

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Division of Spill Prevention and Response
Prevention and Emergency Response Program

SITUATION REPORT

INCIDENT NAME: Pump Station 1 Booster Pump Piping Incident **SITREP #:** 4

SPILL NUMBER: 11399900801 **LEDGER CODE:** 14307760

TIME/DATE OF SPILL: Alyeska Pipeline Service Company (APSC) employees discovered a spill of crude oil inside the booster pump building at Trans-Alaska Pipeline System (TAPS) Pump Station 1 at 8:16 AM on January 8, 2011. APSC reported the spill to ADEC at 8:39 AM on January 8, 2011. APSC cut the flow of oil to the TAPS line at approximately 8:50 AM January 8, 2011.

TIME/DATE OF SITUATION REPORT: 5:30 PM, January 11, 2011

TIME/DATE OF THE NEXT REPORT: 4:00 PM, January 12, 2011

TYPE/AMOUNT OF PRODUCT SPILLED: Crude oil appears to have been released from part of the booster pumps' discharge piping, either in the wall of booster pump building or in a concrete-encapsulated underground section outside the building. Oil continues to flow slowly into the basement where a section of the pipe passes through the wall. As of noon today, APSC estimated that approximately 2,000 gallons (48 barrels) of oil had been recovered from the building. It has not yet been determined whether oil has been released into the ground outside the concrete casing and booster pump building.

LOCATION: TAPS Pump Station 1, Prudhoe Bay. Pump Station 1 is the point at which oil from the North Slope oil fields enters the TAPS line.

CAUSE OF SPILL: Investigation is ongoing to determine the cause and source of the release.

RESPONSIBLE PARTY (RP): Alyeska Pipeline Service Company (APSC)

RESPONSE ACTION: The TAPS line remains shut down and North Slope production continues at approximately 5 percent of normal volume. Falling oil temperatures and increasing risks associated with a prolonged shutdown of the TAPS line are of increasing concern to the system's operators and state and federal regulators. Significant risks include ice formation and buildup of paraffin wax within the pipe, which can damage or disable the system. Ice and wax could impede the progress of a cleaning pig that stopped near mile 420 of the pipeline at shutdown and cause interference with the flow of oil and damage to the pipeline, valves, and other critical equipment. Such damage could result in a more extended TAPS shutdown, with subsequent impacts to other North Slope facilities, including production facilities.

An additional cause for concern is the amount of time necessary to fabricate and install the pipe that will bypass the compromised booster pump discharge piping. APSC estimates that completing fabrication will take another 4 days, and installation is expected to take an additional 36 hours beyond that. Continued production of oil at reduced volume since the TAPS shutdown has helped North Slope production facilities avoid cold weather damage. The tanks at Pump Station 1 used to store the produced oil are projected to be filled to capacity before the booster bypass line can be completed. If the tanks reach capacity before the TAPS line is restarted, production facilities will have to be shut down, subjecting them to a significantly increased risk of cold weather damage.

The Unified Command (UC) today approved a plan from APSC to restart and operate the TAPS line temporarily, before the booster pump discharge bypass line is completed, in order to increase the temperatures of oil and equipment and move the mile 420 pig to Pump Station 8 where it can be removed from the pipeline. This will entail pumping oil through the compromised underground discharge piping, which may increase the flow of oil into the

booster pump building and increase the potential for soil contamination. The plan includes measures to collect and recover oil from the seep in the basement of the booster pump building and to monitor the ground surface around the building during the temporary operation. Today APSC workers installed an 800-gallon containment tank at the seep from which oil can be continuously recovered using vacuum trucks. Personnel at Pump Station 1 will monitor groundwater drainfield sumps and monitoring wells around the building for the appearance of oil, as well as make visual and thermal imaging observations of the ground surface. Aerial and ground-based monitoring of the main TAPS line will continue, and normal operation will allow installed leak monitoring systems resume functioning. Spill response crews from Stevens Village, Rampart and APSC's Ship Escort Response Vessel System (SERVS) will be staged in Fairbanks to augment normal spill response capabilities in case a spill should unexpectedly occur somewhere on the main line. The UC is satisfied that these measures will be sufficient to manage the known leak and spill risk and believe the temporary operation is prudent and necessary to reduce the greater risks associated with a continuing cold-weather shutdown. By removing the pig, the temporary operation also increases the likelihood that a later cold restart would be successful. The restart is beginning at the time of this report following the approved interim restart plan. It will take several hours for the pipeline to become fully operational.

Since yesterday's report, ADEC added eight personnel to its response staff, including two to establish a night shift at the Fairbanks command center and four who were deployed today to oversee restart activities along the length of the pipeline. The State crisis management team, involving several state agencies, has convened to advise the State On-Scene Coordinator on key issues related to the TAPS restart. Overall, more than 450 people are responding to this incident. To date, no personnel injuries have been reported.

SOURCE CONTROL: The lines supplying crude oil to the booster pumps were shut in shortly after the spill was discovered. Workers continue preparations to isolate and drain the compromised discharge piping, though it will be in use during the temporary TAPS operation. Isolation and draining can be completed once the TAPS line is again shut down for installation of the bypass.

Oil remaining in the piping and/or spill pathway is still seeping slowly into the booster pump building basement. Flow may increase during the temporary TAPS operation, and the containment and recovery capacity being put in place are designed to more than adequately accommodate the expected flow rate.

RESOURCES AFFECTED: Pump Station 1 is surrounded by tundra, marshland and ponds, but due to the location of the booster pump building on the interior of the station's gravel pad, there appears to be no immediate threat to sensitive habitat or wildlife. No oil has been observed outside the booster pump building.

FUTURE PLANS AND RECOMMENDATIONS: APSC plans to begin restart procedures for the temporary TAPS operation this evening. Personnel will continue to recover oil from the booster pump building and monitor the surrounding soil for oil contamination. APSC has contracted a fixed-wing aircraft with forward-looking infrared (FLIR) sensors to continue leak monitoring of the main TAPS line through the night.

Fabrication of parts and preparatory construction work for the booster pump discharge bypass continues. The TAPS line must be shut down again for installation of the bypass.

APSC continues to prepare for the contingency of a cold restart.

WEATHER: Temperatures along the length of the TAPS line are dropping as colder air moves in from Canada. Increasingly cold, dry, and windy conditions are expected through the remainder of the week. Forecasts for several locations on the TAPS line for today through tomorrow (temperatures in °F):
Prudhoe Bay – high today 10, low tonight 10 below, high tomorrow 5 below to 10 below; east wind increasing today and holding at 15 to 20 mph through tomorrow.
Fairbanks – high today 0 to 15, low tonight 15 below to 20 below, high tomorrow 10 below; temperatures on hilltops may be up to 20 degrees warmer; light wind at lower elevations, northeast wind 15 to 25 mph on hilltops.
Glennallen – high today 0 to 10, low tonight 5 below to 15 below, high tomorrow 0 to 10 below; north wind 10 to 25 mph, with wind chills as low as 35 below by tomorrow.
Valdez – high in the upper 40s today, low tonight and high tomorrow in the mid 20s, temperatures 10 to 15 degrees colder through Thompson Pass; high wind warning in effect from 6:00 PM today to midnight Wednesday for northeast wind 25 to 40 mph with gusts to 65 mph, increasing to 35 to 50 mph with gusts to 80 mph.

Prudhoe Bay is located above the Arctic Circle. The next sunrise will occur at 12:42 PM on January 19, 2011; sunset will occur 44 minutes later.

UNIFIED COMMAND AND PERSONNEL:

Incident Commander: John Baldrige, APSC
F.O.S.C.: Matt Carr, EPA
S.O.S.C.: Tom DeRuyter, ADEC
Field S.O.S.C.: Paul Lhotka, ADEC

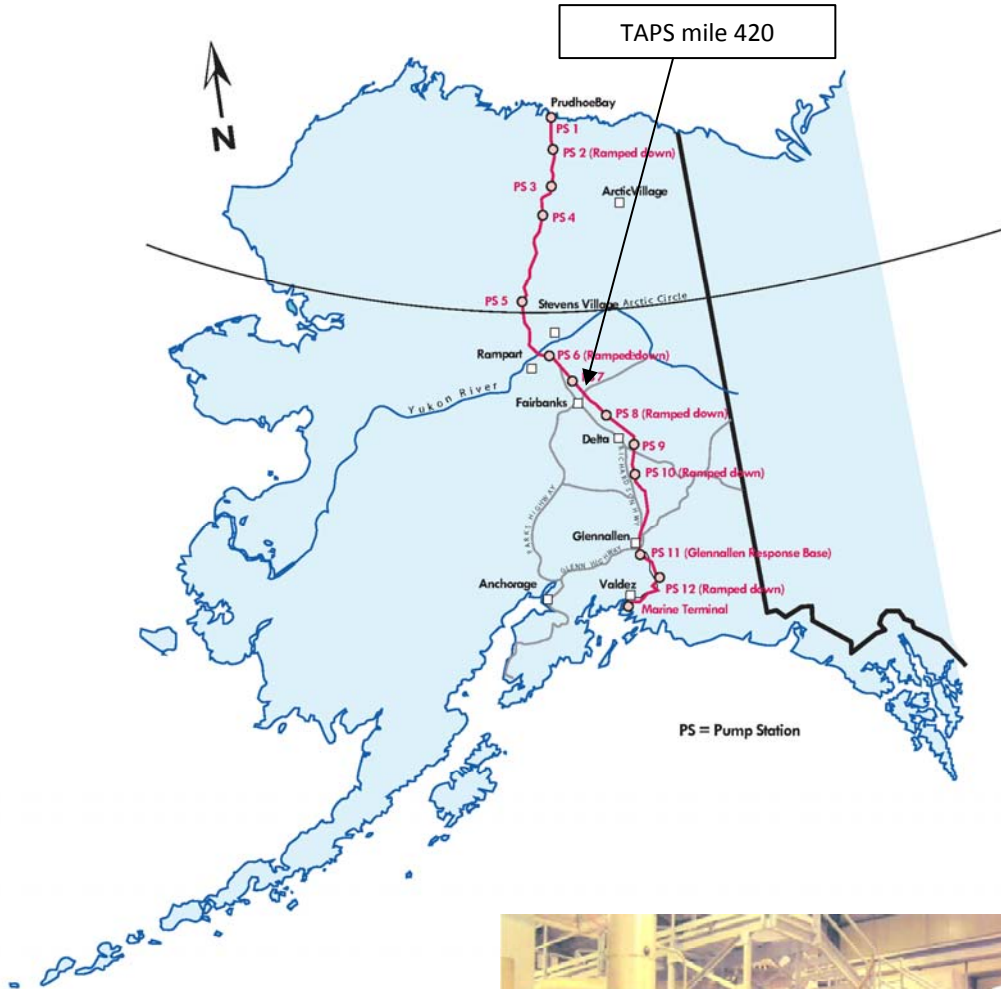
FOR ADDITIONAL INFORMATION CONTACT: Unified Command Joint Information Center 907-450-5857

AGENCY/STAKEHOLDER NOTIFICATION LIST

This sitrep has been distributed to the following agencies and stakeholders. The situation report was also distributed to the various agency staff listed on the standard distribution list. The receiving agencies listed in the standard distribution list includes: Governor's office, Senator Begich's office, ADF&G, ADNDR, SECC, EPA, DOI, NMFS, and USFWS.

AGENCY/STAKEHOLDER	NAME	SENT VIA	ADDITIONAL INFO	TELEPHONE	FAX
ADNR	Melissa Head Justin Selvik Mike Thompson Alison Iversen	Fax email email email		451-2732	451-2751
ADF&G (Habitat)	Al Ott/Jack Winters Lee McKinley	Fax email		459-7285 or 459-7279	459-7303
AOGCC	Jody Colombie	email			
EPA	Matt Carr/Robert Whittier	Fax		271-5083 or 271-3247	271-6340
DOT/PHMSA	Tom Johnson Dennis Hinnah	email			
Attorney General Office	Cam Leonard/ Steve Mulder	Fax		451-2811/451-2914	451-2985/ 278-7022
Governor's Office (Fairbanks)	Parnell/Treadwell	Fax		451-2920	451-2858
Lt. Governor's Office (Juneau)	Mead Treadwell	Fax		465-3520	465-5400
Senator Murkowski's Washington DC Office	Chief of Staff	Fax	North Slope only	(202) 224-6665	(202) 224-5301
Senator Murkowski's Office in Fairbanks		Fax	North Slope only	456-0233	451-7146
Legislator (Senate T)	Donnie Olson (D)	Fax	Nome	465-3707	465-4821
Legislator (House 40)	Reggie Joule (D)	Fax	Kotzebue	465-4833 or (800) 782-4833	465-4586
Legislator (Senate F)	John Coghill	Fax	Valdez	488-1546 or 465-3719	488-4271 or 465-3258
Legislator (House 12)	Eric Feige	Fax	Valdez	269-0129 or 465- 4859	269-0128 or 465-3799
Other Agencies:					
North Slope Borough	Edward Sagan Itta	Fax	Mayor	852-0200	852-0337
North Slope Borough	Dan Forster	Fax	Planning Director	852-0440	852-5991

Approximate location of pipeline pig to be removed during the temporary TAPS operation



Example of a scraper pig covered with wax



APSC photo