

HEADQUARTERS
UNITED STATES ARMY, ALASKA SUPPORT COMMAND
Petroleum Distribution Office
APO 93749 Seattle

STANDING OPERATING PROCEDURE
NUMBER 141-84-46

10 April 1969

EMERGENCY OPERATION PROCEDURES
FOR LINE BREAK, REPAIR, AND POLLUTION CONTROL

1. PURPOSE: This Standing Operating Procedure establishes policies and prescribes procedures for Establishment of an Emergency Line Break, Repair and Water Pollution Control Team.
2. APPLICABILITY: This Standing Operating Procedure is applicable to all Petroleum Distribution Office personnel, military and civilian.
3. RESPONSIBILITY: Chief, PDO is responsible for the establishment of provisions outlined within this directive. Personnel working with or within the Petroleum Distribution Office and all out lying terminals and pump stations are responsible to the Chief, PDO for the implementation of this SOP.
4. DEFINITION: None required.
5. PROCEDURES:
 - a. The Dispatcher, Petroleum Distribution Office will be notified immediately in the event of an actual or potential pipeline damage, line break or possible pollution of any streams, lakes, etc., by electrical transmission. (PDO TWX and/or ACS Circuit)
 - b. The Dispatcher on duty at the time of the incident will immediately notify the Chief, PDO; Chief, Operations Division and Chief, Dispatcher.

Final

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c. The Dispatcher on duty will subsequently notify by telephone the USARAL Tactical Operation Control Center - 864-0133, clearly stating the problem and indicating a REPOL is being prepared.

d. Dispatcher will prepare a Petroleum Damage and Deficiency Report (REPOL) from the Commanding Officer, USARAL Support Command, (format is outlined in ALM 144-1, c-1) to the Commanding General, USARAL, ATTN: ARAGT-PO with an information copy to USARAL G-4. REPOL will be hand carried to USARAL TOCC. Subsequent reports will be prepared as conditions change.

e. If spillage or pollution is involved, the Chief, Petroleum Distribution Office will insure the following are notified:

1. Federal Water Pollution and Conservation Agency, Fairbanks, Alaska.
2. Federal Fish & Game Commission, Juneau, Alaska.
3. Department of Fish & Game, Whitehorse, Yukon Territory, Canada.

f. The above shall be advised as to the location of line failure, the type of product lost, and the general geography of the immediate area. Information pertaining to amount of product lost will be withheld until exact amount has been determined after line is repaired.

g. Staff & Personnel Assignment:

(1) The Operations Division shall be primarily responsible for repair of the line and whatever pollution control measures that may be required.

(2) The Operations Division will be required to provide operating and maintenance personnel depending on the particular situation encountered.

(3) Other staff, maintenance and operating sections within PDO

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will be required to render maximum support to the Chief, Operations Division to localize the line break and accompanying pollution, as the situation may require.

(4) Other organizations within USARAL may be requested to provide equipment and/or personnel as the situation dictates.

(5) All pipeline activity will be coordinated with Chief, Dispatcher.

h. General Procedure:

At the first indication of a pipeline damage or deficiency indicated either by pressure readings or warnings from field personnel, the PDC Dispatcher will notify the Chief, PDO; Chief, Operations and Chief, Dispatcher, so that immediate action may be taken to implement repair. Simultaneously, the Dispatcher will call out pump station personnel in the area of the fault to close block valves in the line as well as obtaining various line pressure readings from pump station personnel to localize the position of damage or deficiency. When the approximate position is known, Chief, Operations Division will require any or all of the following:

(1) Prompt aerial surveillance by the pipeline surveillance plane or request aircraft from Aviation Battalion.

(2) Physical inspection by walking the pipeline.

(3) All available operating personnel as well as maintenance personnel in locating the damage or deficiency.

(4) Immediate TDY of PDO Engineer to site of break, suspected break area, or possible pollution area.

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i. When the approximate location and description of the terrain is known, the responsible General Line Foreman will order out the equipment and material such as stopples, weld ends, and piping to accomplish the repair. Other special equipment will also be ordered out as the condition required by field reports to contain or control pollution of the area. This equipment will be located at Tok Junction to minimize the time lag of getting to the job. Special equipment and material will be loaded and dispatched for immediate use at the site of the pipeline break or suspected break area. The dispatched unit will contain the following items of equipment and material unless notified by Headquarters, PDO, to leave out certain items of equipment or material.

1. 1 ea Oil Slick Boom 4" flotation 300'.
2. 1 ea Oil Slick Boom 6" flotation 250'.
3. 3 ea Homelite Portable Pump with Hose.
4. 1 ea Briggs & Stratton Portable Pump with Hose.
5. 4 ea 30 gallon drum Polycoplax A.
6. 2 ea Knapsack sprayers.
7. 1 ea 14' boat.
8. 1 ea 20 HP outboard motor.
9. 100 bales straw.
10. 2 rolls chicken wire.
11. 6 ea shovels.
12. 1 roll $\frac{1}{2}$ " rope, 500 feet long.
13. 6 garden rakes.

any trouble site on the 17-705 or 200-1000

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j. Heavy Equipment: The major heavy equipment for earth moving, and pipeline repair is located at Tok and Haines. This equipment will be directed to the site by the General Line Foreman. Heavy equipment at each terminal (Tok and Haines) is as follows:

- 1. Dozer (D6 thru D8) *3-D8*
- 2. 1/2 CY Backhoe *excavator backhoe*
- 3. LowBoy and Tractor *low boy*
- 4. Tanker and Tractor *Tanker*
- 5. 2 1/2 Ton Cargo Truck *truck*
- 6. Wrecker, 10 Ton *wrecker*
- 7. Truck, Cargo, Semi 5 Ton - *truck*
- 8. Sideboom Tractors *Newell with A frame*

k. The potential sites of serious pollution are numerous since there are 25 major river crossings, 82 minor streams, 49 major highways and 39 secondary roads; in addition, there are 11 major tundra swamps to be crossed. Major bodies of water are Klwane, Dezadeash and Kathleen Lakes. Therefore, each break will need to be treated individually from a pollution standpoint.

l. RECISSIONS:

m. DESIGNATION OF ORGINATOR:

n. REFERENCES:

a. ALM-144-1 w/change.

J. P. MUSE
 J. P. MUSE
 LTC, OMC
 Chief, PDO



Public Works - Alaska

Phone (907) 384 - 3046

FAX (907) 384 - 3047

FAX TRANSMITTAL SHEET

600 Richardson Drive #6500

Attn: APVR - PW - ENV

Fort Richardson, Alaska 99505-6500

TO: Mr. Colin Wykes
Environment Canada
 FAX: 604-666-6858

FROM: Mr. J. Kevin Gardner
Public Works - Alaska
Environmental Dept.

DATE: 12 Sep 94

LOCATION: Fort Richardson, AK

Total number of pages including cover: 13

Messages/Comments

Colin, Attached is some information extracted
from my files review thus far. The first 3
pages are from a 1992 Report (in the mail to
you) and the ~~3~~ next 2 pages ~~are~~ are from
a 1968 Report. It's a start!

172d Bde Pam 360-1

- b. One apartment-type building consisting of eight two-bedroom units.
 - c. One apartment-type building consisting of eight three-bedroom units.
27. COLD STORAGE LOCKER BUILDING. This is a concrete building with a freeze room (-10°F) which is equipped with individual food lockers.
28. FIRE PUMP BUILDING. This building, adjacent to the Utility Building, houses a dual gasoline engine booster pump to increase water pressure in the lines when needed for firefighting.
29. HOSE CART HOUSES. There are two hose cart houses; one located near the Warehouse-Garage-Shop Building, and one near the Fire Pump Building.
30. INCINERATOR. Fired by a diesel oil burner, the incinerator is suitable for burning rubbish and garbage under all weather conditions.
31. SEMIPERMANENT BUILDINGS. There are three buildings; two which are used as warehouses, and the other contains a carpenter shop and boiler plant for heating one of the warehouses and carpenter shop.

Section IV. BORDER PUMP STATION

32. GENERAL. Border Pump Station is located on the Haines Cut-Off Highway approximately 5 miles north of the International Boundary near the Klehini River. There are no nearby towns. The site is 47 miles north of the Haines Terminal at an elevation of 1,300' above sea level. This station is an essential part of the normal pipeline operation with a capacity to pump products over the peak of the entire system at pipeline Milepost 57, elevation 3,750', where the Haines Cut-Off Highway and the pipeline cross the Chilkat Pass in the Coast Range. The site is 32 acres in area.
33. FACILITIES.
- a. Mainline Pump Building.
 - b. Utility Building.
 - c. Warehouse-Garage-Shop Building.
 - d. Family Housing.
 - e. Cold Storage Locker Building.
34. MAINLINE PUMP BUILDING. The interior of this building is divided into an engine room, pump room, and a control room. The control room is isolated by means of a pressure barrier fire wall and door arrangement, permitting the room to be pressurized for excluding petroleum vapors from the area. A fire wall isolates the engine room.

172d Bde Pam 360-1

a. The pumping facilities at this station consist of three units, each composed of a Chicago-Pneumatic Model CP-69, 6 cylinder, 4 cycle, diesel engine driving a Byron-Jackson, 4 stage centrifugal pump. The diesel engines are coupled to the pumps by means of a 4,750 to 1 geared speed increaser unit. Engine speed range is from 750 RPM to 573 RPM. Thus, the pump speed range is 3,515 RPM down to 2,722 RPM. Maximum engine brake horsepower is 293. The pumps may be operated individually or in a series.

b. Two Moorlane strainers are also housed in the pump house. These strainers serve as both filters and water extractors. A product sump within the building is provided to accumulate the drain discharges from the strainers. The product in the sump is disposed of by pumping into the line when appropriate. Scraper traps are located on each side of the building for receiving and launching scrapers.

c. Engine coolant water is piped from the diesel engines to a 3-unit radiator building and returned to engines.

d. Diesel fuel oil is provided from the 5,000-barrel station storage tank located on a hill above the pump house. This tank is filled from the pipeline at scheduled intervals.



Border Pump Station, 32 acres in area, is located on the Haines Cut-Off Highway 47 miles north of the Haines Terminal.

172d Bde Pam 360-1

35. UTILITY BUILDING. This is a multipurpose building which contains:

a. An engine room housing two 150 KW General Electric generators, each driven by a 6 cylinder Chicago-Pneumatic diesel engine identical to those which drive the pipeline pumps. Jacket coolant water is piped from the diesels to a 2-unit radiator building and returned to engines.

b. A pump room housing two domestic water pumps, a fire pump, chlorination equipment and boiler, and cooling water softening equipment. The water system is supplied by a Peerless deep-well pump in an insulated pump house on the bank of the Klehini River. Water is stored in a 60,000-gallon tank in a heated tank house on the station.

c. A boiler room housing three 80 HP low pressure (15 PSI) boilers which furnishes low pressure steam for station heating. Steam distribution and condensate return lines for the station are in underground conduit.

36. WAREHOUSE-GARAGE-SHOP BUILDING.

a. Maintenance Shop.

b. Warehouse for spare parts, pipe fittings, and tools for station maintenance.

c. Four-place garage for vehicle storage.

37. STATION HOUSING. Housing at this terminal consists of permanent-type buildings of wood frame construction: foundation and basement flooring of concrete; upper structure floors of wood-linoleum covered; walls, sheathing and asbestos siding. Roofs are insulated wood decking with built-up composition, and gravel protective coating. These buildings include the following:

a. One dormitory (CBQ) with a capacity of 10 persons, including a living room, dining room, kitchen, and bath, presently being utilized as a one-room school for the station personnel's children.

b. One apartment-type building consisting of six two-bedroom units.

c. One apartment-type building consisting of six three-bedroom units.

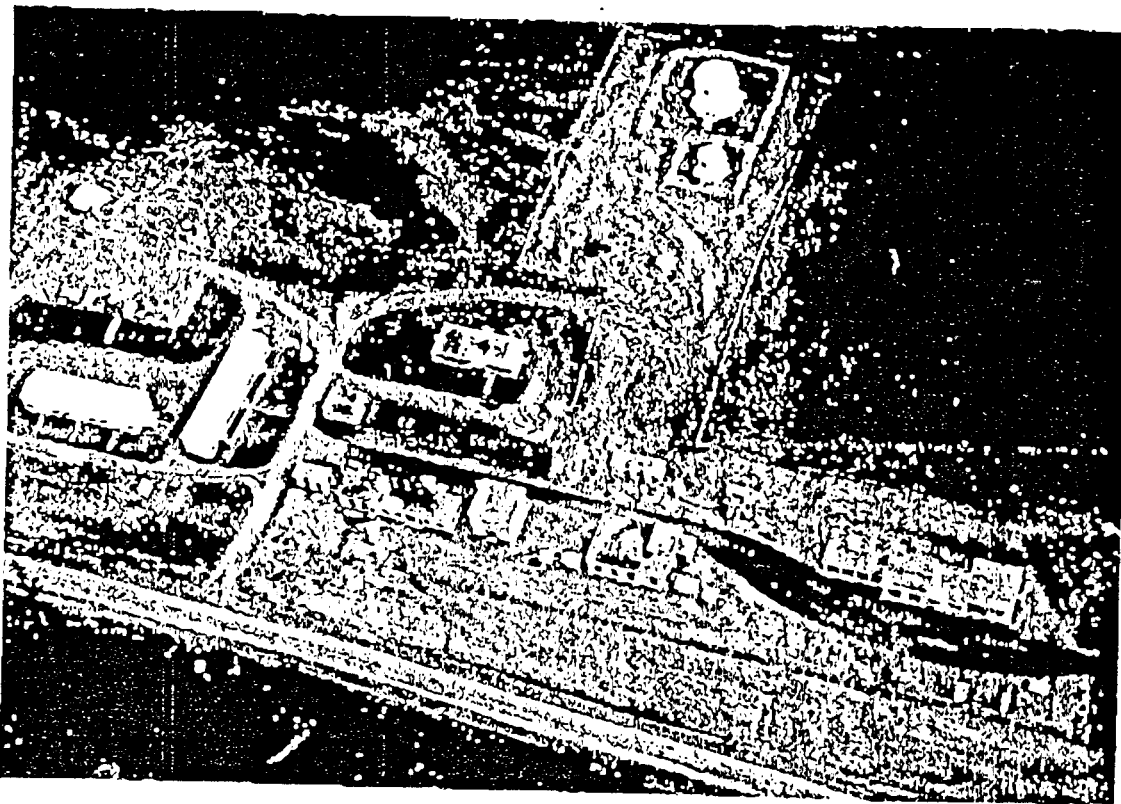
38. COLD STORAGE LOCKER BUILDING. This is a concrete building with freeze room (-10°F) and a chill room (35°F) with individual food lockers.

Section V. BLANCHARD RIVER PUMP STATION

39. GENERAL. Blanchard River Pump Station is located at Milepost 95.8 on the Haines Road. The station area consists of 12.2 acres and is at an elevation of 2,720'.

SECTION IV
BORDER PUMP STATION

1. GENERAL. Border Pump Station is located on the Haines Cut-off Highway approximately 5 miles north of the International Boundary near the Klehini River. There are no nearby towns. The site is 47 miles north of the Haines Terminal at an elevation of 1,300' above sea level. This station is an essential part of the normal pipeline operation with a capacity to pump products over the peak of the entire system at pipeline Milepost 57, elevation 3,750', where the Haines Cut-off Highway and the pipeline cross the Chilkat Pass in the Coast Range. The site is 32 acres in area.



Border Pump Station, 32 acres in area, is located on the Haines Cut-off Highway 47 miles north of Haines.

- 2. FACILITIES. a. Mainline Pump Building.
- b. Utility Building.
- c. Warehouse-Garage-Shop Building.
- d. Family Housing.
- e. Cold Storage Locker Building.

3. MAINLINE PUMP BUILDING. The interior of this building is divided into an engine room, pump room and a control room. The control room is isolated by means of a pressure barrier fire wall and door arrangement, permitting the room to be pressurized for excluding petroleum vapors from the area. A fire wall isolates the engine room.

a. The pumping facilities at this station consist of three units, each composed of a Chicago Pneumatic Model CP-69, 6 cylinder, 4 cycle, diesel engine driving a Byron Jackson, 4 stage centrifugal pump. The diesel engines are coupled to the pumps by means of a 4,750 to 1 geared speed increaser unit. Engine speed range is from 750 RPM to 573 RPM. Thus, the pump speed range is 3,515 RPM down to 2,722 RPM. Maximum engine brake horsepower is 293. The pumps may be operated individually or in series.

b. Two Moorlane strainers are also housed in the pump house. These strainers serve as both filters and water extractors. A product sump within the building is provided to accumulate the drain discharges from the strainers. The product in the sump is disposed of by pumping into the line when appropriate. Scraper traps are located on each side of the building for receiving and launching scrapers.

- c. Engine coolant water is piped from the diesel engines to a 3-unit radiator building and returned to engines.
- d. Diesel fuel oil is provided from the 5,000-barrel station storage tank located on a hill above the pump house. This tank is filled from the pipeline at scheduled intervals.
4. **UTILITY BUILDING.** This is a multi-purpose building which contains:
- a. An engine room housing two 150 KW General Electric generators, each driven by a 6 cylinder Chicago-Pneumatic diesel engine identical to those which drive the pipeline pumps. Jacket coolant water is piped from the diesels to a 2-unit radiator building and returned to engines.
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5. **WAREHOUSE-GARAGE-SHOP BUILDING.**
- a. Maintenance Shop.
 - b. Warehouse for spare parts, pipe fittings and tools for station maintenance.
 - c. Four-place garage for vehicle storage.
6. **STATION HOUSING.** Housing at this terminal consists of permanent type buildings of wood frame construction; foundation and basement flooring of concrete; upper structure floors of wood-linoleum covered; walls, sheathing and asbestos siding. Roofs are insulated wood decking, with built-up composition and gravel protective coating. These buildings include the following:
- a. One dormitory (CBQ) with a capacity of ten men, including a living room, dining room, kitchen and bath, presently being utilized as a one-room school for the station personnel's children.
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(3) Other staff, maintenance and operating sections within PDO

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will be required to render maximum support to the Chief, Operations Division to localize the line break and accompanying pollution, as the situation may require.

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i. When the approximate location and description of the terrain is known, the responsible General Line Foreman will order out the equipment and material such as stopples, weld ends, and piping to accomplish the repair. Other special equipment will also be ordered out as the condition required by field reports to contain or control pollution of the area. This equipment will be located at Tok Junction to minimize the time lag of getting to the job. Special equipment and material will be loaded and dispatched for immediate use at the site of the pipeline break or suspected break area. The dispatched unit will contain the following items of equipment and material unless notified by Headquarters, PDO, to leave out certain items of equipment or material.

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6. Wrecker, 10 Ton
7. Truck, Cargo, Semi 5 Ton
8. Sideboom Tractors


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l. RECISSIONS:

m. DESIGNATION OF ORGINATOR:

o. REFERENCES:

- a. ALM-144-1 w/change.


J. P. MUSE
LTC, QMC
Chief, PDO

