ALLAKAKET AIRPORT TANK FARM
SCHOOL TANKS

ALLAKAKET, ALASKA

SPILL PREVENTION CONTROL
AND
COUNTERMEASURE PLAN (SPCC)

PREPARED TO SATISFY:
U.S. ENVIRONMENTAL PROTECTION AGENCY
SPILL PREVENTION REQUIREMENTS
40 CFR, Part 112.1-12

PREPARED BY LCMF ENGINEERS
FEBRUARY 2004

FIVE YEAR REVIEW & EVALUATION
ADMINISTRATIVE AMENDMENTS

PREPARED BY YKSD

JULY 2013 / AUGUST 2016

AMENDED PAGE #'s	REASON
i	Certification Page – updated to be specific to school tanks, expanded to reference Rural Alaska Fuel Services (RAFS), and resigned by YKSD
I-4	Facility Description – revised to include YKSD mobile refueler (fuel truck). The fuel truck is used solely to transport fuel between the airport and school, during which time its operations are "transportation-related" and are not subject to SPCC regulation. When not in use, the fuel truck is stored empty of fuel cargo.
II-1	Oil Spill History updated to confirm no reportable discharges from the YKSD portion of the Facility.
2016 AMENDED PAGE #'s	
Title Page	Record of Revisions updated, inserted documentation of 5 year review & evaluation
i	Certification Page updated to reflect new contractor
I-6	Phone number updated
II-1	Spill history update (no spills)

The above amendments do not constitute technical changes to the facility, therefore recertification of this SPCC Plan by a Professional Engineer (PE) is not necessary.

YUKON KOYUKUK SCHOOL DISTRICT

SPCC PLAN REVIEW AND EVALUATION

EPA REGULATIONS (40 CFR §112.5(B)) REQUIRE A DOCUMENTED REVIEW AND EVALUATION OF THE SPCC PLAN AT LEAST ONCE EVERY FIVE YEARS. THE SPCC PLAN IS TO BE UPDATED WHENEVER THERE IS A CHANGE IN FACILITY DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE THAT COULD MATERIALLY AFFECT THE POTENTIAL FOR DISCHARGE TO NAVIGABLE WATER. TECHNICAL AMENDMENTS TO THE PLAN ARE TO BE CERTIFIED BY A PROFESSIONAL ENGINEER.

I have completed the five year management review and evaluation of the SPCC Plans for the oil storage at the following YKSD schools.

Allakaket	Allakaket Airport	Hughes	Huslia	Kaltag
Koyukuk	Manley	Minto	Nulato	Ruby

There have been no changes in facility design, construction, operations, or maintenance that could materially affect the potential for discharge to navigable water. It is my understanding no technical changes have occurred, therefore, recertification of the SPCC Plans by a Professional Engineer is not necessary.

Administrative amendments, including updated names, phone numbers, and contractor information have been completed. Revised pages have been inserted into the SPCC Plans and labelled with a footer date of 08/16 (August 2016).

Signature: Kerry Boyd

Name: Superintendent

Title: Kerry Boyd

Date: July 27, 2016

This form (or similar documentation) required by 40 CFR, Part 112.5(b).

CERTIFICATION

SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN
ALLAKAKET AIRPORT TANK FARM - SCHOOL TANKS

Facility Location

Allakaket is on the south bank of the Koyukuk River approximately 190 air miles northwest of the Fairbanks and 57 miles upriver from Hughes. Geographic coordinates of Allakaket are approximately 66° 34' N, 152° 38' W. Alatna is just west of the municipal boundaries of the City of Allakaket, on the north bank of the Koyukuk River.

Mailing Address

DISTRICT
Yukon-Koyukuk School District
4762 Old Airport Way
Fairbanks, Alaska 99709

SCHOOL
Allakaket School
P.O. Box 69
Allakaket, Alaska 99720

Facility Responsible Person

Yukon Koyukuk School District
Allakaket School Principal
(907) 968-2205 phone, (907) 968-2205 fax

Management Approval

This SPCC Plan will be implemented as described herein.

Yukon Koyukuk School District

Kerry Boyd, Superintendent of Schools
Date 11 4 2013

Amended 2016: In 2013 YKSD contracted Rural Alaska Fuel Services to provide spill prevention, response, and compliance assistance at all its schools. In 2016 the contract was awarded to Frontier Fuel Service, LLC (FSS). Services provided by FFS include on-site maintenance, required inspections and tests, training, and spill response including Qualified Individual responsibilities and authority. FSS is a Wasilla corporation organized to contract for the operation and maintenance of rural Alaskan bulk fuel storage facilities. The Facility Manager (School Principal), the Superintendent of Schools, the YKSD Facility & Maintenance Department, and FFS work cooperatively to achieve regulatory compliance and effective oil spill prevention and response.

Professional Engineer's Certification

I hereby attest:

(i) I am familiar with the requirements of this part (40 CFR, Part 112.1 – 112.8);
(ii) I or my agent has visited and examined the facility;
(iii) This Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards, and with the requirements of this part;
(iv) That procedures for required inspections and testing have been established; and
(v) This Plan is adequate for the facility.

This certification will expire if there is a change in the facility design, construction, operation or maintenance which materially affects the potential for discharge of oil into or upon navigable waters or adjoining shorelines.

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SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN
ALLAKAKET AIRPORT TANK FARM - SCHOOL TANKS

FIGURES

APPENDIX

I. INTRODUCTION

40 CFR Part 112.7 (a)

A. Regulatory Compliance

The Environmental Protection Agency (EPA) adopted 40 CFR, Part 112 in 1974, and substantially amended it in August 2002. These oil pollution prevention regulations require the preparation of a Spill Prevention Control and Countermeasure Plan (SPCC) for facilities with aboveground oil storage in excess of 1,320 gallons, and which due to their location, could reasonably be expected to discharge oil in harmful quantities into or upon the navigable waters of the United States or adjoining shorelines.

The Allakaket tank farm has fuel storage capacity of 50,000 gallons. The tank farm is about 225 feet west of a slough that drains to the Koyukuk River, a navigable water. The YKSD portion of the tank farm has storage capacity of 10,000 gallons.

The content of the SPCC Plan is to follow the sequence outlined in 40 CFR, Parts 112.7-12. The Plan is to be prepared in accordance with good engineering practices to prevent and mitigate damage to the environment from oil spills. The Plan must be certified by a licensed Professional Engineer and must have the full approval of management at a level with authority to commit the necessary resources.

Facility management is to review and evaluate the Plan at least once every five years, and update it whenever there is a change in facility design, construction, operation, or maintenance that could materially affect the potential for discharge to navigable water. The review is to be documented. Technical amendments to the Plan are to be certified by a Profession Engineer.

EPA regulations further stipulate, in 40 CFR, Part 112.4, that a written report must be submitted to the EPA Regional Administrator, and appropriate state agency, when a facility has discharged more than 1,000 gallons in a single discharge, or discharged more than 42 gallons in each of two discharges within any 12 month period which enter navigable waters or adjoining shorelines. The report must include:

1. Name of facility;
2. Your name;
3. Location of the facility;
4. Maximum storage or handling capacity of the facility and normal daily throughput;
5. Corrective action and countermeasures you have taken, including a description of equipment repairs and replacements;
6. An adequate description of the facility, including maps, flow diagrams, and topographical maps, as necessary;
7. The cause of the discharge, including a failure analysis of the system or subsystem in which the failure occurred;
8. Additional preventive measures you have taken or contemplated to minimize the possibility of recurrence; and
9. Such other information as the EPA Regional Administrator may reasonably require pertinent to the Plan or discharge.

In 1993, the regulations were expanded to require preparation and submittal of response plans from facilities that can cause "substantial harm" due to potential oil spills. Each operator is to review the EPA applicability of substantial harm criteria and, if necessary, prepare a response plan in accordance with 40 CFR, Part 112.20. The Allakaket tank farm does not meet the EPA substantial harm criteria, therefore a Facility Response Plan is not required.

B. Facility Description

- Figure 1 is a location map.
- Figure 2 is a project layout plan.
- Figure 3 is a tank farm site plan.
- Figure 4 is a tank farm piping plan.
- Figure 5 is an airport apron site plan.
- Figure 6 is the water plant site plan.

A cooperative effort between the City of Allakaket ("City"), the Yukon / Koyukuk School District ("YKSD" or "School"), Alaska Power & Telephone ("Utility"), and the Village of Alatna ("Alatna") resulted in the construction of a new code-compliant fuel storage facility ("Facility") in Allakaket, Alaska. A SPCC Plan was prepared for the Facility in October 2002 and amended in 2004. In 2013 YKSD updated this SPCC Plan for the School tanks.

Allakaket is on the south bank of the Koyukuk River approximately 190 air miles northwest of the Fairbanks and 57 miles upriver from Hughes. Geographic coordinates of Allakaket are approximately 66° 34' N, 152° 38' W. Alatna lies just west of the City of Allakaket, on the north side of the Koyukuk River.

The City, School, Utility, and Alatna individually own and operate separate storage tanks and fuel distribution systems. The City is designated responsible to manage and maintain the common property, piping, and equipment related to tank farm operations. Alatna maintains its aircraft off-loading tanks and truck transfer system.

The Facility is on a large gravel pad underlain with geotextile material thermal siphons and rigid insulation. It consists of: (1) a diked and lined tank farm with eight storage tanks, two dispensing tanks, and associated piping for fuel receipt by aircraft, (2) a dispensing station, and (3) two truck transfer areas. In addition, Alatna operates an aircraft off-loading system consisting two tanks on the airport apron and one of the truck transfer areas at the Facility. The City also operates an intermediate tank at its water plant.

Gross storage capacity of the tank farm totals approximately 50,000 gallons, consisting of approximately 40,000 gallons of fuel oil and approximately 10,000 gallons of unleaded gasoline. Fuel is delivered to the Facility by aircraft, normally 22 times per year. The maximum fuel cargo capacity of aircraft that deliver fuel is about 4,600 gallons. Aircraft off-load fuel directly to the Facility or to the Alatna tanks on the airport apron. Alatna then transfers its fuel to its truck transfer area at the Facility via the tank farm fill piping. Alatna fuel is transported to the village by mobile tanks. At the tank farm, fuel oil and gasoline are dispensed to vehicles at the dispensing station, distributed at the truck transfer areas, and transferred by pipeline to the water treatment plant. Future construction will enable fuel oil to be transferred by pipeline to a new power plant. The average daily fuel throughput of the Facility is projected to be about 312 gallons, based on estimated annual consumption of approximately 114,000 gallons.

Tank Farm – Storage, Piping, Impound

TANK NO.	OWNER / OPERATOR	DIAMETER X LGT / HT±	DESCRIPTION	CAPACITY (gals) / PRODUCT Gasoline	Fuel Oil
1	City (Store)	5'ø x 14'	Refurbished horizontal single wall dispensing tank		5,000
2	"	"	"	5,000	
3	"	± 8'ø x 13'h	Refurbished "BIA" storage tank	± 5,000	
4	"	"	"		± 5,000
5	City (WTP)	"	"		± 5,000
6	"	"	"		± 5,000
7	Utility	"	"		± 5,000
8	"	"	"		± 5,000
9	School	"	"		± 5,000
10	"	"	"		± 5,000
			Total	± 10,000	± 40,000

The eight tank farm storage tanks (#3-10) are similar single wall, BIA-type, vertical tanks that were relocated from local service and refurbished. Each tank was drained, cleaned, and visually

inspected, internally and externally, for evidence of corrosion and for weld integrity. Necessary repairs were made, new appurtenances installed, and the tanks were sandblasted, painted, and labeled. The tanks are anchored to concrete foundations. Each storage tank is equipped with pressure/vacuum vents with whistles alarm, emergency vents, liquid level gauge, gauge hatch, manhole, and water draw. The fill / issue connections are separate flanged ball valves with steel flex fittings. The tanks are filled via pumps on the delivery aircraft. Centrifugal transfer pumps move fuel from the storage tanks to the dispensing tanks, truck transfer area, and water plant tank.

The two dispensing tanks (#1-2) are single wall, skid-mounted, horizontal tanks that were refurbished to comply with the 1997 Uniform Fire Code as adopted by the State of Alaska at the time of construction. Both tanks are equipped with top-mounted appurtenances including pressure/vacuum vents with whistle alarm, emergency vent, clock type level gauge, gauge hatch, high-level fill limiting valves, pump switches with high level alarms and redundant shutdown controls, water draw valve, and manhole. A steel ladder and catwalks access the top of the tanks. The dispensing tanks are filled by manually activated centrifugal transfer pumps mounted on the front of each tank. Submersible pumps, equipped with anti-siphon valves, move fuel to the dispensing station.

Piping within the tank farm is two and three inch diameter, schedule 80, seamless steel. It is well secured to timber pipe supports and to the tanks. Joints are welded, except for flanged and threaded joints that connect to valves and pumps. Tank farm piping is equipped with steel flex connectors, pressure relief valves, check valves, strainers and filters. Transfer piping is appropriately equipped with normally closed solenoid valves, anti-siphon valves, meters, and isolation valves. All piping and conduit are routed over the dikes. Transfer and distribution piping located outside of the tank farm impound is equipped with pressure test connections for integrity testing.

Two each, three-inch diameter receiving pipelines extend about 1,300 feet from the aircraft off-loading headers on the airport apron to the tank farm. The piping is schedule 80, welded seamless steel. It is secured to timber pipe supports on grade, except for a buried slough crossing, which is coated and cathodically protected with magnesium anodes. The off-loading headers consist of capped camlock fittings, and three-inch ball, plug and check valves. A steel, two-barrel drip pan (spill box) is positioned beneath the headers. The Alatna tanks connect to the tank farm fill pipeline within the tertiary containment area on the airport apron. The Alatna tank piping tees into the tank farm fill piping with a three-way plug valve to control fuel flow.

The tank farm impound is approximately 107’ x 40’ x 2’ deep. It is surrounded by a timber dike constructed of courses of 6" x 6" treated timbers supported by 8” x 12” treated timber posts. The containment area is lined with a heavy duty, fuel resistant, synthetic liner that is sandwiched between non-woven geotextile material. Gravel fill covers the floor of the impound. The interior dike walls are covered with galvanized sheet metal. An interior dike separates the impound into two cells. The west cell contains the City and Utility tanks. It has net containment capacity of approximately 34,700 gallons, which provides capacity for the contents of the largest tank plus 1.7 feet of freeboard. The east cell contains the School tanks. It has net containment capacity of approximately 14,400 gallons, which provides capacity for the contents of the largest tank plus 1.3 feet of freeboard. Stormwater drains to collection sumps in each cell and is removed from the impound with a portable pump and hose that discharge over the dike to Facility property.

Dispensing Station

The City conducts retail fuel sales from a dispensing station adjacent to the tank farm. The station consists of a dual product dispenser within in a chain link fence enclosure with metal roof. Two dispensing pipes extend about 50 feet from the tank farm to the dispenser. The piping is buried two-inch diameter, schedule 80, welded steel that is coated and cathodically isolated. The pipes are connected to the dispenser with ball valve, flex fitting, and shear/fusible link valve. The dispenser is secured to a sump on a steel deck. It is a U.L. listed dual product dispenser with meters, arctic grade fuel rated hoses with breakaways, and nozzles with automatic shutoffs. Submersible pumps in the dispensing tanks are controlled from the dispenser and from an electrical control panel near the tank farm entrance. An emergency shutdown switch is mounted on a light pole outside of the containment area and approximately 50' from the dispenser.

Truck Transfer Areas

Two adjacent truck transfer areas are used to fill mobile tanks and containers for local delivery. The City, School and Utility use the south transfer area. Alatna uses the north transfer area.

Both transfer areas are on a lined gravel pad that drains to a lined secondary containment basin. The capacity of the containment basin is calculated to be in excess of 4,600 gallons, which exceeds the volume of tank compartments filled at the transfer areas. The City, School and Utility transfer system consists of separate two-inch piping from the storage tanks to a steel enclosure. The enclosure houses a ball valve and solenoid valve on each supply pipe, flex connectors, centrifugal pump, strainer, meter, ground reel, and hose reel with 30 feet of hose and drybreak fitting. Keylock pump controls and fire extinguishers are on the exterior of the enclosure. Alatna transfers fuel from its airport tanks via the fill pipeline to the tank farm. The Alatna transfer system consists of two each two-inch pipe manifolds from the tank farm fill pipe to a steel enclosure that houses a strainer, solenoid valve, meter, ball valves and dry break adapter for each product.

In 2004 YKSD acquired a 5,000 gallon mobile refueler (tank truck) that is used solely to transport fuel between the airport and School tanks. During the transport of fuel to the School tanks the mobile refueler operations are "transportation-related" and are not subject to SPCC regulation. When not in use the truck is emptied of cargo and parked at the school or at the facility truck transfer area.

Airport Apron Storage Tanks

Two tanks on the airport apron are operated and maintained by Alatna for temporary storage of gasoline and fuel oil that is off-loaded from aircraft. The tanks are intended for short term storage, pending delivery to the village via the Alatna truck transfer area at the Facility. Both tanks are new, double wall, skid-mounted, 5,000 gallon, 76"∅ x 22" horizontal tanks. They are positioned on a lined gravel pad surrounded by treated timbers that provide tertiary containment for drips or overflow. The tanks are similarly equipped with top mounted appurtenances including a two-inch pipe fill with fill limiter, a clock type level gauge, gauge hatch, high level audible alarm, normal vent with whistle, emergency vents, water draw valve, and manhole. Submersible pumps in each tank move fuel to the truck transfer area via the Facility receiving pipelines.

Both tanks fill through a prefabricated drip box that houses a camlock adapter, check valve, and ball valve. The tanks issue through the tank farm fill piping. Spills through the Allakaket aircraft header from the Alatna tanks are prevented by use of three-way plug valves and check valves. The three-way plug valves only allow flow from either the Alatna tanks or Allakaket header to the tank farm fill pipeline. Flow between the Alatna tanks and Allakaket header are prevented by check valve.

Water Plant Tank

A new, 500 gallon intermediate tank at the City water plant was installed in 2003. It is a horizontal, double wall, U.L. 142 tank with steel skids positioned on treated timbers. The tank is equipped with top-mounted appurtenances including emergency vents for the primary and secondary tanks, a pressure/vacuum vent with whistle alarm, two inch fill pipe with fill limiting valve, clock type level gauge, water draw tube, and fill pump control switches. Supply and return piping extends from the top of the tank to grade, and then about eight feet into plant to supply its boilers and heaters. The tank is filled by an 1,850 foot long pipe from a pump in the tank farm. The transfer pipe is two inch, schedule 80, welded steel with flex connectors, isolation and check valves, pressure relief, and pressure test connection. It is secured to timber supports on grade, except for two buried segments that are coated, wrapped and cathodically protected with sacrificial anodes. Tank fill is manually activated from an electrical panel adjacent to the intermediate tank. The transfer pump is equipped with a timer that shutdowns the pump after a pre-set duration, that may range from 2 to 120 minutes.

Security

The Facility may dispense, transfer, or receive fuel seven days week. Normal operating hours vary seasonally. Fuel is usually available from 9 a.m. to 6 p.m., six days per week. Facility personnel observe the tank farm, dispensing and transfer areas, and exposed pipe during routine duties. A documented visual inspection of the entire fuel system is to be conducted monthly.

Leak detection is by visual monitoring or inventory discrepancy: there are no automated leak detection systems.

Chain-link fencing, topped with barbed wire, surrounds the tank farm and truck transfer areas, and the Alatna airport tanks and receiving headers, and the City water plant tank. The dispensing station is within a steel frame enclosure with chain link fence sides. Entrance gates to the tank farm, airport tanks, and water plant tank are to be closed and locked when the areas are unattended. The entrance to the dispensing station is to be closed and locked during non-business hours.

Storage tank valves are to be closed and chain locked when a tank is not in service. Access to pump controls is to be closed and locked when the area is unattended. Pump operations may be terminated immediately from controls at each transfer location and at an electrical control panel near the tank farm entrance. Emergency shutdown switches near the dispenser and truck fill area are clearly marked.

Mounted light fixtures illuminate the tank farm, truck transfer area, dispensing station, and airport tanks. The water plant tank is partially illuminated by lights on nearby buildings.

Portable fire extinguishers are positioned near the entrance gates to the tank farm, at the truck transfer areas, at the dispensing station, and near the airport tanks, and at the water plant.

All tanks are labeled in accordance with the Uniform Fire Code. No smoking placards and warning signs are posted. Emergency shutdown locations are identified. Fuel transfer procedures are retained in the Facility Operation and Maintenance Manual (O & M Manual).

Spill response equipment is maintained at the tank farm and airport tanks.

Operating Procedures

Tank farm transfer and maintenance procedures are detailed separately in the Facility Operation & Maintenance Manual. Aircraft off-loading is conducted in accordance with the written procedures and checklists of the air carrier. Section II.E of this plan lists inspection and test procedures.

C. Emergency Response Information

Each Facility Responsible Person is responsible for spill prevention and response for their respective fuel storage and transfer systems.

C.1 Initial Spill Response Actions

- Appendix B illustrates spill containment and recovery techniques.

A spill containment and cleanup activity will never take precedence over the safety of personnel. Do not begin any activities until conditions are safe for workers.

1. Close valves that allow product to flow to the segment of the system causing the spill. Remove all sources of ignition. Conduct no further action in the spill zone until the area is determined safe for entry.
2. Account for personnel and ensure their safety.
3. Restrict public access. If necessary, cordon-off the area. If a fire or explosion hazard exists, clear the area.
4. Contain a fuel oil spill - disperse a gasoline spill. Use materials in the Facility spill cleanup kit to contain a fuel oil discharge. Prevent or divert spilled fuel from approaching structures or entering any water.
5. Alert the Facility Responsible Person. The Facility Responsible Person will:
   - Coordinate and manage the local spill response.
   - Activate resources necessary for a prompt, effective cleanup.
   - Report the spill to the required state and federal agencies (see below).
   - Document all spill information / events, and complete required reports.

Disposal of Recovered Materials

The disposal of waste oil and oily material recovered from spill cleanup operations, which cannot be recycled or used locally, will in every case be disposed of in a manner approved by the ADEC, and in compliance with applicable EPA/DOT regulations. Permits required for disposal vary on a case-by-case basis depending on type, volume and condition of the material to be disposed. The Facility Responsible Person will arrange for the disposal of all recovered oil, oily sorbents and other oiled debris.

C.2 Emergency Phone Numbers

Facility Responsible Persons

Allakaket School	(907) 968-2205
Yukon Koyukuk School District – Fairbanks	(907) 374-9400
City of Allakaket	(907) 968-2241
Alaska Power & Telephone	(907) 883-5101
Alatna Village	(907) 968-2304

Alaska Department of Environmental Conservation

Northern Area Response Team (Spill Reporting)	(907) 451-2121
or after hours call	(800) 478-9300

National Response Center (Spill Reporting) ..... (800) 424-8802

Other

U.S. EPA - Anchorage Office	(907) 271-5083
U.S. Coast Guard – Sector Anchorage Office	(907) 428-4200
Alaska Div. of Emergency Services	(907) 428-7000

AGENCY REPORTING REQUIREMENTS ARE LISTED ON THE FOLLOWING PAGE

C.3 Agency Reporting

The designated Facility Responsible Persons are responsible for reporting all oil spills that result from operations of their respective areas of responsibility.

All oil spills to water, and any sudden or cumulative discharge of oil in excess of 55 gallons solely to land are to be reported to the AK. Dept. of Environmental Conservation (ADEC) "as soon as the person (in charge of the facility) has knowledge" of the incident. Spills solely to land in excess of 10 gallons, but 55 gallons or less, are to be reported within 48 hours. Spills in excess of 55 gallons to an "impermeable secondary containment area" are to be reported within 48 hours.

The National Response Center (NRC) must also be notified if spilled oil enters, or threatens, navigable waters. Notification to the NRC satisfies Coast Guard and EPA notification requirements.

Information to be reported includes (to the extent known):

1. Facility location & phone number
2. Time & date of discharge
3. Material and quantity discharged
4. Has discharge impacted navigable water
5. Source & cause of discharge
6. Description of affected areas
7. Damages or injuries caused by discharge
8. Response & mitigation actions
9. Whether evacuation is needed
10. Names of individuals / organizations who have been contacted

NEVER SPECULATE OR GUESS WHEN REPORTING OR DISCUSSING SPILLS.

IF SPECIFICS ARE UNKNOWN - STATE SO!

REPORT ALL SPILLS TO:

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION

PHONE: 451-2121 - NORTHERN AREA RESPONSE TEAM
or 800-478-9300 - AFTER HOURS

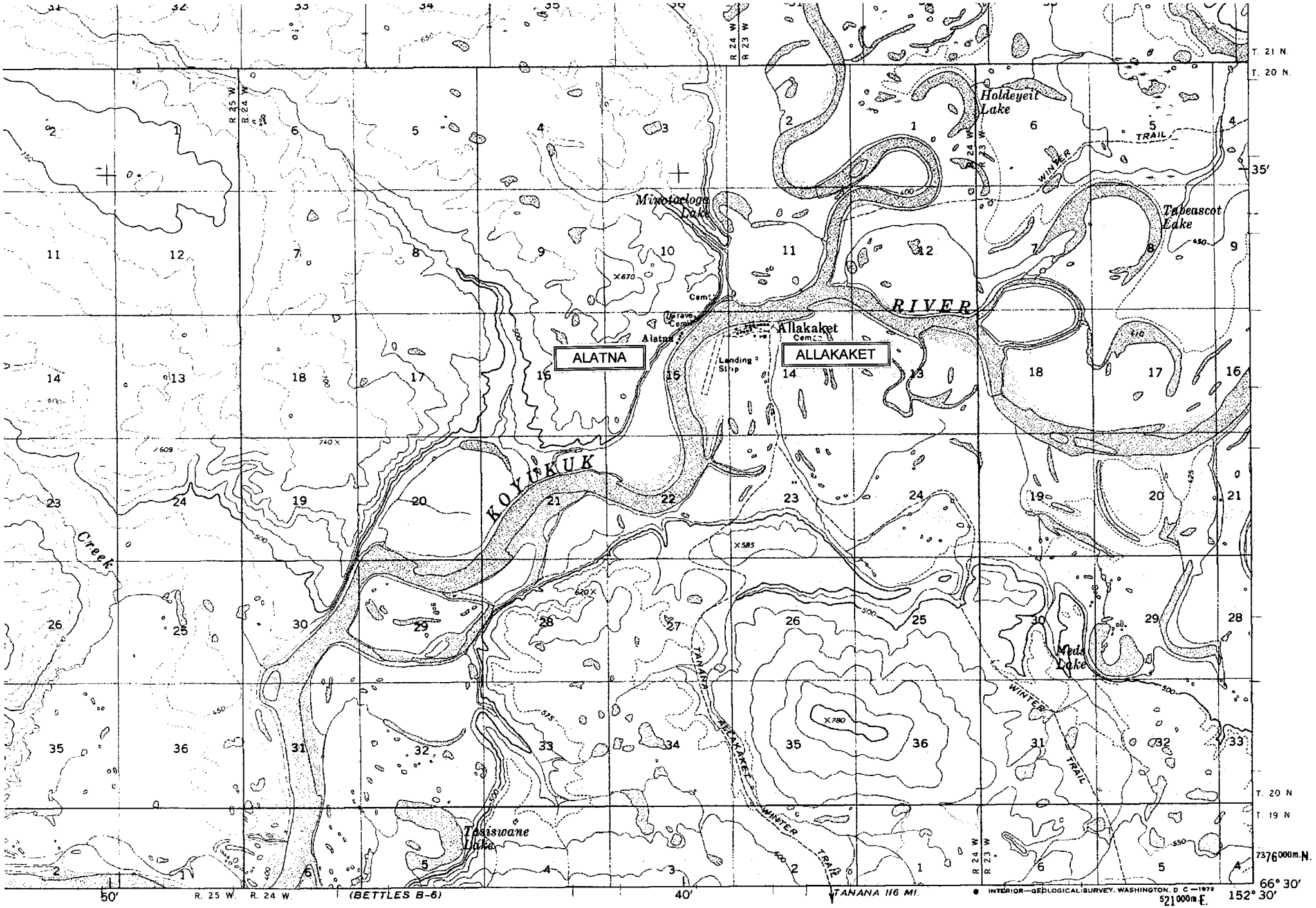
REPORT ALL MARINE SPILLS TO:
NATIONAL RESPONSE CENTER (NRC)

PHONE: 800-424-8802 (24 hours)

MARINE SPILLS INCLUDE ANY DISCHARGE (SHEEN) TO ANY WATER, INCLUDING PONDS, SLOUGHS, WETLANDS, MARSHES AND DRAINAGE THERETO - FAILURE TO REPORT MARINE SPILLS TO THE NRC MAY RESULT IN CRIMINAL PENALTIES.

WHEN IN DOUBT-REPORT IT!

- A written report is to be completed and maintained for each reportable oil spill. Appendix A contains an Oil Spill Report Form that is an acceptable format for the written report.



SCALE 1:63360

1 0 1 2 3 4 MILES

3000 0 3000 6000 9000 12000 15000 18000 21000 FEET

1 .5 0 1 2 3 4 5 KILOMETERS

CONTOUR INTERVAL 50 FEET

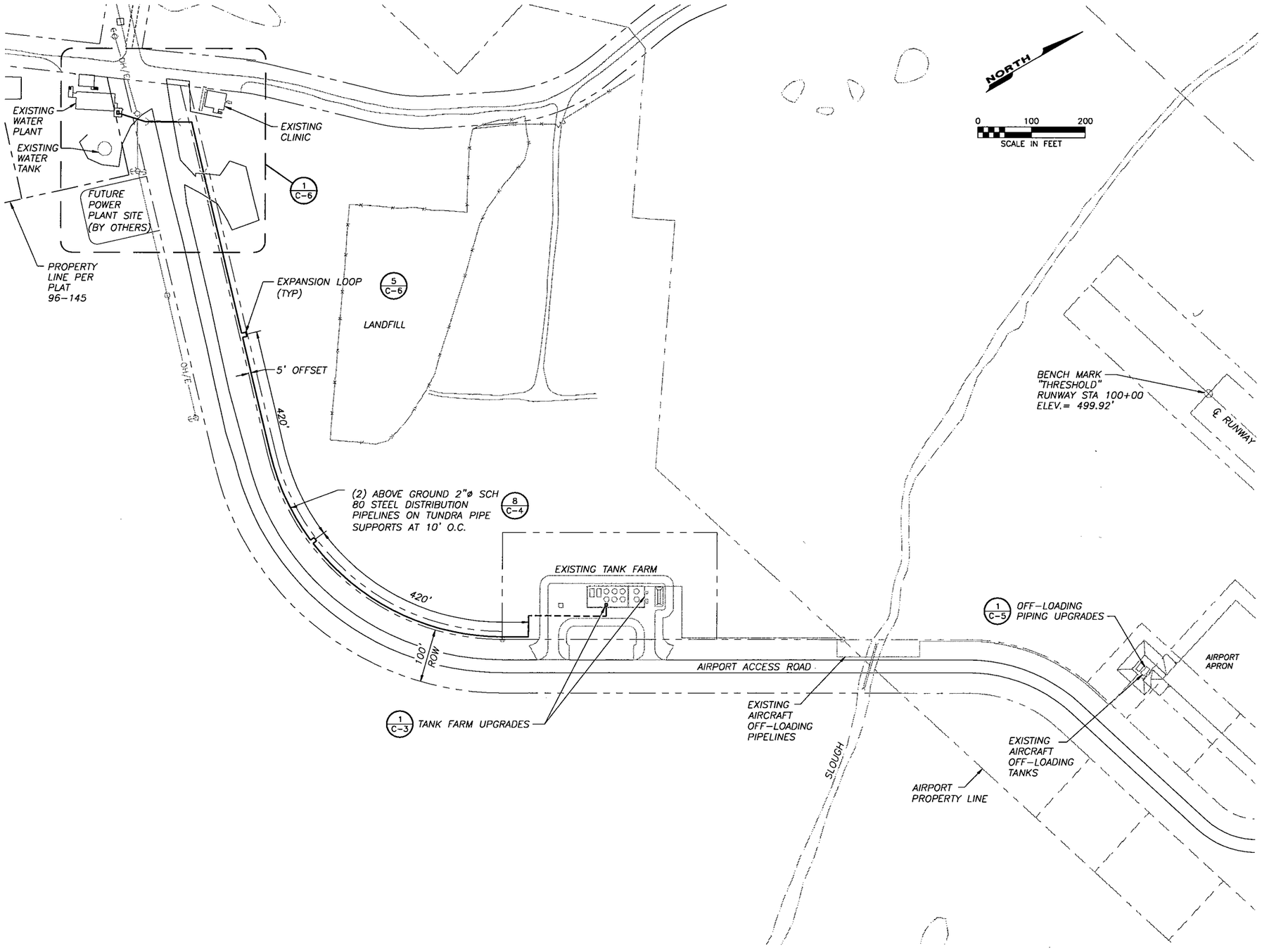
264° NORTH NORTH

'Bettles C-6 63K; AK'; Scale: 1" = 1.000Mi 1,609Mt 5,280Ft, 1 Mi = 1.000" , 1 cm = 634Mt

FIGURE 1.
LOCATION MAP
1-8

ROAD CLASSIFICATION

Trails



NOTES

1. BASE MAPPING FROM STATE OF ALASKA DOT/PF AIRPORT LAND OCCUPANCY PLAN DATED 10/21/98.
2. BASIS OF HORIZONTAL CONTROL: RECORD OF SURVEY, ALLAKAKET AIRPORT BOUNDARY BY FPE ROEN ON NOVEMBER 1994 AND AUGUST 1996.
3. THE SCOPE OF WORK FOR THIS PROJECT INCLUES CONSTRUCTION OF NEW FUEL DISTRIBUTION SYSTEMS TO EXISTING WATER PLANT AND FUTURE POWER PLANT, UPGRADE AIRPORT TANK PIPING, UPGRADE THE DISPENSING AND BULK TANK VENTS WITHIN THE ALLAKAKET TANK FARM AND COMPLETE THE ALATNA/ALLAKAKET TRANSFER SYSTEMS.

FIGURE 2.
PROJECT LAYOUT PLAN

RECORD DRAWING
THESE DRAWINGS HAVE BEEN PREPARED FROM MARKED-UP DRAWINGS SUPPLIED BY THE CONTRACTOR. AN AS-BUILT SURVEY HAS NOT BEEN CONDUCTED. FIELD VERIFY ANY INFORMATION CONTAINED HEREON BEFORE USING.

1/C-1 **PROJECT LAYOUT PLAN**
SCALE: AS SHOWN

ALASKA ENERGY AUTHORITY

FUEL DISTRIBUTION UPGRADE
ALLAKAKET, ALASKA

LCMF LLC
139 E. 51st Ave. - Anchorage, Alaska 99503 - (907)273-1830

RECORD DRAWINGS
REVISIONS:

DRAWN BY: PR
CHECKED BY: TH
DATE: 12/17/03
JOB NUMBER: 01-410

DRAWING TITLE:
PROJECT LAYOUT PLAN

SHEET: OF
C-1

PLOTTING DATE: 01/08/04 (08:49)
AUTOCAD DRAWING NAME: 410-PLP.DWG

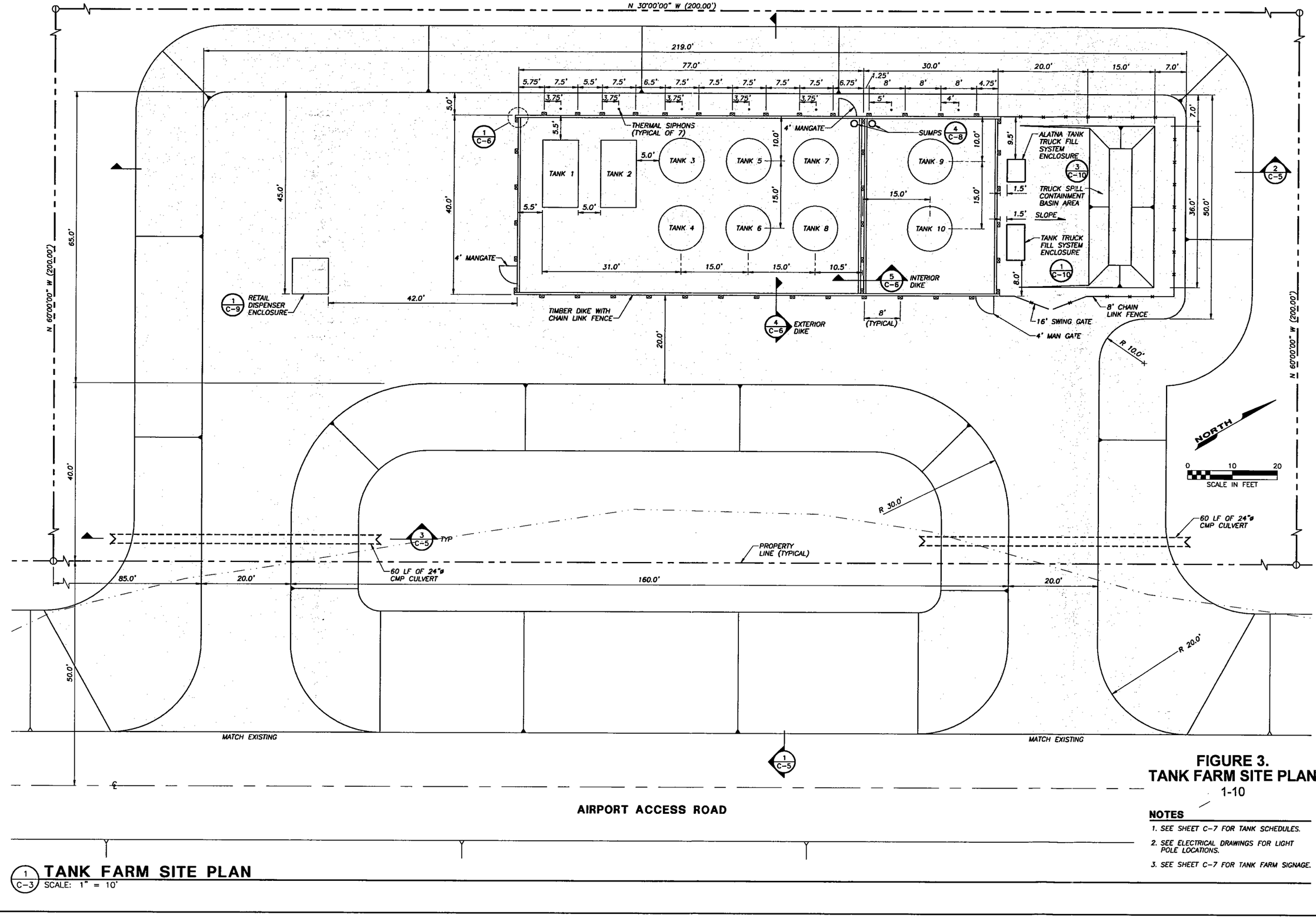


FIGURE 3. TANK FARM SITE PLAN

1-10

NOTES

1. SEE SHEET C-7 FOR TANK SCHEDULES.
2. SEE ELECTRICAL DRAWINGS FOR LIGHT POLE LOCATIONS.
3. SEE SHEET C-7 FOR TANK FARM SIGNAGE.

1 C-3 **TANK FARM SITE PLAN**
SCALE: 1" = 10'

AUTOCAD DRAWING NAME: 104-SP.DWG
PLOTTING DATE: 11/01/02 (10:55)

STATE OF ALASKA 49th
Wiley W. Wilhelm No. CE-8904 REGISTERED PROFESSIONAL ENGINEER

LCMF Incorporated
A subsidiary of Ukpeagvik Iñupiat Corporation
Anchorage, Alaska (907) 562-1830
Barrow, Alaska (907) 852-8212

ALLAKAKET FUEL SYSTEM UPGRADE
ALLAKAKET, ALASKA

TANK FARM SITE PLAN

STATE OF ALASKA
DEPARTMENT OF COMMUNITY AND REGIONAL AFFAIRS
DIVISION OF ENERGY
333 WEST FOURTH AVENUE, SUITE 220
ANCHORAGE, AK 99501-2341

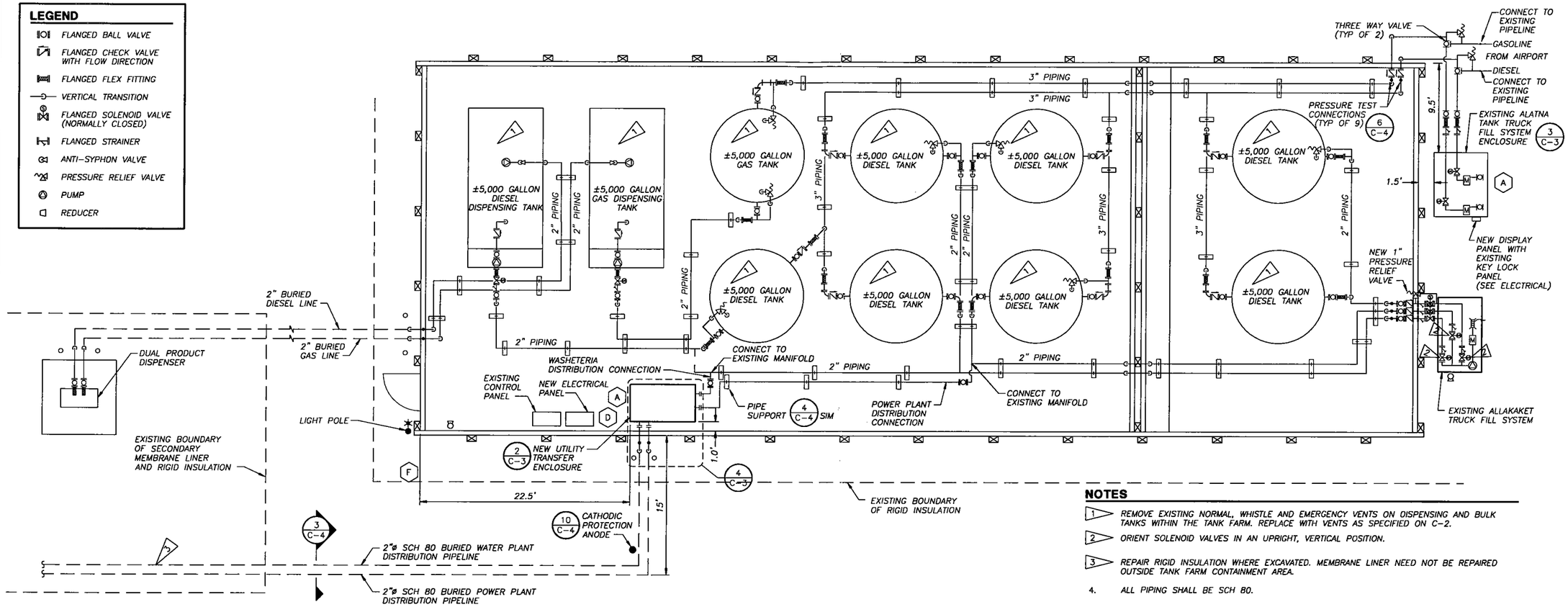
CHECKED BY: WWW
DRAWN BY: EBL
DATE: 4/28/99
W.O. No: 99104

REVISION
REV NO. 1 – 6/24/99
THERMAL SIPHON AND
DIKE POST SPACING
REV NO. 2 – 7/27/01
ALATNA ADDITION

DRAWING NO.
C-3

LEGEND

- FLANGED BALL VALVE
- FLANGED CHECK VALVE WITH FLOW DIRECTION
- FLANGED FLEX FITTING
- VERTICAL TRANSITION
- FLANGED SOLENOID VALVE (NORMALLY CLOSED)
- FLANGED STRAINER
- ANTI-SYPHON VALVE
- PRESSURE RELIEF VALVE
- PUMP
- REDUCER

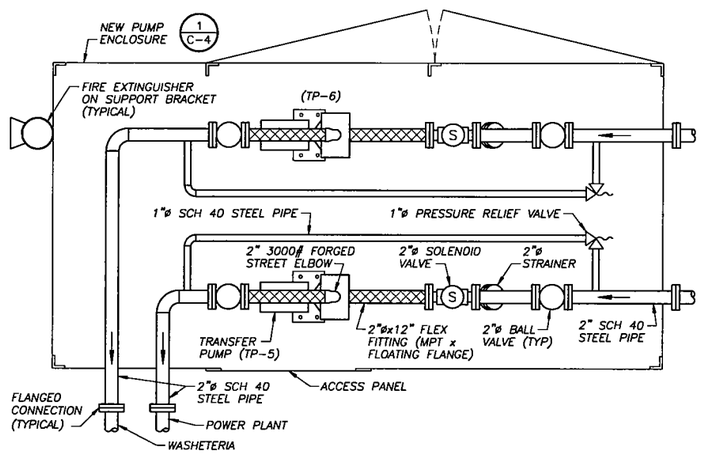


1 C-3 TANK FARM PIPING PLAN

SCALE: 1" = 6'

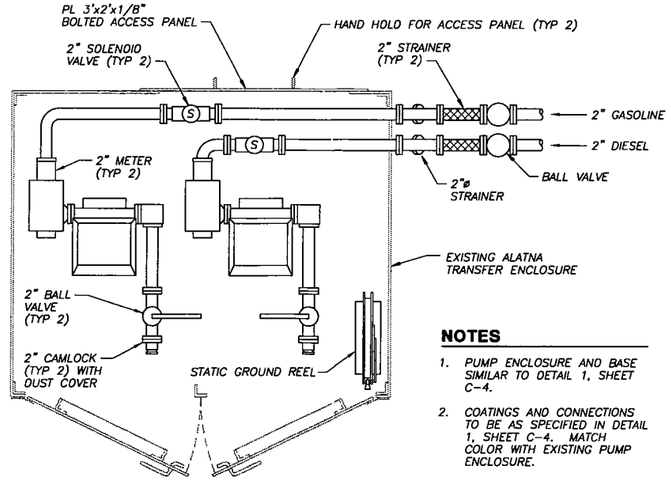
NOTES

1. REMOVE EXISTING NORMAL, WHISTLE AND EMERGENCY VENTS ON DISPENSING AND BULK TANKS WITHIN THE TANK FARM. REPLACE WITH VENTS AS SPECIFIED ON C-2.
2. ORIENT SOLENOID VALVES IN AN UPRIGHT, VERTICAL POSITION.
3. REPAIR RIGID INSULATION WHERE EXCAVATED. MEMBRANE LINER NEED NOT BE REPAIRED OUTSIDE TANK FARM CONTAINMENT AREA.
4. ALL PIPING SHALL BE SCH 80.



2 C-3 UTILITY TRANSFER ENCLOSURE DETAIL

SCALE: NTS

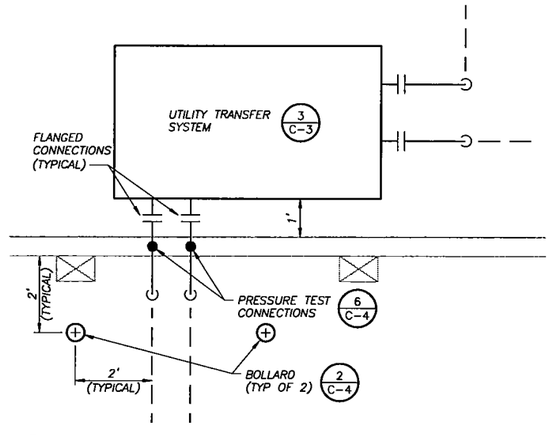


NOTES

1. PUMP ENCLOSURE AND BASE SIMILAR TO DETAIL 1, SHEET C-4.
2. COATINGS AND CONNECTIONS TO BE AS SPECIFIED IN DETAIL 1, SHEET C-4. MATCH COLOR WITH EXISTING PUMP ENCLOSURE.

3 C-3 ALATNA TRANSFER SYSTEM DETAIL

SCALE: 1"=1'



4 C-3 DETAIL

SCALE: NTS

RECORD DRAWING
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FIGURE 4.
TANK FARM PIPING PLAN

ALASKA ENERGY AUTHORITY

FUEL DISTRIBUTION UPGRADE
ALLAKAKET, ALASKA

LCMF LLC
139 E. 51st Ave. • Anchorage, Alaska 99503 • (907) 275-1800

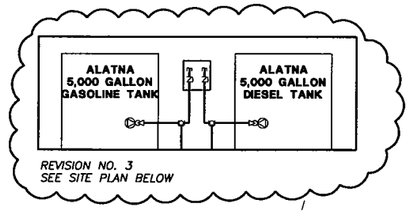
RECORD DRAWINGS
REVISIONS:

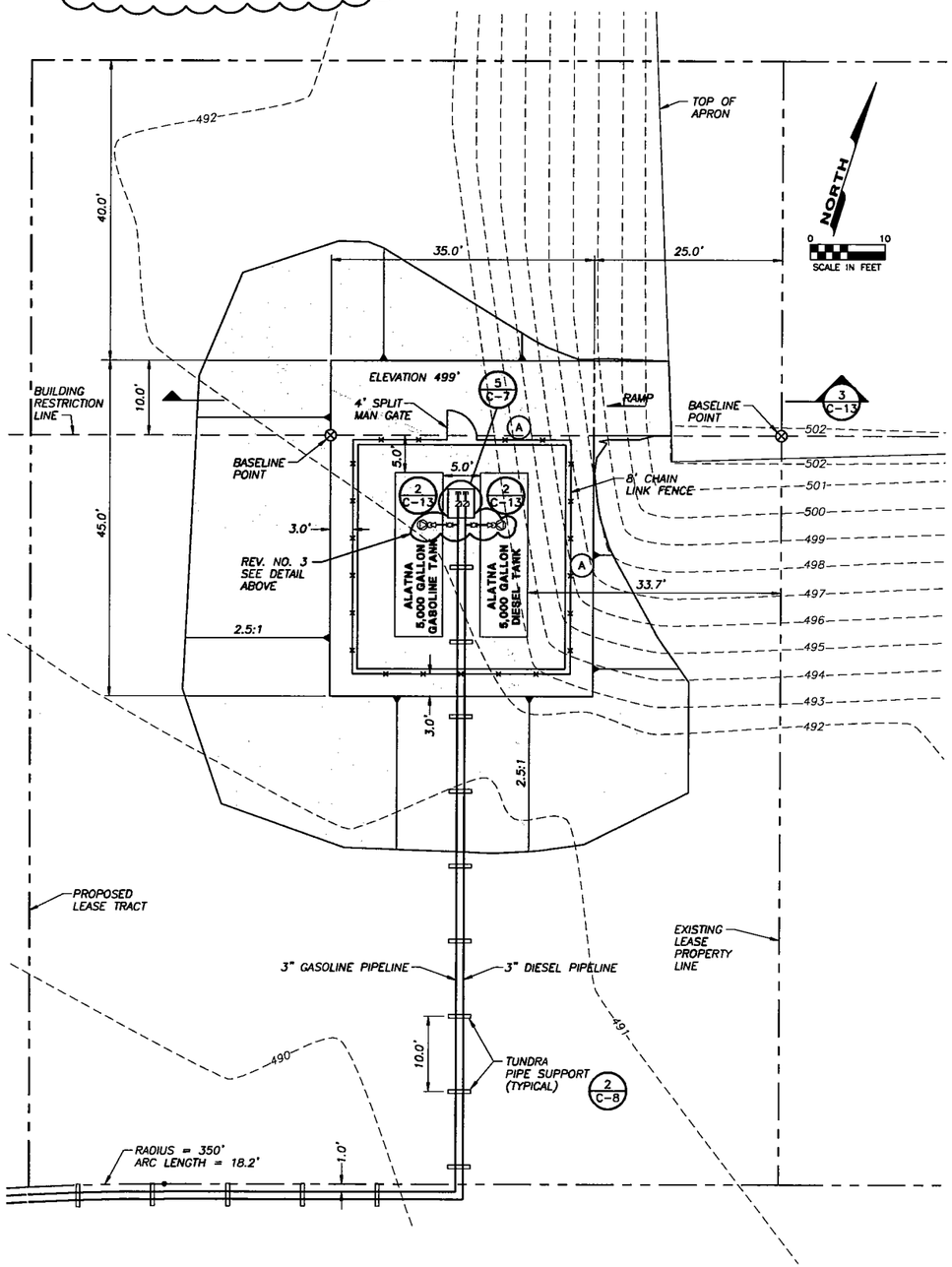
DRAWN BY: PR
CHECKED BY: TH
DATE: 12/17/03
JOB NUMBER: 01-410

DRAWING TITLE:
TANK FARM UPGRADES

SHEET: OF
C-3

PLOTTING DATE: 02/02/04 (11:35)
AUTOCAD DRAWING NAME: 410-TFPP.DWG

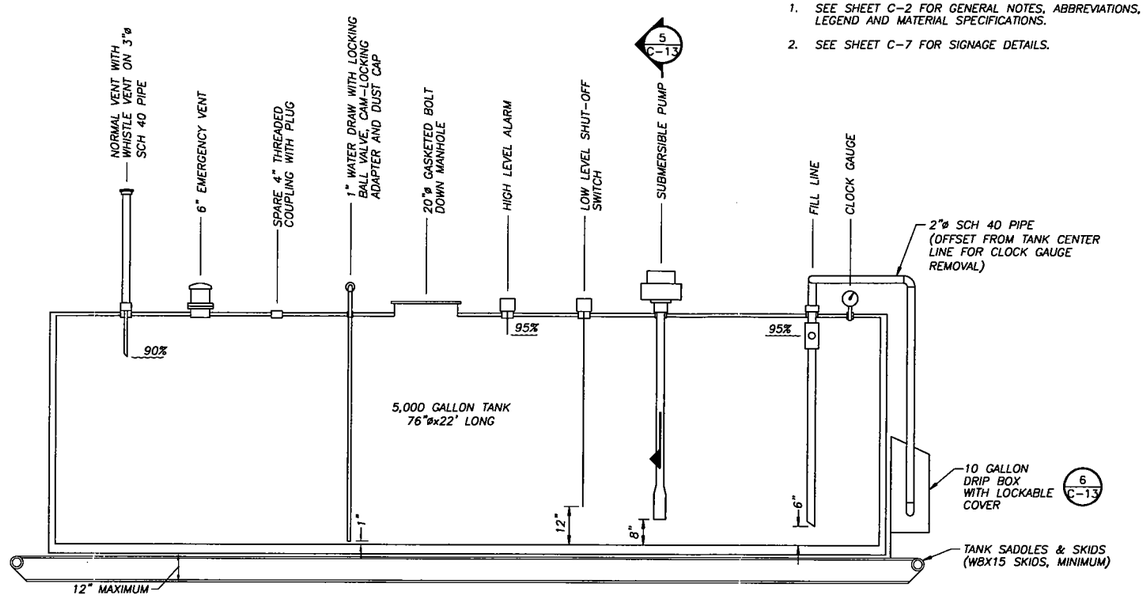




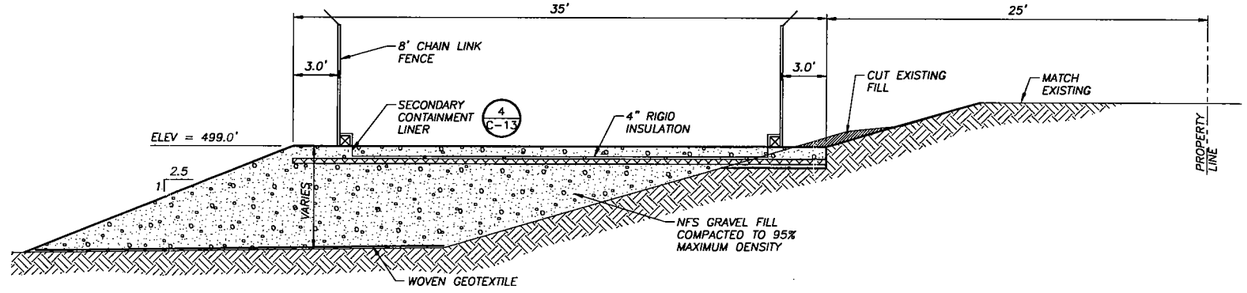
1 C-13 AIRPORT APRON SITE PLAN
SCALE: 1" = 10'

NOTES:

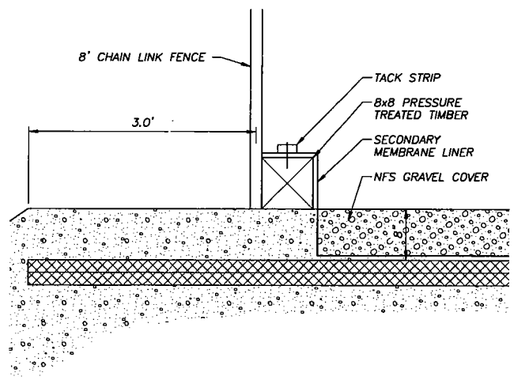
1. SEE SHEET C-2 FOR GENERAL NOTES, ABBREVIATIONS, LEGEND AND MATERIAL SPECIFICATIONS.
2. SEE SHEET C-7 FOR SIGNAGE DETAILS.



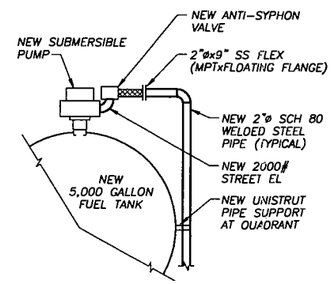
2 C-13 5,000 GALLON TANK
SCALE: 1" = 2'



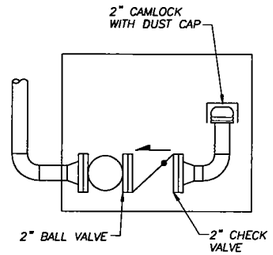
3 C-13 AIRPORT APRON SECTION
SCALE: 1" = 5'



4 C-13 DRIP CONTAINMENT DETAIL
SCALE: 1" = 1'



5 C-13 TANK SECTION
SCALE: 1" = 2'



6 C-13 10 GALLON DRIP BOX
SCALE: 1" = 1'

FIGURE 5.
AIRPORT APRON SITE PLAN
1-12

STATE OF ALASKA
49th
Wiley W. Wilhelm
No. CE-8604
REGISTERED PROFESSIONAL ENGINEER

LCMF Incorporated
A subsidiary of Ukpeagvik Iñupiat Corporation
Anchorage, Alaska (907) 562-1830
Barrow, Alaska (907) 852-8212

ALLAKAKET FUEL SYSTEM UPGRADE
ALLAKAKET, ALASKA

AIRPORT APRON SITE PLAN AND DETAILS

STATE OF ALASKA
DEPARTMENT OF COMMUNITY AND REGIONAL AFFAIRS
DIVISION OF ENERGY
333 WEST FOURTH AVENUE, SUITE 220
ANCHORAGE, AK 99501-2341

CHECKED BY: WWW
DRAWN BY: EBL,KK
DATE: 4/28/99
W.O. No: 99-104

REVISION
REV. No. 1 - 6/24/99
REV. No. 2 - 8/26/99
REV. No. 3 - 3/1/02

DRAWING NO.
C-13

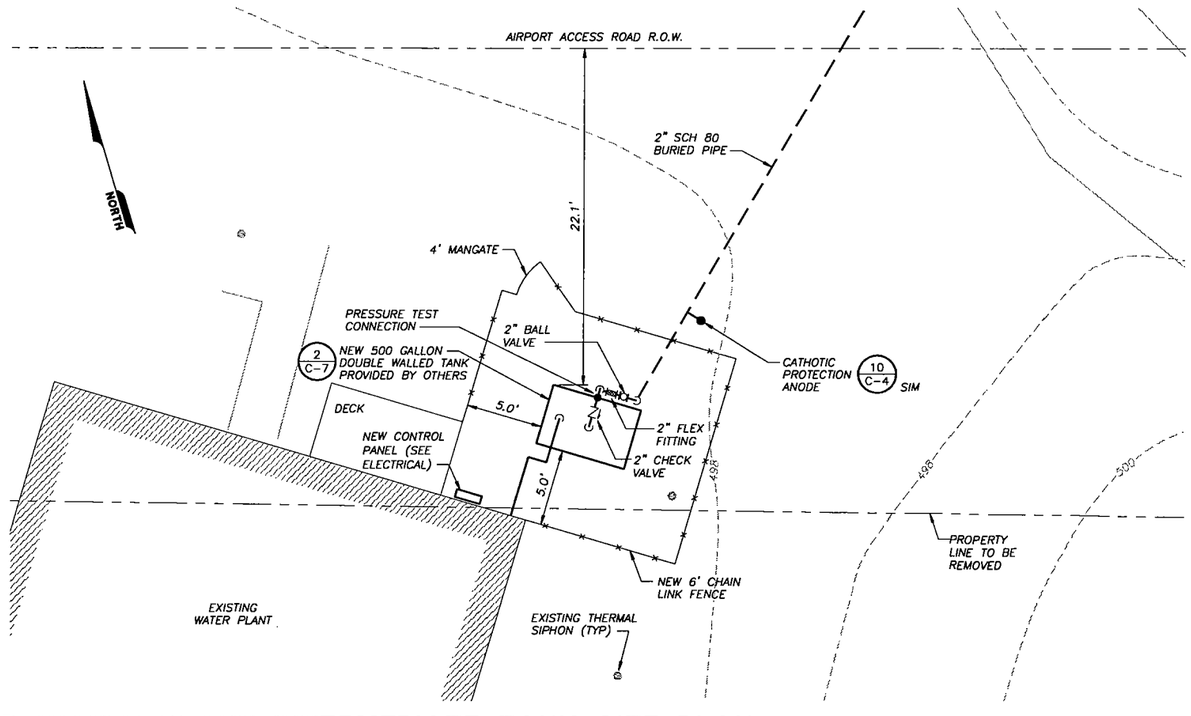
AUTOCAD DRAWING NAME: 104-AASP.DWG
PLOTTING DATE: 11/01/02 (10:42)

NOTES

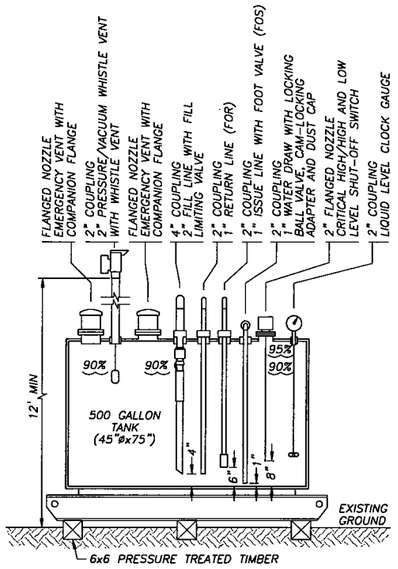
1. ALL ABOVE GRADE PIPE SHALL BE CONSTRUCTED ON TUNDRA PIPE SUPPORTS SPACED 10' O.C. MAXIMUM.
2. INSTALL TANK ON LEVEL GRAVEL PAD DESIGNED AND CONSTRUCTED BY OTHERS.
3. INSTALL TANK ON GRAVEL PAD WITH MINIMUM ELEVATION=500'. (1' ABOVE THE 1994 FLOOD OF RECORD ELEVATION.
4. COORDINATE FENCE POST LOCATIONS WITH THERMAL SIPHON LAYOUT.

500 GALLON TANK SETBACK REQUIREMENTS

1. NFPA 1996.2-3.2.1: 20' MINIMUM DISTANCE FROM PROPERTY LINE THAT IS OR CAN BE BUILT UPON, INCLUDING THE OPPOSITE OF PUBLIC RIGHT-OF-WAY.
2. NFPA-1996.2-3.2.1: 5' MINIMUM DISTANCE FROM NEAREST SIDE OF ANY PUBLIC RIGHT-OF-WAY OR FROM NEAREST IMPORTANT BUILDING ON THE SAME PROPERTY.



1 / C-7 **WATER PLANT INTERMEDIATE TANK SITE PLAN**
SCALE: 1" = 5'



2 / C-7 **500 GALLON TANK SECTION**
SCALE: 1" = 2'

RECORD DRAWING
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VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 — 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY.

ALASKA ENERGY AUTHORITY

FUEL DISTRIBUTION UPGRADE
ALLAKAKET, ALASKA

LCMF LLC
139 E. 61st Ave. • Anchorage, Alaska 99503 • (907) 273-1830

RECORD DRAWINGS
REVISIONS:

DRAWN BY: PR
CHECKED BY: TH
DATE: 12/17/03
JOB NUMBER: 01-410

DRAWING TITLE:
WATER PLANT INTERMEDIATE TANK SITE PLAN AND SECTION

SHEET: OF
C-7

PLOTTING DATE: 01/08/04 (08:50)
AUTOCAD DRAWING NAME: 410-5TNK.DWG

II. GENERAL INFORMATION

40 CFR Part 112.4 (a)
40 CFR Part 112.7 (b)-(h)

A. Spill History - 40 CFR Part 112.4 (a)

This section of the regulations requires a written report be submitted to the EPA Regional Administrator, and appropriate state agencies, when a facility has discharged more than 1,000 gallons of fuel into navigable waters, or adjoining shorelines, or if it has discharged more than 42 gallons in two separate instances within a 12 month period into navigable waters, or adjoining shorelines. The content of the report is listed in Section I.A of this Plan.

YKSD hereby confirms, as of August 2016, there has been no oil discharged from its portion of the Facility to navigable water or in quantities that require a written report be submitted to the EPA.

B. Potential Spills - 40 CFR Part 112.7 (b)

The reasonably expected modes of major failure, rupture or accident in which fuel could be spilled from the fuel system are as follows:

Tank Farm - Storage / Dispensing Tank Leak or Failure

A tank leak or failure could result from mechanical failure, vandalism, or catastrophic event. All storage tanks are code compliant and well maintained. Secondary containment structures comply with EPA regulation.

- The rate of flow would be variable depending on the size and location of the leak or failure.
- The total quantity of fuel that could reasonably be discharged is approximately 5,000 gallons - the capacity of the largest tank(s) at the Facility.
- Fuel spilled from a leak or failure of a storage tank would be contained within the diked and lined impound area. The tank farm impound area provides net containment capacity for the volume of the largest storage tank plus freeboard for precipitation. If fuel escapes secondary containment, it would drain to the surrounding gravel pad. Drainage on the pad is away from the tank farm and to the surrounding tundra. The area around the pad is generally level. A raised roadway immediately south of the tank farm would restrict migration of spilled fuel. Facility personnel and response equipment would further contain and attempt to recover spilled fuel.

Tank Farm - Storage Tank / Dispensing Tank Overflow

There is potential for tank overflow due to operator error and/or equipment failure during aircraft delivery and while filling dispensing tanks. All tanks have level gauges and high-level whistle alarms. The dispensing tank is equipped with level gauge, high-level alarm, fill limiting valve and redundant high-level pump shutoffs. All transfers are manually initiated and visually monitored. The pump controls are in close proximity to transfer locations.

- The total quantity of fuel that could be spilled is proportional to the length of time a tank is overflowing. The aircraft delivery rate is approximately 150 gpm. Fuel is transferred to the dispensing tank at a rate of approximately 40 gpm.
- It is estimated that 1,500 gallons could be discharged during aircraft delivery, and 400 gallons could be discharged filling the dispensing tank.
- Fuel spilled from the storage or dispensing tanks would be contained in the tank farm impound area. It would be contained and recovered by Facility personnel and response equipment.

Airport Receiving Pipelines - Leak or Fracture in

Discharge potential exists from the two receiving pipelines that extend from the airport apron to the tank farm. The piping is three-inch diameter, schedule 80, welded steel, approximately 1,300 feet in length. The pipelines are to be integrity tested annually. All transfers are manually initiated and visually monitored. Aircraft off-loading is conducted in accordance with the written procedures and checklists of the air carrier. Fuel transfers from the Alatna airport tanks to the truck transfer area are conducted in accordance with the Facility Operation & Maintenance Manual.

- The rate of flow would be variable depending upon the nature, location and duration of the leak or fracture.
- Each pipe has a volume of approximately 500 gallons. The aircraft transfer rate is approximately 150 gpm. The transfer rate from the Alatna tanks to the truck transfer area is approximately 50 gpm. It is estimated 500 gallons could be discharged prior to detection and isolation.
- Spilled fuel would likely accumulate near the point of discharge or migrate along the pipeline corridor and enter a slough drainage that discharges into the Koyukuk River. The pipeline corridor is on the north side of the airport access road, which would restrict spill migration to the south. Spilled fuel would be recovered by Facility personnel and response equipment.

Airport Tanks - Tank Overflow, Leak, or Failure

Two tanks on the airport apron are operated and maintained by Alatna for temporary storage of gasoline and fuel oil off-loaded from aircraft. Both tanks are new, double wall horizontal tanks equipped with redundant overfill protection that complies EPA policy pertaining to alternate secondary containment. Fuel transfers are manually initiated and monitored.

- The rate of flow from a leak, failure or overflow would be variable. The aircraft fill rate is approximately 150 gpm
- The total quantity of fuel that could reasonably be discharged by leak or failure is 5,000 gallons - the capacity of each tank. It is estimated that 1,500 gallons could be discharged by transfer overflow.
- A leak from either tank would be contained within the integral secondary containment structure. Spilled fuel that escapes secondary containment, or is discharged by overflow, would drain to the gravel pad beneath the tanks. The gravel pad and surrounding timber dike are lined to provide tertiary containment for drips and overflow. The area surrounding the tanks is generally level. Net drainage appears to be to the southwest, off the apron to the surrounding tundra. Spilled fuel would be contained and recovered by Facility personnel and response equipment.

There is potential for small volume discharges at dispensing station, truck transfer areas and water plant. Such spills are not considered "major" as used in this section of the regulations based on location, transfer rate, and spill prevention devices in place.

C. Containment Structures - 40 CFR Part 112.7 (c)

The tank farm impound is approximately 107’ x 40’ x 2’ deep. It is surrounded by a timber dike constructed of courses of 6" x 6" treated timbers supported by 8” x 12” treated timber posts. The containment area is lined with a heavy duty, fuel resistant, synthetic liner that is sandwiched between non-woven geotextile material. Gravel fill covers the floor of the impound. The interior dike walls are covered with galvanized sheet metal. An interior dike wall separates the impound into two cells. The west cell contains the City and Utility tanks. It has net containment capacity of approximately 34,700 gallons, which provides capacity for the contents of the largest tank plus 1.7 feet of freeboard. The east cell contains the School tanks. It has net containment capacity of approximately 14,400 gallons, which provides capacity for the contents of the largest tank plus 1.3 feet of freeboard.

The airport apron tanks and the water plant tank are double wall tanks equipped with redundant overfill protection including fill limiting valve and high-level whistle alarm. Fuel transfers to the tanks are manually initiated and visually monitored. The design and operation of the tanks comply with EPA policy regarding “Use of Alternative Secondary Containment Measures”, as presented in an 8/9/02 Memorandum by Marianne Lamont Horinko, EPA Assistant Administrator.

The truck transfer areas are underlain with a synthetic liner that drains to a lined secondary containment basin adjacent to the transfer area. The capacity of the containment basin is calculated to be in excess of 4,600 gallons, which exceeds the volume of single compartments filled at the transfer areas.

The City currently operates a 1,000 gallon mobile tank for local fuel delivery. When not in service it is emptied and parked at the truck transfer area, which provides adequate secondary containment to prevent a discharge from impacting navigable water or adjoining shorelines.

The aircraft off-loading headers consist of capped camlock fittings, and three-inch ball, plug and check valves. Secondary containment is provided by a steel containment box positioned beneath the connections. Additional containment can be provided by the tertiary liner underneath the airport tanks, sorbent boom maintained at the Facility, and sorbent material maintained on the aircraft.

D. Demonstration of Impracticability - 40 CFR Part 112.7 (d)

This section of the regulations states that if it is impracticable to install secondary containment, then additional prevention/response measures are to be implemented.

It is not practical to install secondary containment or provide site grading or drainage in all undiked areas where a discharge could migrate off of Facility property. Alternatively, piping located outside of secondary containment is equipped with pressure test connections. Integrity of such piping is to be conducted annually.

E. Inspection, Tests, and Records - 40 CFR Part 112.7 (e)

The storage and transfer areas are frequently observed by Facility personnel during routine duties. At least once a month, each Facility Responsible Person or designated alternates are to conduct a thorough visual inspection of their respective fuel systems.

Piping not within secondary containment, and located where site drainage would not retain a spill on Facility property, shall be subject to annual integrity testing. The integrity testing is intended to provide equivalent environmental protection, in accordance with 40 CFR, Part 112.7(a)(2). The testing procedure shall be comparable to the testing methods for marine pipelines as required by the Coast Guard in 33 CFR, Part 156.170(4): a static liquid pressure test at least 1½ times the pipeline working pressure maintained for 10 minutes, plus examination time for above ground piping, and one hour for buried piping.

As required by 40 CFR, Part 112.8(c)(6), storage tanks are to be subject to integrity testing on a regular schedule and when material repairs are conducted. Integrity testing is to combine visual inspection with another testing technique such as hydrostatic testing, radiographic testing, ultrasonic testing, acoustic emissions testing, or another system of non-destructive shell testing (NDT). To comply, the Facility shall adhere to the tank inspection procedures and schedules established by the Steel Tank Institute (STI), Standard for Inspection of In-Service Shop Fabricated Aboveground Tanks For Storage of Combustible and Flammable Liquids – SP001-00, or an equivalent. A copy of the STI Standard SP001-00 inspection records are to be maintained by the Facility Responsible Persons.

The following additional inspections, tests, and records are required by EPA and are applicable to the Facility:

- Stormwater is to be removed frequently from the tank farm impound area. A written log is to be completed each time stormwater is removed from the tank farm.
- Oil handling personnel are to be trained in operations, maintenance and discharge prevention procedures pertinent to their duties. Training is to be conducted, at minimum, on an annual basis and is to be documented.
- A spill notification and report form is to be completed and maintained for each oil discharge resulting from facility operations.
- EPA requires a documented review and evaluation of this SPCC Plan at least once every five years.

The following sample documentation forms are contained in Appendix A of this SPCC Plan:

- Monthly Visual Inspection Checklist
- Tank Farm Stormwater Drain Log
- Static Liquid Pressure Test of Pipelines
- Discharge Prevention Training Log
- Oil Spill Report Form
- SPCC Plan Review and Evaluation

It is the responsibility of the Facility Responsible Persons to ensure adequate records are completed. Documentation is to be maintained for five years, except for records of significant tank repairs, modifications, integrity tests, and spill reports that should be maintained permanently.

F. Personnel Training, and Spill Prevention Procedures - 40 CFR Part 112.7 (f)

The Facility Responsible Persons are accountable for overall operations, oil spill prevention, and personnel training for their respective fuel systems.

All oil handling personnel shall be instructed in operations, maintenance, and spill prevention procedures pertinent to their duties. Training is to be provided at least once a year. Verification of training is to be maintained. At minimum, the training should address the following topics.

A. Pollution control laws, rules, and regulations summary of 40 CFR Part 112 "Oil Pollution Prevention".

B. Fuel Storage Systems:
   1. Purpose and application
   2. System elements:
      a. Tanks
      b. Pumps
      c. Accessory equipment
   3. Operational and maintenance of equipment

C. Spill Prevention and Control:
   1. Potential spill sources
   2. Procedures to prevent spills
   3. Review of control measures:
      a. Secondary containment
      b. Safety valves
      c. Pump shutoff switches

D. Emergency response procedures:
   1. Location and use of emergency phone numbers
   2. Location and use of fire extinguishers
   3. Location and use of spill cleanup materials

G. Security - 40 CFR Part 112.7 (g)

Security measures are addressed in Section I.B, above.

H. Tank Truck Loading Rack - 40 CFR Part 112.7 (h)

Secondary containment at the truck transfer area is addressed in Section II.C, above.

Loading is conducted with a hose reel and drybreak connection that require the presence of an operator. Truck wheels are to be chocked during loading. Additional measures to prevent vehicle departure prior to disconnection of transfer lines are not necessary.

Prior to filling and departure, the operator is to closely examine the vehicle and tankage for leakage. If necessary, adjustments or replacements shall be made to prevent liquid leakage while in transit.

I. Brittle Fracture Evaluation - 40 CFR Part 112.7 (i)

All tanks are shop-fabricated, and are not subject to brittle fracture evaluation.

J. Additional Discharge Prevention Requirements - 40 CFR Part 112.7 (j)

There are no known State rules, regulations, or guidelines pertaining to discharge prevention and containment that are applicable to this Facility and are more stringent than the requirements of this section.

III. SPECIFIC REQUIREMENTS

40 CFR Part 112.8 (a) - (d)

A. Onshore Facility Requirements - 40 CFR Part 112.8 (a)

In addition to the specific spill prevention and containment procedures listed under this section, the general requirements listed in Part 112.7 are addressed in Section II of this plan.

B. Facility Drainage - 40 CFR Part 112.8 (b)

(1) There are no stormwater drain lines from the tank farm impound area. Stormwater that accumulates in the impound area is removed with a manually operated portable pump and hose that discharge over the dike to Facility property.

There are no stormwater drain lines from the tank truck/mobile container filling system impoundment area. Stormwater that accumulates in the impoundment area is removed with a manually operated portable pump and hose that discharge onto facility property.

The airport and water plant tanks are double wall construction with integral secondary containment that does not collect stormwater. The airport tanks are located in a tertiary containment area. Accumulated stormwater is removed using a manually operated portable pump and hose, that discharge onto the gravel pad.

(2) Prior to removing stormwater from the impoundment areas, a thorough visual inspection is to be conducted to ensure the stormwater removal will not cause a harmful discharge as defined by 40 CFR Part 110 (any visible sheen) and to ensure compliance with applicable water quality standards. Any visible oil sheen is to be removed with sorbents prior to draining. Accumulated water is to be removed only during hours of daylight.

A written log (Appendix A) is to be completed each time stormwater is removed from an impound area. The log shall record the date, the time draining was started and completed, and confirmation by the operator that no oil sheen was discharged.

(3) The potential for significant discharge in undiked area is reduced by design and operating procedures. Fuel flow in all piping is controlled by check or ball valves, and anti-siphon or solenoid valves. All transfers are manually initiated and visually monitored.

Piping not within secondary containment, and located where site drainage would not retain a spill on Facility property, shall be subject to annual integrity testing. (Section II.E)

(4) There are no ponds, lagoons or ditches designed to retain oil at this location. The catchment basin at the truck transfer area is designed to retain potential discharges on Facility property. Fuel spilled in undiked areas will be contained by Facility personnel and equipment.

(5) Stormwater removed from the impound areas is untreated.

C. Bulk Storage Tanks - 40 CFR Part 112.8 (c)

(1) The tank materials and construction are compatible with the stored oil at storage temperature and pressure. All tanks fabricated or upgraded to general compliance with Underwriters Laboratories Standard 142 "Steel Aboveground Tanks for Flammable and Combustible Liquids."

(2) Secondary containment for the storage tanks is discussed in Section II.C.

(3) Discharge of storm water from diked areas is discussed in Section III.B.

(4) There are no underground storage tanks at the Facility.

(5) There are no partially buried tanks at the Facility.

(6) Integrity testing of storage tanks is to be conducted on a regular schedule and when material repairs are conducted. Section II.E identifies testing and record keeping procedures.

(7) No tanks at the Facility are equipped with internal heating coils.

(8) The storage tanks and transfer systems are designed to avoid discharges. The fuel system is to be operated in a manner, as far as practical, to prevent spills.

Section I.B describes the spill prevention devices in place at the Facility. All transfers initiated and monitored by at least one trained operator, in accordance with written procedures. All tanks have liquid level gauges and vents with whistle alarms. The dispensing tanks are equipped with level gauge, high-level whistle alarm, fill limiter and redundant high-level pump shutoff. The pump controls and emergency shutdown switches are in close proximity to transfer locations.

Level sensing devices are to be tested regularly to ensure proper operation. An accurate gauge stick or tape may be used for testing.

(9) No petroleum effluents are discharged into navigable waters.

(10) Visible oil leaks from tank seams, gaskets, piping, pumps vales, and bolts are to be reported to the Facility Responsible Person and promptly corrected. Any accumulation of oil with diked areas is to be promptly removed.

(11) The City currently operates a 1,000 gallon mobile tank for local fuel delivery. When not in service it is emptied and parked at the truck transfer area which provides adequate secondary containment to prevent a discharge from impacting navigable water or adjoining shorelines.

D. Facility Transfer Operations - 40 CFR Part 112.8 (d)

(1) All piping is above ground, except for short segments that extend to the dispensing station, water plant tank, or pass under roadways. Buried piping is coated and cathodically protected with magnesium anodes.

(2) EPA regulations state that terminal connections of piping that is not in service for an extended period of time are to be capped or blank-flanged and marked as to origin.

(3) Piping in the tank farm is well secured to timber pipe supports and to the tanks. Above ground piping outside of the tank farm is secured on grade to tundra pipe supports on 10 foot centers. Pipe supports are designed to minimize abrasion and corrosion, and allow for expansion and contraction.

(4) A monthly visual examination of all tanks, piping, valves, and connections is to be conducted.

Buried pipe was integrity tested at the time of installation. Transfer and distribution piping located outside of the tank farm impound is equipped with pressure test connections for integrity testing. Piping not within secondary containment, and located where site drainage would not retain a spill on Facility property, shall be subject to annual integrity testing.

(5) The storage tanks, truck transfer areas, dispensing station, and water plant tank are enclosed by chain link fence that provides adequate security and protection from vehicles. Vehicles that enter the truck transfer areas are monitored by a Facility operator, and are to be appropriately warned so as not to endanger piping or oil transfer operations.

40 CFR Part 112.9 - Not applicable
40 CFR Part 112.10 - Not applicable
40 CFR Part 112.11 - Not applicable
40 CFR Part 112.12 - Not applicable

APPENDIX

APPENDIX A. SELF INSPECTION LOGS / DOCUMENTATION

APPENDIX B. SIMPLIFIED CLEANUP TECHNIQUES

APPENDIX A
SELF INSPECTION LOGS / DOCUMENTATION

Monthly Visual Inspection Checklist

Tank Farm Stormwater Drain Log

Static Liquid Pressure Test of Pipelines

Discharge Prevention Training Log

Oil Spill Report Form

SPCC Plan Review and Evaluation

ALLAKAKET TANK FARM

(CITY, SCHOOL, UTILITY, ALATNA)

VISUAL INSPECTION MONTHLY REPORT

DATE: _____

INSPECTED BY: _____

	INSPECTED / OK (✓)	REQUIRES ATTENTION (attach comments)
TANK FARM & AIRPORT TANKS		
EACH TANK INSPECTED FOR:		
• Leakage - damage	_____	_____
• Corrosion - paint	_____	_____
• Tank valves - good condition / locked	_____	_____
• Flex connectors - good condition	_____	_____
• Foundations sound	_____	_____
GAUGES, METERS, VENTS		
• In good condition - free of leakage	_____	_____
IMPOUNDMENT AREA		
• Dike and liner in good condition	_____	_____
• Free of debris	_____	_____
• Retained stormwater clean	_____	_____
• Electrical panel and conduit – good condition	_____	_____
EXPOSED PIPING		
• In good condition - free of leakage	_____	_____
• Corrosion - paint	_____	_____
• Supports - good condition	_____	_____
• Valves - good condition	_____	_____
DISPENSING STATION & TRUCK TRANSFER AREAS		
• Dispensing unit in good condition	_____	_____
• Emergency shutdown tested-in good condition	_____	_____
• Hose, nozzles, meters good condition	_____	_____
• No leaks / area clean	_____	_____
SECURITY		
• Fences in good condition	_____	_____
• Locks on gates / tanks	_____	_____
• Warning signs in place	_____	_____
• All lights operable	_____	_____
• Emergency notification posted	_____	_____
• Fire extinguishers in place	_____	_____
SURROUNDING AREA		
• General condition (housekeeping)	_____	_____
• Spill response equipment in place	_____	_____
• SPCC Plan in place		

COMMENTS

_____

_____

_____

_____

_____

ALLAKAKET TANK FARM
(CITY, SCHOOL, UTILITY)

TANK FARM IMPOUND - STORMWATER DRAINAGE LOG

Date & Location of Draining	Time Draining Started	Time Draining Finished	Any Sheen Y / N	Observer's Signature

* Operator's signature confirms that no oil or sheen was discharged during draining.

This form (or similar documentation) is required by 40 CFR, Part 112.8(c)(3)

ALLAKAKET TANK FARM
(CITY)

STATIC LIQUID PRESSURE TEST OF PIPELINES

DATE: _____

TEST BY: _____

PIPELINE	MAX. WORKING PSI	TEST PSI	TIME / DURATION	HELD PRESSURE (Y / N)
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

Comments:

ALLAKAKET TANK FARM
(CITY, SCHOOL, UTILITY, ALATNA)

DISCHARGE PREVENTION MEETING LOG

1) DATE: _____

2) ATTENDEES:

_____

_____

_____

_____

_____

_____

_____

_____

_____

3) SUBJECTS / ISSUES ADDRESSED:

_____

_____

_____

_____

_____

This form (or similar documentation) required by 40 CFR, Part 112.7(e)

Frequency and content of meetings is at discretion of Facility management. It is the responsibility of management to ensure all personnel are trained adequately to conduct all operations safely with no spills. Training is to be conducted, at minimum, on an annual basis.

ALLAKAKET TANK FARM
OIL SPILL REPORT AND NOTIFICATION FORM

1) DATE & TIME OF DISCHARGE: _____

2) LOCATION OF SPILL: _____

3) TIME OF DISCOVERY: _____

4) AGENCIES NOTIFIED (DATE / TIME / PERSON)

ADEC: _____

NRC / USCG: _____

OTHER: _____

5) TYPE & QUANTITY OF OIL SPILLED: _____

6) CAUSE OF SPILL: _____

_____

7) AFFECTED AREA: _____

8) ENVIRONMENTAL DAMAGE: _____

9) CLEANUP ACTIONS UNDERTAKEN: _____

_____

_____

10) ESTIMATED QUANTITY RECOVERED: _____

11) METHOD OF RECYCLING / DISPOSAL OF CLEANUP MATERIAL

METHOD: _____

LOCATION: _____

DATE: _____

12) ACTIONS TAKEN TO PREVENT REOCCURRENCE: _____

_____

13) WRITTEN SPILL REPORT SENT TO

ADEC: ___YES ___NO DATE _____

USCG: ___YES ___NO DATE _____

EPA: ___YES ___NO DATE _____

14) PERSON COMPLETING THIS REPORT

NAME: _____

DATE: _____

INITIAL NOTIFICATION MUST NOT BE DELAYED PENDING COLLECTION OF ALL INFORMATION

NATIONAL RESPONSE CENTER - (800) 424-8802

ALLAKAKET TANK FARM

SPCC PLAN REVIEW AND EVALUATION

EPA REGULATIONS REQUIRE A DOCUMENTED REVIEW AND EVALUATION OF THE SPCC PLAN AT LEAST ONCE EVERY FIVE YEARS. THE SPCC PLAN IS TO BE UPDATED WHENEVER THERE IS A CHANGE IN FACILITY DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE THAT COULD MATERIALLY AFFECT THE POTENTIAL FOR DISCHARGE TO NAVIGABLE WATER. TECHNICAL AMENDMENTS TO THE PLAN ARE TO BE CERTIFIED BY A PROFESSIONAL ENGINEER.

I have completed review and evaluation of the SPCC Plan for the Allakaket Tank Farm.

City of Allakaket
Administrator: _____ Date: _____

Yukon / Koyukuk Schools
Project Director : _____ Date: _____

Alaska Power & Telephone
Gen. Mgr., Power Opeations: _____ Date: _____

Alatan Village
Village Administrator: _____ Date: _____

SPCC Plan amendments will / will not be made as a result.

_____

This form (or similar documentation) required by 40 CFR, Part 112.5(b)

APPENDIX B

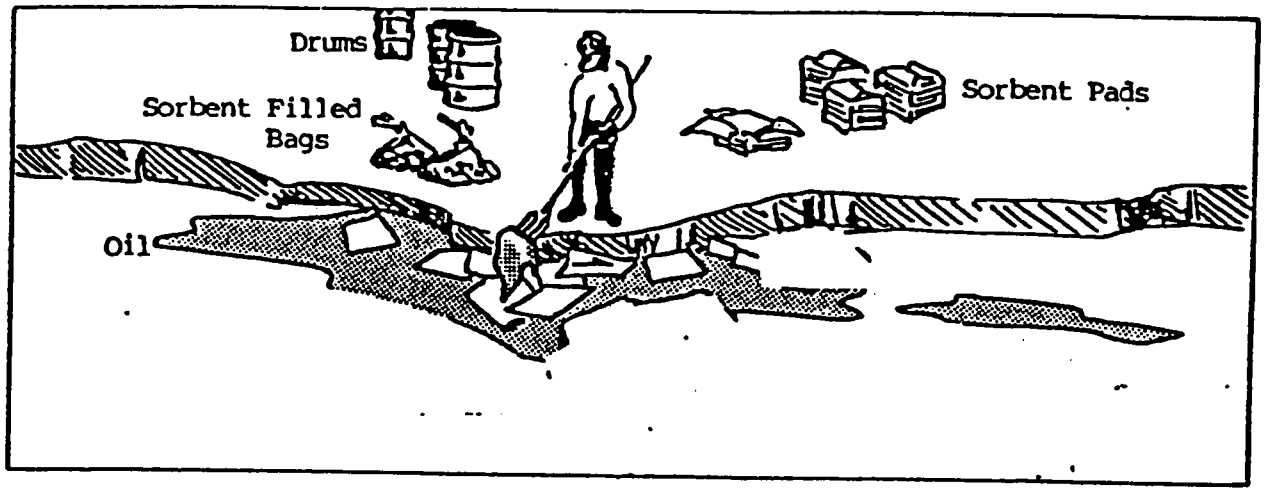
SIMPLIFIED CLEANUP TECHNIQUES

SYNTHETIC SORBENTS

Use:

Sorbents are very effective on unweathered oil accumulations and sheens. They are usually used as a final cleanup or "polishing" method, or on oil that is too thin to recover by other methods.

Implementation:



- Sorbents are not initially used on a large spill. First utilize skimmers or direct suction.
- Avoid scattering sorbents loosely over wide areas. Recovering sorbents on water can be difficult. If they aren't recovered, sorbents create secondary pollution problem.
- Synthetic sorbents come in bales of squares, rolls and sweeps, and sorbent booms and pillows.

TYPE OF SORBENT	USE / TECHNIQUE
1. Squares / Pads	- Place in confine areas to pick up small quantities of oil. Leave for a period of time for greater effectiveness - Reuse is often feasible by peeling away the outer layer or squeezing oil out with a wringer. Synthetic sorbents are expensive and use should be minimized.
2. Rolls	- Use in the same manner as pads. They are usually more convenient since they can be torn or cut off at the optimum length. - Very effective in protecting walkways, boat decks, working areas, previously contaminated or cleaned areas; use to cover areas used as temporary storage sites for oily materials - If possible reuse by removing the outer layer or squeezing out the oil

- Disposal is facilitated by rolling up sorbent and placing in a suitable container.

3. Booms

- Can serve a dual function by absorbing oil and acting as a boom but is only effective in very calm waters.
- The tightly compacted sorbent materials encased in mesh restrict oil penetration. Thus the boom has to be rotated and moved in the oil to work efficiently. It is usually better to drive the oil to the boom.
- Disposal is accomplished by folding, rolling, and/or stuffing the boom into plastic bags.

Equipment and Work Force:

- Manpower and equipment needs will depend largely upon the oil concentration, area being cleaned and degree of recovery desired.
- Rakes, pitchforks, plastic film and bags are necessary.

Effectiveness:

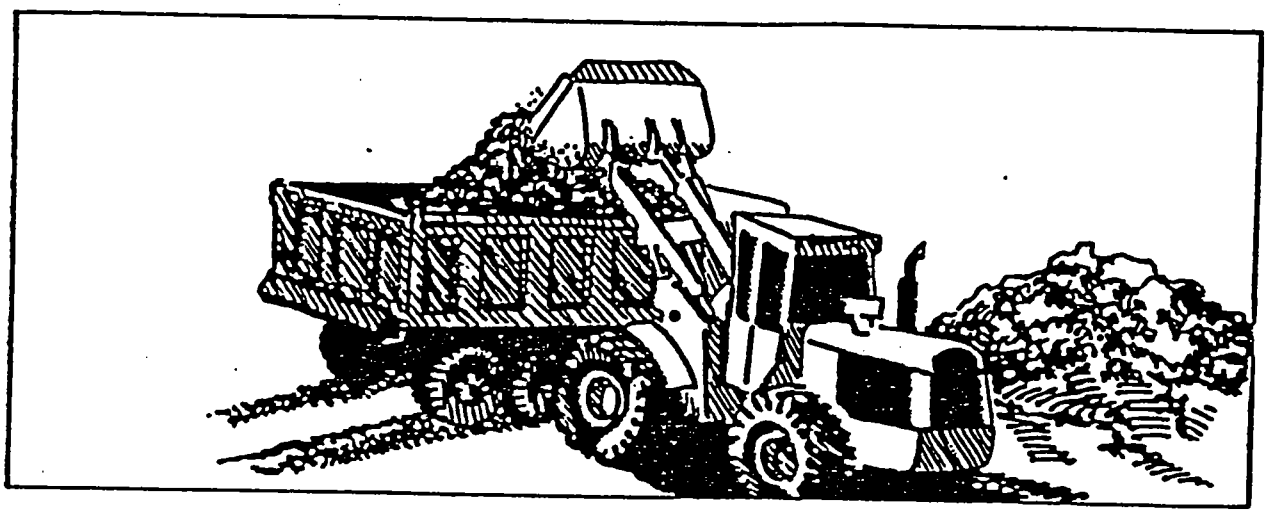
The sorbent technique is labor intensive and costly. Synthetic sorbents are not cheap, and when their cost is added to the cost of labor, this technique becomes one of the most expensive for each gallon recovered. However, for removing light oil concentrations, it is one of he most effective alternatives available. Difficulties may arise in the recovery and disposal of used sorbents.

SNOW AS SORBENT

Use:

Snow can be used to recover oil on sediment or ice.

Implementation:



- Mix snow with oil. A mulch like mixture results that can be handled easily.
- Snow can absorb between 40% and 70% oil content by volume. Higher concentrations may be found at the interface of the snow and the underlying surface.
- Remove the snow/oil mixture using shovels or a front-end loader and bag or place the mixture in lined dump trucks or containers, depending upon quantity.
- Dump contaminated snow into pits or ponds, allow to melt, and recover oil for disposal. The contaminated snow could also be placed in snow melters immediately upon recovery.

Equipment and Work Force:

- Heavy equipment including bulldozers and dump trucks would be most effective if logistics and spill magnitude warrant this approach.
- Shovels, buckets and wheelbarrows would be effective for manual removal.
- Storage and disposal systems including snow melters could be employed.

Effectiveness:

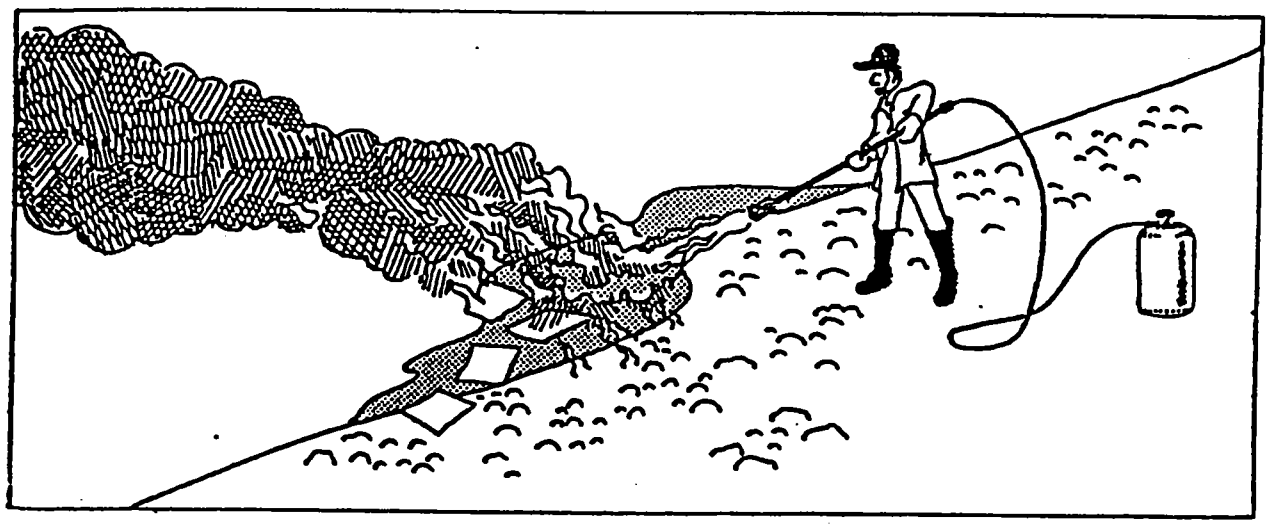
The primary advantage of this response technique is the availability of snow (in season) and the ability of snow to stop and hold oil. The disadvantages include the additional volume of contaminated material produced and the potential difficulties involved with transporting and disposing of the oiled snow.

IN-PLACE BURNING

Use:

In-place burning may be used to remove oil of adequate thickness and volatility. On solid ice, snow or frozen soil, natural containment may occur in depressions where oil is thick enough to sustain a burn.

Implementation:



AGENCY APPROVAL IS REQUIRED PRIOR TO ANY BURN.
SEE PERMITS AND AUTHORIZATIONS BELOW.

- Determine feasibility of burning by test-igniting an isolated area. Relatively high temperatures may be required for ignition. Ignition requires a volatile oil film. Diesel will burn even when only thin films are present. If fire is difficult to start, wicking agents, igniters or windbreaks may be helpful.
- Wicking agents promote the ignition of thin oil slicks by isolating and concentrating the oil for easier preheating and vaporizing. Wicking agents must be oil-wettable substances such as straw, peat moss, cinder-like materials, oily rags or sorbents.
- Prepare a plan that provides for safe, controlled burning. It may be necessary to section a large area with firebreaks to ensure controlled burning.
- Obtain a burn permit and authorization from appropriate regulatory agencies.
- Start the fire on the upwind side of the contaminated area. Multiple ignition points can greatly reduce flame spread time.
- Heat from an oil fire reduces the viscosity and increases spreading. For unconfined slicks, this thinning process eventually decreases thickness by causing the fluid to spread over a larger area or penetrate the soil until combustion is no longer supported.

Equipment and Work Force:

- For thin slicks, particularly in water, use wicking agents.
- Igniters may also be needed.
- At least two men would be required, with more manpower being needed for large burns. Always consult and coordinate with the fire department.

Effectiveness:

In-place burning of diesel oil is an attractive alternative to physically removing spilled oil. It is the spill response method requiring the lowest cost, the least time, and the least manpower. Consider burning when spilled oil is of adequate thickness and there is no danger of fire spreading to adjacent property. By-products of in-place burning are smoke from incomplete combustion and unburned residue.

Permits and Authorizations:

The Alaska Dept. of Environmental Conservation (ADEC) is the agency that issues burning permits. Burning is prohibited without a permit. Verbal authorization can be obtained with the formal written permit issued after the fact. Contact the regional office of ADEC listed in your SPCC Plan or Facility Response Plan.

Be prepared to answer the following questions:

- Type of oil
- Location
- Volume – estimated length of burn
- Have alternatives been considered
- Person in charge that accepts responsibility for carrying out the requirements of the burn permit
- Environmental consequences

Verbal authorization, if received, may be conditioned with stipulations, such as:

- ADEC person must be on scene
- Proceed only if test burn is successful
- Residues must be physically removed
- Coordinate with Federal On-Scene Coordinator

The final written permit will be issued to the responsible company official making the request and will be hand carried or sent by mail.

The U.S. Coast Guard and/or Environmental Protection Agency may also be required to approve a burn depending of location. The Coast Guard authorizes coastal and offshore burns, while the EPA authorizes burning on inland waters above the mean high tide. These authorizations are necessary, because the Federal Government must evaluate the method for consistency with the statutory provisions of the Clean Water Act and the National Contingency Plan.

Close coordination with the Federal On-Scene Coordinator is necessary to ensure that your reasons and rationale have been communicated and agreed upon in advance. The On-Scene Coordinator requires justification for any burn proposal.

MANUAL REMOVAL

Use:

Manual removal can be used when oil contamination is light or sporadic and penetration of sediment is low or when other techniques are not feasible.

Implementation:

- Oiled vegetation, debris and sediments are collected by manual laborers and placed in bags for removal and disposal.
- Wear protective gloves, boots and hand cream.
- Cut and/or collect contaminated material into small piles.
- Do not rake vegetation, and limit traffic on vegetation.
- Fill plastic bags half full with contaminated material.
- Place filled bags on plastic sheets or in storage containers located above high water line.
- Bags may be removed by hand, by vehicle, or by helicopter, or they can be loaded onto small boats or barges from shoreline or makeshift docks.

Equipment and Work Force:

- Rakes, shovels, and hand scrappers are needed to gather and pick up oil.
- Plastic bags, drums, lined containers are alternatives for storage.
- Chainsaws may also be needed to cut up oiled wood.

Effectiveness:

Although time-consuming, labor-intensive and costly, manual removal can be one of the most effective techniques for cleaning oil on shorelines while minimizing the amount of sediment and debris collected. In addition, areas that would be difficult to access with heavy machinery can be reached by work crews.

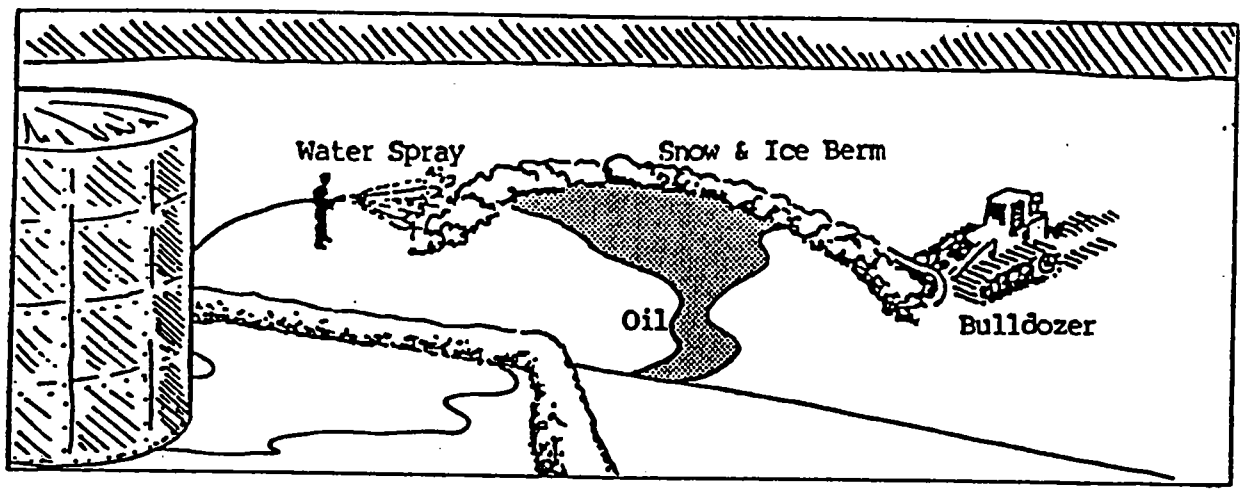
Care should be taken to limit access to vegetated areas. Too much traffic over an area could result in more damage than leaving the oil in place.

SNOW BERMS

Use:

Snow berms are used to quickly divert or contain oil on solid ice or frozen soil when an adequate snow supply is available.

Implementation:



- Locate the berm to intercept the path of advancing spilled oil.
- Construct the berm. Pile available snow using hand shovels or construction equipment. Construction equipment is preferred if it is available and logistically feasible.
- Snow and oil weight is an important consideration on solid ice. The weight could cause the ice to deflect, crack, and be flooded.
- For greater durability, lightly spray the berm with water to create an ice liner.
- If oil seepage occurs between the snow and ice or soil, compact the berm and spray the bottom of the berm with water and allow to freeze.

Equipment and Work Force:

- If ice thickness and logistics permit, use heavy equipment such as truck-mounted plows, bulldozers or front-end loaders.
- Otherwise, hand shovels and laborers would be needed.
- If an ice liner is desired, then an ice auger, pump, hose and spray nozzle are necessary.
- Continuous maintenance to strengthen eroded or saturated portions of the berm will require at least two persons.

Effectiveness:

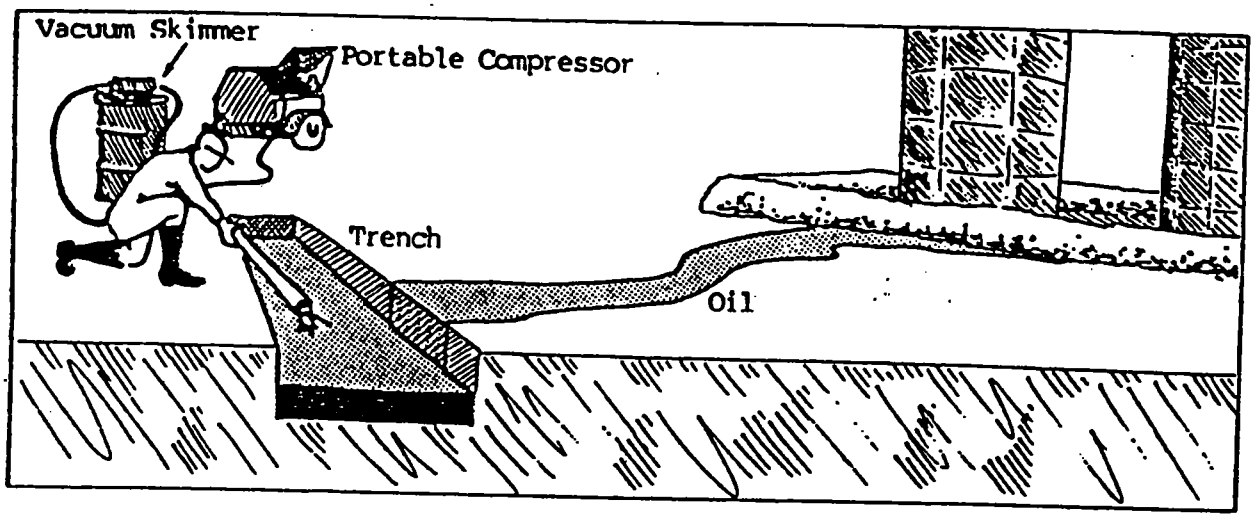
When snow and ice or soil conditions permit, snow berms are one of the most effective containment techniques available. However, light powder snow is difficult to berm under windy conditions. Oil seepage may occur between the snow and ice or soil. In addition, a large volume of ice or snow forming the berm may become contaminated with oil. Disposal of oiled snow may be feasible by incineration.

DIRECT SUCTION

Use:

Direct suction is used to recover oil pooled on ice, water or soil or contained within the oil storage containment dike.

Implementation:



- Oil should be concentrated and thick, particularly if on water. Use a skimmer or sorbents for thin layers of oil on water.
- Operate suction hose from a pump, truck or portable vacuum system to recover oil directly.
- When slush ice or debris is present, use suction screens to prevent hose plugging or pump damage.
- Ice buildup within the hose or pump can reduce transfer rates.
- Take care when removing oil from the surface of water so that as little water as possible is picked up and the volumes to be handled are minimized.

Equipment and Work Force:

- This technique requires either a pump or vacuum system with a power source and fuel.
- Transfer hose and storage containers.

Effectiveness:

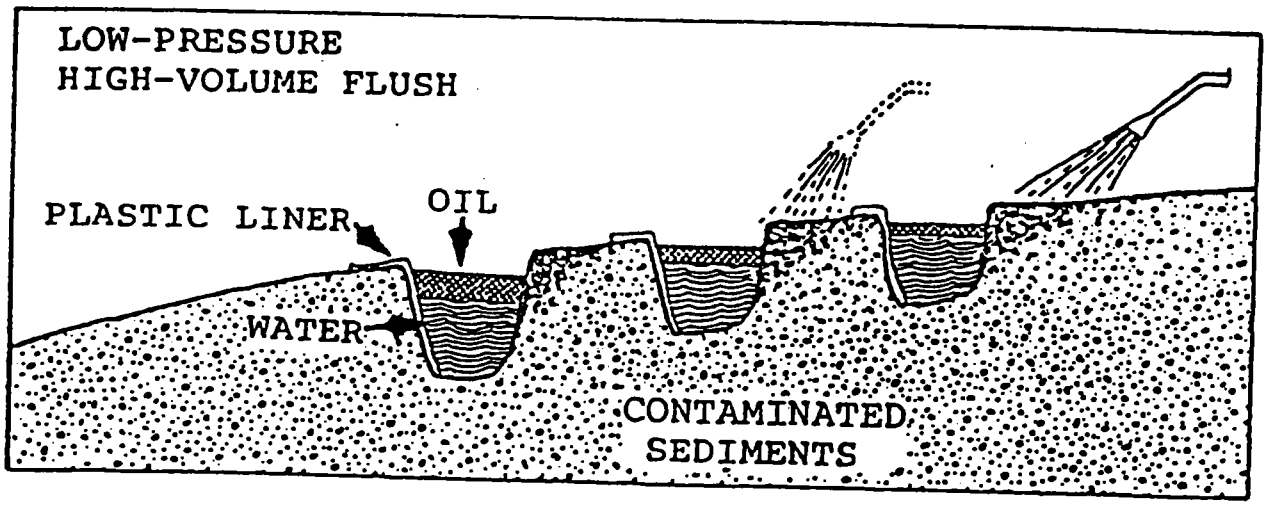
For a thick oil accumulation that is fluid, direct suction is the best mechanical removal technique. In-place burning is another alternative if safety considerations are not paramount.

DITICHING AND LOW-PRESSURE FLUSHING

Use:

This technique is used to remove oil that has penetrated sediments. It is to be used only when the ground is thawed and when a water supply is available.

Implementation:



- Before flushing, dig test holes to determine depth and extent of contaminated area.
- Dig ditches to water table or other impermeable layers around and through the contaminated area.
- Ditches should be on the down slope side of the spill.
- Before beginning surface flushing, do test flushing to determine sediment stability and technique effectiveness. Water flow may wash away fine sediments or force oil deeper into coarser, more permeable materials. Do not consider flushing on unconsolidated cliffs or other steep slopes where severe erosion will result.
- Control water pressure and volume to achieve the best results with minimal damage. Soaking the substrate will generally float oil off the surface without adverse effects.
- Begin flushing at the highest contaminated point and work down slope directing oil and water runoff into contaminated areas for later cleanup. Keep runoff within already contaminated areas.
- Use sorbent materials or skimmer to collect oil flushed into the ditches.

Equipment and Work Force:

- Flushing units would consist of pumps and hoses.
- Trenches could be dug either by shovel or heavy equipment depending upon the extent of excavation required.
- Skimmers, sorbents, or burning in-place may be used to remove oil from trenches.

Effectiveness:

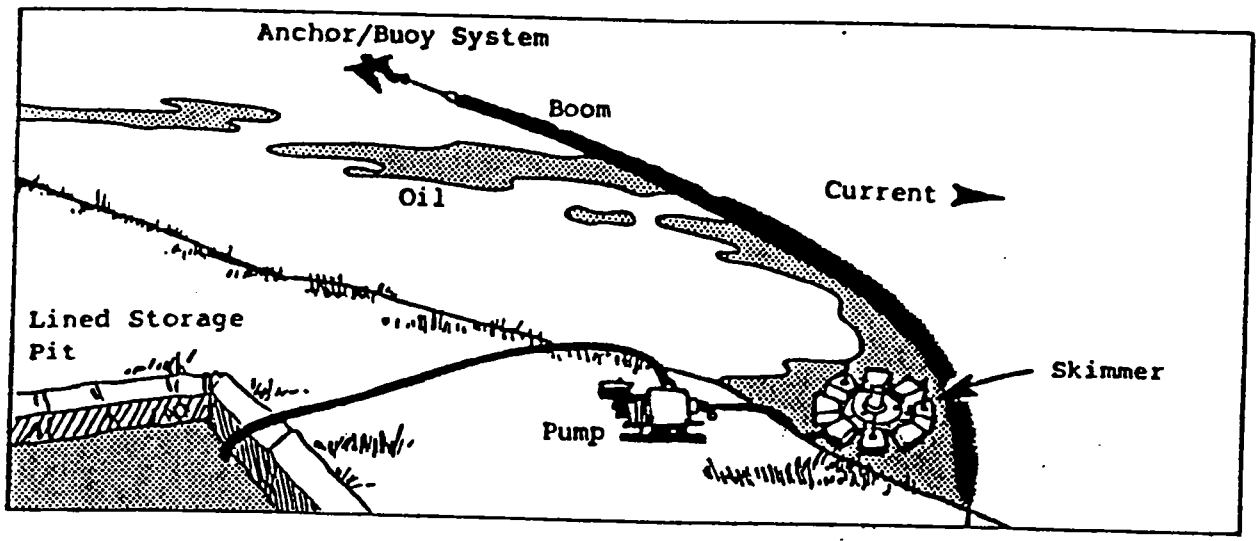
Low pressure flushing is one of the most practical methods available for removing oil that has penetrated sediments. This method is slow and little oil may be recovered. In addition, this technique is effective in washing away non-sticky oil from surfaces. When oil is on the surface, care should be taken that the flushing does not drive the oil further into the sediments. Low-pressure flushing is preferred to high-pressure flushing.

DIVERSION BOOMING AND SKIMMING

Use:

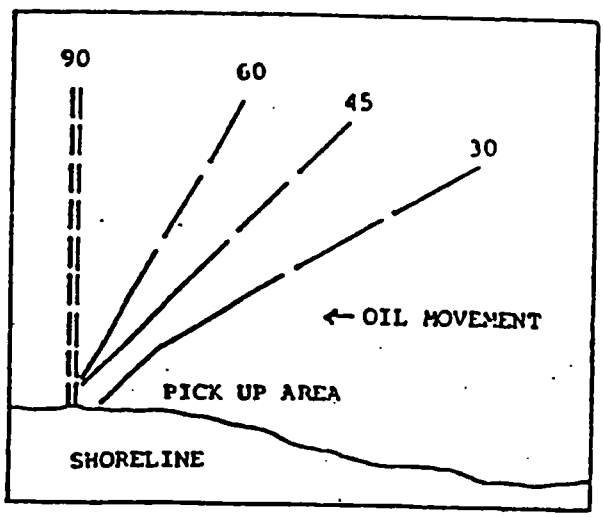
This technique is used to contain oil along shorelines or to divert oil away from sensitive areas.

Implementation:



- Anchor a length of boom onshore with a deadman or pole anchor. Deadman anchors are made by putting a chain on a log and burying the log.
- Angle the boom from the shore using a small boat.
- Current speed and direction will determine boom angle. The angle, in turn, determines boom length required.

CURRENT (KTS)	CURRENT (FPS)	BOOM ANGLE (WITH CURRENT)
1.5	2.5	70°
1.6	2.7	60°
1.7	2.8	55°
1.8	3.0	50°
2.0	3.4	45°
2.2	3.7	40°
2.5	4.2	35°
2.8	4.8	30°



- For successful booming, water velocity perpendicular to the boom must be one knot or less. In other than intertidal areas, water depth must be at least twice the boom draft.
- Hold the boom's seaward end in place with an anchor-buoy system or workboat.

- Since diversion booms cause a significant reduction in surface current successive booms can be deployed at increasingly larger angles as the current decreases.

- Along the boom pocket, place either a skimmer or sorbents for oil recovery. Direct suction may be possible if oil accumulation is sufficient.

Equipment and Work Force:

- Containment booms would be required.
- A deadman or pole anchor would be needed for shore, while a sea anchor with chain line, weights, and buoy would be required to secure the offshore end of the boom.
- A skimmer, sorbents and/or a pump for direct suction would be needed.
- Storage and disposal systems are required.
- Manpower would largely depend upon the scale of operation, with at least four men to implement a small response.

Effectiveness:

This is a good method to contain and recover oil moving along the shore. Containment can be achieved in currents up to 2.8 knots; however, it is limited when waves breaking on shore exceed boom freeboard.