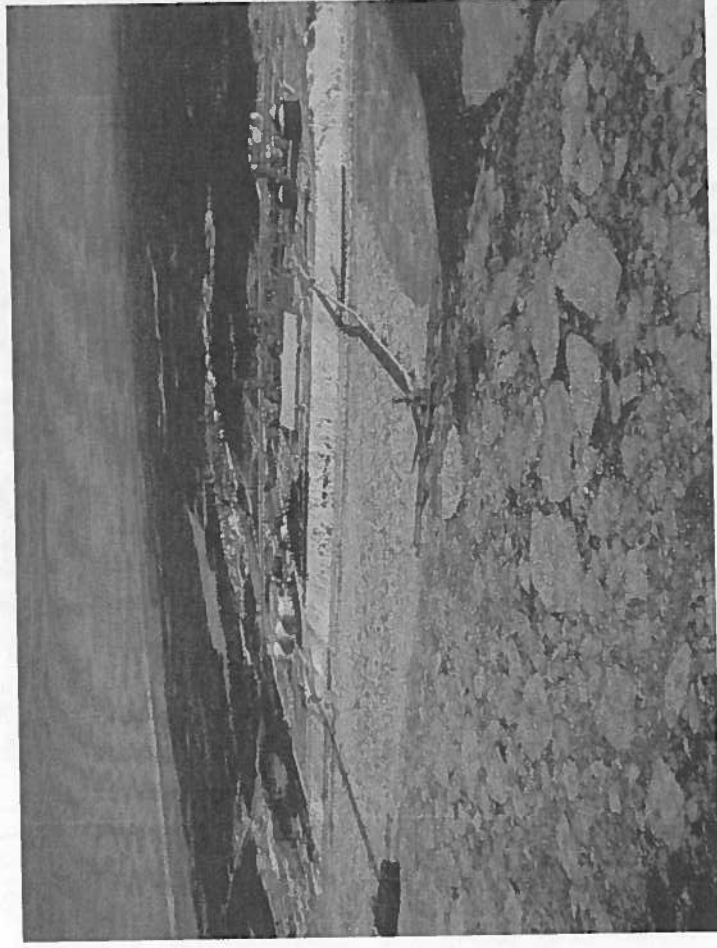
1. An "underway" watch shall be maintained on the bridge when ice conditions threaten a vessel's anchoring or mooring arrangement.

USCG Operating Procedures for Ice conditions in Cook Inlet

- Three Separate phases:
 - Transit Guidelines
 - Phase One- North of the Forelands
 - Phase Two- South of the Forelands- KPL Dock and Christy Lee
- Offshore Supply Vessels are exempt from most of these rules.
- OSV's will be used as the required Ice Scout Vessel.
- ***At all times, the safety of your crew and vessel comes first.***

The USCG Operating Procedures are included in the Tesoro Cook Inlet Vessel Oil Discharge Prevention and Contingency Plan and therefore must be followed.

KPL Tides and Currents



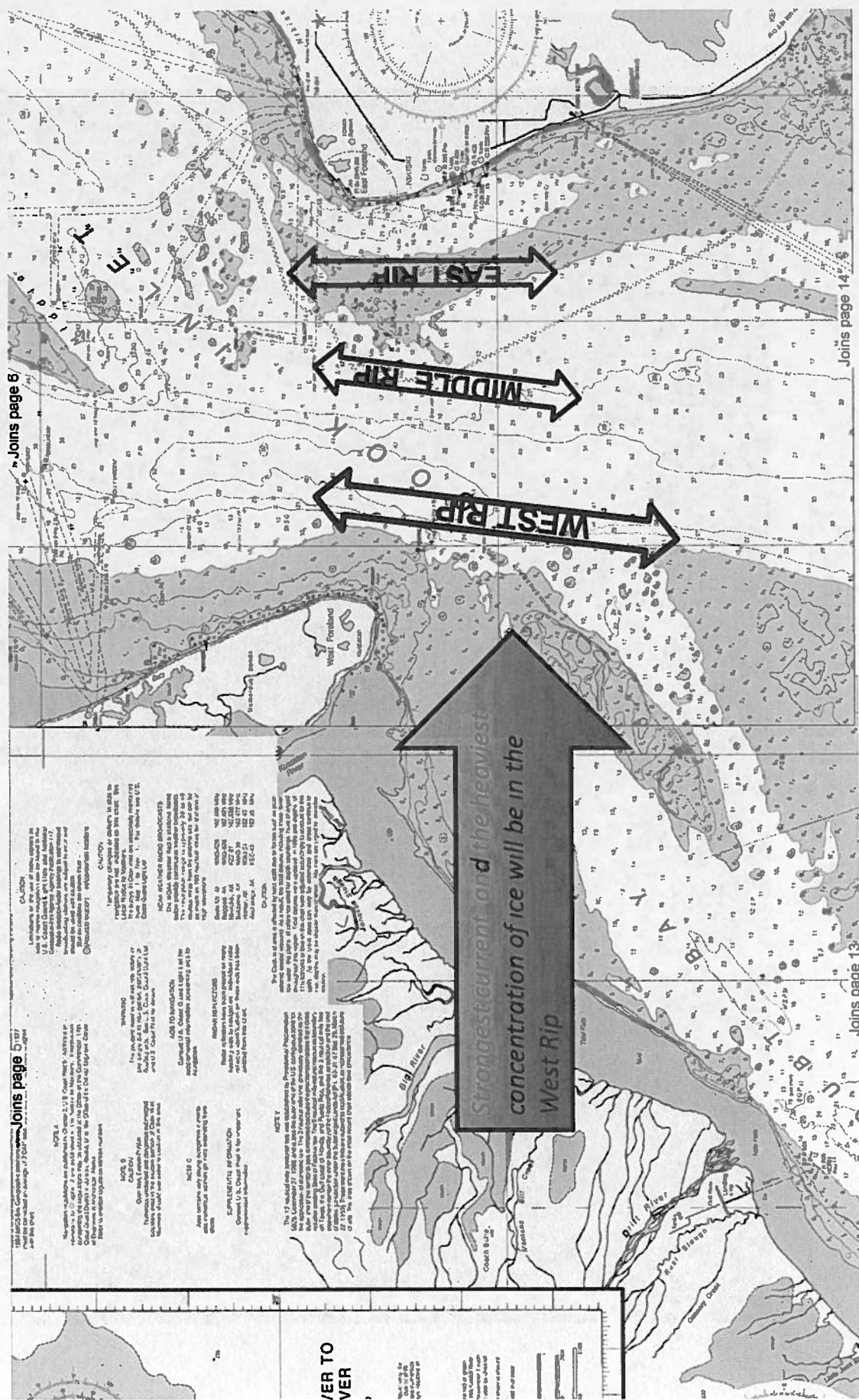
Background

- 2006 Current meters in Cook Inlet led to formation of new reference stations in Cl-Nearest to KPL is The Forelands. Nikiski docks were dropped from the NOAA Tide Tables.
- Working with NOAA TSO was able to convince NOAA to install current meters around the Nikiski dock during the summer of 2008.
- Data was processed and a new Reference station made "Tesoro Pier" in Jan. 2009
- Now Tesoro Pier is in the 2010 NOAA Tide Tables, However they are not available as of yet in the Nobletec Tides and Currents Program

Currents for USCG Operating Procedures can be found under "Tesoro Pier" in the 2012 NOAA Current Tables, or the 2012 SWAPA Tide and Current Books only. Not available as yet by computer!

For more on Currents, please review the Cook Inlet Ice DVD

Cook Inlet Tidal Currents at the Forelands



Ice Scout Vessel



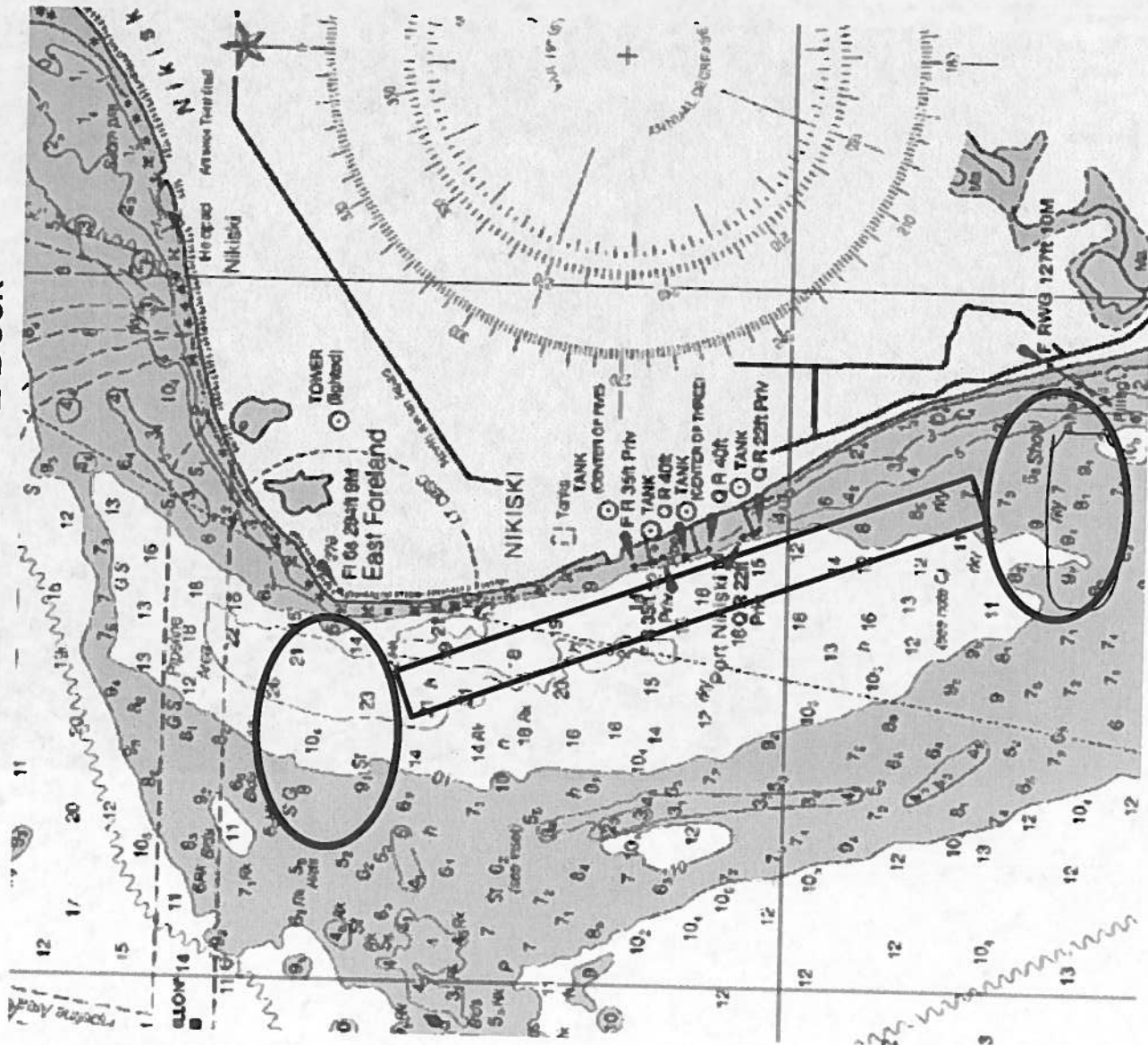
Ice Scout Expectations- KPL Dock

- Required by the USCG Operating Procedures during Phase II when tidal currents are predicted to be 4 knots or greater. *Also will be used during periods of heavy ice concentrations at the KPL dock when the currents are below 4 knots, as directed by the Tesoro Marine Superintendent . During these times the Ice Scout is expected to be on duty the entire time a vessel is alongside KPL Dock.*
- The Ice Scout needs to be on station when the Tanker arrives in the vicinity of the dock
 - *Please do not impede the passage of the tanker at any time in transit as they are often constrained by draft.*

Ice Scout Expectations- KPL Dock

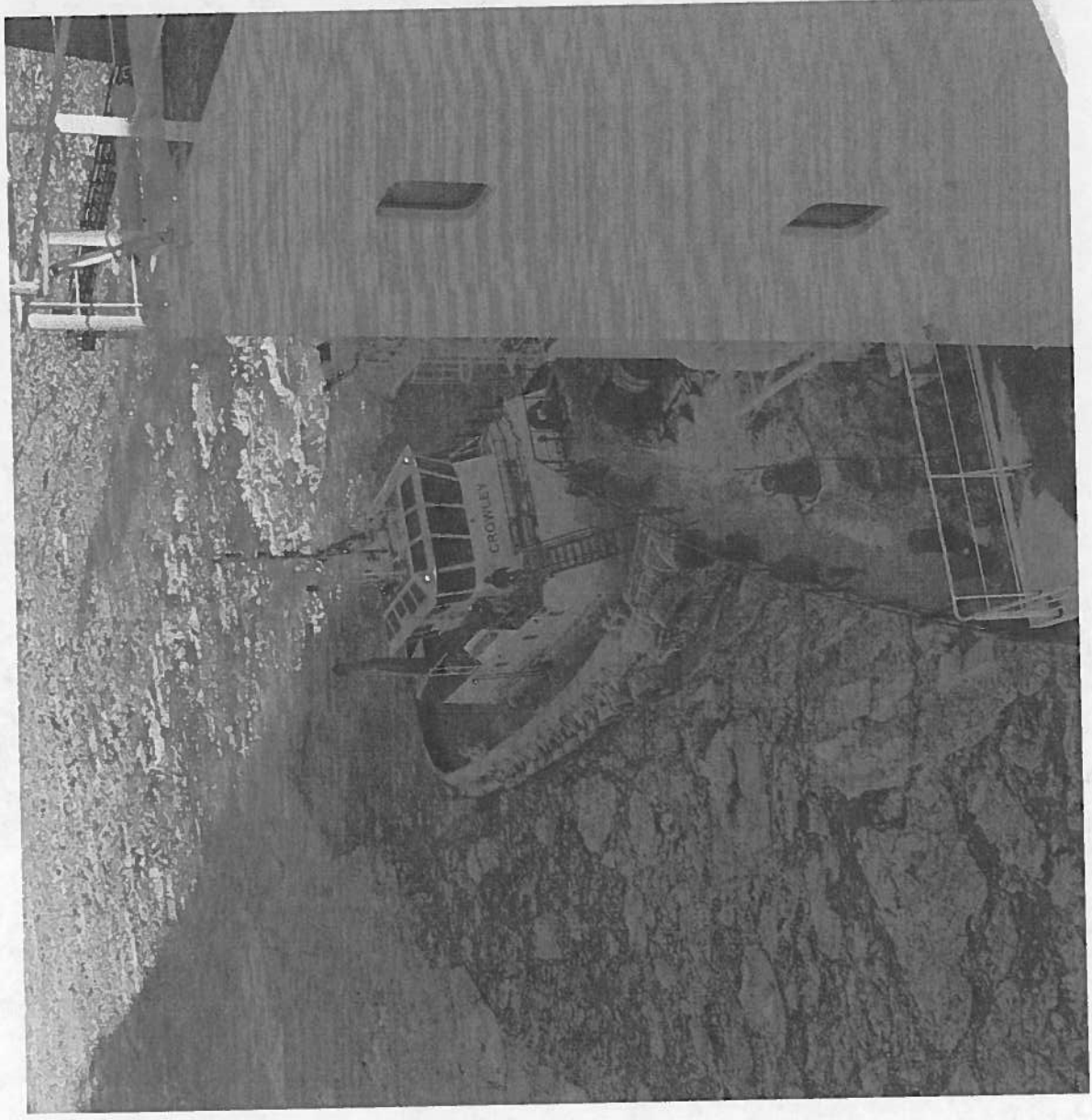
- The Ice Scout- work under the direction of the Moored Vessel Bridge Team.
- Position the vessel as directed by the Bridge Team
 - During the Flood, usually about 3-4 miles up current of KPL Dock
 - As the tide slackens, drift back to abeam of the tanker at slack water
 - On the ebb- Usually 1-2 miles up current and chopping ice pans if called upon by the bridge team.
- At times where large ice pans are in the vicinity, you will be directed to chop/break up pans as best as possible.
- Communicate hourly with Moored Vessel and Assist Tug
 - Initial Comms including the Ice scout checklist
 - Updated ice conditions
 - Changes in ice conditions- heavier concentrations, bands of ice, thickness
 - Any impairments/ breakdowns to be communicated as soon as possible to all vessels

Ice Scout Duties- KPL Dock



- Work under the Navigation Watch of the Moored Vessel- Pilot, Captain or Mate on Watch.
- Generally stay appont of the 3-4 miles up current of the dock. (on the Flood)
- About 90 minutes before the end of the current, drift back to be abeam of the docks at slack water.
- Call the Navigation watch and inform them of any large pans or ice flows heading towards the vessel.
- Inform them of increased thickness or density of the ice.
- On the **Perseverance**, we have had good luck with vessel operating on 1 engine clutch ahead- if both engines are required to get thru the ice- let the Navigation watch know.

Assist Tug



Assist Tug Expectations

- While in Phase II of the USCG Operating Procedures for Ice Conditions in Cook Inlet, an assist Tug is required by the Tesoro Contingency Plan.
- Work under the direction of the moored vessels Bridge team.
- Communicate with moored vessel and ICE scout at least every hour . Communicate any concerns with the Bridge Team
- At times you may be directed to break up large ice pans near the vessel.
- **As always, the safety of your crew and vessel must always come first.**

During heavy ice conditions at KPL Dock

- Except in an emergency, no lines will be made up to the vessel on the offshore side once the vessel is all fast.
- When possible, pass a bight up to the moored vessel on the transom such that the tug is able to self release.

KPL Dock Ice Scout/Assist Tug Checklist

Tanker/ Ice Scout/ Assist Tug checklist during Phase II Procedures

Date	Time	Expected Sailing Date/Time
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Communications

Main	Back Up	Remarks
Marine VHF Channel 10	Marine VHF Channel 13	
KPL Dock	Phone number	Manned when vessel is docked
Tesoro Tank Farm Control	907-776-3543	Manned 24-7
KPL Security	907-776-3549	Manned 24-7
Tesoro Marine Superintendent	907-776-3888	
Assist tug		
Ice Scout		
Tanker/Barge		

Note: The moored vessel, KPL dock, Tank Farm Control, and Tug Vigilant all have Tesoro shore radios on channel 4 (UHF).

The following checklist is to be reviewed and discussed between the Moored Tanker, Assist Tug, and Ice Scout by radio conference. All vessels will note in their respective deck log the time of completion of the radio conference.

KPL- Moored Vessel	Assist Tug	Ice Scout
--------------------	------------	-----------

Expected Time of 4 Knot Flood Currents While alongside

Date	Start of 4 knot	End of 4 knot	Start of 4 knot	End of 4 knot

Expected Position of each Vessel during state of the Tide

	Assist Tug	Ice Scout
FLOOD		
EBB		
SLACK		

Other relevant information

--

Failure of any equipment that affects the propulsion or communication of any vessel to be relayed to the other vessels as soon as possible.

KPL Dock Ice Scout/Assist Tug Checklist

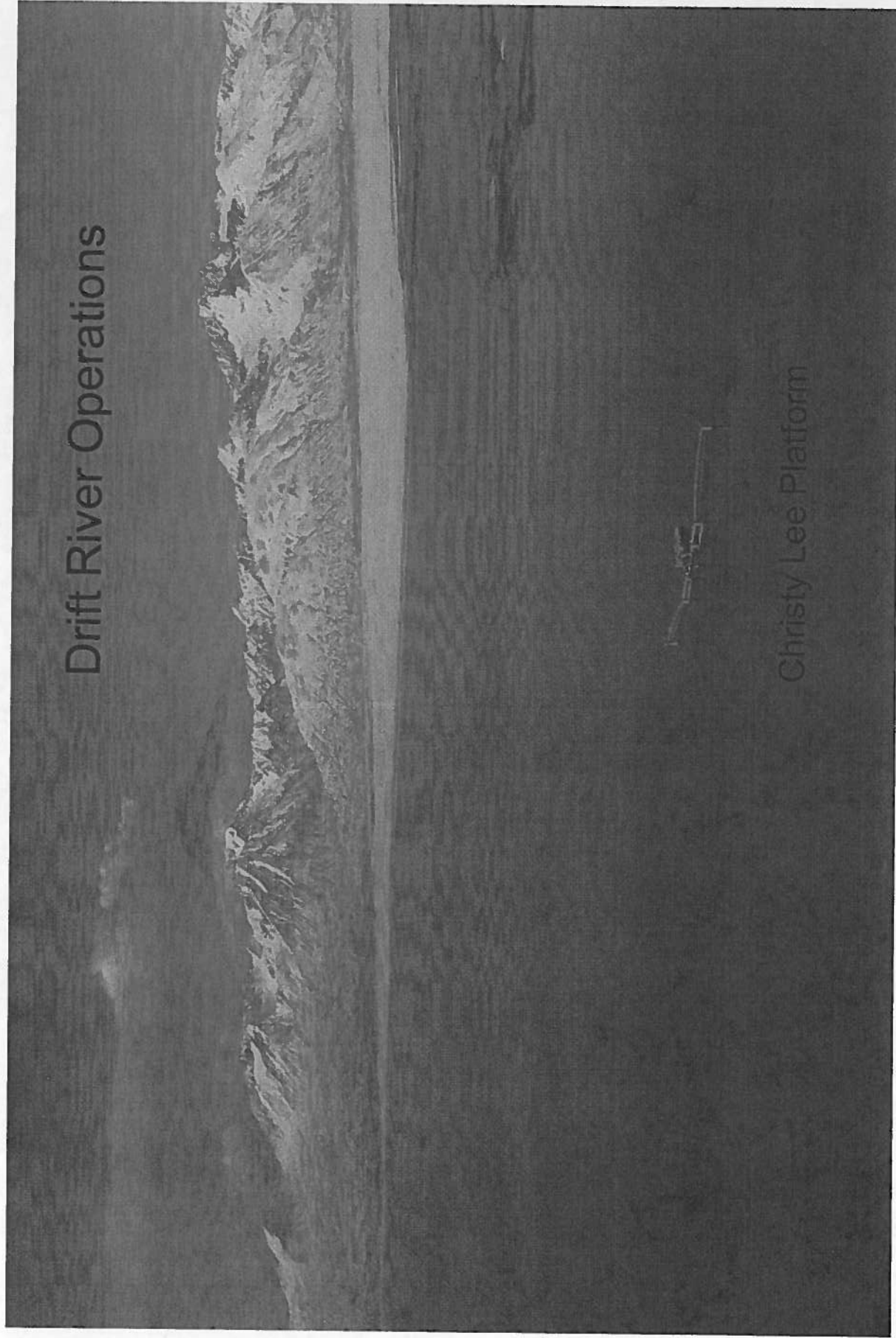
- During Phase II Procedures *and periods of heavy ice*, this form is to be reviewed and discussed during a Radio Conference between the moored vessel, Ice Scout and Assist Tug. This radio conference will be held after the vessel is safely moored and before cargo operations. *If a vessel arrives prior to the start of the 4.0 knot currents (Neap tides), then the conference must be held prior to the start of the beginning of the first 4.0 knot current.*
- Time of Completion of the Radio Conference will be logged in each vessel deck log.
- Radios checks between the vessel will be held at least **once per hour** while the ice scout is required.

KPL Dock Ice Scout/Assist Tug Checklist

- This checklist is to formalize the communications between vessels and includes the following:
 - ***Names of vessels involved, dates and times***
 - ***Communication channels and phone numbers***
 - The Vigilant, Moored Vessel and KPL Dock Control Room have Shore Radios on UHF channel 4 for additional Back up communications as necessary.
 - ***Times of Expected 4.0 Knot flood currents***
 - This information will be provided by email from the Tesoro Marine Supt at least monthly. I suggest you print and post this email in the wheelhouse when you get it.
 - ***General Position of the Vessels on each state of the tide***
 - Relative position during the flood/Ebb/ Slack. This may change somewhat from each Master/Pilot on the Bridge of the moored vessel.
 - ***Any other relevant information***
 - Impairments, or broken equipment that may affect the ability to work.
- The checklist does not need to be retained for each vessel and can be laminated for a working copy.

Drift River Operations

Christy Lee Platform

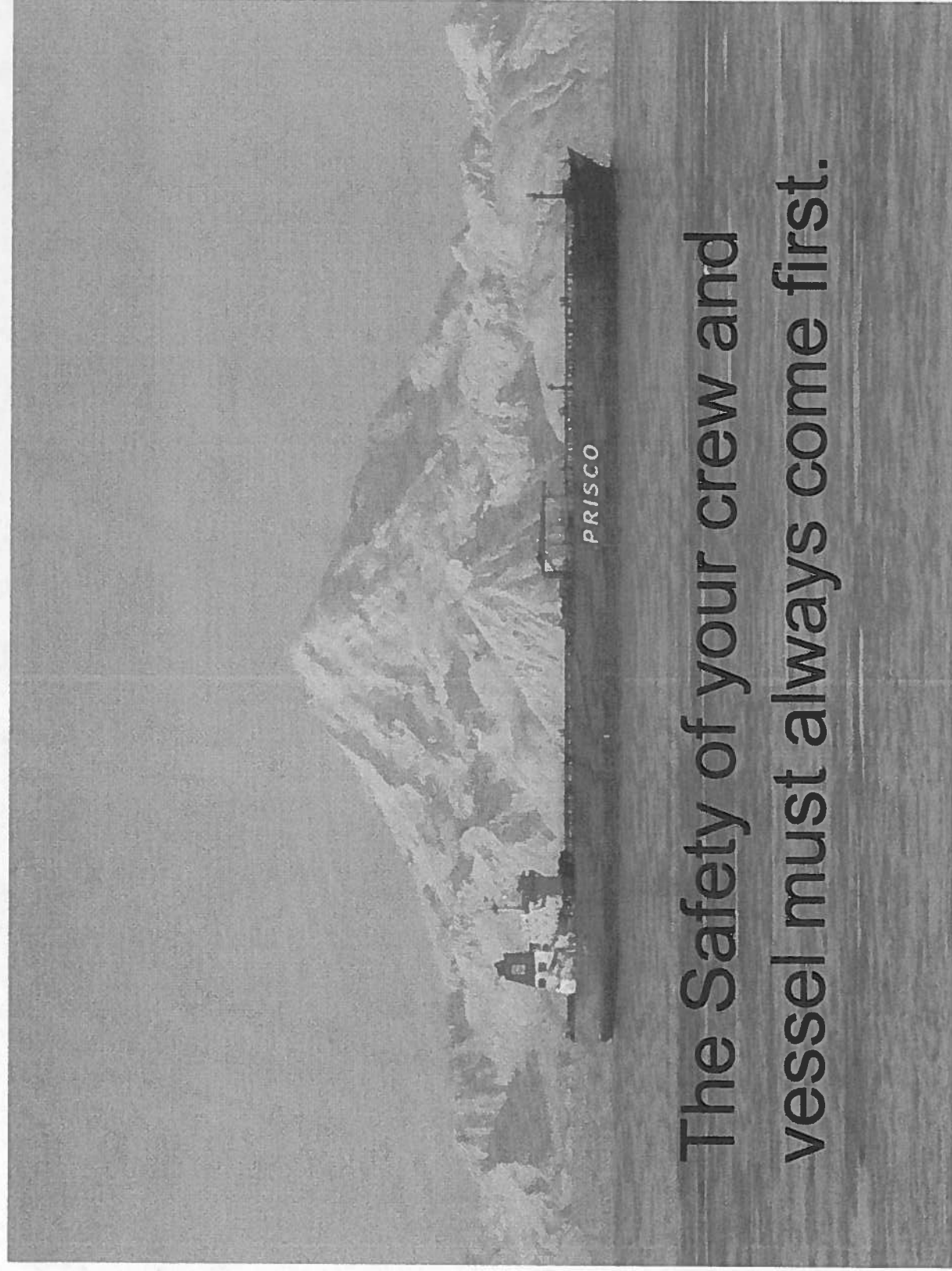


Ice Scout Expectations- Christy Lee

- Although there is nothing in the USCG Operating Procedures concerning the use of an Ice Scout while a vessel is alongside Christy Lee Platform, the presence of the Perseverance or other Spill Response vessel is required by the Tesoro Contingency Plan.
- **During periods of ice near the platform, you often will be asked to perform the duties of Ice Scout by the Bridge watch on the moored vessel. Also, you may be asked to chop / break up ice pans as required.**
- **When asked to perform the duties of Ice Scout, the duties will be similar to those on the Nikiski Side with the same reporting procedures.**
- Communicate hourly with Moored Vessel and Assist Tug
 - Initial Communications
 - Updated ice conditions
 - Changes in ice conditions- heavier concentrations, bands of ice, thickness
 - Any impairments/ breakdowns to be communicated as soon as possible to all vessels

Contact Information

- If there are any questions on the times of vessel arrivals, you can contact the following:
 - Tesoro Tank Farm (24 Hour) 907-776-3549
 - Alaska Maritime kenops@alaskamaritime.com
 - TSO Marine Supt. Jack Jensen 907-776-3554 (off)
907-252-4748 (cell)
jack.e.jensen@tsocorp.com



The Safety of your crew and
vessel must always come first.

KPL DOCK- DECLARATION OF OPERATING PROCEDURES FOR ICE CONDITIONS- BARGE

This form to be completed when Phase II of the USCG Operating Procedures for Ice Conditions in Cook Inlet are in effect.

Barge/Tug	Date	Time
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	KPL Dock PIC Initials		Vessel PIC Initials	
	Yes	No	Yes	No
PIC's acknowledge that USCG "2011-2012 OPERATING PROCEDURES FOR ICE CONDITIONS IN COOK INLET" are in effect.				
The vessel has been provided a copy of the USCG "2011-2012 OPERATING PROCEDURES FOR ICE CONDITIONS IN COOK INLET" issued by the COTP, Western Alaska on November 21, 2011?				
PIC's acknowledge that When Phase II Procedures are In effect:				
An assist tug shall assist the attending tug and barge to the facility.				
When there is no ice at the dock and the barge has moored, the assist tug should act as an ice scout and be working under the direction of the moored tug's navigational watch.				
The assist tug shall reposition alongside the moored tow in a timely manner when encountering ice conditions alongside the dock.				
When the Flood Current is forecast to be 2 knots or greater and the tow is encountering ice conditions, both the attending and assist shall keep main engines running and ready for immediate operations.				
When the current is forecast to be 4 knots or greater and the vessel is encountering ice conditions, all transfer operations shall be discontinued and transfer hoses made ready for immediate disconnect.				

Time(s) when flood current is forecast to be 4 knots or greater during the Vessel's port call. The Shutdown and Drain Time in the table below is 30 minutes prior to the beginning of the 4 knot current.

Date	Shutdown and Drain	Connect and Resume	Shutdown and Drain	Connect and Resume

NOTE: THE FACILITY DOCK PERSON IN CHARGE, TOWING VESSEL OPERATOR, TUG CAPTAIN OR BARGE TANKERMAN MAY DETERMINE IT PRUDENT TO SUSPEND TRANSFER OPERATIONS AND DISCONNECT HOSES DURING MAXIMUM FLOOD CURRENTS, SINCE THE ICE FLOW IS HEAVIER ON THE FLOOD TIDE AT THE NIKISKI DOCKS.

KPL Dock Person in Charge	Date	Time	Vessel Person in Charge	Date	Time

Tanker/ Ice Scout/ Assist Tug checklist during Phase II Procedures

Date	Time	Expected Sailing Date/Time
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Communications

Main Marine VHF Channel 10	Back Up Marine VHF Channel 13 Phone number	Remarks
KPL Dock	907-776-3543	Manned when vessel is docked
Tesoro Tank Farm Control	907-776-3549	Manned 24-7
KPL Security	907-776-3888	Manned 24-7
Tesoro Marine Superintendent		
Assist tug		
Ice Scout		
Tanker/Barge		

Note: The moored vessel, KPL dock, Tank Farm Control, and Tug Vigilant all have Tesoro shore radios on channel 4 (UHF).

The following checklist is to be reviewed and discussed between the Moored Tanker, Assist Tug, and Ice Scout by radio conference. All vessels will note in their respective deck log the time of completion of the radio conference.

KPL- Moored Vessel	Assist Tug	Ice Scout
--------------------	------------	-----------

Expected Time of 4 Knot Flood Currents While alongside

Date	Start of 4 Knot	End of 4 Knot	Start of 4 Knot	End of 4 Knot

Expected Position of each Vessel during state of the Tide

	Assist Tug	Ice Scout
FLOOD		
EBB		
SLACK		

Other relevant information

KPL DOCK- DECLARATION OF OPERATING PROCEDURES FOR ICE CONDITIONS- BARGE

This form to be completed when Phase II of the USCG Operating Procedures for Ice Conditions in Cook Inlet are in effect.

Barge/Tug	Date	Time
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	KPL Dock PIC Initials		Vessel PIC Initials	
	Yes	No	Yes	No
PIC's acknowledge that USCG "2011-2012 OPERATING PROCEDURES FOR ICE CONDITIONS IN COOK INLET" are in effect.				
The vessel has been provided a copy of the USCG "2011-2012 OPERATING PROCEDURES FOR ICE CONDITIONS IN COOK INLET" issued by the COTP, Western Alaska on November 21, 2011?				
PIC's acknowledge that When Phase II Procedures are in effect:				
An assist tug shall assist the attending tug and barge to the facility.				
When there is no ice at the dock and the barge has moored, the assist tug should act as an ice scout and be working under the direction of the moored tug's navigational watch.				
The assist tug shall reposition alongside the moored tow in a timely manner when encountering ice conditions alongside the dock.				
When the Flood Current is forecast to be 2 knots or greater and the tow is encountering ice conditions, both the attending and assist shall keep main engines running and ready for immediate operations.				
When the current is forecast to be 4 knots or greater and the vessel is encountering ice conditions, all transfer operations shall be discontinued and transfer hoses made ready for immediate disconnect.				

Time(s) when flood current is forecast to be 4 knots or greater during the Vessel's port call. The Shutdown and Drain Time in the table below is 30 minutes prior to the beginning of the 4 knot current.

Date	Shutdown and Drain	Connect and Resume	Shutdown and Drain	Connect and Resume

NOTE: THE FACILITY DOCK PERSON IN CHARGE, TOWING VESSEL OPERATOR, TUG CAPTAIN OR BARGE TANKERMAN MAY DETERMINE IT PRUDENT TO SUSPEND TRANSFER OPERATIONS AND DISCONNECT HOSES DURING MAXIMUM FLOOD CURRENTS, SINCE THE ICE FLOW IS HEAVIER ON THE FLOOD TIDE AT THE NIKISKI DOCKS.

KPL Dock Person in Charge	Date	Time	Vessel Person in Charge	Date	Time

KPL DOCK- DECLARATION OF OPERATING PROCEDURES FOR ICE CONDITIONS

This form to be completed when Phase II of the USCG Operating Procedures for Ice Conditions in Cook Inlet are in effect.

Vessel	Date	Time
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	KPL Dock PIC Initials		Vessel PIC Initials	
	Yes	No	Yes	No
PIC's acknowledge that USCG "2011-20120 OPERATING PROCEDURES FOR ICE CONDITIONS IN COOK INLET" are in effect.				
The vessel has been provided a copy of the USCG "2011-2012 OPERATING PROCEDURES FOR ICE CONDITIONS IN COOK INLET" issued by the COTP, Western Alaska on November 21, 2011?				
PIC's acknowledge that while the flood current is forecast to be 4 knots or greater and the vessel is encountering ice conditions the following steps will be taken:				
All transfer operations will be discontinued.				
Transfer hoses will be drained and remain ready for immediate disconnect. Note: Transfer operations should be stopped 30 minutes before the flood current reaches 4 knots to allow sufficient time for hose(s) to be drained.				
Vessel will maintain a continuous watch (including a pilot) to ensure the most expeditious means of mitigating ice conditions by relieving strain on mooring lines, getting the vessel underway, or both as appropriate.				
Vessel will place engines and propulsion systems in a status to ensure the most expeditious means of mitigating ice conditions by relieving strain on mooring lines, getting the vessel underway, or both as appropriate.				
Dedicated Ice Scout vessel will be positioned up-current of the moored Vessel working under the direction of the moored Vessel's navigational watch.				

Time(s) when flood current is forecast to be 4 knots or greater during the Vessel's port call. The Shutdown and Drain Time in the table below is 30 minutes prior to the beginning of the 4 knot current.

Date	Shutdown and Drain	Connect and Resume	Shutdown and Drain	Connect and Resume

NOTE: THE MASTER, PILOT OR PERSON IN CHARGE SHALL DISCONTINUE TRANSFER OPERATIONS, DISCONNECT HOSES AND GET THE VESSEL UNDERWAY ANY TIME CIRCUMSTANCES WARRANT.

KPL Dock Person in Charge	Date	Time	Vessel Person in Charge	Date	Time

KPL DOCK- DECLARATION OF OPERATING PROCEDURES FOR ICE CONDITIONS- BARGE

This form to be completed when Phase II of the USCG Operating Procedures for Ice Conditions in Cook Inlet are in effect.

Barge/Tug	Date	Time
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	KPL Dock PIC Initials		Vessel PIC Initials	
	Yes	No	Yes	No
PIC's acknowledge that USCG "2011-2012 OPERATING PROCEDURES FOR ICE CONDITIONS IN COOK INLET" are in effect.				
The vessel has been provided a copy of the USCG "2011-2012 OPERATING PROCEDURES FOR ICE CONDITIONS IN COOK INLET" issued by the COTP, Western Alaska on November 21, 2011?				
PIC's acknowledge that When Phase II Procedures are in effect:				
An assist tug shall assist the attending tug and barge to the facility.				
When there is no ice at the dock and the barge has moored, the assist tug should act as an ice scout and be working under the direction of the moored tug's navigational watch.				
The assist tug shall reposition alongside the moored tow in a timely manner when encountering ice conditions alongside the dock.				
When the Flood Current is forecast to be 2 knots or greater and the tow is encountering ice conditions, both the attending and assist shall keep main engines running and ready for immediate operations.				
When the current is forecast to be 4 knots or greater and the vessel is encountering ice conditions, all transfer operations shall be discontinued and transfer hoses made ready for immediate disconnect.				

Time(s) when flood current is forecast to be 4 knots or greater during the Vessel's port call. The Shutdown/
make ready to disconnect Time in the table below is 30 minutes prior to the beginning of the 4 knot current.

Date	Shutdown	Connect and Resume	Shutdown	Connect and Resume

NOTE: THE FACILITY DOCK PERSON IN CHARGE, TOWING VESSEL OPERATOR, TUG CAPTAIN OR BARGE TANKERMAN MAY DETERMINE IT PRUDENT TO SUSPEND TRANSFER OPERATIONS AND DISCONNECT HOSES DURING MAXIMUM FLOOD CURRENTS, SINCE THE ICE FLOW IS HEAVIER ON THE FLOOD TIDE AT THE NIKISKI DOCKS.

KPL Dock Person in Charge	Date	Time	Vessel Person in Charge	Date	Time

KPL DOCK- DECLARATION OF OPERATING PROCEDURES FOR ICE CONDITIONS

This form to be completed when Phase II of the USCG Operating Procedures for Ice Conditions in Cook Inlet are in effect.

Vessel	Date	Time
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	KPL Dock PIC Initials		Vessel PIC Initials	
	Yes	No	Yes	No
PIC's acknowledge that USCG "2011-20120 OPERATING PROCEDURES FOR ICE CONDITIONS IN COOK INLET" are in effect.				
The vessel has been provided a copy of the USCG "2011-2012 OPERATING PROCEDURES FOR ICE CONDITIONS IN COOK INLET" issued by the COTP, Western Alaska on November 21, 2011?				
PIC's acknowledge that while the flood current is forecast to be 4 knots or greater and the vessel is encountering ice conditions the following steps will be taken:				
All transfer operations will be discontinued.				
Transfer hoses will be made ready for immediate disconnect. Note: Transfer operations should be stopped 30 minutes before the flood current reaches 4 knots.				
Vessel will maintain a continuous watch (including a pilot) to ensure the most expeditious means of mitigating ice conditions by relieving strain on mooring lines, getting the vessel underway, or both as appropriate.				
Vessel will place engines and propulsion systems in a status to ensure the most expeditious means of mitigating ice conditions by relieving strain on mooring lines, getting the vessel underway, or both as appropriate.				
Dedicated Ice Scout vessel will be positioned up-current of the moored Vessel working under the direction of the moored Vessel's navigational watch.				

Time(s) when flood current is forecast to be 4 knots or greater during the Vessel's port call. The Shutdown and made ready to disconnect. Time in the table below is 30 minutes prior to the beginning of the 4 knot current.

Date	Shutdown	Connect and Resume	Shutdown	Connect and Resume

NOTE: THE MASTER, PILOT OR PERSON IN CHARGE SHALL DISCONTINUE TRANSFER OPERATIONS, DISCONNECT HOSES AND GET THE VESSEL UNDERWAY ANY TIME CIRCUMSTANCES WARRANT.

KPL Dock Person In Charge	Date	Time	Vessel Person In Charge	Date	Time

Tanker/ Ice Scout/ Assist Tug checklist during Phase II Procedures

Date	Time	Expected Sailing Date/Time
------	------	----------------------------

Communications

Main Marine VHF Channel 10	Back Up Marine VHF Channel 13 Phone number	Remarks
KPL Dock	907-776-3543	Manned when vessel is docked
Tesoro Tank Farm Control	907-776-3549	Manned 24-7
KPL Security	907-776-3888	Manned 24-7
Tesoro Marine Superintendent		
Assist tug		
Ice Scout		
Tanker/Barge		

Note: The moored vessel, KPL dock, Tank Farm Control, and Tug Vigilant all have Tesoro shore radios on channel 4 (UHF).

The following checklist is to be reviewed and discussed between the Moored Tanker, Assist Tug, and Ice Scout by radio conference. All vessels will note in their respective deck log the time of completion of the radio conference.

KPL- Moored Vessel	Assist Tug	Ice Scout
--------------------	------------	-----------

Expected Time of 4 Knot Flood Currents While alongside

Date	Start of 4 Knot	End of 4 Knot	Start of 4 Knot	End of 4 Knot

Expected Position of each Vessel during state of the Tide

	Assist Tug	Ice Scout
FLOOD		
EBB		
SLACK		

Other relevant information

--

Failure of any equipment that affects the propulsion or communication of any vessel to be relayed to the other vessels as soon as possible.

U.S. Department of
Homeland Security

United States
Coast Guard



Captain of the Port
United States Coast Guard
Western Alaska

510 L Street, Suite 100
Anchorage, AK 99501
Staff Symbol: sp
Phone: 907-271-6700
FAX: 907-271-6751

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November 21, 2011

CAPTAIN OF THE PORT, WESTERN ALASKA NAVIGATION ADVISORY

Subj: OPERATING PROCEDURES FOR ICE CONDITIONS IN COOK INLET

OVERVIEW

1. The Captain of the Port (COTP), Western Alaska, through consultation with the Southwest Alaska Pilots Association (SWAPA) and Cook Inlet maritime operators, developed these operating procedures (hereafter, *Procedures*) for vessels operating in Cook Inlet during winter ice conditions. They represent a culmination of best practices for mitigating risk to life, property, and the environment.
2. As ice analysis, forecasts, and collective risk assessments dictate, the COTP will issue Navigation Safety Advisories to activate additional measures for ice conditions in two phases: Phase I for upper Cook Inlet and Phase II for lower Cook Inlet. The two-phased approach was established to facilitate more timely and appropriate risk mitigation strategies for ice conditions observed north and south of 60° 45' N latitude (East and West Forelands). These phases will be activated and deactivated as circumstances or industry input warrant.
3. Activation of Phase I and II measures for ice conditions is based on a number of factors, to include: observed and forecast severe sub-freezing temperatures, aerial observations, information and analysis provided by NOAA, SWAPA, and Cook Inlet maritime operators.
4. If ice conditions preclude the safe operation of vessels at berths in Nikiski, Drift River, Port Mackenzie, or the Port of Anchorage, the COTP may terminate cargo operations or close the terminal or port until conditions improve (33 CFR § 160.111).
5. These *Procedures* supersede all previous Operating Procedures for Ice Conditions in Cook Inlet. We invite your feedback and proposed revisions. As best practices evolve and lessons are learned, we anticipate and welcome changes. If you have any questions concerning these *Procedures*, please contact the Sector Anchorage Waterways Management Division at (907) 271-6700, or the Marine Safety Detachment Kenai Supervisor at (907) 283-3292.

**PROCEDURES FOR ALL VESSELS TRANSITING COOK INLET DURING ICE
CONDITIONS**

1. This section of the *Procedures* stays in effect throughout the ice season.
2. All facility operators will follow the ice operations sections of their Coast Guard approved Operations Manuals, as appropriate.
3. The master is ultimately responsible for the safe operation of their vessel at all times. Adherence to appropriate risk mitigation in accordance with these *Procedures* demonstrates forehandedness on the part of the master and is in keeping with prudent seamanship. However, it is the master's responsibility to take all necessary steps to effectively mitigate risk in all circumstances.
4. The master shall ensure proper operation of all vessel machinery and systems in ice-filled waters and ambient air temperatures to -40 degrees F. This includes but is not limited to emergency fire pumps, generators, and mooring winches.
5. The master shall maintain adequate draft to keep the vessel's sea suction and propeller well below the ice to prevent ice from sliding under the vessel. If a non-tank vessel must deviate from normal ballast procedures to meet this requirement (i.e., place water ballast in a cargo hold), the master shall obtain approval from the vessel's classification society prior to transiting Cook Inlet.
6. The master shall ensure the vessel crew is equipped with adequate personal protection suitable for cold weather during deck operations.
7. When transiting Cook Inlet, vessels must not force ice at any time. For these purposes, "forcing ice" is defined as making way through ice that is substantial enough to significantly slow the speed of the vessel, or when the vessel slows to 50% or less of the speed being made before entering the ice. If the master, pilot, or both believe the vessel is forcing ice, the master shall abort the transit and navigate to safer waters until more favorable conditions are present (excluding Offshore Supply Vessels).
8. Self-Propelled Vessels: While these *Procedures* are in effect, all self-propelled vessels transiting Cook Inlet for the first time are subject to examination in advance of arriving at the pilot station in Kachemak Bay. Vessel operators or their agents must contact the COTP at least 24 hours in advance of the vessel's arrival to the pilot station to determine if they must undergo examination. The examination is in addition to other Coast Guard inspections or examinations applicable to the vessel.
9. Vessels with Internal Combustion Engines:
 - a. If fitted with a heat exchanger, the raw water must be kept at a sufficient temperature to prevent the accumulation of ice or slush ice within the system. This may be achieved by

Subj: OPERATING PROCEDURES FOR ICE CONDITIONS IN
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delivering a heated medium to both the primary and secondary sea chests. The medium should be continuously supplied to both sea chests from the time the vessel passes Anchor Point inbound until the time the vessel passes Anchor Point outbound. Only lines or hoses designed for their intended service will be in use.

- b. Starting and control air tanks should remain peaked.
 - c. All vessels propelled by gas turbines shall maintain the auxiliary gas turbine ready for immediate use and engagement in the event of main gas turbine failure.
10. **Voyage Plans:** All vessels arriving in Cook Inlet north of Homer, Alaska shall file a voyage plan with the COTP by email: Sector.Anchorage@uscg.mil or by fax: (907) 271-6765. Voyage plans must be submitted no less than 24 hours prior to arrival at or abeam the Kachemak Bay Pilot Station. Typically, the voyage plan will include an assessment of ice conditions based on aerial observation, National Weather Service reports, and observations by maritime pilots and other operators. Voyage plans must advise the COTP of intentions to contract with a tug to lead the vessel through ice when needed. A *Cook Inlet Voyage Plan* template is available at <http://homeport.uscg.mil/anchorage>.
11. To obtain forecast currents corrected for Nikiski, call the SWAPA office in Homer at (907) 235-8783, or visit the NOAA website at:
- 2011: <http://tidesandcurrents.noaa.gov/currents11/tab2pc4.html#144>
- 2012: <http://tidesandcurrents.noaa.gov/currents12/tab2pc4.html#144>
12. All vessels (including barges) should moor in such a fashion to mitigate "worst case" ice conditions expected. Typically, this is done with the bow facing the flood tide to stem the force of ice during the stronger flood tide.
13. If ice builds up between a moored vessel (including barges) and the pier and threatens the integrity of the mooring, the vessel shall be pulled away from the berth prior to max current to flush away accumulated ice.

OFFSHORE SUPPLY VESSEL OPERATIONS

1. Shall maintain a full 24-hour crew compliment as specified on the vessel's Certificate of Inspection regardless of voyage distance or vessel automation.
2. Vessels hull shall be of sufficient strength to force ice without impacting its seaworthiness.

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PHASE I - UPPER COOK INLET

North of 60° 45' N latitude (East and West Forelands)

SELF-PROPELLED VESSEL OPERATIONS

WHILE MOORED AT FACILITIES IN UPPER COOK INLET:

1. Vessels should maintain "underway" watches in both engineering spaces and on the bridge when ice conditions threaten a vessel's mooring arrangement.
2. While these guidelines are in effect, steam (or other heated medium) should be continuously delivered to both the primary and secondary sea chests.
3. Engines and propulsion systems should be in a status to ensure the most expeditious means of mitigating ice conditions by relieving strain on mooring lines, getting the vessel underway, or both as appropriate. A sufficient number of additional mooring lines shall also be immediately available.

BARGE OPERATIONS

There are no specific additional measures recommended for tug/barge operations. Mariners are to always exercise extreme caution during evolutions where ice is present.

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PHASE II - LOWER COOK INLET
South of 60° 45' N latitude (East and West Forelands)

SELF-PROPELLED VESSEL OPERATIONS

1. When Phase II procedures are in effect and the flood current is forecast to be **4 knots or greater** and the vessel is encountering ice conditions alongside the KPL dock, the following actions must be taken:

- a. Discontinue all transfer operations.
- b. Make transfer hoses ready for immediate disconnect.
- c. Maintain a continuous watch (to include a pilot) to ensure the most expeditious means of mitigating ice conditions by relieving strain on mooring lines, getting the vessel underway, or both as appropriate. Place engines and propulsion systems in a status to ensure the most expeditious means of mitigating ice conditions by relieving strain on mooring lines, getting the vessel underway, or both as appropriate.
- d. Position a designated vessel up current of the moored vessel to serve as an ice scout. The ice scout should only work under the direction of the moored vessel's navigational watch. The ice scout should be positioned to ensure observed ice conditions are relayed to the moored vessel in a timely manner for effective risk mitigation efforts.

2. When Phase II procedures are in effect and the flood current is forecast to be **5 knots or greater** and the vessel is encountering ice conditions while alongside the ConocoPhillips dock, the following actions will be taken:

- a. Discontinue all transfer operations.
- b. Disconnect transfer hoses.
- c. Maintain a continuous watch (to include a pilot) to ensure the most expeditious means of mitigating ice conditions by relieving strain on mooring lines, getting the vessel underway, or both as appropriate. Place engines and propulsion systems in a status to ensure the most expeditious means of mitigating ice conditions by relieving strain on mooring lines, getting the vessel underway, or both as appropriate.
- d. Position a designated vessel up current of the moored vessel to serve as an ice scout. The ice scout shall work only under the direction of the moored vessel's bridge watch. The ice scout should be positioned to ensure observed ice conditions are relayed to the moored vessel in a timely manner for effective risk mitigation efforts.

3. The master, pilot, or person in charge shall discontinue transfer operations, disconnect hoses, and get the vessel underway any time circumstances warrant.

BARGE OPERATIONS

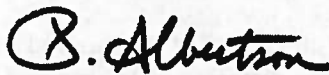
Nikiski Tug/Barge Operating Procedures:

1. When Phase II procedures are in effect, in addition to filing a voyage plan with the COTP the following actions shall be taken:
 - a. An "assist" tug shall assist the attending tug and barge to the facility.
 - b. When there is no ice at the dock and the barge has successfully moored, the assist tug should act as an ice scout under the direction of the moored tug's navigational watch. The ice scout should be positioned in the best location so that current ice conditions can be relayed to the attending tug in a timely manner, allowing tow response to expedite prudent risk mitigation.
 - c. When the vessel is encountering ice conditions while alongside the dock, the assist tug shall reposition alongside the moored tow in a timely manner.
 - d. When the flood current is forecast to be **2 knots or greater** and the tow is encountering ice conditions, both the attending and assist tugs shall keep main engines running and ready for immediate operation.
 - e. When the current is forecast to be **4 knots or greater** and the vessel is encountering ice conditions, all transfer operations shall be discontinued, and transfer hoses made ready for immediate disconnect.
2. The facility dock Person-in-Charge (PIC), Towing Vessel Operator, Tug Captain, or Barge Tankerman may determine it prudent to suspend transfer operations and disconnect hoses during maximum flood currents, since the ice floe is heavier on the flood tide at the Nikiski docks.

OFFSHORE SUPPLY VESSEL OPERATIONS

1. An "underway" watch shall be maintained on the bridge when ice conditions threaten a vessel's anchoring or mooring arrangement.

Sincerely,



P. ALBERTSON
Commander, U.S. Coast Guard
Alternate Captain of the Port, Western Alaska

CROWLEY®

People Who Know™

Captain Marc A Bayer
General Manager, Shipping Operations
Tesoro Maritime Company

February 23, 2012

REF: Incident at KPL Dock on 13 January, 2012

Dear Captain Bayer,

With respect to the above referenced incident, attached is Crowley's Incident Investigation Report, conducted utilizing TapRoot® analysis and resulting corrective actions. Crowley's investigative process addresses two issues, the incident itself with respect to the Overseas Martinez and any issues specific to the tug Vigilant and her ability to operate in ice conditions in Cook Inlet.

The former issue is addressed in the attached Investigation Report. With respect to the latter issue, the cooling system / main engine shutdown was not a direct causal factor under the strict investigatory techniques applied by TapRoot® - the primary causal factor was really the positioning of the tug during Phase II ice conditions and coincide with the similar report issued by Tesoro.

In order to address the overheating / shutdown of both of the main engines on the Vigilant, Crowley undertook a separate internal investigation to determine causes and remedies. Below are our initial findings and plan to address:

1. The root cause of the overheating was a blockage of engine cooling water intakes by a pan of ice that set down on the tug. We do not believe that actual icing of the sea-chest was the issue but the volume of solid ice that was able to work itself against the sea-chest intake prevented water flow. This *could* have caused icing of the sea-chest to occur due to reduced water flow. The fact that the engines overheated and shut-down starboard side, then port side and the actual conditions of the ice coming under the boat support this.
2. The Vigilant is capable of operating in 3 modes: Mode (A) – normal cooling; Mode (B) – automated diversion of cooling water (heated) from overboard to back to the sea-chest to clear ice by heat and by pressure; Mode(C) which routes all cooling water through the tug's aft ballast tanks, providing a closed-loop system. Mode (B) is the normal mode for ice conditions and has been successfully utilized throughout ice conditions in the past. Mode (C) is considered an emergency measure in the case of Mode B failure.
3. At the time of the incident, the Vigilant was operating in Mode B. The auxiliary generator was operating in Mode C as it does not require the cooling volume of the main engines and is operated in Mode C so that it is not subject to cooling water interruption under any conditions
4. The first indication that the cooling system on main engines was under stress was the engineer monitoring the rapid rise in cooling water temperatures and then the alarms. The fact that the rise was sudden and abrupt further indicated blockage rather than icing of the sea-chests.

5. Transitioning to Mode C operations, the main engines were brought back on line in a few minutes. Once the engines were back up and running, the tug regained power and was able to assist and operate under its own power.

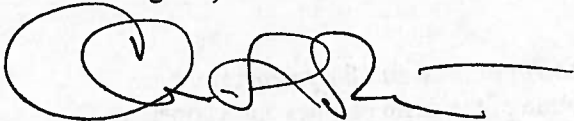
Based on the above findings, we are implementing the following corrective actions above and beyond those contained in attached report:

1. During inspection of the cooling system, it was found that the sea-chest vents, the outlets of which are close to the main deck, were iced up and blocked. This prevented the sea-chests from clearing and being able to recover from the blockage. The vent outlets have been relocated.
2. There has been some question as to whether or not the supplied Caterpillar Heat Exchangers have adequate "head room" cooling capacity. We are investigating increasing the size of the heat-exchangers, utilizing a third party supplied heat exchanger.
3. During Phase II ice conditions we propose to place a second engineer on board the vessel to (a) have a continuously monitored engine room during critical operations and (b) facilitate rapid transfer from Mode B to Mode C cooling methods.
4. The Tug Master and Ship Master will have a pre-assist discussion with respect to line tensioning and pre-setting the render / recover operation of the tugs' winch to an agreed upon setting, avoiding overload of bitts and cleats on the ship.
5. Conduct a cooling water capacity test to determine the maximum parameters of operating in Mode C and document within our Cook Inlet Operating appendix to our Vessel Operations Manual.
6. Prior to winter operations in Cook Inlet, conduct a pre-winter operations system check to:
 - a) Verify condition of the sea chest intakes
 - b) Flow-check the heat exchangers to ensure correct operating parameters
 - c) Test and inspect mixing valve operation
 - d) Conduct drills on switch-over to Mode C operation

We feel that the above corrective actions will address the findings relative to this incident and improve the operational readiness of the vessel to perform its' duties during all conditions as agreed in the Corrective Actions with respect to this incident.

If you have any questions or require any additional information, please contact me at your convenience.

Best regards,



Christopher L. Peterson
Crowley Marine Services, Inc.
Vic President, Operations

CROWLEY[®]

INCIDENT INVESTIGATION REPORT



Date: February 1, 2012

To: CMS Operations

From: CMS Operations Integrity

Occurrence: Loss of Main Engine Power - Tug *Vigilant*

Date of Occurrence: January 13, 2012

Location: KPL Dock – Nikiski, Alaska

What happened: While assisting the tanker *Overseas Martinez* at the KPL dock in Nikiski, the tug *Vigilant* suffered main engine shutdown subsequently causing damage to the ship when the tug fetched up on the main line. Prior to the incident the tug was working in heavy ice during the flood tide with a line up to the ship on the starboard shoulder.

Background: The *Overseas Martinez* arrived at the KPL dock on January 11, 2012. Once the ship was securely moored, the pilot asked the *Vigilant* to put up a line on the starboard shoulder during the flood tides because of an unusually heavy seasonal ice period.

The Chief Mate assumed the watch at 2345 on January 12 with the tug on the ship's shoulder. As the ebb tide shifted to the flood, the Mate flipped the tug around to stem the current. The main line was also paid out to a total of 100 feet off of the drum. USCG Cook Inlet Ice Procedures (Phase II) were in effect with a pilot on the ship and the vessel in standby with readiness to perform whatever actions were necessary to mitigate ice conditions, including getting underway or relieving mooring line strain. The ice scout vessel *Perseverance* was also stationed over a mile ahead to relay ice information to the ship.

The Captain relieved the Chief Mate at 0400. Maximum flood current of 5.1 knots was anticipated at 0507, and observed conditions on the *Vigilant* at the time of relief included less than 50% pan ice with no ice buildup on tug bow or between the dock and ship.

Occurrence: Between the hours of 0400 and 0530, little to no ice was observed by the tug around the KPL dock. From 0530 to 0600, the tug observed ice rapidly increasing in individual size and overall accumulation. At 0600 the Deckhand was called to the wheelhouse as lookout in order to allow the Engineer to man the engine room due to increasing concentrations of ice building around the ship. Anticipating the ice's potential to affect safe ship moorage, the pilot asked the *Vigilant* to push ahead inline towards the dock in order to mitigate strain on the mooring lines. Sometime between 0615 and 0630, a large pan of ice was observed by the Captain descending downstream between the ship and tug. As the ice pan piled up between the ship and the tug, the Captain increased the main engine RPM from approximately 65% to nearing 100% to maintain position under the additional ice load.

In the engine room, the engineer noted both raw water and jacket water temperatures on the starboard main engine beginning to near system parameter limits. As load continued to increase, the starboard main engine de-rated and shut down. The chief engineer shifted cooling from the main sea chest system to the ballast tanks via the ballast pump in an effort to force additional cooling water into the engine (this system is specific to the *Vigilant* for ice purposes). As the shift was made, the port main engine also de-rated and shut down due to excessive jacket water temperature.

In the wheelhouse, the Captain contacted the ship to attempt retrieval of the tug's main line once the starboard engine was lost. The bow winch was slackened and power was applied to the port engine; however the port engine also shut down due to high water jacket temperature. The tug's line was not able to be released and with no power the tug drifted with the current, fetching up hard against the main



line. The resulting shock load damaged deck fittings and railings on the ship. The Chief Mate, Second Mate, and Cook were now all in the wheelhouse to check on vessel status after hearing the increased engine load and winch noise.

In the engine room, the Chief Engineer was able to restart both main engines by temporarily bypassing the main engine high temperature limit. Once started both engines were force-cooled with both the fire pump and ballast pump utilizing the aft ballast tanks. Both main engines were able to operate at about 65% of full power.

The tug contacted the ship to attempt letting go the tug's main line. The ship's crew was unable to do so until both main engines were back up at approximately 0645. Once the main line was clear, the *Vigilant* floated with the ice while allowing the main engines to cool down and for the engineer to assess the situation. During this period both main engines suffered intermittent power losses. It was found the sea chest vents were iced up, but there seemed to be no restriction in the sea chest strainers. The Chief Engineer sent the Cook to clear the sea chest vents of accumulated ice. The Chief continued to cycle between force cooling and conventional cooling with main engine water pumps to lower cooling water temperatures. The tug drifted with the current for a little over a mile from the KPL dock until both main engines could run continuously within operational cooling water temperature parameters.

The *Vigilant* was able to eventually regain partial load capability on both main engines and return to her station off the *Overseas Martinez*. At 0810 the ship began departure operations. Due to the limited ability of the main engines, the Captain on the *Vigilant* determined it was better not to put a line up and only pushed on the starboard quarter towards the dock until ship was ready to depart. At approximately 0813 the pilot asked the *Perseverance* to put up a line to help assist the ship, but the *Perseverance* responded saying they were not set up to assist and it would take at least 30 minutes to do so. Once the ship had cleared moorings the *Vigilant* put up its main line and assisted the ship off the dock without incident. The *Vigilant* continued following the *Overseas Martinez* to Homer.

Findings

Causal Factor: Any problem associated with the incident that, if corrected, would have prevented the incident from occurring or would have significantly mitigated its consequences.

Root Cause: The most basic cause that can be reasonably identified as under control of management to fix and, when fixed, will prevent (or significantly reduce the likelihood of) the problem's recurrence.

Corrective Action: The action taken or to be taken to correct deficiencies (root causes) or prevent incident from occurring again.

- **Causal Factor:** Tug maintained position on the starboard shoulder with line up during the flood tide under Phase II ice conditions.
- **Root Cause(s):** No standards, procedures, or administrative controls: Tug positioning for Phase II ice conditions
- **Corrective Actions:** In accordance with updated KPL procedures for Phase II ice conditions, a post-arrival conference, including a risk assessment based on forecasted conditions, will be conducted with captains and persons-in-charge on the ship, ice scout, and assist tug. The *Vigilant* will be positioned based on this risk assessment under order of the ship master and/or pilot. Additionally, these updated procedures will be

incorporated into the Cook Inlet Appendix of Crowley Marine Services' Vessel Operations Manual.

Lessons Learned

- The *Vigilant* cooling system must be ready for severe service needs during the Cook Inlet winter ice season. A pre-season cooling maintenance period will now be undertaken annually with focus on the heat exchangers and sea strainers being thoroughly overhauled
- While the *Vigilant* was tied up on the shoulder, sufficient line remained on the drum to spool off if necessary in order to retreat behind the transom. As an operator, alternative action plans must be examined as part of any risk assessment prior to beginning a vessel job and agreed upon by all involved to avoid miscommunication and/or unanticipated consequences.
- Pilots, as advisers, are reliant on communication from our vessels regarding conditions and any potential inability to fully perform a requested maneuver. Operators must be mindful of both fulfilling the request while maintaining safety of the vessel and crew. Should our tugs be unable to fully comply with a request, clear response to the pilot must be made immediately with a reason why and possible alternate actions which the tug is capable of executing.
- Communication breakdowns occurred throughout this process between the tug, ship, and ice scout vessel. The importance of pre-job communication procedures being established before the job commences is once again highlighted through this incident.

Final Comments

While we pride ourselves on our ability to deliver customer service safely and efficiently, we must balance those needs both in the present and in the future. In this case, the *Vigilant* acted to respond as quickly as possible to a request for assistance. Although the vessel was hindered by the ice, power was restored and the tug was able to return for further service. Had the *Vigilant* been unable to regain power or had a more unfortunate incident result, the possibility arises of being unable to deliver any service at all. Our crews are our most important asset followed by our vessels. Without either we are unable to perform the vital service we are depended on to provide. The stakes go up considerably when our services are unique to an area. In the case of the *Vigilant*, she is the sole Crowley tug in Cook Inlet capable of providing the services needed at the KPL dock.

Our best defense is prevention by always thinking ahead. Whenever we undertake a job, from cooking a meal for our fellow crew to escorting an oil tanker, consider whether you are able to answer the following questions:

What's the worst thing that could happen here?

How can I prevent that from happening?

What are my escape routes if something does happen?

Am I at full readiness to begin this job?

Only by successfully having answers to each of these questions can we confidently continue to deliver the service to our customers on which they depend.

ORIGINAL ARTICLES

THE EFFECT OF VITAMIN C ON THE ABSORPTION OF IRON IN THE SMALL INTESTINE
J. H. HENRIKSEN, M.D., and J. H. HENRIKSEN, JR., M.D.,
Department of Medicine, University of Wisconsin, Madison, Wis.

Abstract.—The effect of vitamin C on the absorption of iron in the small intestine was studied in man. The results show that the absorption of iron is increased by the administration of vitamin C. The increase is more marked when the iron is administered as ferrous sulfate than when it is administered as ferric sulfate.

Introduction.—The effect of vitamin C on the absorption of iron in the small intestine has been studied in man. The results show that the absorption of iron is increased by the administration of vitamin C. The increase is more marked when the iron is administered as ferrous sulfate than when it is administered as ferric sulfate.

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TESORO

Tesoro Companies, Inc.
19100 Ridgewood Parkway
San Antonio, TX 78259
210 626 6000

February 9, 2012

Mr. John Kotula
Marine Vessels Section Manager
State Of Alaska - Dept. of Environmental Conservation
P.O. Box 1709
Valdez, AK 99686

Dear Mr. Kotula:

Subject: Notice of Violation
Enforcement Tracking No. 12-0023-40-9616
File No. 302.75.500 (Tesoro CI)

I am writing to fulfill the first requirement in Tesoro's Notice of Violation dated January 27, 2012, identifying immediate measures implemented to ensure compliance with the Tesoro Cook inlet Tank Vessel Oil Discharge Prevention and Contingency Plan.

1. Communication procedures:
 - VHF Channel 10 will be used for all communications. Back-up communications will be (VHF Channel 13)
 - The KPL dock will monitor VHF Channel 10
 - The Dock, the attending tugboat, and the tanker have KPL Shore Radios (UHF) to relay if necessary
 - Cell phone and landline phone numbers will be exchanged
2. On completion of each docking evolution at KPL, and prior to the start of any transfer operation, a meeting will take place and documented in the deck log of each vessel, and reference the bulleted checklist below.

The tanker bridge watch, the ice scout and the attending tug will hold and document a radio conference to discuss expectations from each vessel during the tanker's time alongside KPL.

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Department of
Environmental Conservation

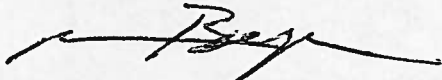
Pre Transfer Ice Checklist:

- Ice scout and attending tug position in relation to the state of the tide and current
 - Times of predicted current
 - Communication procedures
 - Other relevant information
3. Tesoro updated and revised the training for KPL dock and tanker personnel regarding the use of the **KPL Dock-Declaration of Operating Procedures for Ice Conditions** and instituted a procedure to reconfirm and sign at each shift change.
4. Attending assist tug:
The tug will stand by in position as directed by the tanker master and attending pilot. When practicable during flood currents, a line will be made fast to the tanker in such a way that the tug can self-release from the tanker.
5. Ice Scout:
The ice scout will be on station up current of the moored tanker during predicted episodes of 4 kt currents or greater. The ice scout will radio the tanker and attending tug at a minimum of one-hour intervals and report if ice is present. The report will contain details on the type of ice and the quantity of ice concentrations as they bear down on KPL and the moored tanker. The ice scout will move closer to the vessel as the current slackens and stand by close to abeam the tanker at slack water. The ice scout will be directed to chop/break ice, when necessary, up current of the moored tanker.
6. While in USCG Phase II ice conditions, during daylight hours and the predicted current is 4.0 knots or greater, and the vessel is encountering ice conditions alongside the KPL dock or about to encounter ice conditions, then transfer operations will be shut down and hoses drained and ready to disconnect if necessary.
7. During the hours of darkness from sunset to sunrise (civil twilight) when USCG Phase II ice conditions are in effect, and the predicted current is 4.0 knots or greater, cargo transfer will be shut down and hoses drained and prepared to be disconnected if necessary.

As always, if the Terminal Person in Charge, the Vessel Master, the SWAPA Pilot, or the Tesoro Marine Superintendent feels conditions are such that transfer operations be shut down, then the transfer shall not be restarted until all parties agree to resume.

If you have any questions, please feel free to call me (210) 626-4414.

Sincerely,

A handwritten signature in black ink, appearing to read 'Bayer', with a long horizontal stroke extending to the right.

Captain Marc Bayer

Attachments: KPL Dock-Declaration of Operating Procedures for Ice Conditions
Tanker/KPL Dock/Ice Scout/Assist Tug Checklist during Phase II

cc: Vince Kelly – ADEC
Eric Haugstad – Director, Contingency Planning and Response
Shawn Brown – Manager, Pipeline and Terminals
Jack Jensen – Alaska Marine Superintendent
James Tangaro – VP, Tesoro Alaska Company
Chris Petersen – Crowley
Greg Doyle – OSG

The first part of the report deals with the general situation of the country and the progress of the work during the year.

The second part contains a detailed account of the work done in the various departments during the year.

The third part gives a summary of the results of the work done during the year.

The fourth part contains a list of the names of the persons who have been employed during the year.

The fifth part gives a list of the names of the persons who have been employed during the year.

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The twelfth part contains a list of the names of the persons who have been employed during the year.

The thirteenth part gives a list of the names of the persons who have been employed during the year.

Received Jan. 23, 2012



TESORO

Tesoro Companies, Inc.
19100 Ridgewood Parkway
San Antonio, TX 78259
210 626 6000

January 16, 2012

Mr. Vince Kelly
State of Alaska
Department of Environmental Conservation
Marine Vessel Section
P. O. Box 1709
Valdez, Alaska 99686

Dear Mr. Kelly:

Reference: OS Martinez Incident, January 13, 2012

The OS Martinez was port side alongside the KPL dock transferring cargo since January 10. On Friday morning at 0623, while loading RUL and HSFO, the OS Martinez started to encounter ice. The Captain and Pilot were on the bridge, as required by the USCG Cook Inlet Phase 2 ice rules, and were monitoring the situation. The Captain was acting as the ice mate at the time and the ice mate was in the Cargo Control Room assisting with cargo and monitoring the Mooring Load Monitoring System. The ice scout, the Perseverance, was about two miles ahead of the ship and encountered brash ice. The predicted current speed at 0600 was 4.5 kts and dropping; at 0630, it was predicted to be 3.75 kts. The Captain and Pilot were monitoring the current speed on the ship's speed log and noted it to be consistently 1 kt less than the predicted currents.

At 0623, the Mooring Load Monitoring System indicated additional strain on the after lines and the Master and Pilot made the decision to have the tug, Vigilant, take a strain on the tow line which was connected to the stbd side forward. The tug acknowledged the order and attempted to come up into position but lost propulsion. The stbd main engine experienced cooling problems and shut down. While then attempting to retrieve the towline from the ship, the tug's port main engine shut down due to overheating. After a few minutes, both main engines were restored, and the Vigilant retrieved its towline. After assessing the engine shut down issues, the Vigilant resumed activity and proceeded to assist the ship away from the berth.

At the same time, the tug started to have propulsion difficulties, and the Master called for emergency shut down and that disconnect procedures be put into effect. The ship moved aft along the dock 15' due to the increased weight of the tug drifting in the current. The Captain and Pilot took immediate action and used the ship's engines to stabilize the ship alongside the dock. The Captain noted that, since the tug was experiencing mechanical difficulties, it would be prudent to depart from the dock for Homer until repairs could be made to the tug.

The KPL dock was undamaged, no lines were broken, no spill occurred and no injuries to personnel took place. There was damage to the OS Martinez handrail and the chock where the tug line was passed through to be made fast.

0623 - OS Martinez calls for "shut down, shut down, shut down" - pumps shut down and Motor Operated Valves closing
0624 - Dock header valves blocked
0625 - Ship slipped aft 15 feet
0630 - Tank farm and line handlers arrive
0641 - Gangway off
0645 - Hoses voided
0714 - Hoses down
0731 - All lines dropped. Ship maneuvering alongside the dock
0812 - Ship calls for one line aft spring for maneuvering the bow off
0822 - Let go last line, vessel sails for Homer

Corrective Actions:

Tug Vigilant

USCG inspector Dennis Sullivan in Homer inspected Tug Vigilant. Mr. Sullivan did not issue an 835 requiring any repairs but did identify some corrective actions be taken before departing Homer to reenter service at KPL. The following was completed and the USCG notified Sunday January 14 and 15, 2012. Received no response back from the USCG, and the tug returned to service at KPL Sunday January 15.

Cooling System Maintenance Items

1. Hourly rounds inspecting the condition of the sea chest vents, clearing as required.
2. Verify the jacket water temperature alarm is functioning properly on both main engines.

3. Perform cleaning procedure on port and starboard main engine jacket water-cooling heat exchangers.
4. Replace both main engine lube oil coolers.

Cooling System Repair Items

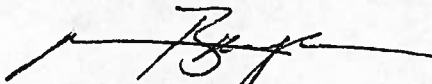
1. Reposition port and starboard sea chest vents to inside of the engine room to prevent freezing.
2. Install isolation valves on the port and starboard generator engine overboard discharge lines to allow for use of discharge line for main engine bypass while generators are running.
3. Replace starboard main engine Trac valve actuation controller.

OS Martinez

OS Martinez was inspected by the USCG and issued an 835 to make all repairs to the stbd side mooring chock and deck at the first US West Coast port, which will be Puget Sound. The ship returned to the KPL dock at 1700 hours Sunday, January 15, in order to complete loading and take on bunker fuel for the voyage south.

If you have any questions, please feel free to call me (210) 626-4414.

Sincerely,



Captain Marc Bayer

cc: Eric Haugstad – Director, Contingency Planning & Response
James Tangaro – VP, Tesoro Alaska Company

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**DEPARTMENT OF ENVIRONMENTAL CONSERVATION
STATE OF ALASKA**

NOTICE OF VIOLATION

Failure to comply with the terms of an approved Oil Discharge Prevention and Contingency Plan
under 18 AAC 75.490(a)

To:

**Mr. Eric Haugstad
Director, Contingency Planning & Response
Tesoro Maritime Company
19100 Ridgewood Parkway
San Antonio, TX. 78259**

**Enforcement Tracking No. 12-0023-40-9616
File No. 302.75.500 (Tesoro CI)**

The Alaska Department of Environmental Conservation (department) alleges that during an oil transfer operation conducted on January 13, 2012, Tesoro Alaska Company (Tesoro) continued to transfer oil products at the Kenai Pipe Line (KPL) dock during tidal currents and ice conditions in which their approved Tesoro Cook Inlet Tank Vessel Oil Discharge Prevention and Contingency Plan (plan) calls for them to discontinue all transfer operations. Failure to cease loading operations contributed to a near miss incident involving the Tesoro-chartered tank vessel *Overseas Martinez*.

The United States Coast Guard (USCG) annually promulgates a set of special operating procedures for winter ice conditions in Cook Inlet. Tesoro listed procedures in their department-approved plan that are based on the USCG procedures, and has stated that these procedures will be implemented. These procedures include, among other things, proper clothing for crew, protection of engines from failure due to ice, and specific procedures for mooring and conducting oil transfers at certain docks, including KPL. The USCG procedures are implemented through notifications to mariners in two phases which correspond to geographic areas. Phase One includes upper Cook Inlet and the Anchorage area. Phase Two includes the area where the KPL dock is located. Phase Two procedures had been in effect since January 3, 2012. The plan states that when USCG Phase Two special operating procedures are in effect, the flood current is forecast to be 4 knots or greater, and the vessel is encountering ice conditions alongside the KPL dock "all transfer operations will be discontinued" (p. 2.4-5, Tank Vessels at KPL Dock).

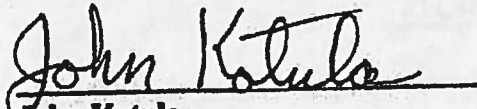
According to the National Oceanic and Atmospheric Administration (NOAA) current data referenced by the USCG in their special operating procedures; the predicted current on the

Eric Haugstad
Tesoro Alaska Company

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January 27, 2012

Nothing in this notice shall be construed as a waiver of the State's authority or as an agreement on the part of the State to forego judicial or administrative enforcement of the above-described violation(s) or to seek recovery of damages, cost and penalties as prescribed by law. In addition, nothing herein shall be construed as a waiver of enforcement for past, present, or future violations not specifically set forth herein.


John Kotula,
Marine Vessels Section Manager

☒ Sent by Certified Mail
☐ Sent by Registered Mail

#7010 2780 0000 2178 0232

on the 27 day of January 2012.

Electronic cc:

Marc Bayer, Tesoro Maritime Company
Steve Mulder, Department of Law
Betty Schorr, ADEC