

STATE OF ALASKA

**DEPT. OF ENVIRONMENTAL CONSERVATION
DIVISION OF SPILL PREVENTION AND RESPONSE
INDUSTRY PREPAREDNESS PROGRAM**

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November 30, 2006

OIL DISCHARGE PREVENTION AND CONTINGENCY PLAN AMENDMENT APPROVAL

Mr. Robert I. Shoaf
JPO Executive Liaison
Alyeska Pipeline Service Company
P. O. Box 196660
Anchorage, AK 99519

Subject: **Trans Alaska Pipeline System (TAPS) Pipeline Oil Discharge Prevention and Contingency Plan (CPlan) Renewal Application dated March 1, 2006, as revised. ADEC Plan No. 06-CP-4071**

Dear Mr. Shoaf:

The Alaska Department of Environmental Conservation (Department) has completed its review of the March 1, 2006 application for approval of the following Oil Discharge Prevention and Contingency Plan (Cplan):

Trans Alaska Pipeline System Pipeline Oil Discharge Prevention and Contingency Plan, CP-35-1, Volume 1, Ed. 1, Rev. 0, dated March 1, 2006, consisting of Volume 1 - Regulatory Volume, Volume 2 - Scenarios, Volume 3- Tactics, and Volume 4 - Map Atlas. Revision 1, dated August 23, 2006 and Revision 2, dated September 11, 2006.

Supporting Documents:

- Environmental Atlas of the Trans Alaska Pipeline System, EA-119, Second Edition, May 2002**
- Oil spill Response Exercise Program for the Trans Alaska Pipeline System, January 1, 2007 - December 31, 2011**

Plan Holder: Alyeska Pipeline Service Company (APSC)

Covered Facilities: **Pipeline and Pump Station operations for the Trans-Alaska Pipeline System from Pump Station 1 to the boundary of the Valdez Marine Terminal, including Pump Stations 1 – 12 and Response Bases.**

The Alaska Department of Environmental Conservation's (Department's) review and approval of the APSC TAPS Pipeline Cplan is limited to authorities granted in Alaska Oil and Hazardous Substance Pollution Control statutes and regulations found in Alaska Statute Title 46, Chapters 3 & 4 (AS 46.03 & AS 46.04) and Alaska Administrative Code Title 18, Chapter 75 (18 AAC 75).

PLAN AMENDMENT APPROVAL:

The Department has determined that the referenced plan satisfies minimum planning standards and other requirements established under applicable statutes and regulations and can be approved with conditions. Therefore, the Trans Alaska Pipeline System, Pipeline Oil Discharge Prevention and Contingency Plan is hereby APPROVED WITH CONDITIONS. The approval of the Cplan is subject to the following terms and conditions:

TERMS AND CONDITIONS:

The Department is attaching many conditions to this approval. Partly, the number of conditions is due to the fact that the renewal application combined three major efforts: the required five-year renewal of the Cplan; a description of the facilities and response structure after completion of the Strategic Reconfiguration (SR) Project; and a complete physical reorganization and restructuring of the Cplan. Each effort is quite significant, and by combining them into one renewal application, the review process was quite challenging. As a result, this approval decision needs to be fairly complex to assure that the TAPS Cplan provides for compliance with the statutes and regulations identified above.

The first 15 Conditions of Approval are partially or wholly based on the fact that APSC's Strategic Reconfiguration (SR) Project was not completed by the 3rd quarter of 2006 as anticipated when the TAPS Pipeline Cplan renewal application was submitted. Throughout most of the Department and public review periods, APSC maintained that the majority of SR work would be completed before the Cplan renewal deadline of November 30, 2006. As it stands now, none of the SR work that impacts the descriptions of the facility and operation of the central and northern ends of the TAPS Pipeline has been completed and fully implemented. This affects APSC's ability to implement basic prevention procedures as well as reconnaissance and response organizational changes described in the TAPS Pipeline Cplan renewal application. Therefore, the first 15 Conditions of Approval are imposed primarily to require that APSC incorporate portions of the past TAPS Cplan (ADEC Plan Number 015-CP-4131) into the newly approved TAPS Cplan so that it reflects the actual configuration and operation of the TAPS Pipeline at this time. In addition, some portions of those Conditions of Approval also reflect proposed elements of the Strategic Reconfiguration plan that the Department is rejecting for certain facilities. We have endeavored to make the following Conditions of Approval clear and measurable. Many require edits that will be completed prior to publication of the Cplan in early

2007. Regardless of the status of the implementation of the SR Project, APSC is responsible for full compliance with State oil pollution prevention and control statutes and regulations.

The remaining Conditions of Approval are not related to delays in the SR Project.

Condition of Approval No. 1: Requirement to Incorporate Detailed Diagrams and Descriptions of Current Facility Configuration in the Cplan.

Prior to publication of the approved Cplan, APSC is required to modify the facility diagrams provided in the Response Action Plan to show which facility components are currently in place and in operation as described below:

- Pump Station 1. Figure 1.23, Pump Station 1/Prudhoe Response Base Post SR Site Plan and Facility Drainage does not reflect the current configuration and operation of Pump Station 1. Figure 1.24, Pump Station 1 Current Site Plan and Facility Diagram, may remain in the Cplan. Section 1.9.3, Pump Station 1, from the past TAPS Cplan, must be edited back into the Cplan prior to publication in order to have a detailed diagram of the current facility within the approved Cplan. When the SR Project is complete and fully implemented at Pump Station 1, APSC may apply for an amendment to remove the old diagram and description and to place Figure 1.23 in the Cplan.
- Pump Station 3. Figure 1.25, Pump Station 3 Current Site Plan and Facility Drainage reflects the *future* configuration and operation of this facility. Section 1.9.4 from the past TAPS Cplan must be edited back into the Cplan prior to publication in order to have a detailed diagram of the current facility within the approved Cplan. When the SR Project is complete and fully implemented at Pump Station 3, APSC may apply for an amendment to remove the old diagram and description and to place Figure 1.25 in the Cplan.
- Pump Station 4. Figure 1.26, Pump Station 4/Galbraith Response Base Post SR Site Plan, reflects the *future* configuration and operation of this facility. Figure 1.27 and Figure 1.28 may remain in the Cplan. Section 1.9.5 from the past TAPS Cplan must be edited back into the Cplan prior to publication in order to have a detailed diagram of the current facility within the approved Cplan. When the SR Project is complete and fully implemented at Pump Station 4, APSC may apply for an amendment to remove the old diagram and description and to place Figure 1.26 in the Cplan.
- Pump Station 5. Figure 1.29, Pump Station 5/Prospect Response Base Post SR Site Plan and Facility Drainage reflects the *future* configuration and operation of this facility. Figures 1.30 and 1.31 may remain in the Cplan. Section 1.9.6 from the past TAPS Cplan must be edited back into the Cplan prior to publication in order to have a detailed diagram of the current facility within the approved Cplan. When the SR Project is complete and fully implemented at Pump Station 5, APSC may apply for an amendment to remove the old diagram and description and to place Figure 1.29 in the Cplan.
- Pump Station 9. If the SR Project is complete and implemented at Pump Station 9/Delta Response Base within 60 days of this approval, Figure 1.36 may remain in the Cplan. It must be edited, however, to identify the "retained warm"

facilities, including regulated tanks that are present at the facility and not removed from service by being drained, cleaned and isolated. If the SR Project is not complete and implemented at Pump Station 9 within 60 days of the approval of this Cplan, Figure 1.36 must be removed and Section 1.9.10 from the past TAPS Cplan (ADEC Plan Number 15-CP-4131) must be edited back into the plan. If this is the case, APSC may apply for an amendment to remove the old diagram and description and place Figure 1.36 in the Cplan upon full implementation of the SR Project at Pump Station 9.

- Glennallen Response Base. Figure 1.38, Glennallen Response Base Site Plan, must be edited prior to publication to show the oil spill equipment warm storage area which is currently located beyond the boundaries of either Figure 1.38 or 1.39.

This requirement is discussed in the Findings Document, Issue No. 1.

Condition of Approval Number 2: Requirement to Document Daily Checks for the Presence of Oil Leaks or Spills in Regulated Tank Secondary Containment Areas in the Cplan.

APSC must incorporate into the Cplan procedures to conduct daily checks for the presence of oil leaks or spills in regulated tank secondary containment areas at all manned facilities. The Department finds that the only TAPS Pipeline facilities that meet the criteria for secondary containment checks "each time the facility is visited, but at least monthly, at an unmanned facility...." are Pump Station 2, Pump Station 7, Pump Station 8, Pump Station 10 and Pump Station 12. Daily checks of regulated secondary containment areas at all other APSC facilities, including Pump Station 3, Pump Station 4, Galbraith Lake Airport, Pump Station 5, Prospect Creek Airport, Pump Station 6, and Pump Station 9 must be continued and those procedures placed into the TAPS Cplan upon publication. Table 2.7, Secondary Containment Areas Subject to Daily Inspection and Table 2.8, Secondary Containment Areas Subject to Monthly Inspection must be edited prior to publication to reflect the required daily checks outlined in this condition. This requirement is discussed in the Findings Document, Issue No. 1.

The Department notes that APSC may submit an amendment for consideration of discontinuing the required daily checks of secondary containment at Pump Station 3 if it becomes an unmanned facility when the SR Project is complete and fully implemented.

Condition of Approval Number 3: Requirement to Insert Tank Inspection Procedures at Pump Station 3 and Pump Station 9 into the Cplan.

Section 2.1.6.2, Tank Inspection Procedures, must be modified to reinstate tank inspection procedures at Pump Station 3 and Pump Station 9 that were removed in anticipation of the completion of Alyeska's Strategic Reconfiguration Project. This requirement is discussed in the Findings Document, Issue No. 1.

The Department notes that APSC may submit an amendment for consideration of switching to monthly checks at Pump Station 3 if it becomes an unmanned facility when the SR Project is

complete and fully implemented at Pump Station 3. Pump Station 9 will not be considered unmanned for purposes of compliance with oil spill prevention requirements upon completion of the SR Project.

Condition of Approval Number 4: Requirement to Insert Tank Overfill Technology for Tanks 33-TK-137 and 35-TK-157 into the Cplan.

APSC is required to maintain functioning approved overfill protection at all regulated tanks that are in service. It is the Department's understanding that Tanks 33-TK-137 and 35-TK-157 remain in service pending completion of SR Project work. Table 2.3, Pump Station Tank Overfill Technologies, must be edited to reflect that the overfill technology previously approved for these tanks remains functional. This requirement is discussed in the Findings Document, Issue No. 1.

The Department notes that APSC may submit an amendment to eliminate maintenance of tank overfill technology for these tanks when they are permanently removed from service, drained, isolated and cleaned.

Condition of Approval Number 5: Requirement to Insert Procedures for Conducting Leak Detection Rounds at Regulated TAPS Facilities into the Cplan.

APSC is required to conduct visual checks for leaks or damage of above ground piping during routine operations or at least monthly. Section 2.1.8.4, Pump Station Leak Detection, must be edited upon publication of the approved Cplan to reflect that this requirement is being met at all staffed regulated facilities associated with the TAPS Pipeline. These facilities include Pump Station 3, Pump Station 5, the Yukon River Response Base, and Pump Station 9 as well as the facilities currently designated for these checks in the Cplan. The Yukon Response Base includes regulated storage tanks. No above ground piping associated with regulated tanks or at any portion of the facility is exempt from this requirement. This requirement is discussed in the Findings Document, Issue No. 1.

The Department notes that APSC may submit an amendment for consideration of switching to monthly leak detection rounds at Pump Station 3 if it becomes an unmanned facility when the SR Project is complete and fully implemented at Pump Station 3. Pump Station 5, the Yukon River Response Base and Pump Station 9 will not be considered unmanned for purposes of compliance with oil spill prevention requirements upon completion of the SR Project.

Condition of Approval No. 6: Requirement to Replace Sag River Oil Spill Response Scenario with Sag River Oil Spill Response Scenario from TAPS Cplan, ADEC Plan Number 15-CP-4131.

Prior to publication, the Sag River oil spill scenario must be replaced with the Sag River oil spill scenario approved by the Department in the past TAPS Cplan, ADEC Plan Number 15-CP-4131. This requirement is necessary to accurately reflect response personnel departure points for this spill scenario and tiered response plans that are in place prior to implementation of the SR Project. This requirement is discussed in the Findings Document, Issue No. 1.

APSC may apply for an amendment to reinstate the Sag River Scenario as submitted in the renewal application once the SR Project has is complete and fully implemented for Pump Station 3.

Condition of Approval No. 7: Requirement to Reinstate Pipeline ROW Reconnaissance, Pipeline ROW Deployment and On-Scene Command Exercises for Pump Station 3 in the TAPS Drill and Exercise Program.

APSC is required to reinstate Right-of-Way Reconnaissance Exercises, Right-of-Way Deployment Exercises, and On-Scene Command Exercises for Pump Station 3 into the TAPS Drill and Exercise Program. These exercises must be scheduled for 2007, 2008 and 2009. This requirement is discussed in the Findings Document, Issue 1.

Once the SR Project is complete and fully implemented at Pump Station 3, APSC may submit an amendment to the TAPS Drill and Exercise Program for the Department's review that would remove those categories of exercises from the Pump Station 3 schedule.

Condition of Approval No. 8: Requirement to Maintain Oil Spill Reconnaissance Teams and Strategies Based on Personnel Located at Pump Station 1, Pump Station 3, and Pump Station 4.

APSC is required to edit Volume 3, Section 2.5, Reconnaissance Actions to incorporate Summer and Winter Departure Points that are in actual use at this time. Specifically, Pump Station 3 is to be identified as a personnel departure point for reconnaissance teams. The purpose of this requirement is to recognize that prior to complete implementation of the SR Project at Pump Station 3, oil spill reconnaissance and response personnel will be based at that facility. This requirement is discussed in the Findings Document, Issue No. 1.

APSC may apply for an amendment to revise Section 2.5 Reconnaissance Actions to its proposed deployment scheme that has been reviewed by the public once the SR Project is complete and fully implemented.

Condition of Approval No. 9: Requirement to Maintain Currently Approved Oil Spill Responder Skill Sets and Distribution Until SR Project is Complete and Fully Implemented.

Prior to publication of the Cplan, APSC is required to edit to footnote "***" to Table 1.8, Interim Staffing for Initial Response Teams, to state that staffing level described for Pump Station 5 will be in place until the SR Project is complete and fully implemented at Pump Station 5 rather than the 3rd quarter 2007. This requirement is discussed in the Findings Document, Issue 1.

Condition of Approval Number 10: Requirement to Modify Response Action Checklists to Reflect All Current Positions/Titles.

Prior to publication, APSC is required to edit the Emergency Action Checklists found in Section

1, Response Action Plan, so that they identify all leadership positions (both pre- and post-SR) currently in place at the Pump Stations. For example, where there are still Operations & Maintenance Supervisors, a position within Alyeska that will no longer be in place after SR, this position must be included as one that can fill out the Reconnaissance Supervisor Checklist and the Pipeline/Facility Spill Detected Operations & Maintenance Supervisor Checklist. This requirement is discussed in the Findings Document, Issue 1.

Once the SR Project is fully implemented and facility positions reflect those described in the renewal application, APSC may apply for an amendment to edit the checklists to reflect the way they were submitted in the renewal application.

Condition of Approval Number 11: Requirement to Incorporate SR Mitigation Measure for TAPS PLMP 698 into the Cplan.

Prior to publication of the TAPS Cplan, APSC is required to incorporate the following mitigation measure into the Volume 3, Tactics, Containment Instructions for the Klutina River Segments on page 3-166. APSC must specify the following tactic: "operator arrives by helicopter; mechanic hauls heavy equipment to site". This requirement is discussed in the Findings Document, Issue No. 1.

Condition of Approval No. 12: Requirement to Specify Primary Access to Containment Site (CS) 11-6 is via Helicopter.

Prior to publication of the Cplan, the Department is requiring APSC to edit Volume 3, CS 11-6 for the Little Tonsina River contingency area to specify that primary access to the site for initial responders will be by helicopter. The Department approved APSC's Region 5 Amendment in part with the proposal to create a mitigation measure that relied on use of the Glennallen based helicopter as the primary transportation for initial responders to CS 11-6.¹ Until now, it escaped the Department's attention that APSC published documents at that time and in the renewal application specifying primary access by road and secondary access by helicopter. This requirement is discussed in the Findings Document, Issue 1.

Condition of Approval Number 13: Requirement to Maintain Approved Plan for Line-wide Helicopter Support for Oil Spill Response.

APSC is required to retain the helicopter support compliance schedule approved by the Department on October 21, 2005. The text of the approved compliance schedule in TAPS Pipeline Cplan (ADEC Plan Number 15-CP-4131) shall replace the proposed Section 2.7.3 which seeks to eliminate helicopter upgrades proposed to support oil spill response capability as the SR Project is implemented. The upgraded helicopter (Bell 407 or equivalent) is already in place in Glennallen. Equivalent helicopter upgrades for Pump Station 4/Galbraith Response Base and the Fairbanks Response Base must be put in place as the SR Project is completed and implemented in their response areas.

¹ ADEC Findings Document for the TAPS Pipeline Cplan R5 Amendment, October 21, 2005, pp. 24 – 25.

The Department did not find the supporting documentation provided by Alyeska sufficient to justify reducing the capability of the helicopter fleet at Pump Station 4, Fairbanks or Glennallen. This requirement is discussed in the Findings Document, Issue No. 1.

Condition of Approval No. 14: Requirement to Show Above-ground and Below-ground locations of TAPS Mainline in Volume 4, Map Atlas.

APSC is required to edit the Topographic Maps and Aerial Photographs in Volume 4, Map Atlas to designate locations in which the TAPS mainline pipe is above-ground and below-ground. The Department finds that this information is critical to an understanding of appropriate response timeframes, travel times for discharged oil, and an understanding of the pipeline facility as a whole. These designations must be placed on the maps and aerial photographs within 60 days of this approval. The map legends must also be updated accordingly. This requirement is discussed in the Findings Document, Issue 1.

Condition of Approval Number 15: Requirement to Maintain Regional Restrictions on Movement of "Area Wide" Oil Spill Response Equipment.

APSC is required to maintain designated "area wide" oil spill response equipment within previous regional designations (Regions 1, 2, 3, 4, and 5). Those designations are Region (Area) 1: Pump Station 1 to the top of Atigun Pass; Region (Area) 2: top of Atigun Pass to the north side of the Yukon River; Region (Area) 3: north side of the Yukon river to Salcha River; Region (Area) 4: Salcha River to Hogan's Hill; Region 5(Area) 5: Hogan's Hill to the Valdez Marine Terminal. Section 3.6.3, Movement of Response Equipment/Non-oil Spill Response Use of Equipment and Table 3.15, Oil Spill Equipment – Location Assignments must be edited to reflect this requirement. This requirement is discussed further in the Findings Document, Issue No. 1.

Condition of Approval No. 16: Requirement for Submission of TAPS Drill and Exercise Program Update for 2010 and 2011 for Public Review.

APSC is required to submit to the Department an updated TAPS Drill and Exercise Program to cover the calendar years 2011 and 2012 which represent the fourth and fifth years of this Cplan approval period. The Drill and Exercise Program will be reviewed as a supplemental document to this Cplan and will be reviewed in accordance with procedures found in 18 AAC 74.455. A public review and comment period will be implemented. The updated Program must be submitted to the Department no later than September 15, 2009. This requirement is discussed in the Findings Document, Issue No. 5.

Condition of Approval No. 17: Requirement to Retain APSC Fire Truck at PS9/Delta Response Base to Prevent or Control a Potential Fire Hazard.

APSC is required to retain the fire truck currently stationed at Pump Station 9. The fire truck must be retained in the published Cplan. If APSC provides a written statement from the State Fire Marshall's office stating that the APSC fire truck is not required to prevent or control a fire hazard associated with an oil spill at that facility or the surrounding Right-of-Way, APSC may

submit a Cplan amendment for Department and public review. This requirement is discussed in the Findings Document, Issue No. 7.

Condition of Approval No. 18: Requirement to Update the Cplan, Conduct Testing, and Report on the Performance of the TAPS Pipeline Mainline Leak Detection System.

The following actions are required to update the Cplan and to document reconfiguration, testing and performance of the TAPS leak detection.

- Table 4.17, Pipeline Leak Detection, Monitoring, and Operating Requirements should be edited to state that APSC is still completing testing and validation of the reconfigured TVB system.
- APSC must conduct a controlled commodity release test for TAPS no later than January 30, 2007.
- APSC must provide the Department with the results of that test no later than 60 days after its completion.
- APSC must provide the Department with a copy of the 2005 LEFM transducer port inspections for Pump Station 12 within 30 days of this approval.
- APSC must provide the Department with a copy of the Pump Station 11 LEFM transducer boss heating experiments report. The work is currently scheduled for February 2007 by agreement with the JPO. If the project is delayed, notify the Department concerning rescheduling.
- APSC must provide the Department with the final Performance Report for the TVB leak detection system that covers tuning, testing and performance mapping for leak location capability and leak detection capability conducted in 2006 no later than January 30, 2007.

This requirement is discussed in the Findings Document, Issue No. 3.

Condition of Approval No. 19: Protection of Environmentally Sensitive Areas – Copper River

There are three parts to this condition:

- (a) Prior to publication of the Cplan, APSC must reference the source of hydrology information contained in Volume 3, Tactics, Section 6, Hydrology of Major Drainages.
- (b) No later than March 1, 2007, APSC is required to submit a Cplan Amendment that includes a description of the area of opportunity concept and the base maps and containment instructions for Gulkana River Site A, Gulkana River Site B, Gulkana River Site C, and Gulkana River Site D areas. This amendment will be subject to Department and public review.
- (c) APSC is required to conduct a survey of the Copper River downstream of the confluences with the rivers over which the TAPS Pipeline crosses for the purpose of identifying potential areas of opportunity for Copper River response. APSC must report findings on this effort to the Department by October 31, 2007. If areas of opportunity are identified, APSC is required to develop base maps and containment instructions for those locations and to submit a Cplan amendment no later than December 28, 2007 for Department and public review.

This requirement is discussed in the Findings Document, Issue No. 2.

Condition of Approval No. 20: Requirement to Provide Documentation of Training for Contractor Training.

Prior to publication, the Cplan must be revised to require that all contractor training records required to meet OSCP requirements are reported to APSC on a quarterly basis. This includes direct training for the courses identified in the OSCP Training Matrix as well as equivalent training provided by the contractors. APSC is also required to provide the Department with quarterly documentation that contractor response personnel are trained according to the schedule described in the Cplan. This requirement is based on recent surveillances of training records by the Joint Pipeline Office (JPO Surveillance Nos. ANC-06-S-070 and ANC-06-S-106) that document that some primary response action contractor oil spill response workers are not receiving initial and annual training as described in the Cplan either through receiving direct training in APSC courses or by receiving equivalent training from the contractor. This requirement is discussed in the Findings Document, Issue 4.

Condition of Approval No. 21: Requirement to Incorporate Minimum Training Criteria for Newly Hired Designated Oil Spill Response Personnel into the Cplan.

APSC is required to edit Table 3.9.9, Response Training Program, to ensure oil spill response workers sent to work on TAPS have received the appropriate level of HAZWOPER training (APSC designations 1, 2, 3, 4, or 5) before being assigned to a field position that includes oil spill response job duties. This condition is necessary because recent surveillances by the Joint Pipeline Office (JPO Surveillance Nos. ANC-06-S-071 and ANC-06-S-485) documented that some primary response action contractor response workers had received no HAZWOPER or safety training prior to being assigned to the roles that include spill response duties. In fact, some workers had not received required HAZWOPER training for many weeks following assignment of oil spill response duties. Without the appropriate level of HAZWOPER training, those employees are not minimally trained to work in the environment in which spill containment and recovery activities occur. This requirement is discussed in the Findings Document, Issue 4.

Condition of Approval No. 22: Requirement to Include an Annual Performance Check for all Personnel who May be Required to Conduct Field Gas Detection During an Oil Spill Response.

Prior to publication, APSC is required to edit Table 3.37, OSCP Training Matrix, to incorporate an annual performance check into the training requirements for field response personnel designated in the Response Action Plan to fill the Safety Officer position. Designated personnel include Safety Generalists, ROW/Civil Maintenance & Emergency Response Coordinators (MCs), baseline personnel, and technicians. This requirement is discussed in the Findings Document, Issue No. 4.

Condition of Approval No. 23: Requirement to Reinstate Course OSCP/23, Oil Spill Fire Prevention Training, in the Cplan OSCP Matrix.

Prior to publication, APSC is required to add the course OSCP/23, Oil Spill Fire Prevention Training, back into Table 3.37, OSCP Training Matrix. The edit should designate that the course is a required one time classroom course for baseline mechanics, security personnel, baseline crew, MCs, RBSs, OCs, environmental personnel, fire/safety personnel, technicians, the Fairbanks Initial Response Team, the Ahtna Construction Initial Response Team, and the SERVS Initial Response Team. This requirement is discussed in the Findings Document, Issue No. 4.

Condition of Approval No. 24: Requirement to Designate Field Incident Management Team Leadership Positions for each Pump Station or Response Base.

APSC is required to institute a procedure within 60 days of plan approval so that availability of non-Initial Response Team members is assured for purposes of filling needed field leadership positions during an oil spill response – particularly the positions of Initial Response Incident Commander, Reconnaissance Supervisor and Operations Chief. In the proposed scheme of response actions, personnel filling the ROW/Civil Maintenance & Emergency Response Coordinator (MC), Response Base Supervisor (RBS) or Oil Spill Coordinator (OC) positions *or their designees* may assume a variety of field leadership positions during the initial and long-term response organization. Because multiple individuals may assume many of the same positions, the Department is requiring that APSC identify on a per-shift basis which individual will fill the roles of Initial Response Incident Commander, Reconnaissance Supervisor, and Operations Section Chief. The information must be reviewed daily to assure that the assigned individual is in fact available within the response base area for response to a Response Planning Standard volume spill. The Department recognizes that one individual may fill more than one response role depending on the complexity of the incident.

This requirement is discussed in the Findings Document, Issue No. 6.

Condition of Approval No. 25: Requirement to edit all Containment Site drawings in Volume 3, Tactics, Volume 1 Table 3.30, Containment Sites – Equipment, and Volume 1, Table 3.34, Additional Inventory to Accurately List Oil Spill Response Equipment Pre- Staged at Containment Sites Along TAPS.

Prior to publication of the Cplan, APSC is required to carefully edit the Containment Site sheets in Volume 3, Tactics to accurately list oil spill response equipment that is pre-staged at those locations. Specifically, all conexes, anchorage devices, towing bridles and the quantity and type of boom located at each Containment Sites must be listed as identified in Volume 1, Table 3.30, Containment Sites – Equipment. If a conex is at a Containment Site, it must be identified in the response equipment box as remote, standard, enhanced, or auxiliary. If more than one conex is staged at a site, each conex must be listed both on the Containment Site Sheet and in the appropriate table. The equipment listings in the tables are generally much more accurate than the individual Containment Site sheets. However in a few cases, the Containment Site sheet contains a more accurate listing of equipment. This requirement is discussed in the Findings Document, Issue No. 6.

Condition of Approval No. 26: Requirement to Implement an Alternate Effective Mitigation Measure for PLMP 698

This is a restatement, in part, of Condition of Approval No. 3 from ADEC's October 21, 2005 TAPS Cplan R5 Amendment decision.

- a) As an interim mitigating measure to offset identified increases in risk from potential discharges at PLMP 698, APSC must maintain a limited amount of spill response equipment at Pump Station 12. Specifically, APSC must maintain one of its 24' Oil Spill Response Trailers at Pump Station 12 to provide response crews an alternate location to pick up response equipment if their daily work location happens to be away from the Glennallen Response Base. This measure must be maintained until the permanent mitigating measures described below are implemented as required.
- b) APSC must put into place one of the alternate mitigating measures for PLMP 698 identified in the DNV Compliance Support Project Report². Because the Department finds that any of the alternate mitigating measures would be effective, it is APSC's decision regarding which one to implement. The alternative mitigating measures identified for PLMP 698 in the report are:
 - Construct a permanent ditch between Milepost 698 and Klutina River
 - Install a flowdown tank to retain more than 5,500 barrels
 - Study installation of an additional check valve near Milepost 698
 - Install a blockage to contain oil on land – to be installed and removed every year
 - If the RGV timing could be changed back to the Pre-SR closure time of four minutes.

This requirement is discussed in the Findings Document, Issue No. 1.

PUBLICATION OF CPLAN:

The approved and edited TAPS Pipeline Cplan must be published within 60 days of this approval.

ADJUDICATORY HEARING:

Any person who disagrees with this decision may request an adjudicatory hearing in accordance with 18 AAC 15.195 – 18 AAC 15.340 or an informal review by the Division Director in accordance with 18 AAC 15.185. Informal review requests must be delivered to the Spill Prevention and Response Division Director, 410 Willoughby Avenue, Suite 303, Juneau, Alaska 99801, within 15 days of the permit decision. Adjudicatory hearing requests must be delivered to the Commissioner of the Department of Environmental Conservation, 410 Willoughby Avenue, Suite 303, Juneau, Alaska 99801, within 30 days of the permit decision. If a hearing is not requested within 30 days, the right to appeal is waived. A copy of the hearing request must also be served on the undersigned and the permit applicant as required by 18 AAC 15.200(c). A copy of the request must also be provided to the Department in an electronic format, unless the

² Det Norske Veritas, Alyeska SR C-Plan Update Compliance Support Project Report, no. 70004921-0008, rev 1, May 10, 2005, Appendix VIII, List of Effective Mitigations, p. VIII.1

Mr. Robert I. Shoaf
Alyeska Pipeline Service Co.

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November 30, 2006

department waives this requirement because the requestor lacks a readily accessible means or the capability to provide items in an electronic format.

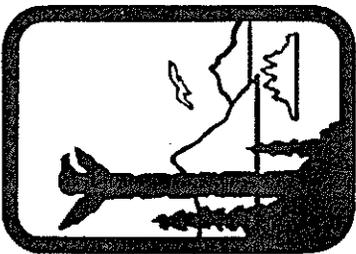
If you have any questions, please contact Becky Lewis at (907) 257-1374.

Sincerely,


Betty Schorr
Program Manager

enclosures: TAPS Pipeline Cplan Renewal Findings Document
ADEC Certificate of Approval for the TAPS Pipeline Oil Discharge Prevention
and Contingency Plan, Certificate Number 06CER-037, Plan Number 06-CP-
4071.

cc: Wes Willson, APSC
Jerry Brossia, AO, BLM/JPO
Mike Thompson, SPCO, ADNRR/JPO
Carl Lautenberger, EPA/JPO
Mike Wrabetz, BLM/JPO
Bonnie Friedman, BLM/JPO
Dennis Gnath, DNR/JPO
Carol Fries, DNR
Mark Fink, ADF&G
Todd Nichols, ADF&G
Melanie Barber, USDOT, PHMSA, Washington D.C.
CDR Mike Gardiner, USCG/MSO Valdez
Ron Doyel, ADEC/JPO
David Parson, Cordova
Carol Smith, Valdez
Johnny Aiken, North Slope Borough
Ken Johns, Ahtna, Inc.
Ruth McHenry, CCA
Eric Uhde, Alaska Center for the Environment
Gabriel Scott, Cascadia Wildlands Project
Kristin Smith, Copper River Watershed Project
Catherine Crawford, Cordova District Fishermen United
Mark G. Cummings
William T. Black
Lauren Padawer
Janelle Eklund



ALASKA DEPARTMENT
of
Environmental Conservation
for
Oil Discharge Prevention and Contingency Plan



Certificate Number: 06CER-037

Plan Number: 06-CP-4071

Name of Plan: Trans-Alaska Pipeline System, Pipeline Oil Discharge Prevention and Contingency Plan.

Name of Facility: Trans-Alaska Pipeline.

Plan Holder: Alyeska Pipeline Service Company

Facility Address/Location: 900 E. Benson Blvd., Anchorage, AK 99519

Telephone: (907) 787-8933 Fax: (907) 787-8443

Region(s) of Operations (18 AAC 75.495): North Slope, Interior, and Prince William Sound Regions.

Effective Date of Approval: November 30, 2006

Expiration Date: November 30, 2011

This approval is subject to the terms and conditions of the applicable Department of Environmental Conservation contingency plan approval letter and continuing compliance with the requirements of AS 46.04 and 18 AAC 75.

A renewal application for contingency plan approval must be received by the Department at least one-hundred-eighty days prior to the expiration date noted above.


Betty Schorr, Approving Authority 11/30/2006 Date
Program Manager, Industry Preparedness Program

Alaska Department of Environmental Conservation

Division of Spill Prevention and Response

Industry Preparedness Program

Trans Alaska Pipeline System (TAPS) Pipeline

Oil Discharge Prevention and Contingency Plan

Renewal Application

Final Findings Document

November 30, 2006

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INTRODUCTION

What is this Document?

This document presents the final findings of the Alaska Department of Environmental Conservation (Department) concerning the contents of the Alyeska Pipeline Service Company (APSC) Trans Alaska Pipeline System (TAPS) Pipeline Oil Discharge Prevention and Contingency Plan (Cplan) renewal application dated March 1, 2006 with additional information and edits submitted August 23, 2006 and September 11, 2006.

The Department's review of the TAPS Pipeline Cplan was conducted in accordance with review procedures found in 18 AAC 75.455. These regulations establish a requirement for a 30-day public comment period. Because the Department found that the revisions to the TAPS Pipeline Cplan were unusually extensive, the Department used its discretion to initiate a 60-day public review period on May 15, 2006. During the review process, the Department found it necessary to request additional information from the plan holder to complete its review. A number of organizations identified additional information they would find helpful, and to the extent the Department found that information would provide additional illumination of statutory and/or regulatory required cplan content, those requests were incorporated in its requests to APSC. After extending the public comment period to provide additional time for the public to review the additional information provided by Alyeska, the Department closed the public comment period on October 24, 2006.

These findings were written as a result of an extensive review of the renewal application and consideration of public comment. They are presented to assist the plan holder, the interested public and participating reviewers in understanding the analysis of priority issues through which the Department reached its decision to conditionally approve renewal of the TAPS Pipeline Cplan.

This document also contains the Department's response to written comments received during the public comment period. The public comment period began on May 15, 2006 and was extended through October 24, 2006 for review of additional information. The Department has considered all comments received by the deadline. This document does not respond to all of the individual comments, but rather it is a response to the most substantive issues raised by plan review participants. Individuals that may desire to understand the Department's review of a particular comment not mentioned here may request further information by contacting the Department at 411 West 4th Avenue, Suite 2, Anchorage, Alaska 99501 or by calling (907) 257-1374.

Concurrent Review by other Agencies

It is important to note that while the Department is the State agency with authority to approve the TAPS Pipeline Cplan, the federal Bureau of Land Management (BLM) has separate authorities and approval criteria provided in the TAPS Agreement and Grant of Right-of-Way. Unlike the

Department, which reviews and approves the TAPS Pipeline Cplan every five years or as significant amendments emerge, BLM approves the TAPS Pipeline Cplan annually. The Department has consulted with numerous federal and state agency representatives, a task made easier by being co-located with many agencies at the Joint Pipeline Office. Because the Department and the BLM have different authorities and review criteria, the Department's approval decision and findings document will not necessarily reflect all of the same issues or requirements of approval that may be developed in BLM's review. While one agency's requirements may be more extensive than the other, it is expected that the two approvals will be complimentary rather than conflicting.

What Does it Mean When a Contingency Plan is Approved with Conditions?

A plan is approved when a plan holder has demonstrated in the plan that a level of prevention and readiness has been achieved that will prevent a spill as specified in the Department's statutes and regulations, and if a spill should occur that the plan holder can effectively respond. The Department does not make its decision to approve a plan based on the operator proving everything in the plan, but rather upon the reasonableness of assertions and evidence that certain essential resources and practices are secured. Therefore, the Department's work does not end once the contingency plan is approved. The contingency plan approval is only a portion, although a major one, of the entire program of spill prevention and response. Many follow-up field tasks are done to proof the plan and assure that persons assigned response and prevention duties are trained and ready to respond if need be. The tasks range from both planned and unannounced inspections and oil spill exercises, surveillance of field operations, training audits, third party engineering inspections for checking structural integrity of tanks and piping and applying lessons learned from actual incident responses. In some cases the plan holder is not required to fully document how they will implement oil spill prevention and response requirements in the contingency plan. Nonetheless, the plan holder is required to fully implement all oil spill prevention and response programs required by State statute and regulation even if those programs are not documented in the approved contingency plan.

The TAPS Pipeline Cplan was previously reviewed and approved by the Department on November 29, 2001. Since that time it has undergone several significant amendments. Approved Cplans may be modified through an amendment application process outlined in State regulations. For major amendments, the same approval procedures are followed, and the same guidelines and standards are utilized as for approving plan renewals. On June 30, 2003 the TAPS Cplan approval was extended until November 30, 2006 as required by Senate Bill 74. Two conditions of approval from November 29, 2001 required additional public review to be in full compliance with regulatory requirements. Both of those conditions were fulfilled prior to the beginning of the public comment period on the Strategic Reconfiguration (SR) Amendment in 2003. On December 31, 2003 the SR Amendment was approved with six conditions. In 2005, the Department approved the most recent significant amendment to the Cplan, which was identified as the Region 5 (R5) Amendment. This most recent amendment reflected numerous changes to the southern end of the TAPS Pipeline, including closure of the pumping facility at Pump Station 12, relocation of response personnel from Pump Station 12 to Glennallen, and revision of oil spill scenarios. Finally, in response to a condition of approval to that amendment, APSC further amended the Cplan in the summer of 2006 to provide for potential impacts to

drinking water supplies for the Village of Gulkana in the event of an oil spill into the Gulkana River.

When a Cplan is approved with conditions, those conditions must be completed in the manner and schedule outlined in the approval documents. They are enforceable by the Department, and there are a variety of remedies available to the Department if the conditions are not satisfied. Because of the complex nature of this Cplan, and the multiple major amendments that have been made to it since 2001, some of the Conditions of Approval from those intervening amendments are discussed in this findings document. The conditions attached to this approval are substantive and reflect work that must be completed in order to ensure the TAPS Pipeline Cplan is in compliance with State statutory and regulatory requirements. The TAPS Pipeline and associated regulated facilities are in the midst of a major construction project and organizational restructuring known as the Strategic Reconfiguration (SR) Project. As discussed below, the concurrent Cplan renewal and on-going SR project has proved to provide plenty of challenges for the plan holder and for plan reviewers. Because of significant delays in completion and implementation of the SR Project, the Department has imposed numerous conditions of approval. Each condition attached to this approval, whether it is related to the delayed SR Project or not, includes a description of the work to be done and a schedule for its completion.

What does it mean when actions are included in the Compliance Schedule and Waivers Section?

Part 2, Section 2.7 (Volume 1) of this plan is called the Compliance Schedule and Waivers Section. This section allows the plan holder to make specific commitments to address areas of the plan that may not currently be in full compliance with State law. By including commitments in the Compliance Section that are satisfactory to the Department, the plan holder establishes its own compliance schedule. Generally, if issues are not fully incorporated into the Compliance Section, the Department would have to assure plan compliance by some other means, such as a Conditional Approval or a Compliance Order by Consent. The plan holder is responsible to implement the compliance schedules as written in the plan, and the Department has the authority to enforce those commitments. In this case, APSC makes several compliance commitments in the TAPS Cplan Compliance Section. Additionally, APSC proposed removing a compliance schedule commitment before it had been fulfilled, and the Department is denying that proposal.

Changes in this Contingency Plan

As noted above, this TAPS Cplan included extensive revisions compared to the Cplan approved in 2001. Although extensive, the revisions can be categorized in two ways:

- Reformatting and Reorganization of the Cplan or
- Restructuring of Prevention and Response Organization to Reflect SR and Operational Changes throughout the TAPS Pipeline and associated facilities.

In order to assist the Department, other agency reviewers and the public in understanding the Cplan reorganization, Alyeska provided a "Road Map" to inform reviewers where information in

the old Cplan was relocated in the new one. Key reformatting and reorganization elements include:

- The previous Cplan included six volumes: General Provisions and five regional response plans
- The new Cplan is organized into four volumes:
 - Volume 1: Regulatory Volume
 - This volume contains a lot of the information specifically required by State statutes and regulations, including Response Planning Standard Volume calculations, the Response Action Plan, the Prevention Plan, Supplemental Information, and Best Available Technology analyses.
 - Volume 2: Scenarios
 - This volume contains 13 oil spill response scenarios that demonstrate possible responses utilizing the resources and response organization identified in Volume 1.
 - Volume 3: Tactics
 - This volume contains reconnaissance plans and strategies, containment actions to be taken at pre-identified possible containment sites or at sites of opportunity, specific response tactics (including diagrams of deployment methods and lists of response equipment).
 - Volume 4: Map Atlas
 - This volume contains topographic maps overlaid with specific pipeline information such as valve locations, pipeline access points, material sites, contingency area designations, and pipeline facility locations.
 - This volume also contains digital aerial photographs of the pipeline corridor from Prudhoe Bay to Valdez. The aerial photographs are labeled with similar information as the topographic maps, but they also include arrows indicating drainage patterns.

The more substantive revisions to the TAPS Cplan, however, are those that reflect prevention and response re-structuring intended to reflect the needs of the TAPS Pipeline upon completion of the TAPS Strategic Reconfiguration Project.

- As part of the TAPS Reconfiguration Project, four pumping stations located at Prudhoe Bay, Galbraith, Prospect and Delta are scheduled to be converted to electrically driven pump stations that will be operated remotely from the Alyeska Operations and Control Center (OCC). None of this has been accomplished as of this date, but the Cplan was submitted with drawings to reflect the future configuration of these facilities.
- Response operations strategies previously were structured around five specific geographic regions, identified as Regions 1, 2, 3, 4, and 5. The new Cplan focuses response coverage over three larger zones identified as Northern (formerly Region 1), Central (formerly Regions 2 and 3), and Southern (formerly Regions 4 & 5). The

Department is not unsupportive of this new structure, however, the Department is imposing restrictions on the movement of some heavy equipment so that it remains within its previously identified Region and therefore more readily available to support oil spill response needs.

- “Key Pipeline Positions” have been renamed, reallocated, relocated, and/or redefined. For example, in the previous plan, two key leadership positions were based at each active pump station: an Operations and Maintenance Supervisor who oversaw pump station facility operations and a Maintenance Coordinator who was responsible for maintenance of the Right-of-Way (ROW) for their area and for oil spill and contingency preparedness. The new Cplan uses a mix of Maintenance Supervisors (MS), Response Base Supervisors (RBS), ROW/Civil Maintenance & Emergency Response Coordinators (MC) and Oil Spill Response Coordinators (OC) to fill prevention and response leadership along the pipeline. Rather than two of these key leaders, there may typically be one assigned to the specific facility with others being made available on an area-wide basis. The Department is requiring additional clarity surrounding these positions prior to SR being fully implemented.
- Some additional response equipment is identified in the new Cplan to reflect acquisitions of new technology (such as boom vanes, fast water deployment systems, MegaSecur Dams, and APSC’s custom designed Mobile Command Post trailer).
- Since 2004, the Cplan included a compliance schedule for upgrading helicopters at Pump Station 4 (Galbraith Response Base), Fairbanks, and Glennallen. The new Cplan proposes to return to use of helicopters at these three locations that have lower speed capability, approximately 47% less discretionary load capacity, and somewhat lower range capability. This proposed elimination of a previously approved compliance schedule has been rejected by the Department.
- The new Cplan proposes to reduce the overall number of drills and exercises by approximately 12%, intended to reflect the reorganized reconnaissance and response strategies and facility operations changes. Because SR has not been fully implemented, the Department is requiring APSC to reinstate exercises for the Right-of-Way around Pump Station 3 and for the Pump Station 3 On-Scene Command to be reinstated.
- Some Response Planning Standard (RPS) volumes have been adjusted for pump stations. These volume adjustments reflect a new effort by Alyeska to be consistent in calculations and to take credit for prevention programs in place as allowed by State regulation.
- Some of the Response Scenarios (now contained in Volume 2 of the Cplan) have been significantly reworked to reflect changes in positions, locations of key response personnel, new reconnaissance strategies, increased reliance on remote pre-identified Containment Sites, and new tactics practiced by Alyeska responders throughout the last exercise program cycle. Generally, the Department has supported these changes. However, where these scenarios reflect a fully implemented SR Project, the Department is requiring APSC to modify them to reflect the current operation of TAPS.

Format for This Document:

The Department has identified 8 major topics for discussion which are called "Issues" in this Findings Document. The Issues in this paper are included because they provide explanation of the basis for the Department's approval and conditions of approval or because they respond to adverse comments from public reviewers. At the end of this document several items are identified as "other comments received." This section is intended to briefly identify comments that were provided to the Department but represent requests or requirements that are beyond the Department's statutory or regulatory authority.

This document uses the following format to address each of the selected topics:

- (1) Statement of Issue
- (2) Findings
- (3) Regulatory Authority
- (4) Response to Comments and Basis for Decision

The Department has benefited from and appreciates the contribution of individuals and organizations during the public process of reviewing and approving the TAPS Pipeline Cplan. Any questions concerning these findings may be directed to Becky Lewis at (907) 257-1374.

ACRONYMS

AAC	Alaska Administrative Code
ADEC	Alaska Department of Environmental Conservation
ADNR	Alaska Department of Natural Resources
ADF&G	Alaska Department of Fish and Game
AFER	Alaska Forum for Environmental Responsibility
ANS	Alaska North Slope
APSC	Alyeska Pipeline Service Company
AS	Alaska Statute
BAT	Best Available Technology
BLM	Bureau of Land Management (U. S. Dept. of the Interior)
BWT	Ballast Water Treatment
CCA	Copper Country Alliance
CDFU	Cordova District Fishermen United
COA	Condition of Approval
Cplan	Contingency Plan (Oil Discharge Prevention and Contingency Plan)
ESA	Environmentally Sensitive Area
JPO	Joint Pipeline Office
ICS	Incident Command System
LVB	Line Volume Balance Leak Detection System
MC	ROW/Civil Maintenance & Emergency Response Coordinator
OC	Oil Spill Coordinator
OCC	Operations Control Center
OMS	Oil Movements and Storage
PM	Preventive Maintenance
PWS	Prince William Sound
PWS RCAC	Prince William Sound Regional Citizens' Advisory Council
RBS	Response Base Supervisor
RFAI	Request for Additional Information
RMROL	Realistic Maximum Response Operating Limitations
RPG	Response Planning Group
RPS	Response Planning Standard
SID	Supplemental Information Document
SR	Strategic Reconfiguration
TAPS	Trans-Alaska Pipeline System
TVB	Transient Volume Balance Leak Detection System
VMT	Valdez Marine Terminal

Issue No. 1: TAPS Pipeline Cplan Renewal and the Strategic Reconfiguration (SR) Project

Statement of Issue

Does the renewal application accurately describe the TAPS Pipeline and associated regulated facilities? Are there portions of the TAPS Pipeline Cplan renewal application that cannot be accepted based on the fact that APSC's SR Project was not implemented as anticipated when the renewal application was submitted on March 16, 2006? Does the renewal application demonstrate compliance with State prevention and response requirements for the facilities where SR has not yet been implemented? Finally, have all of the Conditions of Approval from the Department's December 31, 2003 SR Amendment been completed?

Findings

The Department finds that:

- APSC's SR Project has not been completed or fully implemented.
- APSC's TAPS Pipeline Plan Cplan renewal application was written to describe a facility in which SR had been completed and was fully implemented.
- Revisions to the TAPS Pipeline Cplan renewal application made good but ultimately unsuccessful efforts to distinguish between past, current and future prevention and response provisions.
- In some cases, the Department would have found portions of the Cplan acceptable if the SR Project was complete – particularly if SR had been complete and fully implemented at Pump Station 3. However, a number of conditions of approval have been designed to require on-going compliance with all State prevention and response readiness requirements as long as this facility remains a staffed regulated facility.
- The Department finds that APSC's definition of an "unmanned facility" under the SR configuration is simply wrong and cannot be utilized as a basis for exemption from meeting all required prevention regulations for regulated facilities with staff present. This particularly applies to Pump Station 4, Pump Station 5, the Yukon River Response Base, and Pump Station 9/Delta Response Base.
- APSC has submitted proposed TAPS Pipeline Cplan changes based on the SR project for public review as required by SR Condition of Approval No. 3.
- SR Condition of Approval No. 5 required APSC to revise Cplan oil spill scenarios to reflect SR changes. This has been done, but because SR has not been fully implemented, those changes found in the Sag River Scenario are not currently acceptable for inclusion in the TAPS Pipeline Cplan.
- SR Condition of Approval No. 6 required APSC to identify and address if unanticipated modifications to the SR Project impacted any aspect of the TAPS Pipeline Cplan. Because the SR Project is not yet complete and fully implemented, this condition remains open.
- R5 Amendment Condition of Approval No. 3 was not adequately implemented in the proposed Cplan and portions of it are required as part of this decision.

Regulatory Authority

Department authority to approve oil spill discharge prevention and contingency plans is found in AS 46.04.030(h) which states:

The department is the only state agency that has the power to approve, modify, or revoke a contingency plan for the purposes of this section.....

Department regulations found in 18 AAC 75.460 outline the Department's ability to approve, approve with conditions, or disapprove an oil discharge prevention and contingency plan.

Regulations requiring specific prevention actions for a crude oil transmission pipeline and its associated facilities (those which may have crude oil storage tanks, secondary containment, and above or below ground facility piping) are found in 18 AAC 75.005 through 18 AAC 75.090.

Regulations requiring specific response readiness provisions for a crude oil transmission pipeline and associated regulated facilities are found in the Department's regulations for oil discharge prevention and contingency plans, 18 AAC 75. 400 – 18 AAC 75.495.

Response to Comments and Basis for Decision

The majority of public comments directly associated with APSC's SR Project were directed at changes in the operation of the southern end of the TAPS pipeline that the Department approved in its October 21, 2005 R5 Amendment Approval. These comments included recommendations that the Department not allow APSC to close Pump Station 12 as a pumping facility and base for oil spill response workers; that the crude oil storage tank (Tank 220) at Pump Station 12 be maintained as an active storage tank; recommendations that the Department require APSC to hire additional staff at Glennallen and provide for their room and board while on shift; that a local landowner be allowed to determine when unannounced drills are conducted; that a separate spill response facility be constructed in Glennallen (not the current Glennallen Response Base); and finally that a series of containment pits be constructed along the pipeline and streambeds in the Copper River drainage to collect oil should a spill occur. While the Department recognizes that there are public concerns related to changes that have been in place on the southern end of TAPS for over a year, we do not find there is a reasonable basis to revisit decisions made in 2005 concerning the southern portion of TAPS that are directly related to the R5 Amendment. It should be noted that there is no longer a "Region 5" designation in the TAPS Pipeline Cplan.

When the TAPS Pipeline Cplan Renewal Application was submitted, APSC stated that its SR Project would be complete and implemented by the 3rd Quarter of 2006. No portion of the SR Project is complete and implemented at this time except the elements that impacted the southern end of the TAPS Pipeline operations. Therefore, the Department is imposing numerous conditions to ensure that the Cplan describes the TAPS Pipeline facility and operations as they exist today and accurately demonstrates that prevention and response requirements are being met.

- Facility Descriptions and Diagrams that Reflect Current Configuration and Operation: Because SR implementation has been delayed, many of the facility diagrams and

descriptions in the proposed Cplan reflect a future facility and/or operation. Therefore, the Department is requiring APSC to provide accurate descriptions of the pipeline and facility as it exists now. Condition of Approval No. 1 requires the following changes:

- Pump Station 1. Figure 1.23, Pump Station 1/Prudhoe Response Base Post SR Site Plan and Facility Drainage does not reflect the current configuration and operation of Pump Station 1. Figure 1.24, Pump Station 1 Current Site Plan and Facility Diagram, may remain in the Cplan. Section 1.9.3, Pump Station 1, from the past TAPS Cplan, must be edited back into the Cplan prior to publication in order to have a detailed diagram of the current facility within the approved Cplan. When the SR Project is complete and fully implemented at Pump Station 1, APSC may apply for an amendment to remove the old diagram and description and to place Figure 1.23 in the Cplan.
- Pump Station 3. Figure 1.25, Pump Station 3 Current Site Plan and Facility Drainage reflects the *future* configuration and operation of this facility. Section 1.9.4 from the past TAPS Cplan must be edited back into the Cplan prior to publication in order to have a detailed diagram of the current facility within the approved Cplan. When the SR Project is complete and fully implemented at Pump Station 3, APSC may apply for an amendment to remove the old diagram and description and to place Figure 1.25 in the Cplan.
- Pump Station 4. Figure 1.26, Pump Station 4/Galbraith Response Base Post SR Site Plan, reflects the *future* configuration and operation of this facility. Figure 1.27 and Figure 1.28 may remain in the Cplan. Section 1.9.5 from the past TAPS Cplan must be edited back into the Cplan prior to publication in order to have a detailed diagram of the current facility within the approved Cplan. When the SR Project is complete and fully implemented at Pump Station 4, APSC may apply for an amendment to remove the old diagram and description and to place Figure 1.26 in the Cplan.
- Pump Station 5. Figure 1.29, Pump Station 5/Prospect Response Base Post SR Site Plan and Facility Drainage reflects the *future* configuration and operation of this facility. Figures 1.30 and 1.31 may remain in the Cplan. Section 1.9.6 from the past TAPS Cplan must be edited back into the Cplan prior to publication in order to have a detailed diagram of the current facility within the approved Cplan. When the SR Project is complete and fully implemented at Pump Station 5, APSC may apply for an amendment to remove the old diagram and description and to place Figure 1.29 in the Cplan.
- Pump Station 9. If the SR Project is complete and implemented at Pump Station 9/Delta Response Base within 90 days of this approval, Figure 1.36 may remain in the Cplan. It must be edited, however, to identify the “retained warm” facilities, including tanks, that are present at the facility. If the SR Project is not complete and implemented at Pump Station 9 within 60 days of the approval of this Cplan, Figure 1.36 must be removed and Section 1.9.10 from the past TAPS Cplan must be edited back into the plan. If this is the case, APSC may apply for an amendment to remove the old diagram and description and place Figure 1.36 in the Cplan upon full implementation of the SR Project at Pump Station 9.

- Glennallen Response Base. Figure 1.38, Glennallen Response Base Site Plan, must be edited prior to publication to show the oil spill equipment warm storage area which is currently located beyond the boundaries of either Figure 1.38 or 1.39.
- Volume 4, Map Atlas, must be edited to identify the above-ground and below-ground portions of the TAPS Pipeline. We note that this requirement is as much the result of the massive restructuring of the Cplan as SR; nonetheless it is necessary to provide an accurate description of the TAPS Pipeline. This element is broken out into Condition of Approval No. 14.
- Pump Station 3: This facility will be on-line and fully staffed with technicians, baseline and other response staff for an unknown length of time. Once SR is fully implemented, this is the only facility that will operate as a remotely controlled and unstaffed facility in the TAPS Pipeline System. The Department is not unsupportive of the described changes associated with this facility in the Cplan renewal application. However, because that operation does not exist now, and may not exist for quite some time, the Department finds that it is not appropriate for the Cplan to describe a future operation that may or may not ever be put in place. The Conditions of Approval provided to assure that this facility is accurately described in the Cplan and that required prevention and response activities are maintained include:
 - COA No. 1: Requirement to Incorporate Detailed Diagrams and Descriptions of Current Facility Configuration into the Cplan.
 - COA No. 2: Requirement to Document Daily Checks for the Presence of Oil Leaks or Spills in Regulated Tank Secondary Containment Areas in the Cplan.
 - COA No. 3: Requirement to Insert Tank Inspection Procedures at Pump Station 3 and Pump Station 9 into the Cplan.
 - COA No. 4: Requirement to Insert Tank Overfill Technology for Tanks 33-TK0137 and 35-TK-157 into the Cplan.
 - COA No. 5: Requirement to Insert Procedures for Conducting Leak Detection Rounds at Regulated TAPS Facilities into the Cplan.
 - COA No. 6: Requirement to Revise Oil Spill Response Scenarios
 - COA No. 7: Requirement to Reinstate Pipeline ROW Reconnaissance Exercises, Pipeline ROW Equipment Deployment Exercises, and On-Scene Command Exercises for Pump Station 3 in the TAPS Drill and Exercise Program.
 - COA No. 8: Requirement to Maintain Oil Spill Reconnaissance Teams and Strategies Based on Personnel Located at Pump Station 1, Pump Station 3, and Pump Station 4.
 - COA No. 9: Requirement to Maintain Currently Approved Oil Spill Responder Skill Sets and Distribution Until SR Project is Complete and Fully Implemented.
 - COA No. 10: Requirement to Modify Response Action Checklists to Reflect All Current Positions and Titles.
- Prevention Measures at Pump Station 4, Pump Station 5, Yukon River Response Base, and Pump Station 9/Delta Response Base. These facilities are all currently operational and staffed with various combinations of technicians and/or response staff. After SR is completed, operational changes will be in place at Pump Stations 4,

5, and 9. Even so, each of these facilities and the Yukon River Response Base will be active, regulated and staffed. The TAPS Pipeline Cplan renewal application suggests that these facilities are unstaffed or unregulated (Yukon Response Base). The Department does not agree. In each case, APSC or contractor personnel will be permanently and regularly based at these facilities. The Cplan proposes that SR will allow APSC to identify these facilities as unstaffed because some of the operating systems will be controlled remotely and that as a result, they should exempt from required regular, routine, and/or daily prevention measures required for "manned" facilities. The Department rejects this conclusion and has placed conditions of approval on the TAPS Pipeline Cplan to require continuous compliance with required prevention measures:

- COA No. 2: Requirement to Document Daily Checks for the Presence of Oil Leaks or Spills in Regulated Tank Secondary Containment Areas in the Cplan.
 - COA No. 3: Requirement to Insert Tank Inspection Procedures at Pump Station 3 and Pump Station 9 into the Cplan.
 - COA No. 4: Requirement to Insert Tank Overfill Technology for Tanks 33-TK0137 and 35-TK-157 into the Cplan.
 - COA No. 5: Requirement to Insert Procedures for Conducting Leak Detection Rounds at Regulated TAPS Facilities into the Cplan.
- Upgraded Helicopter Support for Oil Spill Reconnaissance and Response under SR. One of the key SR-related proposals contained in the TAPS Pipeline Cplan renewal application was the removal of a previously approved Compliance Schedule commitment to upgrade the capability (velocity, cargo configuration and capacity, and travel distance) of helicopters based at Pump Station 4, Fairbanks and Glennallen. As required by the Compliance Schedule, the upgraded helicopter is currently in place in Glennallen. The Compliance Schedule was originally proposed by Alyeska in 2004, verified by Alyeska in 2005, and subsequently approved by the Department. It calls for the Pump Station 4 and Fairbanks helicopters to be upgraded as SR is implemented for the central and northern portions of TAPS. As noted in the Introduction of this document, Cplan Compliance Schedules are enforceable by the Department. They are considered to be firm and well considered commitments.

In this case, the proposed helicopter upgrades were made initially in response to a BLM requirement and subsequently confirmed based on findings of updated risk assessment and compliance support study required by a Condition of Approval to the 2003 SR Amendment. The risk assessment and compliance support study, both of which were completed in 2005, utilized an assumption of having the three upgraded helicopters in place at the completion of the SR project.

When the Department reviewed the R5 Amendment in 2005, it gave careful consideration to the proposed helicopter upgrades. The compliance support study documented that there were increased response times to segments of the southern portion of the TAPS Pipeline (as well as for other areas) as a result of relocating responders. Changes to dynamic spill volumes based on changes in valve actuator timing and on the new pipeline configuration were also factored in the risk

evaluation. APSC proposed specifying that an upgraded helicopter would be the primary transportation method throughout the southern area, including a specific measure specifying that helicopter transit to Containment Site (CS) 11-6 was the primary access mode for initial response. The Department found that to be a good mitigation measure, although the Department also found that sole reliance on any type of helicopter for oil spill response transport was not sufficiently supported by documentation. The Department required APSC to identify a second mitigation measure of those proposed by DNV for the southern portion of TAPS to supplement the primary access to CS 11-6 by helicopter. At the same time, the Department approved APSC's proposed compliance schedule to upgrade helicopters at Pump Station 4 and Fairbanks.

A very important question for the Department is whether or not APSC justified switching the helicopter stationed at Glennallen from a Bell 407 (or equivalent) to a Bell 206 (or equivalent) and eliminating the Compliance Schedule for upgrades to the two other helicopters. APSC provided a DNV Helicopter Upgrade Study, Rev.2, dated June 26, 2006 to the Department to support this change. It should be noted that the DNV Compliance Support Project completed in 2005 provided the basis for upgrading the helicopters in the first place. Studies on oil transport, response times, etc. in the original report were based on an upgraded helicopter fleet. The report that was provided to the Department in June, 2006 confirms that the upgraded helicopter fleet as approved in October 2005. The report notes that "...for the best Case, only 13 CS had improved response times, with improvements of only 30 minutes or less."¹ The "best Case" referred to is identified in the report as Case 5, which includes helicopter upgrades at Pump Station 4, Fairbanks, and Glennallen. The study based its findings on analysis of arrival of response resources to pre-designated Containment Sites only. There is no indication that the study considered benefits or risks to using the downgraded, current, or upgraded helicopter fleets to respond to areas of opportunity for response in remote drainages. The study did not address how the upgraded helicopter fleet was previously considered key to mitigating the increased risks due to the SR Project, or how now those risks are to be mitigated without benefit of the proposed helicopter fleet.

In considering whether the Department should accept the new proposal, we considered the standard of meeting the response planning standard (RPS) volume spill. This is a critical consideration for the Department, because ability to respond to an RPS volume spill within specified timeframes provides a key measure for approving a proposed Cplan modification. Additionally, the Department must consider impacts to the plan holder's capability to prevent oil from impacting environmentally sensitive areas. The June 2006 DNV study did not specifically provide measures against an RPS volume spill response, including initial response actions to final control, containment, and cleanup of oil spilled on water. The report

¹ Det Norske Veritas, Helicopter Upgrade Study: Report for Alyeska Pipeline Service Company, Report No. 70014182-2, Rev. 2, June 26, 2006, p. 13.

also did not address impacts to the ability to prevent oil from impacting environmentally sensitive areas if the helicopter fleet is downgraded.

The Department continues to find that it is insufficient for APSC to rely on helicopter support alone, regardless of its capacity, to respond to oil spilled from the TAPS pipeline. However, the Department cannot find sound justification in the report provided by Alyeska to remove previously proposed and approved helicopter upgrades from the TAPS Pipeline Cplan. Additionally, Department and JPO personnel have had the opportunity to talk with oil spill response workers at APSC about the upgraded helicopters before those workers knew the company had proposed to eliminate them. Without exception, the oil spill responders were greatly impressed with the increased capability to transport effective combinations of personnel and equipment to various response locations. Comments included that response during drills demonstrated that initial response was more effective because personnel and specific response equipment could be transported to and deployed at a site much more quickly than with the Bell 206 helicopter or by ground transportation alone.

Based on the considerations discussed above, the Department is requiring APSC to retain the helicopter support compliance schedule approved by the Department on October 21, 2005. The text of the approved compliance schedule (see ADEC Plan Number 15-CP-4131) shall replace the proposed Section 2.7.3 which seeks to eliminate helicopter upgrades proposed to support oil spill response capability as the SR Project is implemented. The upgraded helicopter (Bell 407 or equivalent) is already in place in Glennallen. Equivalent helicopter upgrades for Pump Station 4/Galbraith Response Base and the Fairbanks Response Base must be realized as the SR Project is completed and implemented in their response areas. This requirement is identified as Condition of Approval No. 13.

One commenter specifically recommended that the Department require APSC to obtain "heavy lift" helicopters, although the commenter did not specify the lifting, distance or speed envisioned for that category of helicopter. No public commenters made note of the proposal to reduce the capacity of the helicopter currently located in Glennallen or to eliminate the previously approved compliance schedule for upgrading helicopters in Fairbanks and at Pump Station 4. One public commenter pointed out that CS 11-6 does not specify primary access by helicopter, a mitigating measure that was to have been implemented over a year ago. The Department is requiring APSC to edit the proposed Cplan, Volume 3, CS 11-6 to designate that primary access is via helicopter as approved in 2005. The Department notes that APSC complied with a portion of the Region 5 Amendment approval for this location by specifying in the renewal application that additional exercises would be scheduled at CS 11-6. This requirement is identified as Condition of Approval No. 12.

- SR Mitigation Measure for Southern TAPS, PLMP 698. The Compliance Schedule does retain a mitigating action that APSC specified the following tactics for response to PLMP 698, which is the Klutina River crossing: "operator arrives by helicopter; mechanic hauls heavy equipment to site". However, this response tactic was not

incorporated into Volume 3, Tactics, Containment Instructions for Klutina River Segments on page 3-166. The Department is requiring that prior to publication, APSC incorporate that tactic into the instructions for the Klutina River segments. This requirement is identified as Condition of Approval No. 11.

In response to the Department's approval conditions for the R5 Amendment, APSC included implementation of an SR mitigation measure for the southern portion of TAPS in the Cplan Compliance Section. However, the Department's condition of approval specified that the additional mitigation measure from PLMP 698 had to be one of the alternatives identified in the Det Norske Veritas Compliance Support Project². The mitigation measure provided by APSC, was not included on the list for mitigating SR impacts to PLMP 698. APSC's proposal states, "The selected mitigation is to require a project-specific containment plan for any excavation work conducted at this location. The containment plan would require adequate temporary mitigation measures to be in place." Therefore, the Department has restated this requirement, including an interim requirement to maintain some response equipment at Pump Station 12 in Condition of Approval No. 25.

- Movement of "Area Wide" Oil Spill Response Equipment. One of the proposals in the TAPS Pipeline Cplan related to the overall implementation of SR is to expand the area in which "area wide" response equipment may travel. Section 3.6.3 of the Cplan addresses movement of oil spill response equipment, some of which is designated as "area wide". The current Cplan (ADEC Plan Number 15-CP-4131) specifies that designated area wide equipment may move within the Region (1, 2, 3, 4, or 5) to which it is assigned. In keeping with the Northern, Central, and Southern Regional organization that SR envisions, those movement restrictions on area wide equipment have been greatly expanded for equipment located in the new Central and Southern regions. In its November 30, 1998 TAPS Pipeline Cplan Approval and Final Findings Document, the Department imposed restrictions on the movement of area wide equipment, including heavy equipment, to within regions³. The basis of the Department's decision was that these restrictions support the initial and tiered response strategies proposed by APSC and account for the potential logistical problems caused by the three mountain passes and several major river crossings. While the Department does not generally object to the SR designations of Northern, Central, and Southern Regions for the TAPS Pipeline, it does not agree that the logistical risks and challenges to successful implementation if initial and tiered response strategies has been eliminated. Major mountain passes and river crossings dictate that the regional restrictions placed by the Department on area wide equipment be retained. This requirement is documented by Condition of Approval No. 15.

² Det Norske Veritas, Alyeska SR C-Plan Update Compliance Support Project Report: no. 70004921-0008, rev 1, May 10, 2005, Appendix VIII, List of Effective Mitigations, p. VIII.1

³ Alaska Department of Environmental Conservation, Division of Spill Prevention and Response, Industry Preparedness and Pipeline Program, Trans Alaska Pipeline System Pipeline Oil Discharge Prevention and Contingency Plan Final Findings Document and Response to Comments, November 1998, pp. 102 – 108.

Clearly, the impact of SR on the prevention and response measures contained in the TAPS Pipeline Cplan is significant and complex. The Department has endeavored to identify the key changes contained in the renewal application that must be changed to reflect current operations as well as those proposals related to the SR Project that would compromise APSC's ability to comply with oil pollution prevention and response statutes and regulations. Regardless of the contents of the TAPS Cplan and excepting formal waivers granted by the Department, APSC is required at all times to be in compliance with the State statutes and regulations identified above.

Issue No. 2: Protection of Environmentally Sensitive Areas and Areas of Public Concern - Copper River Watershed, Delta and Flats

Statement of Issue

Does the TAPS Cplan contain tactics, strategies, and resources that adequately demonstrate APSC's ability to protect environmentally sensitive areas and areas of public concern before oil reaches them? Public commenters specifically questioned whether risks to the Copper River watershed and the Copper River Delta and Copper River Flats were adequately identified and whether sufficient measures were in place to protect the Copper River salmon fishery and other sensitive habitats associated with the river.

Findings

The Department finds that APSC has made significant efforts to protect the many environmentally sensitive areas and areas of public concern throughout the TAPS Pipeline area. During the past five years APSC has implemented, or is in the process of implementing, many features to enhance response capability in the Copper River area. Nonetheless, the Department finds that the Copper River area represents a significant environmentally sensitive area and area of public concern that requires additional evaluation. The Department is requiring APSC to include a reference for hydrology data in Volume 3, Section 6 of the Cplan prior to publication. The Department is also requiring APSC to submit a Cplan Amendment by March 1, 2007 that includes a description of the area of opportunity concept and the base maps and containment instructions for Gulkana River Site A, Gulkana River Site B, Gulkana River Site C, and Gulkana River Site D areas. This amendment will be subject to Department and public review. Finally, the Department is requiring APSC to survey the Copper River to identify potential areas of opportunity and report on the findings by October 31, 2007. If Copper River areas of opportunity are identified, APSC must develop base maps and containment instructions for them and submit them as a Cplan amendment for Department and public review no later than December 28, 2007. Because of the dynamic nature of the area and because APSC's response equipment inventory is sufficient to respond to multiple locations simultaneously, this condition does not include a requirement for APSC to establish additional formal Containment Sites on the Copper River by obtaining land use permits and pre-staging response equipment. These requirements are specified in Condition of Approval No. 19.

Regulatory Authority

The regulations under 18 AAC 75.425(e)(1)(F)(v) require: "...for a stationary facility or operation...procedures and methods to exclude oil from environmentally sensitive areas and

areas of public concern identified under (3)(J) of this subsection, including for a land-based facility, protection of ground water and public water supplies;....”

The regulation under 18 AAC 75.445(d) states “...Response Strategies. The response strategies must take into account the type of product discharged and must demonstrate that ... (4) sufficient oil discharge response equipment, personnel, and other resources are maintained and available for the specific purpose of preventing discharged oil from entering an environmentally sensitive area or an area of public concern that would likely be impacted if a discharge occurs, and that this equipment and personnel will be deployed and maintained on a time schedule that will protect those areas before oil reaches them according to the predicted oil trajectories for an oil discharge of the volumes established under 18 AAC 75.430 – 18 AAC 75.442; areas identified in the plan must include areas added by the Department as a condition of plan approval.”

Plan holders are required to provide specific information regarding the protection of environmentally sensitive areas and areas of public concern under 18 AAC 75.425(e)(3)(J):

...for a stationary facility or operation...mapped predictions of discharge movement, spreading, and probable points of contact, based on expected local, seasonal, meteorologic, and oceanographic or topographic conditions; and, for each probably point of contact, a description of each environmentally sensitive area and each area of public concern, including:

- (i) the effect of seasonal conditions on the sensitivity of each area;
- (ii) a discussion of the toxicity effects and persistence of the discharge, based on type of product; and
- (iii) an identification of which areas will be given priority attention if a discharge occurs.....

Finally, AS 46.04.030(e) states that the Department “...may attach reasonable terms and conditions to its approval or modification of a contingency plan that the department determines are necessary to ensure that the applicant for a contingency plan has access to sufficient resources to protect environmentally sensitive areas....”

Response to Comments and Basis for Decision

Public commenters expressed the importance of adequate protection of the Copper River drainage from potential oil discharges from the TAPS Pipeline. Concerns ranging from potential environmental damage to potential impacts to cultural and economic resources were stated passionately.

For many years both the Department and the BLM have imposed conditions of approval on the TAPS Pipeline Cplan that required APSC to enhance plans to protect the Copper River area. The result is that a number of processes, physical enhancements and protective strategies have been added or enhanced. Following is a partial list of enhancements since 1998:

- More Frequent Meetings Between APSC and Copper River Area Stakeholders (AHTNA, BLM, CRNA, Glennallen Chamber of Commerce)

- A Permanent Full Time Response Crew Established in Glennallen (before the Glennallen and Pump Station 12 response crews were merged in 2005)
- Construction of Berms on River Banks in Areas of Above Ground Pipe and Defined Drainage Locations to the Gulkana, Tazlina and Klutina Rivers
- Enhanced Pre-Styled Equipment at Containment Sites
- Relocation of Containment Sites
- Improved Gulkana River Access
- Improved Klutina River Access
- Improved Copper River Boat Access (negotiations are still on-going)
- Mitigation Strategies for Potential Impacts to Drinking Water for the Village of Gulkana
- Increased Training at Containment Site 11-6 (near the confluence of the Little Tonsina and Tonsina Rivers)
- Increased Exercises for the Southern Portion of TAPS (formerly Region 5). This includes two major exercises held at the Tazlina River and Tielke River in 2004 and 2006.
- Identification of four “areas of opportunity,” including specific response strategies, for response in the Gulkana River between CS 10-17 and CS 10-16
- Replacement of Check Valve 109 near the Klutina River crossing
- Acquisition and Training for New Fast Water Boom Deployment Equipment

Even with the improvements listed above, the need to provide sufficient protection to the Copper River Area resources requires constant vigilance on the part of APSC, regulatory and resource agencies, and the public.

Public comments have led the Department to find that additional work remains for supporting Copper River resource protection.

- Several commenters stated that the hydrologic data contained in the TAPS Cplan, particularly related to river velocities, was in conflict with information they obtained from the USGS. In one case, a commenter provided USGS mean data for August. Other commenters provided random river velocity data. Section 6, Hydrology of Major Drainages in Volume 3 of the Cplan provides a lot of important information concerning seasonal hydrology for major river drainages along TAPS. The Department notes that there is no source provided for this information, however, and we have not been able to validate the discrepancies in data for the tributary rivers in the Copper River watershed provided by public commenters. The Department is requiring APSC to document the source of the hydrologic information contained in the Cplan. This information must be referenced in Section 6 prior to publication. The Department cannot determine, at this time, that additional information is needed or that the hydrology information in the Cplan is incorrect. Therefore, we are placing no requirements on APSC to change the information or the tactics identified for fast water response.
- One commenter noted the distance between the two established Containment Sites (10-17 and 10-16) downstream of the pipeline crossing on the Gulkana River. In 2005 and 2006 as a result of specific conditions of approval by BLM, APSC surveyed the Gulkana River and

identified four areas of opportunity for spill response. APSC conducted field evaluation of the sites, created base maps, tactical instructions and identified response equipment needed to deploy them. The documentation for these four sites was provided to the JPO on September 26, 2006. The Department finds that identifying areas of opportunity for response and conducting tactical planning for them, without necessarily establishing formal containment sites, is a useful response planning tool for highly dynamic rivers such as the Gulkana. The Department is requiring APSC to submit a Cplan Amendment no later than March 1, 2007 that contains a description of the area of opportunity concept and the base maps and containment instructions for these four locations.

- Studies conducted by SL Ross Environmental Research for APSC in 1999 led APSC to conclude that there was "...an indication that spilled oil entering the Copper River would not be expected to remain on the surface of the river for any significant distance downstream of the input point."⁴ In a letter to the JPO in April 2004, APSC stated that they surveyed the Copper River for possible containment site establishment in 2002. However, they concluded that because the river was so highly dynamic on both a seasonal and annual basis, they could not effectively establish useable containment sites. The Department agrees that pre-established stable sites may not be the correct approach for response strategies for the Copper River. As an alternative, the Department is requiring APSC to conduct a survey of the Copper River downstream of the confluences with the rivers over which the TAPS Pipeline crosses to identify potential areas of opportunity. APSC must report findings on this effort to the Department by October 31, 2007. If areas of opportunity are identified, APSC will be required to develop base maps and containment instructions for those locations and to submit them for a Cplan amendment no later than December 28, 2007 for Department and public review.

Issue No. 3: TAPS Mainline Pipe Leak Detection System

Statement of Issue

Do the leak detection systems in place on the TAPS Pipeline mainline provide leak detection at or better than the State standard to maintain:

- continuous capability to detect a daily discharge equal to not more than one percent of daily throughput?
- flow verification through an accounting method, at least once every 24 hours?
- weekly aerial surveillance unless precluded by safety or weather conditions?

Findings

The Department finds that additional documentation is needed before it can agree that APSC's leak detection systems, particularly the Transient Volume Balancing (TVB) system identified as BAT, maintain the continuous capability to detect a daily discharge equal to not more than one percent of daily throughput. The Department finds that as of the completion of this Cplan review period, APSC has numerous tests and analyses of the leak detection system unfinished. While the specific tests were agreed to in a Memorandum of Understanding (MOU) between APSC and

⁴ APSC Government Letter No 00-15495 to ADEC re: Condition of Approval #7 (c) Crude Oil Interaction In Silty Rivers Report Submittal, p. 1.

the JPO in May 2005, the Department finds they are necessary for documenting compliance with State standards.

Therefore, the Department is requiring the following:

- Table 4.17, Pipeline Leak Detection, Monitoring, and Operating Requirements should be edited to state that APSC is still completing testing and validation of the reconfigured TVB system.
- APSC must conduct a controlled commodity release test for TAPS no later than January 30, 2007.
- APSC must provide the Department with the results of that test no later than 60 days after its completion.
- APSC must provide the Department with a copy of the 2005 LEFM transducer port inspections for Pump Station 12 within 30 days of this approval.
- APSC must provide the Department with a copy of the Pump Station 11 LEFM transducer boss heating experiments report. The work is currently scheduled for February 2007 by agreement with the JPO. If the project is delayed, notify the Department concerning rescheduling.
- APSC must provide the Department with the final Performance Report for the TVB leak detection system that covers tuning, testing and performance mapping for leak location capability and leak detection capability conducted in 2006 no later than January 30, 2007.

This requirement is identified as Condition of Approval Number 16.

Regulatory Authority

Leak detection, monitoring, and operating requirements for crude oil transmission pipelines are found in 18 AAC 75.055. The pertinent part reads:

- (a) a crude oil transmission pipeline must be equipped with a leak detection system capable of promptly detecting a leak, including
 - (1) if technically feasible, the continuous capability to detect a daily discharge equal to not more than one percent of daily throughput;
 - (2) flow verification through an accounting method, at least once every 24 hours; and
 - (3) for a remote pipeline not otherwise directly accessible, weekly aerial surveillance, unless precluded by safety or weather conditions.

Response to Comments and Basis of Decision

Commenters suggested that the leak detection standards for the pipeline are inadequate. The State standard for leak detection systems are established by regulation. While the Department encourages APSC to exceed those criteria, we do not at this time have authority to require APSC to go beyond the established standards.

The three leak detection systems in place for the TAPS pipeline are adequately described in the TAPS Cplan. However, the Department is aware that APSC has continued to develop, reconfigure and test its TVB leak detection system throughout 2006. Although Table 4.17 in the

BAT Section suggests this system reconfiguration and testing was completed in 2005, the Department is well aware that this is incorrect. Work to respond to a May 2005 MOU with the JPO is ongoing at this time. Because the Department finds that much of that testing is critical to understanding the performance capability of the TVB system, we are requiring APSC to complete certain of the tests included in the MOU and to provide reports on them to the Department. If these reports confirm that the TVB detects leaks at or better than the State standard, the Department will take no further action. The requirements of this finding are identified in Condition of Approval No. 18.

Issue No. 4: Oil Spill Response Training Program.

Statement of Issue

Does the TAPS Cplan demonstrate that response personnel are trained and kept current for purposes of implementing the response strategies and tactics described in the plan? Does the plan's Table 3.37, OSCP Training Matrix, demonstrate that appropriate responder groups will receive the training needed to fill their specified response roles?

Findings

The Department finds that there are four areas in which the TAPS Pipeline Cplan does not adequately provide assurance that oil spill response workers are adequately and currently trained to implement the Cplan. First, the plan does not adequately describe an effective method for verifying that oil spill response workers provided by contracts are trained and kept current in required training. Second, the plan does not ensure the most basic levels of HAZWOPER training to be obtained *prior* to field deployment of response personnel. Third, the plan does not require annual field gas detection training for spill response workers required to utilize field gas detection equipment for initial site safety surveys. Finally, the plan proposes to eliminate oil spill fire prevention training for all responders. The Department is requiring that each of these areas be addressed as conditions of approval of the TAPS Pipeline Cplan renewal application.

Regulatory Authority

18 AAC 75.425(e)(3)(I) requires the plan to contain "...a detailed description of the training programs for discharge response personnel."

Approval criteria are established by 18 AAC 75.445(j):

"Training. In addition to maintaining continuous compliance with other applicable state and federal training requirements, the plan holder shall demonstrate that designated oil spill response personnel are trained and kept current in the specifics of plan implementation, including deployment of containment boom, operation of skimmers and lightering equipment, and organization and mobilization of personnel and resources. The plan holder shall ensure that proof of training is maintained for three years and is made available to the department upon request."

Response to Comments and Basis for Decision

Commenters generally did not specifically address the TAPS training programs. However, one commenter stated generally that training was inadequate and that they believed there were not trained responders for TAPS. One commenter recommended that APSC be required to train local community members for emergency response. The Department does not have the authority to require APSC to train responders beyond what it believes are necessary to respond to a spill. In this case, the Department believes APSC has identified an adequate number of responders. Several other commenters specifically requested that the Department require APSC to create a group of trained spill responders based in Cordova to respond to oil spills that could potentially impact the Copper River Delta and Flats. That request is discussed in this document under Issue No. 2, Protection of Environmentally Sensitive Areas – Copper River. Finally, several commenters recommended changes to the portion of APSC's training program that is captured in the TAPS Oil Spill Response Exercise Program and schedule. Those recommendations are discussed in this document under Issue No. 5 TAPS Oil Spill Response Exercise Program.

As noted in the Introduction, the Department works closely with agencies located in the Joint Pipeline Office. The BLM in particular has concurrent and complimentary oversight authority and responsibility for many areas of TAPS, one of which is oversight of oil spill response training and readiness. During the last two years, the JPO has conducted several surveillances focused on verifying that the TAPS oil spill response training program was implemented as described in the Cplan and that all responders were being kept current in required training. One outcome of this effort was a routine Cplan amendment identifying the specific training that would be provided to new workers within the first six weeks of their employment. While that was a positive change, the JPO surveillances have revealed that certain aspects of the training program are not effectively implemented.

JPO Surveillance Nos. ANC-06-S-070 and ANC-06-S-106 documented that APSC response workers supplied by one of APSC's primary response action contractors (PRACs) were consistently not trained as described by the OSCP training matrix in the Cplan. They may not have received training in certain areas at all, or they received training later than the required interval. APSC is attempting to address this problem by requiring quarterly training reports from their PRACs and assigning APSC's Oil Spill Response Coordinators (OCs) to work with the PRACs to improve training compliance. The Department is requiring that APSC provide quarterly contractor response personnel training records (oil spill related only) to the Department. This includes training for courses identified in the OSCP Matrix as well as training that may be provided as equivalent training outside of APSC specific classes. Typically, plan holders are not required to maintain contractor training records. However, APSC is responsible for having trained and current oil spill response workers at all times. Therefore, the Department finds this requirement reasonable. This requirement is identified in Condition of Approval No. 20.

The Department was highly concerned that JPO Surveillance Nos. ANC-06-S-071 and ANC-06-S-485 documented that some oil spill response personnel, in this case personnel provided by a PRAC, were not trained in the basic HAZWOPER level identified in the Cplan (APSC designations 1, 2, 3, 4, and 5) before being assigned to a field position that included oil spill response job duties. The Department consulted with a representative from

the State Department of Labor and confirmed that this is unacceptable for any worker assigned to oil spill response duties. While the TAPS Cplan specifies various HAZWOPER levels for different positions, there is no indication that this training must be obtained *prior* to field assignment. The Department cannot recognize that workers without minimal HAZWOPER and worker safety training are qualified oil spill response workers. Therefore, the Department is requiring APSC to modify the Cplan to ensure oil spill response workers, whether directly employed by APSC or supplied by a PRAC, must have the appropriate level of HAZWOPER training *prior* to being assigned oil spill response duties. This requirement is identified in Condition of Approval No. 21. We should note that APSC verbally confirmed a typographical error designating different levels of HAZWOPER training for different PRACS and that both baseline contractor personnel and the Ahtna Construction Initial Response Team are required to be trained to HAZWOPER Level 3.

In response to a request for additional information by the Department, APSC edited the OSCP Matrix to require all workers assigned in the Response Action Plan to utilize field gas detection devices to be trained. However, the Department finds that one-time classroom training in the use of these devices is not adequate. The Department is requiring APSC to edit the OSCP Matrix to incorporate an annual performance check into the training requirements for field response personnel designated to fill the initial safety officer position, including Safety Generalists, ROW/Civil Maintenance & Emergency Response Coordinators (MCs), baseline personnel, and technicians. This requirement is identified as Condition of Approval No. 22.

Finally, the Department noted during the final stages of its review that APSC had removed the course OSCP/23, Oil Spill Fire Prevention Training from the OSCP matrix. Formerly this course had been required as a one time classroom course for all responders. The Department confirmed that the State Fire Marshall representative to the JPO had not approved of removing this course. The Cplan generally provides for in-house personnel to be prepared to prevent or control fire hazards associated with an oil spill, which is a requirement of 18 AAC 75.425(e)(1)(F)(ii). The Department is requiring that APSC reinstate the course OSCP/23 into the OSCP Matrix as a one time classroom course for baseline mechanics, security personnel, baseline crew, MCs, RBSs, OCs, environmental personnel, fire/safety personnel, technicians, the Fairbanks Initial Response Team, the Ahtna Construction Initial Response Team, and the SERVS Initial Response Team. This requirement is identified as Condition of Approval No. 23.

Issue No. 5: TAPS Oil Spill Response Exercise Program

Statement of Issue

Is the TAPS Oil Spill Response Exercise Program for 2007 through 2011 sufficient to demonstrate that oil spill response personnel are well trained in implementing the response action plan? Does the program provide sufficient opportunity to exercise strategies needed to respond to the RPS volume? Does the program include opportunities to exercise protection of environmentally sensitive areas and areas of public concern?

Findings

The Department finds that the TAPS Oil Spill Response Exercise Program is sufficient for training spill response workers and for demonstrating the capability to respond to an RPS volume spill and oil spills that may occur at a wide variety of locations along the pipeline. As noted above in Issue No. 1, the Department is requiring that specific exercises be added to the Program to account for Pump Station 3's online and staffed status prior to implementation of SR. In addition, the Department is requiring APSC to update the Program for exercises in 2010 and 2011 by September 15, 2009. The updated program will be subject to Department and public review as a supplemental information document to the Cplan.

Regulatory Authority

Alaska Statute 46.04.030(e)(1) – (3) gives the Department authority to require an applicant or plan holder of an approved cplan to ensure the plan holder's continuous compliance with the plan through periodic training, response team exercises, and verifying access to inventories of equipment, supplies and personnel.

Response to Comments and Basis for Decision

Numerous reviewers provide comments on the TAPS Oil Spill Response Exercise Program, although many of the comments were fairly broad based rather than about specific elements of the Program. Several commenters stated that the TAPS Oil Spill Response Exercise Program does not provide adequate opportunity to conduct exercises in the winter. The Department recognizes that planned exercises for the various Pump Stations and Response Base crews are skewed to spring, summer and fall deployments. We do not find that the number of winter exercises is inappropriate. One commenter felt that local landowners should be given the authority to schedule unannounced exercises rather than either APSC or regulatory agencies. As in the past, the Department cannot support this recommendation. Similarly, some commenters thought that APSC should conduct exercises in a combination of the most challenging conditions – during winter, freeze-up or break-up and at night. While the Department expects certain aspects of an oil spill response to carry on throughout the night, and the TAPS Cplan includes equipment intended to facilitate a nighttime response, it would be unwise to unnecessarily place responders in an extremely high risk environment unless it is absolutely warranted. Scenarios in the Cplan suggest that while certain nighttime activities will continue, darkness may preclude effective response. Finally, one commenter suggested that APSC's primary response action contractors (PRACs) could not be relied on to activate Initial Response Teams and deploy equipment without specific APSC personnel being present. While this is a shocking suggestion, the Department has never seen evidence of this. Our observation is that APSC's oil spill response personnel tend to be fairly aggressive in implementing tactics and deploying equipment for their assigned task forces.

APSC requested to provide the last two years of the Oil Spill Response Program schedule at a later date in order to incorporate lessons learned or recognized needs into the remaining years of the Program. The Department is supportive of this and is requiring that APSC submit the exercise schedule for 2010 and 2011 no later than September 15, 2009. This requirement is identified as Condition of Approval No. 16.

Issue No. 6: Oil Spill Response Resources

Statement of Issue

Does the TAPS Pipeline Cplan provide for sufficient oil spill response equipment resources to respond to an RPS volume spill? Are those resources clearly and consistently identified in the Cplan? Is the field command structure for an RPS volume oil spill response clear?

Finding

The Department finds that APSC has identified sufficient quantity and type of oil spill response equipment in the TAPS Pipeline Cplan. However, we have noted significantly inconsistent identification of equipment pre-staged at designated Containment Sites. Prior to publication of the Cplan, APSC is required to carefully edit the Containment Site sheets in Volume 3, Tactics to accurately list oil spill response equipment that is pre-staged at those locations. Specifically, all conexes, anchorage devices, towing bridles and the quantity and type of boom located at each Containment Sites must be listed as identified in Volume 1, Table 3.30, Containment Sites - Equipment. Also, additional non-standard inventory identified in Table 3.34, Additional Inventory, must be included on the appropriate Containment Site sheet. If a conex is at a Containment site, it must be identified in the response equipment box as remote, standard, enhanced, or auxiliary. If more than one conex is staged at a site, each conex must be listed both on the Containment Site Sheet and in the appropriate table. The equipment listings in the tables are generally much more accurate than the individual Containment Site sheets. However in a few cases, the Containment Site sheet contains a more accurate listing of equipment. This requirement is detailed in Condition of Approval No. 25.

The Department finds that APSC has clearly structured their Command System so that key leadership positions are populated with staff based at field locations, either Pump Stations or Response Bases. The Department finds that this is a good command structure; however, the Department believes APSC needs to identify which field personnel will fill the field leadership positions of Initial Response Incident Commander, Operations Section Chief, and Reconnaissance Supervisor. APSC is required to establish a procedure to document the availability of assigned individuals. This requirement is identified as Condition of Approval No. 24.

Regulatory Authority

The requirement for a Cplan to include a complete list of response equipment needed to respond to an RPS volume spill and to protect environmentally sensitive areas is found in 18 AAC 75.425(e)(3)(F):

.... A complete list of contracted or other oil discharge containment, control, cleanup, storage, transfer, lightering, and related response equipment to meet the applicable response planning standard, and to protect environmentally sensitive areas and areas of public concern that are identified in (J) of this paragraph and that may be reasonably expected to suffer an impact from a spill of the response planning standard volume as described in the response strategies developed under (1)(F) and (1)(I) of this subsection, the list must include:

- (i) the location, inventory, and ownership of the equipment....

Further, the cplan review criteria contained in 18 AAC 75.445(3) requires that

...types and amounts of boom, boom connectors, and anchorage devices must be of the appropriate design for the particular oil product, type of environment, and environmental conditions experienced at the facility or operation; the boom must be of sufficient length to mount an effective response to the volume of discharged oil

Response to Comments and Basis of Decision

The Department is greatly appreciative that a public reviewer questioned a single discrepancy in response equipment listed in Table 3.30, Containment Sites – Equipment and an individual Containment Site sheet in Volume 3, Tactics. Upon further review, the Department found many discrepancies in the equipment listed on the Containment Site sheets. Frequently “none” or “NA” was written in the response equipment box of the Containment Site sheet when the site may have one or more conexas pre-staged at it. Typically, anchorage devices, towing bridles and the quantity and type of boom pre-staged at Containment Sites are not identified on individual sheets. When additional non-standard inventory is at a specific site, it frequently is not identified on the sheet. While it is clear that the equipment listed in Table 3.30 and Table 3.36, Additional Inventory, represent the equipment the Department expects to be located at individual Containment Sites, in a few cases, the description of response equipment on a Containment Site sheet is more accurate. Therefore, the Department is requiring that prior to publication of the Cplan, APSC must carefully edit the Containment Site sheets to reflect accurate descriptions of response equipment located at each Containment Site. Specifically, it must be noted if one or more conexas are located at the site and whether their inventory is remote, standard, enhanced or auxiliary; it must be noted how many and what type of anchorage devices, towing bridles and quantity and type of boom are at each containment site as these vary according to each location. This requirement is identified as Condition of Approval No. 25.

The Department did not receive comments on APSC’s response command structure contained in the Cplan. The Department is satisfied that APSC’s command structure is adequate for an RPS volume spill response. Key field leadership positions outside of the Initial Response Team include the Initial Response Incident Commander, the Operations Section Chief, and the Reconnaissance Supervisor. The Cplan states that ROW/Civil Maintenance & Emergency Response Coordinators (MCs), Response Base Supervisors (RBSs), Oil Spill Coordinators (OCs) or their designees may fill those positions. The Cplan also commits to maintaining three MCs, RBSs, or OCs both north and south of the Yukon River at all times. These individuals are not required to be at any particular location at all times as long as they are somewhere north or somewhere south of the Yukon River. We recognize that in a smaller spill, one person may fill more than one of these positions. However, for a larger spill, we believe it is important for APSC to have a procedure in place to know in advance each day who will fill those slots if an RPS volume spill occurs. The requirement to establish this procedure is identified in Condition of Approval No. 24.

Issue No. 7: Preventing or Controlling a Potential Fire Hazard

Statement of Issue

Does the TAPS Cplan contain an oil spill response strategy that provides a description of methods to prevent or control a potential fire hazard associated with oil spill response?

Findings

The Department finds that the TAPS Cplan generally contains adequate information and procedures to ensure that potential oil spill response operations are to be conducted in a manner which would prevent or control a potential fire hazard. However, the Department is requiring APSC to retain the fire truck currently stationed at Pump Station 9. The fire truck must be retained in the published Cplan. If APSC provides a written statement from the State Fire Marshall's office stating that the APSC fire truck is not required to prevent or control a fire hazard associated with an oil spill at that facility or the surrounding Right-of-Way, APSC may submit a Cplan amendment for Department and public review.

Statutory and Regulatory Authority

The Cplan regulation dealing with fire hazards is found in 18 AAC 75.425(e)(1)(F)(ii). This regulation states that the response portion of the Cplan must contain "...a description of methods to prevent or control a potential fire hazard..."

Response to Comments and Basis for Decision

The Department did not receive specific comments concerning oil discharge prevention and contingency plans for preventing and controlling potential fire hazards on TAPS. However, the subject has been addressed in numerous past findings documents (1996, 1998 and 2001). In the renewal application, APSC proposed two items concerning preventing and/or controlling fire hazards. One proposal was to discontinue fire prevention training for oil spill responders. That proposal is discussed in this document under Issue No. 4, Oil Spill Response Training Program. The second proposal was to remove the fire truck from the Pump Station 9 response equipment inventory and rely on the Delta Volunteer Fire Department to provide a fire truck for responding to fire hazards associated with an oil spill for that area. APSC did not provide documentation supporting this change, however. The Department questions whether it is sufficient to rely on a local volunteer fire department in the manner described. Therefore, APSC is required to retain the fire truck currently stationed at Pump Station 9. This change must be edited into the Cplan prior to its publication. If APSC obtains and provides the Department with a written statement from the State Fire Marshall that methods for preventing and controlling a potential fire hazard associated with an oil spill can be equivalently covered by the Delta Volunteer Fire Department, APSC may submit an amendment for Department and public review. This requirement is identified as Condition of Approval No. 17.

Issue No. 8: Best Available Technology – Emergency Source Control and Repair Procedures

Statement of Issue

Does the TAPS Pipeline Cplan renewal application propose changes to required Best Available Technology (BAT) use? Are proper BAT analyses included in the TAPS Cplan?

Findings

The TAPS Pipeline Cplan renewal application proposes numerous additions to BAT Section 4.2, Emergency Source Control & Repair Procedures. These changes have been developed over the last five years largely in response to the 2001 MP 400 Bullet Hole Release. The Department finds that the TAPS Pipeline Cplan reflects the appropriate best available technology required by State statute and regulation.

Regulatory Authority

Best Available Technology (BAT) regulations are extensive. The BAT regulations applicable to the TAPS Pipeline BAT Analysis in the plan are found in 18 AAC 75.425(e)(4). Review criteria for approving a plan's BAT analysis is found in 18 AAC 75.445(k) Best Available Technology Review.

18 AAC 75.425(e)(4):

....the plan must provide for the use of best available technology consistent with the applicable criteria in 18 AAC 75.445(k). In addition, the plan must:

- (A) identify technologies applicable to the applicant's operation that are not subject to response planning or performance standards specified in 18 AAC 75.445(k)(1) and (2); these technologies include, at a minimum:
 - (i) for all contingency plans: communications described under 18 AAC 75.425(e)(1)(D); source control procedures to stop the discharge at its source and prevent its further spread described under 18 AAC 75.425(e)(1)(F)(i); trajectory analyses and forecasts described under 18 AAC 75.425(e)(1)(F)(iv); and wildlife capture, treatment, and release programs described under 18 AAC 75.425(e)(1)(F)(xi);
 - (ii) for a terminal, crude oil transmission pipeline, or an exploration and production contingency plan: cathodic protection or another approved corrosion control system if required by 18 AAC 75.065(h)(3); a leak detection system for each tank if required by 18 AAC 75.065(h)(4); any other prevention or control system approved by the department under 18 AAC 75.065(i)(1)(D); a means of immediately determining the liquid level of bulk storage tanks as specified in 18 AAC 75.065(j)(3) and (4); maintenance practices for buried steel piping containing oil as required by 18 AAC 75.080(b)(1)(A); and corrosion surveys required by 18 AAC 75.080(b)(2)(A);....

- (B) for each applicable technology under (A) of this paragraph, identify all available technologies and include a written analysis of each technology, using the applicable criteria in 18 AAC 75.445(k)(3); and
- (C) include a written justification that the technology proposed to be used is the best available for the applicant's operation.

18 AAC 75.445(k):

For purposes of 18 AAC 75.425(e)(4), the department will review a plan and make a best available technology determination using the following criteria, as applicable:

- (1) technology used for oil discharge containment, storage, transfer, and cleanup to satisfy a response planning standard in 18 AAC 75.430 – 18 AAC 75.442 will be considered best available technology if the technology of the applicant's oil discharge response system as a whole is appropriate and reliable for the intended use as well as the magnitude of the applicable response planning standard;
- (2) technology that complies with the performance standards of 18 AAC 75.005 – 18 AAC 75.080 and that is not subject to a best available technology review under 18 AAC 75.425(e)(4)(A), will be considered best available technology;
- (3) technology identified under 18 AAC 75.425(e)(4)(A) will be evaluated using the following criteria, if applicable:
 - (A) whether each technology is the best in use in other similar situations and is available for use by the applicant;
 - (B) whether each technology is transferable to the applicant's operation;
 - (C) whether there is a reasonable expectation each technology will provide increased spill prevention or other environmental benefits;
 - (D) the cost to the applicant of achieving best available technology, including consideration of that cost relative to the remaining years of service of the technology in use by the applicant;
 - (E) the age and condition of the technology in use by the applicant;
 - (F) whether each technology is compatible with existing operations and technologies in use by the applicant;
 - (G) the practical feasibility of each technology in terms of engineering and other operational aspects; and
 - (H) whether other environmental impacts of each technology, such as air, land, water pollution, and energy requirements, offset any anticipated environmental benefits.
- (l) If the department's determination under (k) of this section is that a technology proposed for use by the applicant is not the best available technology, the department will provide a written finding explaining its decision.

Response to Comments and Basis for Decision

Most comments that the Department received concerning the use of BAT were strongly supportive of requirements for TAPS to utilize BAT, but the comments were generally non-

specific to the analysis and criteria described in the regulations. For example, one commenter recommended that Best Available Technology be required for the TAPS leak detection system.

One commenter provided specific comments on the BAT Section of the TAPS Cplan. The specific comments questioned using the mainline valves as the first source control method for the TAPS Pipeline; questioned the benefit of visual observations and forward looking infrared radar (FLIR) for spill tracking; questioned why an analysis for predicting oil spill movement wasn't included in Section 4; questioned the completeness of the wildlife capture, treatment and release technologies and procedures; and finally, the commenter stated that maintenance practices for buried steel piping containing oil were probably not best and wondered what procedures are being followed to address corrosion in the PLMP 647 area.

Primary regulatory authority for the operation of mainline valves on TAPS rests with the Department of Transportation. Importantly, there is a detailed valve maintenance program called the TAPS Valve Maintenance Program (TVMP) which is overseen by the JPO. As stated in our October 21, 2005 R5 Amendment Findings Document, the Department looks to the technical expertise of the agencies at the JPO and their formal oversight and monitoring programs established for Pipeline mainline valves to determine whether the valves are functioning properly or represent an increased risk for spill prevention or response capabilities. As a part of this program, mainline valves known to leak within performance criteria levels are scheduled for retesting. The JPO monitors the TAPS Valve Maintenance by onsite surveillances during valve repairs, replacements and maintenance, and by reviews and discussions relating to the TVMMP. Testing in 2005 confirmed that two suspect valves had leak-through that exceeded performance criteria, and these valves were replaced in the summer of 2006. The Department will continue to coordinate with the JPO to identify when mainline valves operate outside of the identified performance criteria. The Department does not agree with the commenter that the use of mainline valves as a current BAT for source control is not acceptable.

The TAPS Cplan contains a substantive discussion of oil movement on land and on water in Volume 1. The commenter is correct that spill forecasting is not specifically highlighted in the BAT section. However, the information needed to predict oil movement on land or in rivers along the TAPS route is clearly contained in the Cplan.

The Department recognizes the commenter's recommendation that traditional knowledge of local residents, guides or tribes may contribute to wildlife protection plans. However, the Department does not find that the BAT analysis of wildlife capture, treatment and release procedures and technologies is deficient.

Finally, the Department recognizes the commenters concerns, primarily associated with recent North Slope spills. However, we do not find a direct correlation between the North Slope events and the maintenance programs the TAPS mainline pipe or associated piping. The Department does not agree that the BAT section for Maintenance Practices for Buried Steel Piping Containing Oil has failed to meet the regulatory standard.

The Department is pleased with the inclusion of various systems developed since 2001 in the Emergency Source Control and Repair Procedures portion of the BAT Section. Research and

development was agreed to by APSC, the Department, and all of the agencies of the JPO following the 2001 MP 400 Bullet Hole Release. Department staff have observed practice drills with the technologies added to the BAT section, including live fire fighting exercises by the APSC Source Control and Repair Team (SC&RT). These technologies have been created and refined with operator safety as a primary goal – an issue that was identified as a significant concern at the 2001 spill.

Finally, the Department is requiring APSC to provide substantial additional documentation on the leak detection systems in place for the TAPS mainline pipe. While the Department continues to believe that the TVB system is BAT for TAPS, there is need for APSC to provide documentation to describe tests and performance mapping results. This matter is discussed under Issue No. 3, TAPS Mainline Leak Detection System.

OTHER COMMENTS RECEIVED

Review Process and the Department Decision to Withhold Security Sensitive Portions of the TAPS Pipeline Cplan from Public Review.

The review process utilized by the Department was based on regulatory requirements found in 18 AAC 75.455, Department Review Procedures for Oil Discharge Prevention and Contingency Plans and Nontank Vessel Equivalent Plans. The general review procedures were discussed in the Introduction of this document.

One commenter specifically criticized the Department for not holding public hearings which that commenter had requested. The Department does have discretion to hold public hearings "...if it determines good cause exists..."⁵ Notwithstanding the single request for a public hearing, the Department did not determine that good cause existed to hold one. The Department did not believe that additional information concerning the renewal application would be obtained from the public that would not be provided in written comments.

One commenter specifically criticized the Department for making the public review copy of the TAPS Pipeline Cplan available at the Cordova Library. The Department denied a request to have APSC provide a personal copy of the TAPS Pipeline Cplan renewal application to each individual who requested it. Instead, the Department anticipated that members of the public not associated with pre-identified reviewing organizations would want to review and comment on the Cplan, and therefore directed APSC to make the documents available to all of the public at regional libraries, coastal district offices, and local government offices along the TAPS route.

The Department decision to withhold portions of the TAPS Pipeline Cplan from the public review was criticized. The Department's decision to direct APSC to withhold portions of the Cplan that were considered to be security sensitive under AS 40.25.120(a)(10) was based on a careful review of public records statutes and consultation with the State Department of Military and Veterans Affairs, Division of Homeland Security and Emergency Management (DHSEM)⁶.

⁵ 18 AAC 75.455(j) The department will, if it determines good cause exists, hold a public hearing on an application and plan in the manner provided under 18 AAC 15.060.

⁶ ADEC letter to APSC, Notice to Begin Public Review, April 19, 2006.

The Department recognizes that withholding portions of the Cplan poses challenges to public reviewers who are forced to make some assumptions concerning the missing pages. However, the Department found that in spite of this challenge, the public offered many expressions of concern regarding the TAPS Pipeline Cplan renewal application as well as some carefully considered recommendations. The Department stands by its decision to direct APSC to withhold some portions of the Cplan from the public.

Citizen Advisory Council for the TAPS Pipeline

The Department received numerous comments from a variety of private citizens, communities and other non-governmental organizations recommending an industry-funded independent citizens' advisory group or council be established for the TAPS pipeline. The Department has addressed this recommendation in the past and will briefly re-state our position here: the Department does not have the authority to require or sanction the creation of such a group or council. However, the Department acknowledges the underlying request for stakeholder involvement in major decisions. In part, this goal can be accomplished through participation in public review processes. The Department also encourages APSC to continue to take advantage of local knowledge of residents along the pipeline corridor and to continue to develop and open communications channels between the company and the public.