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From: Captain of the Port, Western Alaska

To: Distribution

SUBJ: 2008 OPERATING PROCEDURES FOR ICE CONDITIONS IN COOK INLET

The Coast Guard has developed special operating procedures for all vessels transiting Cook Inlet during winter ice conditions. These "Special Operating Procedures" will be implemented through Navigation Safety Advisories and issued by the Captain of the Port, Western Alaska (COTP) in two phases. Phase One covers Upper Cook Inlet and Phase Two covers Lower Cook Inlet. These areas are geographically separated at 60 degrees, 45 minutes North Latitude (East & West Forelands). The distinct separations within the inlet are in place to provide timely, accurate assessments of ice conditions in both Upper and Lower Cook Inlet. These procedures are in place to reduce the potential for casualties resulting from extreme frigid waters/ice and associated impact on vessel propulsion, auxiliary and mooring systems. Outlined below are the two separate procedures and locations for which the appropriate phases apply. These procedures will be implemented as necessary to aid in the mitigation of inherent risks to life, property, and the environment as ice conditions dictate. The presence and severity of ice conditions in Cook Inlet will be based upon current and forecast severe sub-zero temperatures, information provided by the National Oceanic and Atmospheric Administration (NOAA), Southwest Alaska Pilots Association (SWAPA), aerial observation, and the Cook Inlet marine operators. These special operating procedures have been developed in cooperation with the U. S. Coast Guard and Cook Inlet marine operators and represent a culmination of best practices based on the combined experience of operating in Cook Inlet over many years. It should be noted that vessel masters are ultimately responsible for the safe operation of their vessel at all times. Avoidance of appropriate risk mitigation measures in accordance with these jointly developed guidelines may result in the COTP issuing an order to initiate additional measures reducing significant risk. At all times, it is the master's responsibility to take all necessary and prudent steps to effectively mitigate the risks associated with operating in Cook Inlet when ice conditions are present.

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

1. All vessel masters shall ensure proper operation of all machinery and systems in ice-filled waters and ambient air temperatures to -40 degrees F. This includes emergency fire pumps, generators and mooring winches.
2. The vessel master shall maintain adequate draft to keep the sea suction and propeller well below the ice to prevent ice from sliding under the vessel. If it is necessary for a non tank vessel to deviate from the ship's normal ballast procedures, i.e. place water ballast in a cargo hold to meet these requirements, approval from the vessel's classification society must be obtained prior to transiting Cook Inlet.
3. Vessel crews shall have adequate personal protection for cold weather during deck operations.

4. Vessels shall not force ice at any time. If, in the opinion of the vessel master and/or pilot, the vessel is forcing ice, the transit shall be aborted. A good indication of forcing ice is when the vessel slows to 50% or less of the speed being made before entering the ice.

Vessels with Internal Combustion Engines:

1. If fitted with a heat exchanger, the raw water shall be kept at a temperature to prevent the accumulation of ice or slush within the system. This shall be achieved by delivering a heated medium to both the primary and secondary sea chests that raises the temperature to prevent icing. When these procedures are in effect, the medium shall 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 intended service will be acceptable.
2. Starting and control air tanks shall remain peaked.
3. 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.
4. The Coast Guard will monitor compliance with these procedures. All self-propelled vessels transiting Cook Inlet for the first time while these procedures are in effect may be subject to inspection prior to transit north of Anchor Point. Vessel masters or their agents should contact the COTP at their earliest opportunity to present their vessels to the Coast Guard for inspection. In order to determine if vessels are subject to inspection, notification and request for inspection shall be made at least 24 hours in advance of the vessel's arrival to the Homer pilot station. This inspection program is in addition to any other Coast Guard inspections and/or examinations that may be applicable to a particular vessel. If you have any questions concerning this matter, please contact Waterways Management (WWM) at our Anchorage, AK office at (907) 271-6956 or the COTP representative at Marine Safety Detachment Kenai at (907) 283-3292.

PHASE ONE/UPPER COOK INLET: These procedures are for vessels in Upper Cook Inlet defined as north of the East and West Forelands: 60 degrees, 45 minutes North Latitude.

WHILE MOORED AT FACILITIES IN UPPER COOK INLET:

1. All vessels shall be moored in such a fashion that "worst case" ice conditions may be immediately mitigated. A sufficient number of additional mooring lines shall be immediately available.
2. Engines and propulsion systems shall be on immediate standby so that they can be used to relieve strain on mooring lines and/or place the vessel underway as necessary. While these guidelines are in effect, steam shall be continuously delivered to both the primary and secondary sea chests.
3. Vessels shall maintain underway watches in engineering spaces and on the bridge when ice conditions threaten a vessel's mooring arrangement.
4. If ice builds-up between a vessel and pier or under a moored barge, the vessel shall be pulled away from the berth prior to max ebb tide to flush away ice that has accumulated.

5. An underway watch, including a pilot will be maintained on the vessels navigation bridge.

PHASE TWO/LOWER COOK INLET: These procedures are for vessels in Lower Cook Inlet defined as south of the East and West Forelands: 60 degrees, 45 minutes North Latitude.

GUIDELINES FOR VESSELS MOORED AT KPL AND CONOCO PHILLIPS DOCKS:

1. When the flood current is forecast to be **greater than 4 knots** or any other time a vessel is encountering ice conditions alongside the KPL dock the following actions will be taken:
 - a. All transfer operations will be discontinued.
 - b. Transfer hoses shall be made ready for immediate disconnect if conditions warrant.
 - c. Vessels should be continuously manned (to include a pilot) in a fashion that would allow the most expeditious means of mitigating ice conditions by relieving strain on mooring lines and/or getting the vessel underway as necessary.
 - d. Engines and propulsion systems shall be in a status that will allow the most expeditious means of mitigating ice conditions by relieving strain on mooring lines and/or getting the vessel underway as necessary
 - e. A designated vessel shall be positioned up current of the moored vessel as an ice scout. The ice scout shall only work under the direction of the moored vessel's navigational watch. The ice scout shall be positioned in the best location so that current ice conditions can be relayed to the moored vessel in a timely manor, allowing vessel response to expedite prudent risk mitigation.

2. When the flood current is forecast to be **5 knots or greater** and the vessel is encountering ice conditions while alongside the ConocoPhillips and/or the KPL dock the following actions will be taken:
 - a. All transfer operations will be discontinued.
 - b. Transfer hoses shall be disconnected.
 - c. Vessels should be continuously manned (to include a pilot) in a fashion that would allow the most expeditious means of mitigating ice conditions by relieving strain on mooring lines and/or getting the vessel underway as necessary.
 - d. Engines and propulsion systems shall be in a status that will allow the most expeditious means of mitigating ice conditions by relieving strain on mooring lines and/or getting the vessel underway as necessary
 - e. A designated vessel shall be positioned up current of the moored vessel as an ice scout. The ice scout shall work under the direction of the moored vessel's navigational watch. The ice scout shall be positioned in the best location so that current ice conditions can be relayed to the moored vessel in a timely manor, allowing vessel response to expedite prudent risk mitigation.

3. The vessel Master, Pilot, or Person in Charge (PIC) shall make a decision to discontinue transfer operations, disconnect hoses, and get the vessel underway at any time that circumstances warrant.

4. To receive 2008-2009 forecast currents corrected for the Nikiski docks and published by SWAPA contact USCG Sector Anchorage COTP web site: <http://homeport.uscg.milanchorage> or the SWAPA office in Homer at 907-235-8783.

BARGE OPERATIONS

When transiting to an area where Special Operating Procedures are in effect in Cook Inlet, towing vessels with barges are required to file a voyage plan with the COTP via the following email address: D17-pf-anc-sdoanc@uscg.mil. The COTP will carefully evaluate vessel movements within Cook Inlet based on an assessment of ice conditions collected from ice overflights, reviews of National Weather Service reports and observations made by SWAPA and other operators. The plan will advise the COTP of intentions to contract with a local tug to lead the tow through the ice pack if necessary.

If Ice conditions preclude safe operation of vessels at the 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.

Port of Anchorage Tug/Barge Operating Procedures:

1. When phase one upper Cook Inlet winter ice operating procedures are in effect, in addition to filing a voyage plan with the COTP, the following actions will be taken.
 - a. At least one tug will lead the barge and attending tug through the ice pack and provide assistance into the berth.
 - b. When the published current is **2.5 knots or greater**, a minimum of one tug in addition to the attending tug will stand by the tow while at berth.
 - c. The attending tugs main engines will remain running while the tow is moored at the facility.
 - d. Tugs/barges mooring in the Port of Anchorage at (P.O.L. one and two) shall moor port side to so their bow will face the flood current to better stem the force of ice during the stronger flood tide. Mooring port side to will also facilitate maneuvering in the event of an emergency.
 - e. If ice builds-up between a vessel and pier or under a moored barge, the vessel shall be pulled away from the berth prior to max ebb tide to flush away ice that has accumulated.

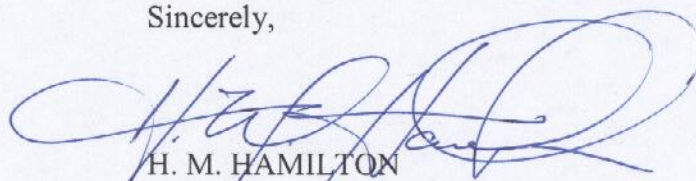
Nikiski Tug/Barge Operating Procedures:

1. When phase two lower Cook Inlet Special Operating Procedures are in effect, in addition to filing a voyage plan with the COTP the following actions will be taken:
 - a. An "assist" tug will assist the barge and attending tug into the facility.
 - b. When the published current is **2.0 knots or greater** an assist tug in addition to the attending tug will stand by the barge while at berth.
 - c. Both the attending tug and "assist" tug main engines will remain running and ready for immediate operation.
 - d. When an "assist" tug is required but no ice is present at the dock, the "assist" tug will act as an ice scout up-current of the barge. The assist tug will re-position alongside the moored tow anytime ice becomes a threat.
 - d. The tow will be moored so as to stem the worst ice condition to be expected.
 - e. The facility 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.
 - f. Barges will not be permitted alongside the Nikiski docks when the current is **3 knots or greater**.

FACILITIES

1. Facility operators should follow their own ice procedures when deemed necessary.

Sincerely,



H. M. HAMILTON
Captain, U.S. Coast Guard
Captain of the Port, Western Alaska

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