

5.0 CITY OF KWIGILLINGOK

There are six bulk fuel facilities identified in Kwigillingok as well as one additional private residential site that exceed the 660/1500 gallon tank farm threshold. This residential site contains 11 tanks with a total capacity of 5,500 gallons of gasoline and fuel oil.

The bulk fuel facilities are owned and operated by:

1. Kwigillingok School, LKSD
2. Kwig Incorporated, Washeteria
3. Old BIA School, LKSD
4. Kwig Incorporated & Kwigillingok Village Council, Powerhouse and Retail Sales
5. Alaska Army National Guard, Armory
6. Kwig Incorporated, Storage

Flood hazard is moderate, and no serious flooding occurs. The village sits on the bank of the Kwigillingok River.

There is one public airport located in Kwigillingok with a 3,000 ft. gravel runway. There are no dock facilities in Kwigillingok.

There are no known waste heat recovery systems in Kwigillingok.

The consolidation of the Kwig Incorporated & Kwigillingok Village Council tank farms (Tank Farm #4) is about complete. This state-of-the-art tank farm is what all villages should work to obtain.

5.1 TANK FARM NUMBER 1 – LOWER KUSKOKWIM SCHOOL DISTRICT

The Lower Kuskokwim School District operates this tank farm for the storage and supply of heating fuel for the various buildings on the school grounds (i.e., school, generators, and teacher housing). The tank farm is located inland, approximately 1,800 ft. from the bank of the Kwigillingok River.. There is a 3 ft. high wood dike with a liner and sheet metal cover. The dike and liner are in fair condition, but the sheet metal cover is missing or pulled away in a number of locations. There is no fence surrounding any tanks in this facility. The tank farm consists of two vertical, welded steel, single wall tanks. The tanks are in fair condition with extensive rust at the base of the tanks. The tanks are set on heavy timber foundations within the diked area, but there is some settling under the tanks. The tanks are equipped with a manhole and normal vent on top and a manway on the side. None of the tanks have emergency venting. Bronze gate valves are used on the tanks. The tank valves are not locked. The tanks are connected to a threaded steel piping manifold system. This pipe is connected to the threaded steel fill pipe and the threaded steel fuel oil supply pipe. The fuel oil supply is routed to the transfer pump and then to the school buildings. The tanks receives fuel via a common fill line with Tank Farm #2. The tanks are filled by the fuel barge during its delivery to the village.. The fill station at the bank of the river has a check valve and a pipe cap. There were two piping leaks identified during the survey.

TANK FARM 1, KWIGILLINGOK, ALASKA					
TANK NO.	DIAMETER (FT)	HEIGHT/ LENGTH (FT)	VERTICAL/ HORIZONTAL	GASOLINE/ HEATING FUEL	CALCULATED CAPACITY (GALLONS)
1	23' 10"	12' 0"	V	HF	40,000
2	24' 0"	12' 0"	V	HF	40,000
Total (gal)					80,000

5.2 TANK FARM NUMBER 2 – KWIG INCORPORATED

The Kwig Incorporated (Village Corporation) operates this tank farm for the storage and supply of heating fuel for the Washeteria. The tank farm is located approximately ½ mile from the bank of the Kwigillingok River. The tank farm consists of one horizontal, welded steel, skid mounted, double wall, diked tank. The tanks are in very good condition. The tank is set on a light timber foundation. The tank is equipped with a manhole on top. The tank has a normal vent, but not an emergency vent. A separate dike and liner is not required. Bronze gate valves are used on the tank. The tank valves are not locked. The tank is connected to a steel piping fill system with grooved (victaulic) fittings. The fuel oil supply pipe is steel with threaded fittings. The fuel oil supply is routed from the transfer pump with meter (inside the dike enclosure) to the Washeteria day tank. The tank receives fuel via a common fill line with Tank Farm #1. The tank is filled by the fuel barge during its delivery to the village.. The fill station at the bank of the river has a check valve and a pipe cap. There was one valve thread leak, at the tank drain, identified during the survey.

TANK FARM 2, KWIGILLINGOK, ALASKA					
TANK NO.	DIAMETER (FT)	HEIGHT/ LENGTH (FT)	VERTICAL/ HORIZONTAL	GASOLINE/ HEATING FUEL	CALCULATED CAPACITY (GALLONS)
1	8' 0"	27' 0"	H	HF	10,000
Total (gal)					10,000

5.3 TANK FARM NUMBER 3 – LOWER KUSKOKWIM SCHOOL DISTRICT

The Lower Kuskokwim School District owns this tank farm for the old abandoned BIA school buildings. The tank farm is located approximately 450 feet from the bank of the Kwigillingok River. This facility has been abandoned and the tank farm disconnected. The four BIA style tanks have a capacity of 32,500 gallons. There is no plans to reuse this tank farm and the facility is not usable in its current condition (except for tank #1).

The tank farm is listed here because Kwig Incorporated (Village Corporation) has been using tank #1 for temporary storage until the consolidated tank farm is completed. There is no dike or liner around this tank farm. No fence surrounds the tanks in this facility. The tank farm consists of four vertical, welded steel, single wall tanks. These tanks are BIA type tanks with a removable roof. Tank #2, 3 & 4 are abandoned and the tanks disconnected. Tank #1 is currently used and in fair condition with a significant amount of rust. These tanks are set on heavy timber foundations. Tank #1 is equipped with a manhole and normal vent on top. Tank #1 does not have emergency venting. A steel ball valves is used on tank #1. The tank valve is not locked. Tank #1 is connected to a steel piping fill system with threaded fittings. Tank #1 receives fuel via the fill line. The tank is filled by the fuel barge during its delivery to the village. The fill station has a gate valve and cap. No fuel leaks were observed during the survey.

TANK FARM 3, KWIGILLINGOK, ALASKA					
TANK NO.	DIAMETER (FT)	HEIGHT/ LENGTH (FT)	VERTICAL/ HORIZONTAL	GASOLINE/ HEATING FUEL	CALCULATED CAPACITY (GALLONS)
1	9' 10"	13' 6"	V	HF	7,600
2	9' 4"	13' 6"	V	N/A	6,900
3	10' 6"	13' 6"	V	N/A	8,700
4	10' 10"	13' 6"	V	N/A	9,300
Total (gal)			V		32,500

5.4 TANK FARM NUMBER 4 – KWIG INCORPORATED & VILLAGE COUNCIL

Kwig Incorporated and the Kwigillingok Village Council operate this new consolidated tank farm for storage, supply, and dispensing of gasoline and diesel fuel to the village residents and to supply diesel for the powerhouse. The tank farm is located approximately 400 feet from the bank of the Kwigillingok River. There is a welded steel, 1.75 ft. high dike around all tanks in the tank farm. The dike is new and in good condition. A 6 ft. high fence surrounds the tanks with a locked gate. The tank farm consists of four vertical, welded steel, single wall tanks. These tanks are BIA type tanks with a removable roof. The tank farm also consists of seven horizontal, welded steel, single wall tanks and one welded steel, double wall tank. All tanks have been upgraded to UL standards before reinstallation in this new tank farm. All tanks are in essentially new condition and supported on steel foundations. All tanks are equipped with a manhole on top, a normal vent, and an emergency vent. All tanks are equipped with steel ball valves. All tanks are connected with a welded steel piping manifold system to the appropriate fuel system feeding the dispensers or powerhouse. All tanks receive fuel via their respective piping manifold systems. The fill stations at the river have a ball valve, check valve, and camlock fitting. All tanks are filled by the fuel barge during its delivery to the village. No fuel leaks were observed during the survey.

TANK FARM 7, KWIGILLINGOK, ALASKA					
TANK NO.	DIAMETER (FT)	HEIGHT/ LENGTH (FT)	VERTICAL/ HORIZONTAL	GASOLINE/ HEATING FUEL	CALCULATED CAPACITY (GALLONS)
1	10' 0"	40' 0"	H	G	23,500
2	10' 0"	40' 0"	H	G	23,500
3	10' 0"	40' 0"	H	HF	23,500
4	11' 0"	13' 6"	V	HF	9,600
5	10' 2"	13' 6"	V	HF	8,200
6	10' 6"	13' 6"	V	HF	8,700
7	8' 8"	13' 6"	V	HF	5,900
8	8' 0"	23' 0"	H	G & HF	4,300/4,300
9	8' 0"	27' 0"	H	HF	10,100
10	8' 0"	27' 0"	H	HF	10,100
11	8' 0"	27' 0"	H	HF	10,100
12	8' 0"	27' 0"	H	HF	10,100
Total (gal)					151,900

5.5 TANK FARM NUMBER 5 – ALASKA ARMY NATIONAL GUARD

The Alaska Army National Guard operates this tank farm for storage of heating fuel for the National Guard Armory. The tank farm is located adjacent to the armory and approximately 900 feet from the bank of the Kwigillingok River. No fence surrounds the tanks at this facility. The tank farm consists of one horizontal, welded steel, skid mounted, UL listed, double wall tank and one abandoned, horizontal, welded steel tank. Tank #1 is in good condition with little rust. Tank #2 (abandoned) is in fair condition with extensive rust. Tank #1 is set directly on grade and tank #2 is supported on a heavy timber platform. The tanks both have a normal vent and tank #1 has an emergency vent. Bronze ball valves are used on the fuel oil supply and return piping (tank #1 only). The piping from tank #1 to the armory building is steel pipe with threaded fittings. There is no piping from tank #2 to the armory building. Tank #1 is filled manually by the Kwigillingok Village Corporation. No fuel leaks were observed during the survey.

TANK FARM 5, KWIGILLINGOK, ALASKA					
TANK NO.	DIAMETER (FT)	HEIGHT/ LENGTH (FT)	VERTICAL/ HORIZONTAL	GASOLINE/ HEATING FUEL	CALCULATED CAPACITY (GALLONS)
1	5' 4"	11' 0"	H	HF	1,800
2	6' 0"	12' 0"	H	N/A	2,500
Total (gal)					4,300

5.6 TANK FARM NUMBER 6 – KWIG INCORPORATED

Kwig Incorporated owns this tank farm adjacent to the old abandoned BIA school building. The tank farm is located approximately 150 feet from the bank of the Kwigillingok River. This facility has been abandoned and seven of the tanks have been moved to the consolidated tank farm (Tank Farm #4). There is no plans to reuse this tank farm. The tank farm is listed here because Kwig Incorporated has been using tank #1 for temporary storage until the consolidated tank farm is completed. There is no dike or liner around this tank farm. No fence surrounds the tank in this facility. The tank farm consists of one vertical, welded steel, single wall tanks. This tank is a BIA type tank with a removable roof. Tank #1 is in fair condition with some rust. The tank is set on a heavy timber foundation. The tank is equipped with a manhole and normal vent on top, but not an emergency vent. A steel ball valve is used on tank #1. The tank valve is not locked. Tank #1 is connected to a steel piping fill system with threaded fittings. Tank #1 receives fuel via the fill line. The tank is filled by the fuel barge during its delivery to the village. The fill station has a gate valve and cap. A single piping fuel leaks was observed during the survey.

TANK FARM 6, KWIGILLINGOK, ALASKA					
TANK NO.	DIAMETER (FT)	HEIGHT/ LENGTH (FT)	VERTICAL/ HORIZONTAL	GASOLINE/ HEATING FUEL	CALCULATED CAPACITY (GALLONS)
1	8' 0"	13' 6"	V	G	5,000
Total (gal)					5,000

Comm. Code: 33407

Community: Kwigillingok

COMMUNITY DATA:

Population: 324

Elec. Dist.: 39

Region: SW

BF Inventory Complete?

All accounted for

CG Changed: 39

Fuel Suppliers:

Consolidation Opportunities? No. TF consolidation complete.

NATIVE AFFILIATIONS:

Corp. for Profit: Calista Corp.

Corp. Non-Profit: Association of Village Council Presidents (AVCP)

Village Corp.: Kwik Incorporated

IRA or Trad. Coun.: Native Village of Kwigillingok

Other Affiliations: AVCP Regional Housing Authority

TANK FARM SUMMARY:

Tank Farm ID	Total Capacity	Latest Eval or Action Date	Latest Estimate of Cost to Fix	Owner Type
1	80,000	6/25/1998	\$0	School
2	10,000	6/25/1998	\$0	Village Corporation
3	32,500	6/25/1998	\$0	School
4	151,900	6/25/1998	\$0	Village Corporation
5	4,300	6/25/1998	\$0	Dept. of Military & Veterans Affairs
6	5,000	6/25/1998	\$0	ANCSA village corporation

HISTORICAL FUNDS:

Approp.:	Year:	Expenditures:	Comments:
32394	1991	\$5,118	Kwigillingok BFRepair LC81825711
32480	1993	\$11,383	Kwigillingok IRA BF Design LC81825724

TANK FARMS:

ID: 1

Owner Type Code: S

Owner For Profit?: No

Capacity

Owner Type: School

Total (gal): 80,000

Diesel (gal): 80,000

Gas. (gal):

Other (gal):

Owner Name and Address:

Lower Kuskokwim Schools
P.O. Box 305
Bethel, AK 99559

Owner Phone #'s:

543-4800; local - 588-8629, fax 588-8613

Other Entities:

Tank Farm Description:

Comm. Code: 33407

Community: Kwigillingok

Evaluation Date	Evaluation Points Assigned							Remaining Cost to Fix	
	Site	Diking	Found.	Tanks	Piping	Electr.	LHS		Total
6/25/1998	0	0	0	0	30	0	20	50	\$0

Deficiencies and Recommendations:

Inadequate fencing-none
Fire Extinguishers
No emergency venting
Improper valve material bronze
Tanks not labeled.
Active leaks
No cathodic protection
Valves not locked
No fill drip pan 84 gallons Required
No pressure relief
No EPA SPCC
No EPA FRP
No CG FRP

Comm. Code: Community:

ID: Owner Type Code: Owner For Profit?:

Owner Type:

Capacity	
Total (gal):	10,000
Diesel (gal):	10,000
Gas. (gal):	
Other (gal):	

Owner Name and Address:

Owner Phone #'s:

Other Entities:

Tank Farm Description:

Evaluation Date	Evaluation Points Assigned								Remaining Cost to Fix
	Site	Diking	Found.	Tanks	Piping	Electr.	LHS	Total	
6/25/1998	0	0	5	0	50	0	20	75	\$0

Deficiencies and Recommendations:

Inadequate fencing-none
No warning or identification signs
Fire Extinguishers
No emergency venting
Improper tank foundations-lightweight timber
Improper valve material bronze
Tanks not labeled.
Active leaks @ tank drain
No cathodic protection
Valves not locked
No fill drip pan 84 gallons Required
No pressure relief
No EPA SPCC
No CG Ops manual
No CG FRP

Action Date: Eval. Date (if appl.): Remaining Cost:

Action Taken:

Deficiencies and Recommendations Remaining:

Action Funds Expended:

Fund Type: Fund Code:
Ledger Code:
CC Code:
Appropriation: Amount:

Comm. Code: 33407 Community: Kwigillingok

ID: 3 Owner Type Code: S Owner For Profit?: No

Owner Type: School

Capacity	
Total (gal):	32,500
Diesel (gal):	7,600
Gas. (gal):	
Other (gal):	

Owner Name and Address:

Lower Kuskokwim Schools
P.O. Box 305
Bethel, AK 99559

Owner Phone #'s:

543-4800; local - 588-8629, fax 588-8613

Other Entities:

Tank Farm Description:

Evaluation Date	Evaluation Points Assigned								Remaining Cost to Fix
	Site	Diking	Found.	Tanks	Piping	Electr.	LHS	Total	
6/25/1998	0	30	0	10	10	0	10	60	\$0

Deficiencies and Recommendations:

Inadequate diking-none
 Inadequate fencing-none
 No warning or identification signs
 Fire Extinguishers
 Severe tank damage or rust
 No emergency venting
 Improper valve material bronze
 Tanks not labeled.
 No cathodic protection
 Improper supports
 No check valve at fill point
 No fill drip pan 84 gallons Required
 No pressure relief
 No EPA SPCC
 No CG Ops manual
 No CG FRP

Comm. Code: 33407 Community: Kwigillingok

ID: 4 Owner Type Code: NV Owner For Profit?: Yes

Owner Type: Village Corporation

Capacity	
Total (gal):	151,900
Diesel (gal):	100,600
Gas. (gal):	51,300
Other (gal):	

Owner Name and Address:

Kwig Inc.
P.O. Box 50
Kwigillingok, AK 99622

Owner Phone #'s:

588-8112, KVC 588-8114

Other Entities:

Kwigillingok Village Council
P.O. Box 49
Kwigillingok, AK 99622

Tank Farm Description:

Evaluation Date	Evaluation Points Assigned								Remaining Cost to Fix
	Site	Diking	Found.	Tanks	Piping	Electr.	LHS	Total	
6/25/1998	0	0	0	0	0	0	0	0	\$0

Deficiencies and Recommendations:

ID: 5 Owner Type Code: GM Owner For Profit?: No

Owner Type: Dept. of Military & Veterans Affairs

Capacity	
Total (gal):	4,300
Diesel (gal):	1,800
Gas. (gal):	
Other (gal):	

Owner Name and Address:

Alaska Army National Guard
P.O. Box 5800
Ft. Richardson, AK 99505

Owner Phone #'s:

428-6783

Other Entities:

Tank Farm Description:

Evaluation Date	Evaluation Points Assigned								Remaining Cost to Fix
	Site	Diking	Found.	Tanks	Piping	Electr.	LHS	Total	
6/25/1998	0	0	0	0	10	0	10	20	\$0

Deficiencies and Recommendations:

Inadequate separation tank to well/building/prop.line-3' to building
Inadequate fencing
No warning or identification signs
Fire Extinguishers
Improper valve material bronze-tf2
No cathodic protection
Valves not locked

Comm. Code: 33407 Community: Kwigillingok

ID: 6 Owner Type Code: NV Owner For Profit?: No

Owner Type: ANCSA village corporation

Capacity
Total (gal): 5,000
Diesel (gal):
Gas. (gal): 5,000
Other (gal):

Owner Name and Address:
Kwig Inc.
P.O. Box 50
Kwigillingok, AK 99622

Owner Phone #'s:
588-8112

Other Entities:

Tank Farm Description:

Evaluation Date	Evaluation Points Assigned								Remaining Cost to Fix
	Site	Diking	Found.	Tanks	Piping	Electr.	LHS	Total	
6/25/1998	0	30	0	0	10	0	20	60	\$0

Deficiencies and Recommendations:

- Inadequate diking-none
- Inadequate fencing-none
- No warning or identification signs
- Fire Extinguishers
- No emergency venting
- Tanks not labeled.
- Active leaks
- No cathodic protection
- Improper supports-not enough supports
- Valves not locked
- No check valve at fill point
- No fill drip pan 84 gallons Required
- No pressure relief
- No EPA SPCC
- No CG Ops manual
- No CG FRP