

ATTACHMENT J8

# Kulis ANGB Wastewater System

---

## Table of Contents

<b>KULIS ANGB WASTEWATER SYSTEM .....</b>	<b>I</b>
<b>J8 KULIS ANGB WASTEWATER SYSTEM .....</b>	<b>1</b>
J8.1 KULIS ANGB OVERVIEW .....	1
J8.2 WASTEWATER SYSTEM DESCRIPTION.....	2
<i>J8.2.1 Wastewater System Fixed Equipment Inventory .....</i>	<i>2</i>
J8.2.1.1 Description.....	2
J8.2.1.2 Inventory.....	3
<i>J8.2.2 Wastewater System Non-Fixed Equipment and Specialized Tools.....</i>	<i>4</i>
<i>J8.2.3 Wastewater System Manuals, Drawings, and Records .....</i>	<i>4</i>
J8.3 SPECIFIC SERVICE REQUIREMENTS .....	4
J8.4 CURRENT SERVICE ARRANGEMENT.....	5
J8.5 SECONDARY METERING.....	5
J8.6 MONTHLY SUBMITTALS.....	5
J8.7 INFILTRATION AND INFLOW (I&I) PROJECTS .....	6
J8.8 SERVICE AREA.....	6
J8.9 OFF-INSTALLATION SITES.....	6
J8.10 SPECIFIC TRANSITION REQUIREMENTS .....	6
J8.11 GOVERNMENT RECOGNIZED SYSTEM DEFICIENCIES.....	6
J8.12 RIGHT OF ACCESS TO THE UTILITY SYSTEM.....	7

## List of Tables

Fixed Inventory.....	3
Spare Parts .....	4
Specialized Vehicles and Tools.....	4
Manuals, Drawings, and Records .....	4
Service Connections and Disconnections.....	6
System Deficiencies .....	6

# J8 Kulis ANGB Wastewater System

---

## J8.1 Kulis ANGB Overview

Kulis Air National Guard Base (ANGB) is located at the Ted Stevens Anchorage International Airport (AIA), on the western edge of Anchorage, Alaska. The ANGB is located within the city limits of Anchorage, Alaska. The Base leases the approximately 229 acres of the southeast corner of AIA at Runway 24L/06R. The Base currently has approximately 37 buildings totaling approximately 400,000 square feet.

Kulis ANGB is the headquarters of the 176th Group and currently employs approximately 440 full-time personnel during weekday shifts. In addition, 30 State of Alaska personnel and 12 civilian fire fighters are employed full time. The Base supports over 1,220 traditional Air National Guard personnel.

The Alaska Air National Guard (ANG) was officially organized in 1952 as the 8144th Air Base Squadron and later moved to Elmendorf AFB. The unit was renamed the 144th Fighter Bomber Squadron and acquired F-80Cs and T-33s in 1953. The squadron moved to AIA in 1955. The Base was named after Lt. Albert Kulis, an Alaskan ANG pilot killed on a training flight in 1954. The squadron was redesignated the 144th Fighter Interceptor Squadron in 1955 and the 144th Air Transport Squadron in 1957 – flying the C-47 Gooney Bird and later the larger C-123 Provider.

In 1969 the squadron became the 176th Tactical Airlift Group, with the 144th Tactical Airlift Squadron as its flying squadron. The Base received eight C-130 Hercules aircraft in 1976. The C-130s were updated to a newer model in 1983. When a second ANG unit was established at Eielson AFB near Fairbanks in 1986, the Group was redesignated the 176th Group to reflect the two missions of airlift and aerial refueling under a single group commander. In 1990, the 210th Air Rescue Squadron, flying HH-60G Pavehawk helicopters and HC-130 tanker-airlift aircraft, was created at Kulis ANGB. Current missions are authorized 18 aircraft: nine C-130s, six HH-60Gs, and three HC-130s. Plans for future missions will require 30 aircraft: sixteen C-130s, eight HH-60Gs, and six HC-130s.

Projected future mission requirements have necessitated the renovation or demolition of older facilities and the construction of new facilities. The Kulis ANGB Capital Improvements Program (CIP) emphasizes consolidating existing facilities and maximizing their utilization as much as possible. Over the next 5 years, key projects planned for Kulis ANGB, if implemented, will increase the total square footage of buildings and facilities on Base by approximately five percent.

## J8.2 Wastewater System Description

### J8.2.1 Wastewater System Fixed Equipment Inventory

The Kulis ANGB wastewater system consists of all appurtenances physically connected to the collection system from the point of demarcation defined by the Right of Way. The system may include, but is not limited to, pipelines, manholes, lift stations, valves, controls, treatment plants, and meters. The actual inventory of items sold will be in the bill of sale at the time the system is transferred. The following description and inventory is included to provide the Contractor with a general understanding of the size and configuration of the system.

Specifically excluded from the wastewater system privatization are:

- Oil/water separators
- Grease traps
- Approximately 2,500 linear feet of pipe owned by the Ted Stevens International Airport Park which transverses Kulis ANGB.

#### J8.2.1.1 Description

Wastewater disposal service for Kulis ANGB is provided by Anchorage Water and Wastewater Utility (AWWU). Wastewater collection from the Base discharges at three locations.

- Kulis ANGB primary discharge of wastewater is to a 10-inch ductile iron main that runs east-west through the central Base area. This pipeline is owned by the Ted Stevens International Airport Park. The approximate linear footage of the Ted Stevens International Airport Park sewer collection main within the Kulis ANGB boundary is 2,500 lf. Connections to the main are from Kulis ANGB laterals which connect through both manholes and fittings. Flow in this main drains both east and west and connects to AWWU mains off Base.
- The new fire station, constructed in 1999 and located near the northwest corner of the Base, has a separate connection to the Ted Stevens International Airport Park main which connects to AWWU mains off Base.
- The northeast corner of the Base flows to the east and connects to a 10-inch AWWU main at an off-Base manhole located just outside the northeastern Base boundary.

The sanitary wastewater collection system consists primarily of ductile iron, asbestos cement, and cast iron piping.

Capacity analysis of the wastewater piping system, including the Ted Stevens International Airport Park mains, is performed at the Base on a project-specific basis. The capacity is sufficient for current flow and adequate for future planned facilities. Groundwater is encountered at approximately 100 feet below ground surface; therefore, infiltration is not believed to be a problem.

Two sections of sewer lines are susceptible to freezing during long periods of extreme cold:

- the upper reaches of the sewer line that serves Building 00001 (Composite Maintenance) and Building 00002 (Helicopter Maintenance).
- the far western part of the 10-inch Ted Stevens International Airport Park main near the Base boundary.

AWWU does not require monitoring of the Base wastewater discharges to AWWU's sewer system, and the Base does not perform supplemental monitoring.

There is no cathodic protection on the wastewater lines at Kulis ANGB. Wastewater line burial depths range from four to fifteen feet deep, with an average depth of eight feet. Heat trace, tracer wire or marking tape is not installed on the wastewater distribution system piping. Approximately 5% of the pipe is buried below paved surfaces.

### J8.2.1.2 Inventory

**Table 1** provides a general listing of the major wastewater system fixed assets for the Kulis ANGB wastewater system included in the sale.

TABLE 1  
Fixed Inventory  
*Kulis ANGB Wastewater Utility System*

Component	Size	Quant.	Unit	Approximate Year of Construction
Ductile Iron Pipe	3-in.	210	LF	1985
	4-in.	444	LF	1985
	4-in.	100	LF	2002
	6-in.	859	LF	1985
	8-in.	3,231	LF	1985
Cast Iron Pipe	4-in.	918	LF	1970
	6-in.	1,150	LF	1970
Asbestos Cement Pipe	6-in.	404	LF	1970
Arctic Pipe In 10" CMP Jacket	4-in.	118	LF	2000
	6-in.	68	LF	2000
Sanitary Sewer Manhole	48-in. ID	25	EA	1980

Notes:  
CMP = corrugated metal pipe  
ID = inside diameter  
EA = each  
LF = linear feet

## J8.2.2 Wastewater System Non-Fixed Equipment and Specialized Tools

**Table 2** lists other ancillary equipment (spare parts) and **Table 3** lists specialized vehicles and tools included in the purchase. Offerors shall field verify all equipment, vehicles, and tools prior to submitting a bid. Offerors shall make their own determination of the adequacy of all equipment, vehicles, and tools.

TABLE 2  
Spare Parts  
*Kulis ANGB Wastewater Utility System*

Qty	Item	Make/Model	Description	Remarks
There are no spare parts with the system to be privatized.				

TABLE 3  
Specialized Vehicles and Tools  
*Kulis ANGB Wastewater Utility System*

Description	Quantity	Location	Maker
There are no specialized vehicles and tools with the system to be privatized.			

## J8.2.3 Wastewater System Manuals, Drawings, and Records

**Table 4** lists the manuals, drawings, and records that will be transferred with the system.

TABLE 4  
Manuals, Drawings, and Records  
*Kulis ANGB Wastewater Utility System*

Qty	Item	Description	Remarks
1	Drawing	Sanitary Sewer Map	Tab U-2
1	Drawings	Sanitary Sewer As-Builts	Located in Building 00050

## J8.3 Specific Service Requirements

The service requirements for the Kulis ANGB wastewater system are as defined in the Section C, *Description/Specifications/Work Statement*. The following requirements are specific to the Kulis ANGB wastewater system and are in addition to those found in Section C. If there is a conflict between requirements described below and Section C, the requirements listed below take precedence over those found in Section C.

- None

## J8.4 Current Service Arrangement

Kulis ANGB currently receives wastewater disposal service from Anchorage Water and Wastewater Utility (AWWU). During the spring and summer, the number of on-Base staff increases and wastewater flows correspondingly increase.

Wastewater flows are approximated for the Base as follows. During the winter months, the wastewater flows are assumed to be equal to the water use flows (from December 2002 through March 2003). The average daily flow for this period was 9.3 thousand gallons (kgals) per day. Assuming that summer flows are the equivalent to 90% of the potable water used on the installation, than the average daily wastewater flow rate is estimated to be 9.7 kgals per day.

Kulis ANGB may increase the total square footage of buildings on Base by approximately five percent. The Base's wastewater demands are small compared to the hydraulic capacity of the sanitary wastewater utility system, the system capacity is adequate for current requirements. For each new facility project, the design included a capacity evaluation. These evaluations showed that no system capacity problems can be expected from the future new facilities.

## J8.5 Secondary Metering

There are no secondary meters with the system to be privatized.

## J8.6 Monthly Submittals

The Contractor shall provide the Government monthly submittals for the following:

1. Invoice (IAW G.2). The Contractor's monthly invoice shall be presented in a format proposed by the Contractor and accepted by the Contracting Officer. Invoices shall be submitted by the 25<sup>th</sup> of each month for the previous month. Invoices shall be submitted to:

Kulis ANGB/ 176<sup>th</sup> CES  
 5005 Raspberry Road, Building 50  
 Anchorage, Alaska 99502-1998  
 Phone number: 907-249-1382

2. Outage Report. The Contractor's monthly outage report (blockage and overflow information) will be prepared in the format proposed by the Contractor and accepted by the Contracting Officer. Outage reports shall be submitted by the 25<sup>th</sup> of each month for the previous month. Outage reports shall be submitted to:

Kulis ANGB/ 176<sup>th</sup> CES  
 5005 Raspberry Road, Building 50  
 Anchorage, Alaska 99502-1998

Phone number: 907-249-1998

## J8.7 Infiltration and Inflow (I&I) Projects

IAW Paragraph C.3, Utility Service Requirement, the following projects have been implemented by the Government for managing and monitoring I&I.

There are no Infiltration and Inflow Projects.

## J8.8 Service Area

IAW Paragraph C.4, Service Area, the service area is defined as all areas within the Kulis ANGB boundaries: as well as, a small portion on the west side of the installation where the service connection is off the installation. This service is for the Kulis ANGB fire station.

## J8.9 Off-Installation Sites

No off-installation sites are included in the sale of the Kulis ANGB wastewater system.

## J8.10 Specific Transition Requirements

IAW Paragraph C.13, Transition Plan, **Table 5** provides a listing of service connections and disconnections required upon transfer.

TABLE 5  
Service Connections and Disconnections  
*Kulis ANGB Wastewater Utility System*

Location	Description
There are no service connections and disconnections with the utility being privatized.	

## J8.11 Government Recognized System Deficiencies

**Table 6** provides a listing of system improvements that the Government has planned. The Government recognizes these improvement projects as representing current deficiencies associated with the Kulis ANGB wastewater system. If the utility system is sold, the Government will not accomplish these planned improvements. The Contractor shall make a determination as to its actual need to accomplish and the timing of any and all such planned improvements. Capital upgrade projects shall be proposed through the Capital Upgrades and Renewal and Replacement Plan process and will be recovered through Schedule L-3. Renewal and Replacement projects will be recovered through Sub-CLIN AB.

TABLE 6  
System Deficiencies  
*Kulis ANGB Wastewater Utility System*

Project Location	Project Description
There are no system deficiencies with the system to be privatized.	

## J8.12 Right of Access to the Utility System

### Exhibit A—Map of Premises

Exhibit A map or maps from the Base Comprehensive Plan or other drawings show the known locations of the utility system and are available at the Base Civil Engineering Office. Portions of the utility system may not be fully shown on the map or maps. Any such failure to show the complete utility system on the map or maps shall not be interpreted as that part of the utility system being outside the Premises. The Premises are co-extensive with the entire linear extent of the utility system sold to Grantee, whether or not precisely shown on the map or maps.

#### EXHIBIT A

*Wastewater System Kulis ANGB*

Qty	Item	Description	Remarks
1	Drawing - Hard Copy and CAD Format	Sanitary Sewer Map	Tab U-2, Located in Building 00050
1	Drawings - Hard Copy	Sanitary Sewer As-Builts	Located in Building 00050

### Exhibit B—Description of Premises

#### B.1. General Description of the Utility System, Lateral Extent of the Right-of-Way, and Points of Demarcation:

##### UTILITY SYSTEM DESCRIPTION:

The utility system may be composed of, without limitation, collection piping, manholes, final discharge meters, lift stations, treatment plants, supporting emergency generator sets (if any), and electrical controls associated with the lift stations and emergency generator sets on the Installation.

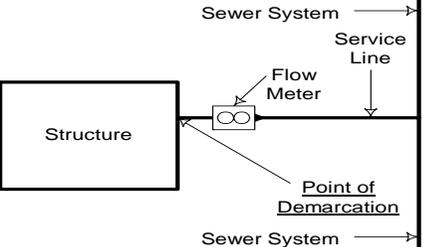
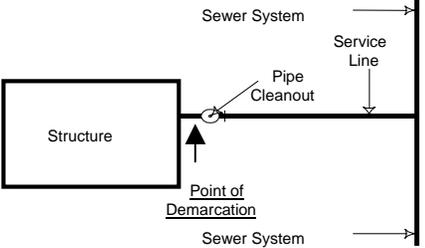
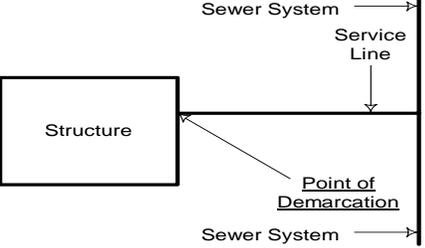
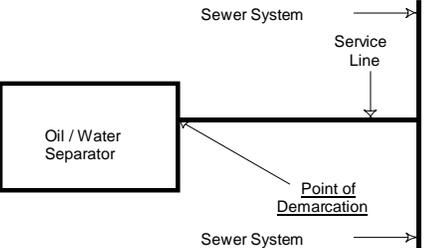
##### LATERAL EXTENT OF UTILITY SYSTEM RIGHT-OF-WAY:

For pipe sizes of 24 inches in diameter and less, 26-feet-wide, extending 13 feet on each side of the utility system, as installed.

For pipe sizes of greater than 24 inches in diameter, 26-feet-wide, extending 13 feet on each side of the utility system, as installed.

**UTILITY SYSTEM POINTS OF DEMARCATION:**

The point of demarcation is defined as the point on the utility system where ownership changes from the utility system owner to the facility owner. The table below identifies the type and general location of the point of demarcation with respect to the facility for each scenario.

Point of Demarcation (POD)	Applicable Scenario	Sketch
POD is where the service line enters the structure.	Sewer system flow meter is located on the service line entering the structure.	
POD is the cleanout device, if within 10 feet of the building perimeter.	No flow meter exists and a sewer system cleanout is located within 10 feet of the building perimeter on the service line.	
POD is where the service line enters the structure.  Note: A new cleanout device should be installed within 10 feet of the building during any stoppage or maintenance action. This will then become the new POD.	No flow meter or cleanout exists on the service line entering the structure.	
POD is the outfall of the oil/water separator.	Any oil/water separator on the service line.	

<b>Point of Demarcation (POD)</b>	<b>Applicable Scenario</b>	<b>Sketch</b>
POD is the outlet side of the Grease Trap, Oil Water Separator, or Pretreatment System.	Grease Trap, Oil Water Separator, and Pretreatment System connected to the wastewater collection system.	None
POD is at the overhead service line's connection to the service entrance mast.  Note: If an electric meter is present, or is to be installed, the owner of the electric distribution system on the installation is the owner and maintainer of the electric meter. The POD for the electric meter is at the wastewater utility owner's conductors to the electric utility owner's conductors. This meter POD applies regardless of the location of the electric utility owner's meter. The wastewater utility owner will own the service entrance mast, including the can.	Electric power is provided to a wastewater facility via an <u>overhead</u> service drop. This configuration could be found at facilities dedicated to the wastewater utility such as a lift station or wastewater treatment plant.	None
POD is at the transformer secondary terminal spade.  Note: If an electric meter is present, or is to be installed, the owner of the electric distribution system on the installation is the owner and maintainer of the electric meter. The POD for the meter is at the wastewater utility owner's conductors to the electric utility owner's conductors. This meter POD applies regardless of the location of the electric meters and transformers.	Electric power is provided to a wastewater facility via an <u>underground</u> service connection. This configuration could be found at facilities dedicated to the wastewater utility such as a lift station or wastewater treatment plant.	None

#### UNIQUE POINTS OF DEMARCATION:

The following table lists anomalous points of demarcation that do not fit any of the above scenarios.

<b>Building No.</b>	<b>Point of Demarcation (POD) Description</b>
Ted Stevens	Point of connection where the Kulis ANGB laterals connect to the 10" Ted

International Airport Park Main - East /West Main through the installation	Stevens International Airport Park Main that runs east-west through Kulis ANGB.
AWWU Main Connection on the NE corner of the installation	Point of connection where the Kulis ANGB 8" ductile iron main connects to the AWWU manhole to the east of the Kulis ANGB property line. This is approximately 20 feet east of the property line.
Fire Station	Point of connection to the Ted Stevens International Airport Park Main on the west side of Kulis ANGB.

**B.2. Description of Restricted Access Areas:**

<b>Description</b>	<b>Facility #</b>	<b>State Coordinates</b>	<b>Other Information</b>
None			

**Exhibit C—Environmental Baseline Survey**

The Air Force has determined that it is not required to conduct an EBS in regard to the sale of this utility system.