

KOKHANOK VILLAGE COUNCIL BULK FUEL FACILITY AND ELECTRIC UTILITY UPGRADE PROJECT



MONITORING PLAN AND RECOMMENDATIONS

Prepared for:
ALASKA ENERGY AUTHORITY (AEA)

JULY 31, 2005

Prepared by:

AURORA CONSULTING
880 H Street, Suite 105
Anchorage, AK 99501
Ph. (907) 245-9245
Fax (907) 245-9244
EMAIL: us@auroraconsulting.org



TABLE OF CONTENTS

OVERVIEW	1
BULK FUEL AND ELECTRIC UTILITY MANAGEMENT/OPERATIONAL SKILLS	5
Financial Management.....	5
Personnel Management	7
Operations Management.....	8
BUSINESS OPERATING PLAN COMPLIANCE	9
Financial Management.....	9
Personnel Management	11
Operations Management.....	12
RECOMMENDATIONS	13
TRIP PHOTOS	14

OVERVIEW

This Monitoring Plan and Recommendations was completed under contract to the Alaska Energy Authority as a follow-up to a Bulk Fuel and Electric Utility Upgrade project in Kokhanok, Alaska. The new bulk fuel storage facility consists of three diesel primary storage tanks, one diesel intermediate storage tank, one gasoline primary storage tank, one gasoline intermediate storage tank, one gasoline dispenser, one diesel dispenser, one marine header and a fuel transfer pipeline. The new electric utility facility consists of four diesel engine generators, automated switchgear, fuel handling, and a step-up transformer bank. A component of the upgrade project is the development of a Business Operating Plan, which provides a guideline for the Kokhanok Village Council's maintenance and operation and sustainability of the Bulk Fuel and Electric Utility Upgrade (the "Facility"). The Kokhanok Village Council, (the "Primary Operator") is responsible to operate and sustain the newly installed Facility according to the criteria and guidelines outlined in the Business Operating Plan.

Facility Participant

The Facility participant is:

Kokhanok Village Council (Council)

Primary Contact Name: Terry Mann, Utility Manager

Phone: (907) 282-2202 Fax: (907) 282-2264

Address: Kokhanok Village Council, P.O. Box 1007, Kokhanok, AK 99606

Usage: The Council will utilize its facility to operate its utilities and to retail fuel.

Facility Components & Capacity

The following table provides a summary of the tankage, by type of fuel that is included in the Facility upgrade:

Primary Storage/Dispensing	Number	Gallons Per Tank (Net)	Total Gallons (Net)
Council			
Diesel			
Primary Storage	3	18,000	54,000
Dispensing	1	3,600	3,600
Subtotal Diesel	4		57,600
Gasoline			
Primary Storage	1	18,000	18,000
Dispensing	1	3,600	3,600
Subtotal Gasoline	2		21,600
Total Primary Storage/Dispensing	6		79,200
Pipeline Components			
	Number		
Marine Header	1		
Filler Pipelines	2		
Dual-Fuel Retail Dispenser	1		

The electric generation capacity of the Facility is 490 kW, using four generators, which feed load sensing switchgear and step up transformers. The generators are sized so that the largest generator can handle peak loading during the winter. The Facility's power generation capacity is in excess of its present usage. The initial annual estimated kWh consumption by the community is estimated to be 302,121 kWh; growing to 308,209 kWh by year five and 315,992 kWh by year ten.

Community Information

The village of Kokhanok is located on the south shore of Iliamna Lake, 22 miles south of Iliamna and 88 miles northeast of King Salmon. Kokhanok is accessible both by air and by water. A state-owned 3,400' gravel airstrip and a seaplane base serve scheduled and charter air services from Anchorage, Iliamna, and King Salmon. There is no docking facility in Kokhanok and supplies are delivered by barge via the Kvichak River and lightered to shore.

The population of Kokhanok is diverse with a mixed Native population that consists primarily of Aleuts. The residents of Kokhanok rely heavily upon subsistence activities, particularly since commercial fishing has declined throughout the area. Bedrock has made the development of water and sewer facilities difficult. The Council operates a piped water and sewer system that serves 35 households. Selected demographic and historical data for the community is provided below:

Selected Statistics – Kokhanok

Population	
2000	174
1990	152
1980	83
1970	88
1960	57
1950	39
Housing (2000 Data)	
Occupied Housing	52
Vacant Housing Due to Seasonal Use	6
Other Vacant Housing	1
Economic Data (2000 Data)	
Unemployment Rate	11.4%
Median Household Income	\$19,583

Kokhanok Village Council

The Kokhanok Village Council manages the following utilities and services: electric, water, sewer, septic pumping service, refuse and landfill. The village piped water and sewer system serves 35 households and the school. Currently, community residents and organizations pay for electric, water and sewer.

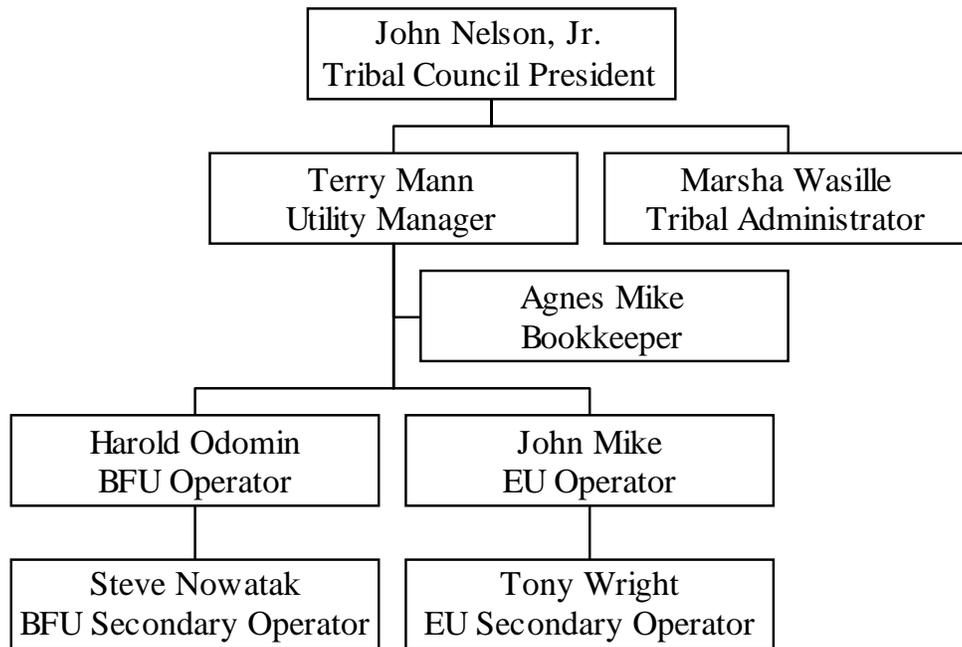
The Council currently generates electricity year-round for the village. During the school year, the school generates its own power. During the summer months, the school purchases electric services from the village. The Council maintains the generator plant, monitors electric meters at residences and commercial businesses, and collects electrical fees. Currently, residents are paying approximately \$.33 per kWh, after PCE, for the first 500 kWh used, and then \$.60 per kWh for any consumption over 500 kWh. Commercial businesses are paying approximately \$.60 per kWh.

The Council purchases fuel approximately one time per year from Yukon Fuels; by barge when water access is available. When Yukon Fuels cannot deliver, fuel is purchased in smaller multiple shipments from Everett Air. Fuel is purchased for approximately \$3.51 per gallon/diesel and \$3.66 per gallon/gasoline. Residents and commercial businesses pay \$4.00 per gallon/diesel and \$5.00 per gallon/gasoline. The Council does not currently own or operate a fuel truck for delivering heating fuel to homes and organizations, but would like to have that ability in the future.

Since the Business Operating Plan, dated March 1, 2003, was finalized there has been complete staff turnover at the Council's bulk fuel facility and electric utility.

The following chart illustrates the new staff relationships of the Council's bulk fuel facility and electric utility:

**KOKHANOK VILLAGE COUNCIL
BULK FUEL FACILITY AND ELECTRIC UTILITY PROJECT
STAFFING ORGANIZATIONAL CHART**



Monitoring Site Visit

The Alaska Energy Authority contracted with Aurora Consulting, of Anchorage Alaska, to conduct a site visit to the Kokhanok Village Council's Facility and to develop a "*Monitoring Plan and Recommendations*". The scope of the assignment included working with the Council to obtain information on existing management and operational systems, comparing those systems to Business Operating Plan requirements and other "best practices", making recommendations for changes and/or training, developing ongoing monitoring tools, and/or working to cure any deficiencies or defaults experienced by the Council.

Aurora Consulting staff member, Christi Bell, traveled to Kokhanok on June 8, 2005, to meet with the Council's bulk fuel facility and electric utility management and staff, including:

Contacts	Title
Terry Mann	Utility Manager
Agnes Mike	Bookkeeper
Marsha Wasille	Tribal Administrator

Monitoring Plan and Recommendations

The following Monitoring Plan and Recommendations is organized into three sections:

- Management and Operational Skills
- Business Operating Plan Compliance
- Recommendations

Management and operational skills identify those skills and practices that are crucial to the short-term viability of a bulk fuel facility and electric utility, while Business Operating Plan compliance areas identify those activities that are required by the Denali Commission approved Business Operating Plan.

Management skills include administration, fiscal systems and collections. Operational skills include the ability to perform maintenance, repair and operation of the bulk fuel facility and power generation facility. Both skill sets require knowledgeable and trained managers, bookkeepers and facility operators to manage and operate the facilities on a daily basis. In contrast, the business operating compliance section details the key activities and actions that are required to be completed by the Primary Operator in order to be in compliance with the terms and conditions of their Business Operating Plan.

Additionally, this report includes major recommendations for continued actions and training, which are detailed in the conclusion section of this report. These recommendations are limited to those actions necessary to meet the deficient management and operational skills or Business Operating Plan compliance areas.

**BULK FUEL FACILITY AND ELECTRIC UTILITY
FACILITY MANAGEMENT / OPERATIONAL SKILLS**

Financial Management

(1=Lowest Skill Level 5= Highest Skill Level)

1	2	3	4	5	<i>Financial Management Skill Areas</i>
<i>Annual Budget</i>					
x					Develop and utilize budgeting process
		x			Staff understanding of budget
<i>Bookkeeping</i>					
x					Develop and track facility costs using a Chart of Accounts
x					Understands and tracks operation & management (O&M) costs
x					Understands and tracks renewal & replacement (R&R) costs
<i>Collection Policy</i>					
na					Policy in place
na					Policy implemented
na					Collections at appropriate level
<i>Business Operating Plan</i>					
		x			Policy board has general understanding of Plan and requirements
			x		Management has general understanding of Plan and requirements
		x			Staff has general understanding of Plan and requirements
		x			Management understands financial assumptions and tables
	x				Staff understands financial assumptions and tables
		x			Management capable of annual Plan update
	x				Staff capable of annual Plan update

Comments:

Annual Budget

The Council develops an annual budget for all of the Council's programs and enterprises, which includes the bulk fuel facility and electric utility. No annual budget is currently being developed specifically for the bulk fuel facility and electric utility. The Council's overall operating budget was not available for review. It seems that the Council utility manager and bookkeeper possess the skills to complete a budget. During the onsite monitor, the Business Operating Plan's annual budget requirement was reviewed with Council staff. The staff understood that the Council is required to submit an annual budget to the Denali Commission along with their annual report.

Bookkeeping

The Council does not track Facility costs separately and, as such, has not developed a facility financial tracking system or Chart of Accounts. The Council did not clearly understand that separate tracking of Facility costs was necessary. The bookkeeper explained that she has the ability to prepare a budget, but that systems are not in place to track expenditures and to develop a Chart of Accounts for the facility operations. All accounting is done through journal entries made into a hand-ledger and no electronic accounting system has been

established. The bookkeeper intends to take a QuickBooks class in the near future, but is not certain if the Council will purchase the software to load QuickBooks.

It is primarily the bookkeeper's job to manage the bank accounts, account payables, accounts receivable and other general bookkeeping for all of the Council's operations and enterprises. At the time of the onsite monitor, the Council's bookkeeper reviewed and generally familiarized herself with the Business Operating Plan and associated financial requirements.

The utility manager and bookkeeper generally understand the difference between the O&M and R&R costs that must be tracked by separate accounts, as indicated in the Business Operating Plan. The bookkeeper may need assistance to establish separate account codes in the Chart of Accounts for tracking O&M and R&R costs separately. The Council has not established an R&R interest-bearing account, but understands that this will eventually need to occur.

Collections Policy

No billing and collection systems and/or policies are in place for the utility nor do they appear to be necessary. The Council purchases fuel for its own use and pays accordingly. The Council retails both fuel and electricity to other users who all prepay for the services received. As such, the collection rate is currently at 100 percent.

Business Operating Plan

Both the utility manager and bookkeeper were able to locate and discuss the general terms and conditions of the Business Operating Plan - including the financial requirements, Denali Commission reporting requirements and the Secondary Operator Agreement. Additionally, the utility manager stated that he has reviewed the Business Operating Plan with the Tribal Council members and has explained the O&M and R&R funds requirements, including the purpose and long-term objectives.

Daily management and operational responsibilities appeared to be adequately handled, but no formal policies and procedures are in place specifically relating to the facility personnel and operations. Other Council policies and procedures were stated to be in place, but not available for review. It appeared that there was understanding that these policies also applied to the facility. When staff was asked to produce a copy of the Council's last audit, a copy of the Council's Year-End December 2003 audit was produced. The audit provided reflected all Council operations and did not specifically address the facility operations. The Council audit for Year-End December 2004 has not been completed.

The Council's staff is aware that a requirement exists for providing an annual report to the Denali Commission and that this necessitates an update of the Business Operating Plan and financials. The staff was unclear as to whether the Council operated on a federal, state or calendar year accounting system and did not want to set a target for a Denali Commission report until they clarified that and other potential scheduling conflicts. During the onsite visit, the utility manager reviewed an electronic version of the Plans' financials and discussed what elements may need to be updated. Some further technical assistance may be warranted.

Personnel Management

(1=Lowest Skill Level 5= Highest Skill Level)

1	2	3	4	5	Personnel Management Skill Areas
<i>Job Descriptions</i>					
		x			Job descriptions current for all positions
		x			Staff aware of/understand job descriptions
<i>Staffing</i>					
		x			Staffing adequate to operate & maintain the facility
<i>Training</i>					
	x				Staff has adequate training for job requirements
x					Ongoing training in place

Comments:

Job Descriptions

Reportedly, job descriptions exist for all of the Facility staff positions. Individual job descriptions were not available for review at the time of the site visit. In general terms, the Facility staff appears to have long-term experience and knowledge regarding the oversight of a public utility and also have a basic understanding of their individual roles and responsibilities. Facility support staff such as the bookkeeper and tribal administrator may benefit from general Facility bookkeeping and reporting practices.

Staffing

It appears that the staffing level of the Council's Facility is adequate to operate and maintain the Facility. The Facility appears to be adequately managed; however, no regularly scheduled maintenance protocols are in place and, instead, maintenance occurs when a need arises – which currently works because the Facility is relatively small and new. During the site visit, the long-term continuity of maintenance activities and the benefits of having more formal systems for assigning and tracking O&M and R&R activities were discussed with staff.

Training

The management and staff of the Facility have adequate training for their job requirements relating to the O&M and R&R functions of the Facility. As it relates to bookkeeping and reporting, it appeared that additional training would be beneficial, primarily to ensure that adequate systems are established. The Council seems to be responsive to training opportunities as they arise, but may not be proactively seeking out training opportunities and assistance.

In regards to ongoing training, the Council's utility manager expressed great interest in obtaining additional training for both the operations of the Facility – primarily spill response training, as well as, accounting/bookkeeping, Excel spreadsheet, and system set-up training and assistance.

Operations Management

(1=Lowest Skill Level 5= Highest Skill Level)

1	2	3	4	5	Operations Management Skill Areas
<i>General Operations</i>					
			x		Management/staff have general understanding of operation needs
	x				System to schedule tasks for routine maintenance
	x				System to schedule tasks for non-routine maintenance
<i>Inventory Control</i>					
	x				Inventory control system in place
		x			Knows what parts to keep in inventory for routine maintenance
<i>Emergency/ Spill Response</i>					
			x		Staff can explain/locate oil spill response plan
	x				Written safety policy

Comments:

General Operations

The utility manger expressed that he has a good understanding of operational needs and understands what routine maintenance functions need to occur. The utility manager explained that he regularly visits the site and performs a general inspection of operations at least weekly. An inventory of fuel levels is also conducted approximately one time a week. However, there are not yet established systems to schedule routine maintenance functions. The Council intends to utilize the R&R maintenance schedule contained within the Business Operating Plan as its non-routine maintenance guideline.

Inventory Control

A small inventory of supplies is kept specifically for the Facility. There is a separate room maintained within the generator building to formally store facility parts and equipment. The small inventory appears adequate due to the small scale, newness, and design of the Facility - all of which limit the range and quantity of required supplies necessary for holding onsite. The utility manager explained that parts and supplies are felt to be obtainable relatively easily. The utility manager is willing to explore the efficacy of maintaining a specific inventory of Facility components.

Reference manuals pertaining to Facility operations are maintained onsite. The utility manager and staff explained that they are comfortable with looking up and ordering parts from the manuals.

Emergency/ Spill Response

One copy of the Facility's *EPA Spill Prevention Control & Countermeasures (SPCC), Facility Response and Coast Guard Operations Manual* is kept at the Council office. These documents are all contained within one three ring binder. No oil spill response drills have been conducted since the new Facility was completed. In the event of an emergency the SPCC spill response guidelines would be followed. The utility manager has intended to have a plan and previously has contacted the Alaska Energy Authority to seek onsite training regarding spill response activities. The utility manager expressed interest in receiving training.

BUSINESS OPERATING PLAN COMPLIANCE

Financial Management

Yes	No	NA	<i>Financial Management Compliance Areas</i>
<i>O&M Account</i>			
	x		Accounting established
	x		Regular deposits into account
	x		Systems in place for \$5,000 authorizations
<i>R&R Account</i>			
	x		Accounting established
	x		Regular deposits into account
	x		Interest-bearing savings account
	x		Resolutions required
	x		2 signatures required
		x	Escrow account established
		x	Resolutions required
		x	2 signatures required
<i>Budgets</i>			
	x		O&M budget
	x		Prior to fiscal year
	x		R&R budget
	x		Prior to fiscal year
<i>Business Plan Updates</i>			
	x		Review assumptions
	x		Update tables
<i>Audits</i>			
	x		Annual audit conducted by qualified, independent auditor
	x		Copy to Denali Commission
<i>Annual Report</i>			
	x		Submitted to Denali Commission timely
	x		Summary of O&M and R&R Projects
	x		Expenditures and account balances
	x		Upcoming O&M and R&R budgets
	x		Updated business plan financial tables
	x		Other information
<i>Insurance</i>			
	x		General liability insurance in place
	x		Other insurance in place

Comments:

O&M Account

The Council has not established a separate O&M account and does not separately track O&M Facility expenditures. Just recently, the Council established a separate utility account to try to keep the utility funds (bulk fuel, electric, water and sewer) separate from the Council's general operating funds. The importance of establishing O&M tracking systems was discussed with staff.

R&R Account

A Facility R&R fund account has not been established. The R&R fund account and the Business Operating Plan requirements were discussed with the utility manager. Likewise, the need for financial policies and procedures that specifically address fund withdraw protocols was discussed. The Council does have some funds available that are designated towards the Facility, but none of these are strictly designated towards the R&R fund account.

Budgets

No budgets, either for O&M or R&R, are being prepared for the Facility.

Business Plan Updates

The Council is aware of the requirement to update their Business Operating Plan annually. The utility manager reviewed the requirement to annually update the Business Operating Plan, as well as, the financial assumptions and tables.

Audit

The most recent audit was completed by Altman, Rogers & Co. in 2005 for Year-End December 31, 2003. A copy of the 2003 audit was provided. The 2004 audit is still being completed. The requirement to provide an audit to the Denali Commission was reviewed with the utility manager and Council bookkeeper.

Annual Report

The utility manager is aware that the Council will need to provide an annual report to the Denali Commission. The utility manager reviewed the Denali Commission reporting requirements. The utility manger is still working on determining an appropriate reporting date that will facilitate their annual budget and reporting processes. Therefore, no target date is set for the first submittal of the Denali Commission's annual report.

Insurance

A request was made of the Council to provide a copy of their insurance policy for the bulk fuel facility and electric utility. The Council provided a copy of their insurance policy for review. The insurance policy did not appear to provide for the bulk fuel facility and electric utility. The carrier is Combs Insurance Agency in Wasilla, Alaska. Following the site visit, Combs was contacted by Christi Bell to verify whether the Council carries general liability or other insurance for the bulk fuel facility and electric utility. Comb's verified that the Council does not carry any insurance policy specific to the bulk fuel facility and electric utility unless it is under a different name or with a carrier other than Combs. The Council carries insurance for other purposes through Combs. The general liability insurance requirement was reviewed and explained to the utility manager and Council bookkeeper. It was also explained that the cost for insurance should be budgeted for, as well as, included as part of the O&M surcharge calculation.

Personnel Management

Yes	No	NA	<i>Personnel Management Compliance Areas</i>
<i>Facility Manager</i>			
x			Manager designated
	x		Changes reported to Denali Commission
<i>Staffing Adequate</i>			
x			Staffing adequate
<i>Training Plan</i>			
	x		Training plan in place

Comments:

Facility Manager

Terry Mann is the Council's utility manager and responsible for both the bulk fuel facility and electric utility operations.

Staffing Adequate

The level of staffing would be sufficient if better mechanisms are established to ensure that ongoing oversight occurs, and that operational and maintenance needs are met on a more proactive rather than reactive basis. Currently, the Facility appears to be adequately managed, however, no regularly scheduled maintenance protocols are in place and, instead, maintenance occurs when a need arises.

Training Plan

No training plan has been developed and, instead, Facility staff takes advantage of training opportunities as they arise. Obtaining funding for trainings appeared to be a significant obstacle in hindering the development of a plan.

Operations Management

Yes	No	NA	<i>Operations Management Compliance Areas</i>
<i>Facility Components in Good Working Order</i>			
x			Facility components in good working order
<i>SPCC</i>			
x			SPCC on-hand
x			SPCC current
<i>Facility Response Plan</i>			
x			Plan on-hand
x			Plan current
<i>Coast Guard Operations Manual</i>			
x			Manual on-hand
x			Manual current

Comments:

Facility Components in Good Working Order

Our limited visual inspection of the Facility led us to conclude that, generally-speaking, the Facility seems to be in good repair and well-maintained. As mentioned earlier, it would be beneficial to establish some systems for Facility repairs and maintenance; however, the staff is dealing adequately with problems as they arise.

SPCC/Facility Response Plan/Coast Guard Operations Manual

One copy of the Facility's *EPA Spill Prevention Control & Countermeasures (SPCC), Facility Response and Coast Guard Operations Manual* is kept at the Council office. These documents are all contained within one three ring binder. The facility manager expressed that the plan was current, although, the plan was not reviewed.

RECOMMENDATIONS

The Council utility manager, bookkeeper and tribal administrator each demonstrated a genuine interest in fully understanding and implementing the Business Operating Plan. These staff made themselves available for a thorough site visit to answer questions and review the Business Operating Plan and Facility operations. Throughout the site visit the utility manager asked appropriate questions and strove to understand the particular requirements regarding Facility operations. Additionally, the utility manager expressed interest in fully understanding the financials, the assumptions upon which they were based, and how to update the financials. An electronic version of the Plan and financials was loaded onto the utility manager's laptop.

The following outlines the systems and procedures that should be addressed by the Council, areas that technical assistance/training may be warranted, and operational areas requiring follow-up:

Systems and Procedures	ASAP	Within year	Long Term
Develop and begin utilizing a budgeting process	x		
Develop and track Facility costs using a Chart of Accounts		x	
Review job description for all positions		x	
Establish written safety policy		x	
Develop systems for tracking O&M and R&R costs	x		
Obtain general liability insurance or collect and designate 10 cents per gallon towards self insuring the facility	x		
Develop procedures for completing & submitting annual report		x	
Develop a staff training plan		x	
Technical Assistance			
Developing an annual budget specific to the Facility	x		
Identifying and accounting for O&M and R&R for the Facility	x		
Updating the Business Operating Plan	x		
Updating the financial tables	x		
Preparing a Denali Commission annual report	x		
Assistance with identifying operational needs and system set-up		x	
Training			
Bookkeeping, financial planning, Excel software operations		x	
Operations			
Develop system to schedule tasks for routine maintenance		x	
Develop system to schedule tasks for non-routine maintenance		x	
Establish an inventory control system		x	
Improve understanding of what inventory to keep on-hand		x	

TRIP PHOTOS



Spill Response Supplies.JPG



Supply & Parts Room.JPG



Tank 1.JPG



Tank 2.JPG



Tank 3.JPG



Side View Generator Building.JPG



Exhaust Area Rear Building.JPG



Facility Stairs.JPG



Facility Tanks 2.JPG



Facility Tanks.JPG



Facility Tools.JPG



Facility Stairs 2.JPG



Front and Entry Generator Building.JPG



Front Generator Building.JPG



Fuel Delivery Truck 2.JPG



Fuel Delivery Truck 3.JPG



Fuel Delivery Truck 4.JPG



Fuel Delivery Truck.JPG



Pipeline from BFU to EU.JPG



Pipeline.JPG



Generator Controls.JPG



Generator Room 1.JPG



Generator Room 2.JPG



Generator Room 3.JPG



Generator Room 4.JPG



Generator Room 5.JPG



Generator Room 6.JPG



Header 2.JPG



Header.JPG



Interior Fence Line.JPG



Inventory Supplies.JPG



Locked Valve.JPG



Pipeline Across from Facility 2.JPG



Pipeline Across from Facility.JPG



Pipeline and Tanks.JPG



Pipeline at Header.JPG



Rear Generator Building.JPG



Secure Gate.JPG



Generator Building Exterior 2.JPG



Generator Building Exterior 3.JPG



Generator Building Exterior.JPG



Facility Signage 2.JPG



Exhaust Buildup on Building.JPG



Facility Control Panel.JPG



Facility Operations Manual.JPG



Facility Piping.JPG



Facility Signage.JPG