Chignik Weir Facility Operational Plan, 2010

by

Todd J. Anderson

April 2010

Alaska Department of Fish and Game **Division of Commercial Fisheries**

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Weights and measures (metric)

centimeter	cm
deciliter	dL
gram	g
hectare	ha
kilogram	kg
kilometer	km
liter	L
meter	m
milliliter	mL
millimeter	mm

Weights and measures (English)

cubic feet per second	ft^3/s
foot	ft
gallon	gal
inch	in
mile	mi
nautical mile	nmi
ounce	oz
pound	lb
quart	qt
yard	yd

Time and temperature

day	d
degrees Celsius	°C
degrees Fahrenheit	°F
degrees kelvin	K
hour	h
minute	min
second	s

Physics and chemistry

all atomic symbols	
alternating current	AC
ampere	A
calorie	cal
direct current	DC
hertz	Hz
horsepower	hp
hydrogen ion activity (negative log of)	pH
parts per million	ppm
parts per thousand	ppt, ‰
volts	V
watts	W

General

Alaska Administrative Code	AAC
all commonly accepted abbreviations	e.g., Mr., Mrs., AM, PM, etc.
all commonly accepted professional titles	e.g., Dr., Ph.D., R.N., etc.
at	@
compass directions:	
east	E
north	N
south	S
west	W
copyright	©
corporate suffixes:	
Company	Co.
Corporation	Corp.
Incorporated	Inc.
Limited	Ltd.
District of Columbia	D.C.
et alii (and others)	et al.
et cetera (and so forth)	etc.
exempli gratia (for example)	e.g.
Federal Information Code	FIC
id est (that is)	i.e.
latitude or longitude	lat. or long.
monetary symbols (U.S.)	$, ¢
months (tables and figures): first three letters	Jan,...,Dec
registered trademark	®
trademark	™
United States (adjective)	U.S.
United States of America (noun)	USA
U.S.C.	United States Code
U.S. state	use two-letter abbreviations (e.g., AK, WA)

Measures (fisheries)

fork length	FL
mideye to fork	MEF
mideye to tail fork	METF
standard length	SL
total length	TL

Mathematics, statistics

all standard mathematical signs, symbols and abbreviations	
alternate hypothesis	H_A
base of natural logarithm	*e*
catch per unit effort	CPUE
coefficient of variation	CV
common test statistics	(F, t, χ^2, etc.)
confidence interval	CI
correlation coefficient (multiple)	R
correlation coefficient (simple)	r
covariance	cov
degree (angular)	°
degrees of freedom	df
expected value	*E*
greater than	>
greater than or equal to	≥
harvest per unit effort	HPUE
less than	<
less than or equal to	≤
logarithm (natural)	ln
logarithm (base 10)	log
logarithm (specify base)	$log_{2,}$ etc.
minute (angular)	'
not significant	NS
null hypothesis	H_O
percent	%
probability	P
probability of a type I error (rejection of the null hypothesis when true)	α
probability of a type II error (acceptance of the null hypothesis when false)	β
second (angular)	"
standard deviation	SD
standard error	SE
variance	
population	Var
sample	var

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TABLE OF CONTENTS

Page

LIST OF FIGURES III

LIST OF APPENDICIES III

ABSTRACT 1

INTRODUCTION 1

CHIGNIK WEIR FACILITY 1

Site Plan 1

Season Startup and Shut Down 2

- Season Startup 2
- Season Shut Down 3
- Winter Caretaker 3

FUEL 3

Purchasing and Transporting Fuel 5

Transferring Fuel 5

ELECTRICAL SYSTEM 6

Generators 6

- Generator Operation 6
- Generator Maintenance 7

WATER AND SEPTIC SYSTEMS 8

Water System 8

- Maintenance and Troubleshooting 8
- Winterizing Water System 9
- Season Startup 10
- Reference - Filter Types 11

Septic System 11

- Septic Maintenance 12

WATERCRAFT 12

Operation and Maintenance 13

- Engine Oil (2-stroke vs 4-stroke) 13
- Drive Systems (Propellers vs Jet Drives) 13
- Cooling System 14

Winterizing Outboards and Skiffs 14

- Outboards 15
- Skiffs 15

Mooring 15

Safety and Navigation 16

COMMUNICATION SYSTEMS 16

Telephone 16

- Season Startup and Shut Down 17

Radio 17

Internet 18

TABLE OF CONTENTS (Continued)

EMERGENCY PLANS 18
Emergency Contacts 18
Fire suppression 19
Personal Injury 19
Spill Response 19
CREW GUIDELINES 20
Work Schedules 20
Timesheets 20
Computers 21
Purchasing 21
Visitors / Public Interaction 21
FIGURES 23
APPENDIX A. PERSONAL USE OF OFFICE TECHNOLOGIES 27
APPENDIX B. WORK SCHEDULE 31
APPENDIX C. TIMESHEETS 33

LIST OF FIGURES

Figure **Page**

1. Map of the Alaska Peninsula illustrating the relative locations of the Chignik, Kodiak, and Alaska Peninsula Management Areas. 24
2. Map of Chignik River system illustrating location of the Chignik weir facility. 25
3. Chignik weir facility site map. 26

LIST OF APPENDICIES

Appendix **Page**

A1. State of Alaska policy on personal use of office technologies. 28

B1. Chignik crewmember work schedule. 32

C1. Sample crewmember timesheet. 34

ABSTRACT

The Chignik River weir facility supports a combination of fishery management, weir support, salmon research, and aviation staff from approximately May 1 to September 15 annually. Due to its remote location, the facility must provide and maintain its own power, water, septic, communication, and transportation systems. This document provides facility staff with a detailed summary as well as season startup and shut down procedures for each of these systems.

Key words: Chignik Management Area, Chignik River, ADF&G, sockeye salmon, *Oncorhynchus nerka*, weir, operational plan, salmon management.

INTRODUCTION

The Chignik Management Area (CMA) encompasses all coastal waters and inland drainages of the northwest Gulf of Alaska between Kilokak Rocks and Kupreanof Point on the Alaska Peninsula (Figure 1). The CMA includes approximately 110 salmon producing streams and several large lakes. Of these, the Chignik River system is one of the largest sockeye *Oncorhynchus nerka* and Chinook salmon *O. tschawytscha* producers on the Alaska Peninsula.

In 1922, a weir was installed on Chignik River, located approximately 2 miles south of Chignik Lake (Figure 2). Since this date, the weir has been operated annually to support the CMA commercial salmon fisheries. Daily escapement estimates produced at the weir are used by the Alaska Department of Fish and Game (ADF&G) to evaluate the run strength and timing of sockeye salmon returning to the Chignik River system. Commercial salmon fishing opportunities are primarily based on these escapement estimates such that enough sockeye salmon are allowed to reach local spawning grounds while allowing for commercial harvest of the remaining surplus salmon.

Five villages (Chignik Lake, Chignik Lagoon, Chignik Bay, Perryville, and Ivanof) rely heavily on the Chignik River system for commercial and subsistence fishing needs. On average, commercial salmon fishing in the CMA contributes between 5 and 10 million dollars annually to local economies. The Chignik River weir and its associated facility is the primary tool for managing and providing commercial and subsistence salmon fishing opportunities for these villages.

Over the years the facility has grown both in size and scope. The facility currently supports a combination of fishery management, weir support, salmon research, and aviation staff from approximately May 1 to September 15. Due to its remote location, the facility must provide and maintain its own power, water, communication, and transportation systems. This document provides Chignik weir staff with a detailed overview of these major mechanical systems as well as general crewmember guidelines for day to day operations.

CHIGNIK WEIR FACILITY

SITE PLAN

The Chignik weir facility is composed of five primary buildings (Figure 3). The manager's/office building (bldg # 4), pilot's house (bldg. # 5) and bunkhouse (bldg # 7) house facility personnel and families. The maintenance shop (bldg. # 6) contains facility maintenance equipment and supplies, the scale laboratory, and additional living quarters for visitors. The generator shed (bldg. # 8) contains the facility's generators and associated equipment. The lower level of the pilot's house also serves as the dive shop, outboard shop, and sampling gear storage. The lower

level of the bunkhouse is additionally used to house the limnology lab, research staff, and for food storage. Common areas including the greenhouse (bldg. # 2) and banya (bldg # 1) are located at the west end of the bulkhead. The all terrain vehicle (ATV) shed (bldg # 12) is located across from the weir facility on the south side of Chignik River. Laundry facilities are located in the office building for permanent staff and in the bunkhouse for support and research staff.

At any given time, 3 to 20 people live and work at the weir facility. The Area and Assistant Area Management Biologists as well as the department pilot and their families have private residences. Seasonal management and research staff share living quarters in the bunkhouse. Common areas, including the greenhouse, banya, yard/gardens, maintenance shop, exercise equipment, fish cleaning table, gillnet, and smoker are shared equally among all facility occupants. However, some commons areas (i.e. greenhouse) contain personal belongings and supplies. When using these areas, please communicate with others and respect personal property.

SEASON STARTUP AND SHUT DOWN

The weir facility is typically opened each spring by research staff and shut down each fall by management staff. Because the same personnel are not present during each of these operations it is important to be thorough and consistent. Following are the general guidelines and order of operations for opening and closing weir facility. Detailed procedures for each of the major mechanical systems are outlined in their respective sections later in this document.

Season Startup

- Contact Willard Lind (winter caretaker) at 907-845-2234 several weeks and immediately prior to arrival to obtain keys and arrange for transport to the facility.
- Open window shutters and unlock doors. Most shutters are permanently fixed to each building and only need to be unscrewed, opened, and reattached with wood screws in the open position. Any shutters or door covers not permanently attached need to be removed, clearly labeled (exact location), and stacked neatly in the wood shed under the pilot house. Clearly label all padlocks removed and place in the manager's office.
- Check fuel levels, open lines, and start generator (see page 6).
- Remove covers from office electronics, connect, and turn on radios.
- Move fire pump onto bulkhead and prepare for use (see page 19).
- Setup water system (see page 10).
- Start bunkhouse refrigerators, hot water heater, and oil stove.
- Charge cordless tools and 12 volt (boat/generator/bobcat) batteries.
- Move and plug in bunkhouse (lower level) freezers.
- Move fuel drums, propane tanks, and dollies from bunkhouse to pad in front of the generator shed.
- Attach hoist winches/lines to booms.
- Setup phone system (see page 17).
- Setup skiffs (see page 12).

- Move ATV to landing across river (ATV and shed keys on shelf in office).

Season Shut Down

The procedures for shutting down the facility are, in general, the reverse of the procedures for opening the camp. It typically takes an efficient crew (4-6 individuals) approximately 2-3 days to fully shut down the facility. Of all the procedures, winterizing the skiffs/outboards and water system are the two most time consuming and detailed operations.

Small crew size (2-3 individuals), unknown damage, weather, limited access, and time constraints often make it difficult to open the facility in the spring. Thus, it is important to consider these factors during shut down. In addition to the detailed procedures for closing the facility, the following points should be taken into consideration:

- Allow unobstructed access to and within the maintenance shop, generator shed, bunkhouse, outboard shop, and office.
- Leave all tools and equipment necessary (flashlights, hand and power tools, batteries and chargers, plumbing supplies, hoists, etc) for opening the facility readily accessible.
- Ensure there is sufficient fuel (all types) to fully operate the facility for 3-4 weeks after opening.
- Clean and vacuum all interior areas and ensure all refrigerators and freezers are defrosted, cleaned, and propped open.
- Unplug and cover all electronic devices.
- Stage the research weather platform as well as the smolt and tin skiffs (and outboards) such that they are the first to go back into the water at the beginning of the season.
- Elevate all items on lower level of bunkhouse 1-2 feet to prevent water damage from flooding.
- Clean barbeque grills, smoker, and dumpster thoroughly to prevent bear damage.

Winter Caretaker

Currently, Willard Lind (907-845-2234) at Chignik Lake is the caretaker for the facility when not occupied by ADF&G staff. In general, the winter caretaker's primary responsibilities are to regularly check the weir facility, pile driver, and aircraft revetment for security purposes and address any associated maintenance needs.

FUEL

The Chignik weir facility uses five types of fuel: # 1 diesel, # 2 diesel, regular unleaded gasoline, aviation gasoline, and propane. The bulk of all fuel is typically transported to the weir facility each spring for use throughout the season. Additional fuel is purchased from Trident Seafoods in Chignik Bay to supplement fuel levels as needed throughout the season.

#1 Diesel (heating oil) is used for Toyo stoves (building heat) and hot water heaters only. Fuel supplies for these purposes are located in two locations: **1)** red tank on deck behind bunkhouse that supplies fuel to the bunkhouse Toyo stove and hot water heater and **2)** red tank in

walkway between the dive shop/pilot house and office that supplies fuel to the manager's apartments/office building and pilot's house Toyo stoves and hot water heaters (Figure 3).

Surplus #1 diesel is stored in clearly labeled 55-gallon drums in front of the generator shed.

#2 Diesel is used to run the facility power generators and pile driver. All #2 diesel is stored in the two large tanks immediately adjacent to the generator shed (Figure 3).

Unleaded Gasoline is used for skiff outboards, the ATV, *portable* generators, water/fire pumps, and landscaping equipment. Gas is stored in the large white tank furthest from the generator shed (Figure 3). Gas is supplied with a pump similar to those at gas stations.

To operate gas pump use the following procedure:

1) Switch breaker on the back wall inside generator shed labeled 'gas tank' to the ON position.

2) Turn switch located on the front of the tank up to the ON position.

3) Open yellow valve that supplies fuel from the tank to hose/nozzle (open door to pump housing – valve is located towards the back where the main fuel line enters the housing. The "OPEN" position is parallel with the line or pointing towards river).

4) Lift nozzle and flip handle up to ON position.

5) When finished, close both valves, turn off breaker, and record the amount of fuel pumped in the fuel log book.

Note: There are two types of gas engines at the facility. Most skiff outboards are "4-stroke" engines and use straight unleaded gasoline. However, there are several "2-stroke" outboards as well as weedwackers and chainsaws that use a gas/2-stroke oil mix (see watercraft section - page 13). When refueling any equipment take caution and use the appropriate fuel mixture. **When in doubt, ask for assistance.**

Propane is used for kitchen stoves, clothes dryers, and barbeque grills. Propane tanks are located: **1)** behind bunkhouse (one tank), **2)** under deck between office building and pilot house (three tanks), and **3)** behind office building (one tank). Surplus propane is stored next to the generator shed adjacent to the tank farm (Figure 3).

To change propane tanks use the following procedure:

1) Close valve completely and unscrew brass hose fitting with crescent wrench – *remember propane fittings have opposite threads (counterclockwise = tighten / clockwise = loosen).*

2) Carefully untie rope securing tank(s) in place and remove empty tank.

3) Move full tank into position, reattach rope securing tank to wall, and reattach hose fitting/regulator (snug not tight). When attaching regulators, ensure the vent is pointed down to prevent it from filling with water or other debris.

4) Open valve completely and inspect for leaks (may hear hissing sound or detect foul odor). If a leak is detected, close valve, remove line, ensure threaded male ends are wrapped in teflon tape, check o-rings, and reattach.

Aviation Fuel is used for ADF&G aircraft only. Surplus aviation fuel is stored in labeled 55-gallon drums on the pad in front of the generator shed (Figure 3). Aviation fuel is transported by skiff from the weir to the ADF&G revetment at the village airstrip and pumped into a holding tank as needed.

PURCHASING AND TRANSPORTING FUEL

Throughout the field season additional fuel may need to be purchased to run the facility. Unleaded gasoline, #2 diesel, and propane can be purchased from Trident Seafoods in Chignik Bay. Depending on supply at Trident, #1 can also be purchased from the City of Chignik (arrange in advance 907-749-2280 or 907-749-2281).

Up to three 55-gallon drums of fuel can be safely transported at one time using the 'Tin Skiff". At the fuel dock, evenly distribute empty drums (brought from weir) on the skiff deck in front of steering console before filling. Be sure to bring bung wrench to open and close drums. If transporting propane, tightly strap cylinders upright to the rails on the gunnels to prevent them from shifting or falling. At the weir, use the drum shackle and boom hoist to lift drums from the skiff to the bulkhead.

TRANSFERRING FUEL

An electric siphon pump is used to transfer all fuel between 55-gal drums and storage areas. The pump (red with black hose) is mounted to a two wheel dolly and stored in the maintenance shop. Following are the procedures for transferring fuel (i.e. pump #1 diesel from drums into the two facility holding tanks):

1) Load the source drum onto the 2 wheel drum dolly with mounted siphon pump.

2) Position the source drum as close as possible to the receiving tank using the drum dolly.

3) Remove any water or dirt that has collected on top of the source drum and open drum using bung wrench.

4) Place oil absorbing pads (located in generator shed) under the pump and stage several additional pads nearby in case of spills.

5) Place the shorter pump hose into the source drum and the longer pump hose into the receiving tank.

6) Make sure the pump switch is in the **OFF** position and then connect red and black wires to corresponding battery terminals.

7) Before beginning the transfer be aware that the drum, dolly, and pump will tip over once the source drum has about 1/3 of the fuel remaining. It is important to prop the dolly up against a building or to hold the dolly handles throughout the transfer.

8) Turn pump on, inspect for leaks, and watch closely to avoid overfilling receiving tank. When possible, empty source drum completely. Do not fill receiving tanks completely – leave 5-6 inches to allow fuel to expand and contract.

9) Once the pump is turned off, lift both hoses and drain remaining fuel in the lines into the tanks – do not let fuel drain from the hoses onto the ground.

10) Secure lids on both tanks, wipe down pump and hoses with absorbent pads, and return pump to maintenance shed. Empty drums are placed on their sides and stored on the level pad next to the tank farm.

SAFETY NOTE:

- Avoid contact with all fuels – **ALWAYS** wear gloves, eye protection, and appropriate clothing.
- Full fuel drums are heavy and awkward – before attempting to move, clear a path and work on level ground. If full drums cannot be moved safely, transfer half the fuel into an empty drum and make two trips to lighten the load.

ELECTRICAL SYSTEM

GENERATORS

The Chignik Weir facility uses three Northern Lights - Lugger generators to supply electrical power. All generators and associated maintenance supplies are located in the generator shed at the southwest end of the bulkhead (building # 8 – Figure 3). Facility power is provided 24 hours per day by alternating between the two main generators located parallel to each other inside the second bay door of the generator shed. The third generator (located perpendicular to the main generators) provides 220 volt power for welding and the SCUBA tank compressor as needed. All generators use #2 diesel fuel provided directly from the two large diesel tanks adjacent to the generator shed.

NOTE: The generators produce large amounts of heat during normal operation. To prevent overheating, ensure the vent fan (east wall of generator shed) is running and the main bay door is open one to two feet at all times.

Generator Operation

Starting Procedure

Prior to starting any generator, ensure there is sufficient oil (dip stick on top on generator) and antifreeze (open *cold* radiator cap).

To start generator(s) use the following procedures:

1) Switch the main breaker (on back wall behind each generator) of the generator to be started to the OFF position.

2) Turn starter switch (black knob located on back panel of generator) once to the right and wait until the glow plug is visible through the small port hole below the starter switch.

3) Once the glow plug is visible, start the generator and run for approximately five minutes before transferring electrical load.

Transferring Electrical Loads

Only one generator can be online and supplying power to the weir facility at one time. Thus, facility power will be interrupted momentarily while transferring electrical load from one generator to the other. Notify facility personnel prior to transferring load to prevent computer data loss or phone interruption. Do not switch generators during the first ten minutes of each hour while escapement cameras are recording.

Three separate breaker boxes control the main generators. Each generator (#1 and #2) has an independent breaker box clearly labeled on back wall behind each generator. These breakers independently connect each generator to the facility's electrical control box. The third breaker, (electrical control box) transfers the online generator's electrical load to the facility's main electrical grid.

To transfer electrical load (i.e. switch from generator #1 to generator #2) use the following procedures:

1) Ensure that the #2 independent breaker is in the OFF position.

2) Start offline (#2) generator and run for 5 minutes.

3) After #2 warm up period, turn #1 (online generator) independent breaker to the OFF position.

4) Turn the #1 breaker on the electrical control box to OFF position, slide safety switch to the #2 breaker position and turn to the ON position.

5) Turn #2 independent breaker to the ON position.

6) Allow generator #1 to cool down for approximately 5-10 minutes before shut down.

Generator Maintenance

Changing the generator oil and cleaning the air filter is necessary every 100 hours of use. The best time to change oil is immediately after switching generators when engine oil of the offline generator is still warm. Fuel filters on generators should be changed every 200 hours of use.

Change oil/air filters (100 hours use) as follows:

1) Place bucket under the oil drain hose on the bottom left side on generator.

2) Open stopcock and drain oil completely (approximately 10 minutes) then close stopcock.

3) Remove oil filter with filter wrench, apply thin layer of oil to new filter gasket and screw new filter (Napa Gold 1307) in place (hand tight).

4) Add new oil (Approx. 8 liters - Delo 400 from drum in shed) to oil filler cap located on top of generator.

5) Clean air filter (in housing on top of generator). Remove filter, clean with compressed air and replace.

6) Check oil level and adjust as necessary.

7) Record generator hours, date, and maintenance activities in logbook.

8) Drain used oil into waste oil drum located outside of the generator shed (Figure 3). When full, waste oil drum can be transported to the lake village for disposal (contact Chignik Lake Village Council Office 845-2212).

Change fuel filters (200 hours use) as follows:

1) Close fuel valve for the generator being serviced and place bucket and oil absorbing pads under fuel filter housing.

2) Remove fuel filter with filter wrench.

3) Fill new filter completely with clean #2 diesel and screw in place hand tight.

4) Open fuel valve.

5) Remove trapped air by opening the bleeder valve (bolt) located on the top of the filter housing. Allow air/fuel to drain from bleeder valve for several seconds or until no air bubbles are visible then close valve.

6) Run generator briefly to ensure there is no air in the fuel system.

7) Record generator hours, date, and maintenance activities in logbook.

The fuel filter for the main fuel line (located on back wall of generator shed) should be changed at the end of each season to ensure there is no air trapped in the system. To change, close main fuel line valves, remove filter, and replace with new filter (full of #2 diesel).

WATER AND SEPTIC SYSTEMS

WATER SYSTEM

The facility's water system is composed of a catchment tote, settling tank, 720-gallon cistern, water pump, pressure cylinder, and filtration system. Fresh water is supplied from a hillside stream behind the facility (primary) and the Chignik River (secondary). The primary water source consists of a catchment and a settling tote accessed by footpath behind the office building. Water is collected by a perforated PVC pipe buried in the stream channel that empties into a mesh covered plastic catchment tote. From the catchment tote, water is gravity fed to a settling tank where large particulate matter and sediment is filtered out before emptying into a large holding cistern housed behind the office building (bldg. #3; Figure 3).

The secondary water source is collected directly from Chignik River with a submersible pump. The pump is located in a vertical steel pipe at the north end of the bulkhead near the handicap boat dock. The switch for this pump is located in the downstairs bunkhouse bathroom in the breaker box next to the washer and dryer. This system is used when the water demand is greater than the supply from the primary system and should only be used as a backup due to the turbidity of the river water and lack of settling tanks in the system.

Water drawn from the holding tank is pressurized with a water pump and stored in a single pressure cylinder which delivers water throughout the facility. Before entering any of the buildings, water passes through a series of filters which remove sediment and a UV light purification system that eliminates biological agents and pathogens.

Maintenance and Troubleshooting

The facility's water system requires routine maintenance to function properly. Problems with the water system typically result from insufficient water in the holding tank, and to a lesser degree, low water pressure due to clogged filters. The primary water source (hillside stream) normally supplies enough water for the facility throughout the field season. Thus, insufficient water in the holding tank typically results from clogged filters in the catchment tote and/or settling tank. Checking and cleaning the stainless steel mesh filter in the settling tank (white tote) once per week is necessary to maintain the water supply.

Low water pressure typically results from clogged filters in the filtration system. Procedures for maintaining and replacing filters are outlined in the *Winterizing Water System* section below.

Note: The water pump normally runs no more than 10-15 seconds approximately every hour depending on demand. If the main water tank is empty, the water pump will run continuously resulting in permanent damage. If the water pump is running continuously, immediately turn off pump at the breaker box located next to the UV filter behind the office building. Check the catchment system (clean filters if necessary) and turn the breaker back on only when there is sufficient water in the holding tank.

Winterizing Water System

The entire Chignik weir facility water system must be completely winterized at the end of each season to prevent damage from freezing. Following is the list of procedures necessary to winterize the water system:

1) Turn off breaker for the water pump (next to UV filter on back wall of office building).
2) Remove drain plug and scrub out the uppermost hillside catchment tote with a brush. Cover the mesh opening on top of the catchment tote with plywood. Attach 12 foot water bypass tube so that water bypasses the tote's support structure.
3) Fill several clean 5-gal buckets from the lower settling tank (white fish tote).
4) Remove drain plug from lower settling tank, flush out sediment and scrub thoroughly. Remove and clean sock filter (if present), and clean stainless steel filter. Flush tote with water from 5-gal bucket and drain completely. Replace drain plug and tote cover.
5) Drain main holding tank completely by opening valve located under the outside wall (corner adjacent to greenhouse) of the pump shed.
6) Clean and flush sediment out of bottom of main tank using the fire pump or pressure washer and remaining pressurized tank water. Close drain valve.
7) Drain pressure tank and water pump by opening valve on black waterline that runs outside from the water pump to the filtration system at the "T" union (drains into culvert). Leave valve open until entire winterization process complete. Close only after steps outlined below are completed.
8) Remove drain plug on water pump to drain any remaining water in pump. Fill with RV antifreeze or cooking oil, replace plug.
9) Open drain valve on bottom of blue filter unit. Close valve when finished
10) Unscrew top of blue filter unit and remove sock filter. Clean, dry, and replace.
11) Unbolt top of stainless Harmsco filter unit. Remove paper filter cartridges, clean inside of cylinder, and add new filters (7 total). Replace lid when finished.
12) Open both valves (one on either side) on UV filter and drain. Close valves.
13) Drain, remove, and replace Omnifilter next to hot water tank behind office building by unscrewing the bottom of filter from the filter housing and inserting new filter.
14) Drain office building plumbing (**3 valves**)
    a. Open all faucets inside apartments/laundry room.

b. Open valve (**1**) on bathroom ceiling in Assistant Manager's apartment, drain into bucket, and close.

c. Open valves (**2**) in crawl space under office building, drain, and close. Both valves located near crawl space door at the rear of the building (orange flagging attached).

d. Turn off water (hot and cold) to washing machine – briefly turn on washer to drain remaining water in lines.

e. Add approx. 1/4 gallon RV antifreeze to all sinks, toilets (including tanks), shower drains, and wash machine. Flush toilet after adding antifreeze and add more antifreeze once flushed.

f. Drain hot water heater.

g. Unhook and store outside garden hoses (2).

15) Drain pilot house plumbing (**1 valve - next to hot water heater in wood shed**).

a. Open faucets before draining.

b. Add RV antifreeze to sinks, toilets, and shower drains. Flush toilet after adding antifreeze and add more antifreeze once flushed.

c. Drain hot water heater

16) Drain bunkhouse plumbing. (**3 valves**)

Valve Locations: 1) Outside back corner next to generator shed; 2) Above sink in limnology lab; and 3) Downstairs bathroom ceiling.

a. Open bunkhouse faucets before draining.

b. Turn off water (hot and cold) to washing machine – briefly turn on washer to drain remaining water in lines.

c. Remove, drain, and replace Omnifilter above pressure tank (inoperative) in downstairs bathroom.

d. Add RV antifreeze to sink, toilet, and shower drains, and washing machine. Flush toilet after adding antifreeze and add more antifreeze once flushed.

e. Drain hot water heater.

f. Unhook and store outside garden hose.

17) To assist the startup crew, leave a list on the table in the office of **all** valves, faucets, and filter housings that are left open.

Season Startup

If the water system was properly winterized the previous season, bringing the system online will require the following steps:

1) Ensure all building drain valves are closed.

2) Replace drain plug in uppermost catchment tote, remove plywood cover plate, and disassemble water bypass tube if still connected.

3) Replace drain plug in lower settling tank.

4) Allow holding tank to fill.

5) Close all faucets in all buildings.

6) Install new UV light bulb in UV filtration unit. See owner's manual (office file cabinet) for specific instructions. Spare UV lights located in office laundry room.

7) Turn on water pump.

8) If closed, open all building valves slowly. After the pump has pressurized the system it is important to open the valves slowly so as not to rupture pipes and fittings.

9) Quickly check for leaks throughout the facility.

10) Open toilet and washing machine lines.

11) Allow faucets/showers/toilets to run in each building for several minutes to flush system with fresh- filtered water.

12) Recheck entire system for leaks.

Note: If temperatures are still at or below freezing, leave a faucet continually running (slowly) in each building to prevent lines from freezing.

Reference - Filter Types

Sock filters: Blue filter cylinder below UV unit – FSI sock filter (part # 41601B). These filters can be cleaned and reused many times before needing replacement.

Paper filters: Stainless cylinder below UV unit – Harmsco Upflow Cartridge Filter - Model HIF 801-1 paper filters. Garness Industrial Inc. Anchorage (800) 478-2933

Yarn filters: 1 outside next to office building hot water heater and 1 inside downstairs bunkhouse bathroom – FILTERRITE (C10P-W5 C). Garness Industrial Inc.

UV Filter: Ideal Horizons UV Biological Filter – Model LCI-2L

All filters are stored in the scale room above the maintenance shop with the other plumbing supplies. All filters can also be purchased from bigbrandfilters.com (818-340-7258). Ideal Horizons is no longer in business. UV filter system bulbs and parts can be purchased from uvsuperstore.com (770-307-3882).

SEPTIC SYSTEM

All waste water generated at the Chignik Weir facility is treated using two separate septic systems. System #1 services the office building and pilot house and is located underground in front of the maintenance shop (Figure 3). Cleanout access is a capped PVC pipe (spray painted orange) approximately 15 feet from maintenance shop stairs. System #2 services the bunkhouse and is located underground in front of the generator building. Cleanouts are capped PVC pipes (spray painted orange) in front of the first bay door of the generator shed.

Note: Identify the locations of the cleanouts and use caution when moving equipment in these areas to avoid damaging or destroying.

Septic Maintenance

Functioning septic systems typically do not require direct maintenance. However, septic systems are different than conventional sewer systems and require some preventative maintenance. Household water use directly controls how quickly waste travels through a septic system. Wastewater that enters the tanks requires time to allow the solids to settle to the bottom. The higher the volume of water that is introduced to the system, the less opportunity the wastewater has to settle in the holding tank and the less opportunity the bacteria have to break down the solids. Thus, avoid using excess water and be aware of 'peak' water times (i.e. avoid using wash machines during mornings/evenings).

To function properly only solid waste, toilet paper, and normal amounts of common household chemicals should be added to septic systems.

The following items should **NOT** be added to septic systems:

- Cooking oil/fat/grease
- Solid foods
- Matchsticks
- Paper towels, plastic, wax, or any other synthetic materials
- Feminine hygiene products
- Toxic or hazardous chemicals

Additionally, septic enzymes (located in maintenance shop) should be added to both septic tanks at the beginning and end of each season. Follow manufacturer's instructions for adding enzymes.

WATERCRAFT

The Chignik Weir facility uses a variety of skiffs for weir installation and removal, transportation, and field sampling. Following is the current inventory of Chignik watercraft and their uses:

- 16 ft Lund w/ 4-stroke 40 jet/25 prop – summer general use/winter caretaker use
- 18 ft Lund w/ consol and 4-stroke 90/65 jet – general use
- 18 ft Lund w/ 2-stroke 50 prop- general use
- 18 ft custom aluminum (skillet) – on loan to Kodiak Research- Robert Baer
- 18 ft Lund w/ 4-stroke 40 prop – smolt/research
- 18 ft Lund w/ 4-stroke 35 prop – pilot
- 18 ft G3 Jon boat w/ 4-stroke 90/65 jet – Manager's use/weir work/Black Lake samples
- 18 ft custom aluminum (smolt skiff) w/ 2-stroke 90 jet – smolt/research
- 21 ft custom aluminum (tin skiff) w/ 4-stroke 115 prop – fuel/gear transport
- 40 ft custom aluminum (scow) w/ 2-stroke 50 prop – weir work/cargo/fuel/garbage

OPERATION AND MAINTENANCE

The weir facility uses a combination of 2-stroke and 4-stroke outboard engines with both propeller and jet drives. These 4 types of outboards function differently and require separate operation and maintenance needs.

Engine Oil (2-stroke vs 4-stroke)

Two-stroke engines do not have a dedicated engine oil lubrication system similar to those found in conventional automobiles. Thus, 2-stroke type oil must be mixed with gasoline to lubricate the engine while gas is consumed (most small outboards require a 100:1 gas/oil mix (5 ounces oil for 1 gallon gas)).

There are two methods for adding 2-stroke oil to the weir facility's 2-stroke outboard motors: **1)** some engines require adding the correct ratio of 2-stroke oil to the gas tank (15 hp Yamaha) and **2)** and some engines require adding straight 2-stroke oil to the oil mixing reservoir on the engine compartment (40/50/70 hp Yamahas). Failure to add 2-stoke oil will quickly destroy any 2-stoke engine. Because oil is constantly consumed with gasoline, oil **must** be checked before and after each use.

In contrast, 4-stroke engines have dedicated oil lubrication systems. 4-stroke engine oil is not consumed during normal operation but engine oil must be regularly checked by removing the cowling and checking the oil level on the dipstick. Under normal conditions, 4-stroke engine oil typically needs to be changed only once every season. Refer to the owner's manuals in the office for detailed information on each outboard.

NOTE: 2-stoke and 4-stroke oils are **not** interchangeable. Use the appropriate oil type at all times.

Drive Systems (Propellers vs Jet Drives)

Outboards with propellers are more efficient than jet drives and are used for towing, boating long distances, or in rough water conditions. In shallow water, extra caution must be used with propellers - reduce RPM's to a minimum and tilt the outboard up to prevent striking bottom. Before operating propeller driven skiffs, become familiar with the steering and tilt mechanisms specific to each outboard and ensure a spare prop and the proper tools are onboard.

Before and after each use, check props for nicks, rolled tips, or bent blades. Damaged propellers will cause a loss in performance and can create vibrations harmful to the engine. Props with worn blades might also allow the engine to accelerate beyond the recommended operating range resulting in permanent damage to the engine. When a propeller is damaged while operating, stop and assess the damage before continuing. If the prop is severely damaged, slowly proceed to the nearest level shoreline and replace it.

To change propellers use the following procedures:

1) Remove cotter pin holding castle nut in place.
2) Remove castle nut with wrench by turning counter-clockwise while holding the propeller in place.
3) Carefully note order, and remove bushing(s) between castle nut and propeller.
4) Slide propeller off drive shaft.

5) Slide replacement propeller on by aligning grooves inside propeller with those on the drive shaft.
6) Replace bushings in same order and arrangement they were removed.
7) Tighten castle nut until the cotter pin hole in the drive shaft is visible between the 'castle' grooves so that a cotter pin can be inserted to prevent the nut from spinning loose. Do not over-tighten the castle nut.
8) Insert new cotter pin and bend the ends outward to secure it in place.

Jet drives work by forcing water through a tapered sleeve (housing) using an internal impeller. The result is a water jet that propels the skiff forward. To work efficiently, there must be a close fit between the impeller and sleeve. Thus, pulling sand, gravel, wood, weeds, or other foreign objects into the jet drive can damage both the impeller and sleeve resulting in permanent damage or loss in performance.

When foreign objects (i.e. eel grass in Chignik Lagoon) are pulled into the jet unit (indicated by loss of power or change in rpm's), stop immediately and turn engine off. Lift outboard and remove all objects from the 'foot grate' on the bottom of the jet unit. A screw driver or pocket knife may be needed to remove objects lodged in the grate. In some instances the foot will need to be removed to clear objects that have passed through the grate. To remove the foot, slowly proceed to the nearest shoreline and carefully unbolt the foot from the lower unit, clean thoroughly, and replace ensuring the pointed end of the foot is oriented forward (towards bow).

Cooling System

All facility outboards are water cooled. Cold water is pulled into the outboard below the waterline and circulated throughout the engine before it's discharged with the exhaust. Thus, there are no antifreeze levels to check or radiators to maintain. However, all outboards have a small valve above the waterline on the back of cowling that discharges a small stream of water at all times while running. This discharge or 'pee' valve is an indication that the cooling system is working properly. It is important to ensure the discharge valve is working properly before and after each use or immediately after hitting bottom. Running outboards while water is not being ejected from this valve may result in damage to the engine.

Occasionally weeds or other objects get sucked into the water system that can damage the water pump or clog the small hose that leads to the discharge valve. If the outboard is overheating (loss of power, surging RPM's, knocking, and/or getting louder), turn off immediately. Raise the lower unit to ensure the water intake ports (located on both sides of lower unit just above the prop/jet) are free from weeds. If the intakes are unobstructed and no water is emitted from the discharge valve after restarting, turn off and check to ensure the valve itself is unobstructed by feeding a short flexible length of wire into the valve outlet on the back of the outboard. If water still does not flow from the discharge valve, tow the skiff to the weir facility and consult the owner's manual for troubleshooting cooling system components. Several facility outboards (tin and limnology skiffs) also have audible overheating alarms in addition to discharge valves.

WINTERIZING OUTBOARDS AND SKIFFS

All skiffs and outboards are removed from the water, winterized, and stored for the winter. Following are the general guidelines for winterizing outboards and skiffs:

Outboards

1) Disconnect spark plug wires, remove, inspect, and clean/replace sparkplugs.
2) Spray fogging oil into each cylinder (1-2 seconds) and replace spark plugs.
3) Turn over engine several times to distribute fogging oil within each cylinder.
4) Rinse exterior with freshwater and clean residue from all surfaces. Remove corrosion and lubricate electrical connections.
5) Remove outboard from skiff and hang upright in outboard shop.
6) Change lower unit lubricant by removing the lower drain plug and upper vent plug. Once all lubricant has drained, inject new lubricant into lower drain plug until lube begins to drain out of vent hole. Quickly replace both plugs.
7) Inspect props and jet impellers – service or replace as necessary.
8) Change crankcase oil in 4-stroke engines. Refer to owner's manual for specific procedures and oil types (located in office file cabinet). Fill oil reservoirs in 2-stroke models.
9) Lubricate all service points, including grease zerks, shift/throttle linkages, and steering cables. Refer to owner's manual for specific lubrication points.
10) Date and record maintenance activities on a label and attach directly to each outboard (include which skiff the outboard came from).

Skiffs

1) Remove, clean, and label all gas tanks/lines, anchors, toolboxes, oars, bilge pumps, and floatation devices. Store in outboard shop. Use wire brush to remove any rust on tools then lubricate with anti-corrosion spray before storing for winter.
2) Remove batteries, clean, label, and fully charge for storage.
3) Drain, inspect, and replace fuel filters as necessary.
4) Scrub hull and floorboards with bleach and water solution.
5) Clean and lubricate steering and throttle parts to prevent corrosion. Label all cables and hoses that are removed and make a detailed description of where they are reattached for the following season.
6) Remove drain plugs and attach to the hull.
7) Secure all skiffs on the bulkhead with sturdy rope to prevent them from floating or blowing away during winter.

NOTE: The majority of boat (and rechargeable tool) batteries are palletized and transported to the Norquest/Trident Seafoods processing plant in Chignik Bay for warm storage during winter. Contact Norquest (907-749-2276 or Robert Carpenter - VHF channel 6) for arrangements.

MOORING

The height of Chignik River is influenced by tides, current, runoff, and wind. Given this large variation, caution must be used when mooring all skiffs to the bulkhead. Facility skiffs are

typically moored at 3 locations: pile driver, floating dock upstream from weir, and the handicap dock. Avoid mooring skiffs on the bulkhead between the weir and pile driver for extended periods of time so boat gate traffic can pass freely.

When securing skiffs directly to any fixed surface (i.e. cleats on bulkhead or handicap dock), leave enough slack in the line (5-6 ft) such that the skiffs can rise and fall freely with the tides. Skiffs moored to the pile driver or the floating dock upstream from the weir typically do not need additional slack in the line because the pile driver and dock themselves move with the tides. However, during high tides (9+ ft) crewmembers must be aware of the potential for skiffs to float onto the bulkhead behind the pile driver or handicap dock. Several times in the past skiffs have sunk because they partially floated onto the bulkhead and tipped over as the tide dropped.

SAFETY AND NAVIGATION

Prior to departure, all skiff users (and hikers) must file a float plan located on the back of the office door. All users (drivers and passengers) are also required to wear state approved personal flotation devices (PFD's) at all times while on the water and have adequate fuel, oil, tools, spare prop/impeller, flares, and a handheld VHF radio in the skiff. It is each user's individual responsibility to refuel, clean, and maintain skiffs before and after operation.

There are numerous navigational hazards in waters surrounding the weir facility. River channels, water depth, tides, rocks, and weeds vary greatly in Chignik River and Chignik Lagoon. When boating in unfamiliar waters, first have an experienced operator demonstrate the appropriate route. When in doubt proceed SLOWLY. Additionally, consult the appropriate navigational chart to determine the safest route. Both paper and electronic charts are readily available in the office.

COMMUNICATION SYSTEMS

The Chignik weir facility has three primary forms of communication (telephone, radio, and internet) for official and personal use.

TELEPHONE

Currently, the telephone system has five separate lines using two separate phone systems:

1) Official business line (907-845-2243)
2) Fax line (907-845-2234)
3) Managers' phone or 'BAT' line (907-845-2242)
4) Bunkhouse personnel line (907-845-2216)
5) Pilot house line (907-845-2274)

One phone line is transmitted on the old Ritron Transceiver and the remaining four lines use the new Trailblazer Phone Extender system. Both system antennae are located on the communications tower on the hill above the weir facility (#10; Figure 3). Telephone signals are transmitted from the weir communications tower to a sister tower located in Chignik Lake Village (located on Donny Lind's house 845-2203) where they are connected to the regional telephone network provider (GCI). At present, the single Ritron Transceiver line is not secure - meaning they transmit on the same frequency as common VHF and/or Single Side Band radios. Thus, facility phone conversations can be, and are, regularly monitored by the public. Given this

lack of privacy, discretion must be used when communicating official business, personal information (SSN#, credit card information etc.), or anything of local/regional concern.

Although the Ritron Transceiver line is not secure, it is the most reliable phone line and will be connected to the business line until phone quality issues with the new Trailblazer system are resolved during the 2010 field season.

Season Startup and Shut Down

Currently, one phone line uses the old phone system black Ritron transceiver box. While operational, the transceiver is located in an enclosed electronics box at the base of the communication tower above the weir facility. During winter the transceiver is removed and stored in the office. To setup the old phone system, use the following procedure:

1) Move black Ritron transceiver box from office to electronics box at base of tower.
2) Connect the 3 labeled wires inside electronics box to corresponding labels on the transmitter.
3) Plug in telephone router in office (this will provide power to communication tower).
4) Contact Donny Lind (845-2203) and make arrangements to plug in and connect the sister telephone router at village.

The new Trailblazer phone system utilizes two high gain parabolic antennae to transmit four phone lines. High gain antennae are necessary due to the relatively long length of the 5/8" Heliax RF cable from the communications tower to the weir site. Although the high gain antennae are powerful and deliver adequate signal strength, they must be precisely aligned and are unlikely to be in alignment when opening the camp up in the spring. Since the new phone system was installed in 2008, precise alignment of the high gain antennae has proven difficult. Because of this, the antenna system will be upgraded during the 2010 field season. Upon completion of the upgrades, the startup crew will simply plug both Trailblazer base units into a power supply. After the Trailblazer units power up and initialize, phone service will be enabled.

RADIO

The facility has two types of radio equipment: Single Side Band (SSB) and Very High Frequency (VHF) radios. In general, SSB radios are used to communicate with persons outside the range covered by VHF radios. The Chignik weir facility uses SSB frequency 3.230 MHz to give daily (0800) weather and fishery updates to the ADF&G Kodiak office and relay pertinent information to the area fishing fleet.

SSB frequencies are regulated by the Federal Communications Commission (FCC) and require a call sign and license to operate. The call sign for the Chignik Weir is WON 29. When using the SSB, first state the call sign of the party to be contacted (e.g. WON 32 Kodiak) followed by the weir's call sign. After contact, keep conversations short and concise and end by restating the Chignik weir call sign. A complete list of regional ADF&G offices and camps as well as additional transmitting frequencies is located on the wall behind the SSB radio in the office.

The VHF radio is used to give daily (0915 and 1815) fishery updates, track ADF&G aircraft, and communicate with the fishing fleet and weir personnel while in the field. Use VHF channel **6** for general contacts in the greater Chignik area. Similar to SSB, first state the party to be contacted followed by the facility's VHF call sign (Chignik Weir or Fish and Game). For extended

conversations, switch to a different channel. Both VHF and SSB are publicly broadcasted frequencies; always assume someone else is listening to your conversations.

Outside of connecting/disconnecting cables and power supplies, the radios require no additional seasonal startup or shutdown procedures.

INTERNET

The facility uses a dedicated Starband satellite connection for email and internet access. The satellite dish is located on the front of the pilot house. Given the weather and remote location of facility, internet access is often unreliable. During periods of heavy rain and cloud cover internet access is intermittent, carefully wiping excess water from the dish and receiver sometimes improves the signal.

The satellite dish is removed and stored indoors (dive shop) during winter. To setup the internet connection use the following procedure:

1) Carefully, bolt the dish to the pilot house in the exact previous location using the pre-existing holes and hardware.
2) Connect the attached coaxial cable.
3) Connect office end of the coaxial cable to the internet router box (on shelf above coffee pot in office).
4) Plug in router to power supply and turn switch located on back of box to the ON position.

Personal use of the internet is available first-come first-serve while off duty provided it does not interfere with any official business. Proper internet use (personal) is outlined in the State of Alaska Office Policy on Personal Use of Office Technologies found in the pre-season hiring paperwork and in Appendix A1 of this document.

EMERGENCY PLANS

EMERGENCY CONTACTS

- Chignik Lake Medical Clinic: 907-845-2236
- U.S. Coast Guard Search and Rescue: 800-478-5555
- U.S. Coast Guard Search and Rescue SSB: 4.125 MHz
- Providence Kodiak Island Medical Center: 907-486-3281
- Alaska State Troopers (Kodiak): 907-486-4121
- Alaska Department of Fish and Game – Kodiak : 907-486-1825 or 907-486-1830
- Alaska Oil/Hazardous Spill Hotline: 800-478-9300
- Wildlife Enforcement: 907-486-4761
- PenAir: 800-448-4226
- Willard Lind (winter caretaker): 907-845-2234

FIRE SUPPRESSION

The Chignik weir facility is self sufficient in the event of fire. The facility is built on an abandoned coal mine making fire prevention and suppression critical. The weir uses two types of fire fighting equipment: ABC dry chemical fire extinguishers located in every building and work area, and two portable Honda fire pumps. The primary water pump is located on the bulkhead in front of the outboard shop and is ready for immediate use. The secondary pump is stored in the wood storage area under the pilot house.

In the event of a fire, first notify all weir personnel and assess the situation. If the fire is small and confined, use fire extinguishers to suppress flames. For larger fires notify the Chignik Lake Medical Clinic and use the fire pumps. If the situation is unsafe (fire at or near fuel supplies) abandon the immediate area.

Following are the procedures for starting the fire pumps:

1) Ensure water intake hose is submerged in the river and the intake strainer is clear of weeds and debris.
2) **Unroll** fire hose and ensure the nozzle is attached and turned to the OFF position.
3) Prime the pump by pouring water from the labeled water jug next to the pump into the labeled priming water filler cap located on top of the pump.
4) Move fuel valve lever to the ON position
5) Move the choke lever to the OFF position
6) Move throttle lever away from the SLOW position about 1/3 of the way towards the FAST position.
7) Turn ignition switch to the ON position.
8) Pull recoil cord until engine starts.
9) After started, move choke lever slowly to the OPEN position.
10) Move throttle lever to FAST position to increase pump output.

PERSONAL INJURY

Personal injury poses the greatest risk to facility personnel. In the event of major medical emergencies access to adequate care is limited due to the remote location of the facility. For minor injuries, first aid kits are located in the bunkhouse, office, and maintenance shop. For emergencies or injuries that require professional medical attention contact the Chignik Lake Medical Clinic (845-2236 or VHF channel 6).

SPILL RESPONSE

The weir facility's oil/fuel spill response kit consists of portable oil absorbent booms and pads. The booms are stored in 55 gallon drums located between the generator shed and tank farm. Absorbent pads are located in the supply room inside the generator shed. In the event of an oil/fuel spill, assess the situation and identify any risk of fire or explosion. If safe, isolate and close leak source if possible. Deploy oil booms surrounding the spill area whether on ground or

in the water. Use the pads to collect remaining fuel. For large spills, immediately contact the area manager and Kodiak Fish and Game office or the Oil Spill Hotline after hours.

CREW GUIDELINES

WORK SCHEDULES

Unlike many remote ADF&G field camps, the Chignik weir support staff uses regularly scheduled hours and work shifts (Appendix B1). The typical work week consists of five 7.5 hour days, one 5.5 hour day, and one day off. Scheduled work shifts (morning, day, and night) typically rotate each pay period among the crew with the exception of the senior maintenance crewmember (FWT III) who has a fixed day shift. Each crewmember is also responsible for opening and closing the boat gate after hours approximately once every week.

Work schedules and duties are assigned by the assistant manager with guidance from the senior maintenance crewmember. Weekly, a prioritized task list is posted to serve as a work guide. However, priorities routinely change and situations arise that require immediate attention. In these instances the assistant manager will reassign individual work priorities. In the absence of the assistant manager, the senior maintenance crewmember or area manager have this responsibility.

Extended leave is typically not given during the field season. However, leave for emergency situations can be accommodated.

In general, tasks should be completed in their order of importance and without accruing excessive overtime. Most projects can be finished within normal working hours. However, there will be occasions when the normal work schedules are insufficient to complete the necessary tasks. In these instances the assistant manager (or area manager) will authorize additional hours except during emergency situations that jeopardize property or personnel.

TIMESHEETS

Weir staff are responsible for tracking their own work hours and submitting timesheets. Timesheets are due the 15th and last day of every month. Timesheet templates are located on the staff computer in the office. Crewmembers are highly encouraged to create separate folders on the staff computer to record hours and save timesheets.

Following are the procedures for completing timesheets: (see Appendix C1 for example)

1) Open timesheet template (excel spreadsheet) – when prompted to select new pay period make sure the pay period dates are correct and click OK.
2) Fill in pay period ending date, name, SSN#, and Commercial Fisheries next to *Division* on the top lines of the timesheet.
3) Enter actual hours worked. Enter all times in the 24-hour format separated by a colon (e.g. 08:00 / 12:00 / 13:00 / 16:30).
4) On days with boat gate responsibility, enter 7.50 hours in the standby column for the day of and day after boat gate duty.
5) In the *comments box*: enter ‘Boatgate Standby’ for the dates with recorded standby hours.

6) In the *Charge To* box: enter 'Chignik General' under *Notation*, and '11100041-11140623' under *CC/LC*.
7) Check for errors then 'Save As' your name+timesheet+date (i.e. John Doe Timesheet 7-15-06.xls).
8) Email electronic copy of completed timesheet to the assistant manager.
9) Print hard copy, sign, date, and place in assistant manager's inbox.

COMPUTERS

Computers are first and foremost for official business. However, weir staff may use the facility's computers to access email and the internet while off duty. The manager, assistant manager, and pilot computers are not available for public use unless specifically stated otherwise. The staff computer is available first-come first-serve for personal use provided it does not interfere with any official business. Personal computers (i.e. laptop computers) cannot be connected to the weir facility's internet network.

PURCHASING

Facility staff will need to purchase additional food, fuel, and supplies throughout the field season. Purchases must first be approved by either the manager or assistant manager. Receipts from ALL purchases must be obtained and given to the assistant manager immediately after purchase (have receipts from phone or internet orders emailed or faxed to the weir office). Managing and replacing supplies is the responsibility of all weir staff. Be proactive, identify shortages, and predict future needs before supplies run out.

VISITORS / PUBLIC INTERACTION

Local residents and visitors regularly stop at the weir to obtain permits, ask questions, express concerns, or to simply look at the weir and underwater cameras. Weir staff are ultimately responsible for the safety of all visitors at the facility. Within reason, visitors should be limited to the bulkhead and office. Above all, be patient, courteous, and helpful. Success at the weir depends on public support, always remember to be a good neighbor, show respect, and offer assistance when necessary.

FIGURES

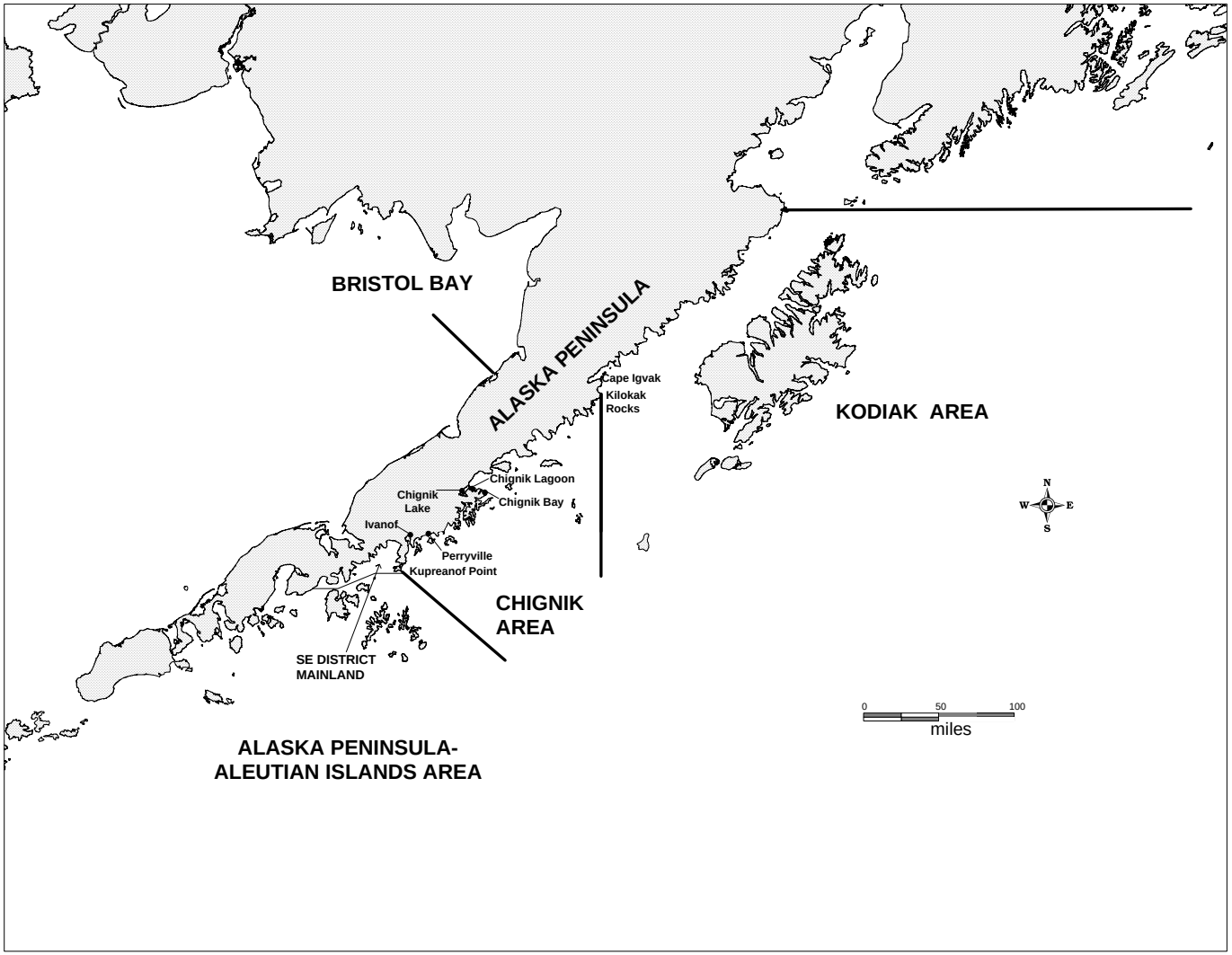

Figure 1.–Map of the Alaska Peninsula illustrating the relative locations of the Chignik, Kodiak, and Alaska Peninsula Management Areas.

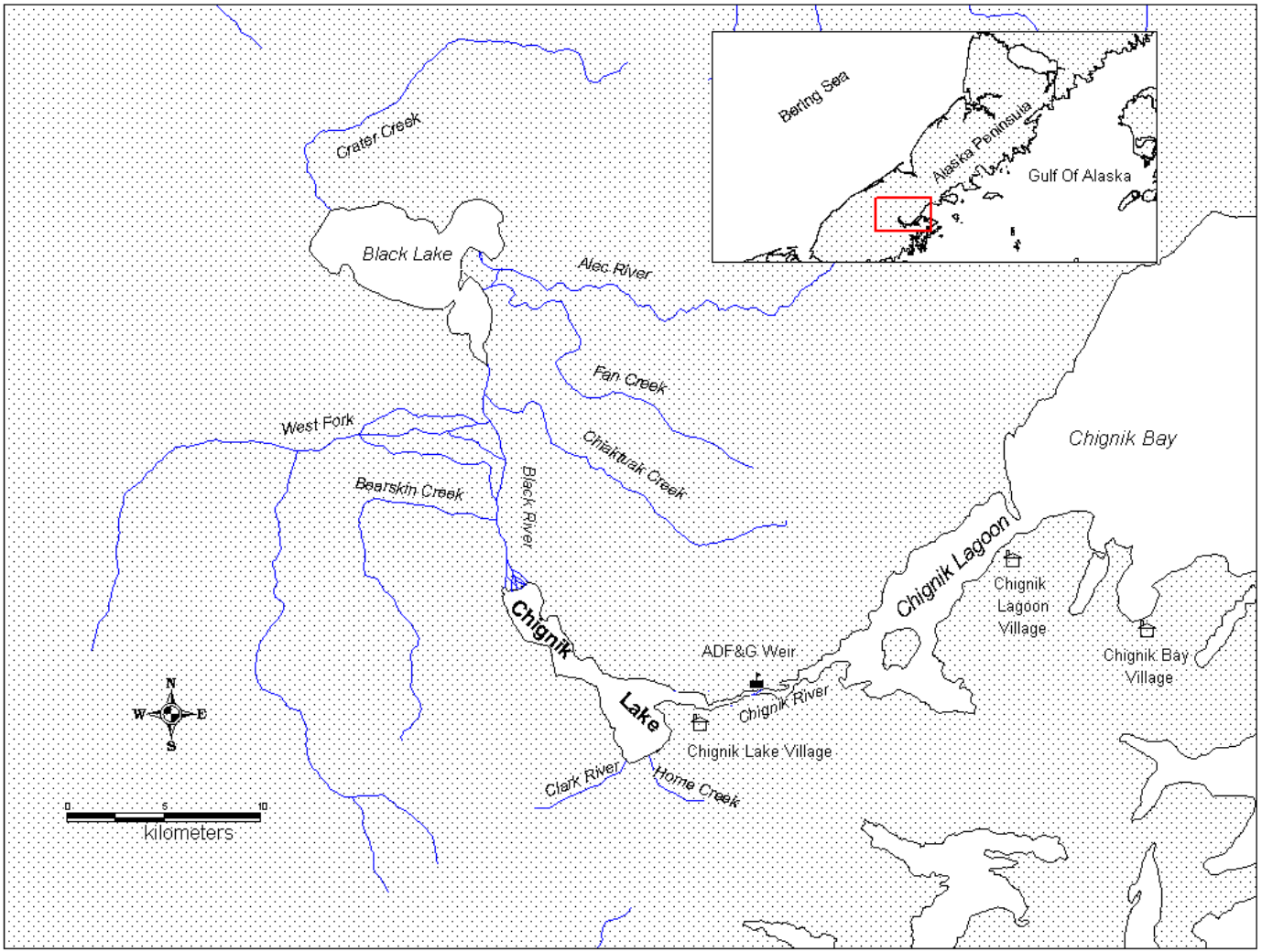

Figure 2.–Map of Chignik River system illustrating location of the Chignik weir facility.

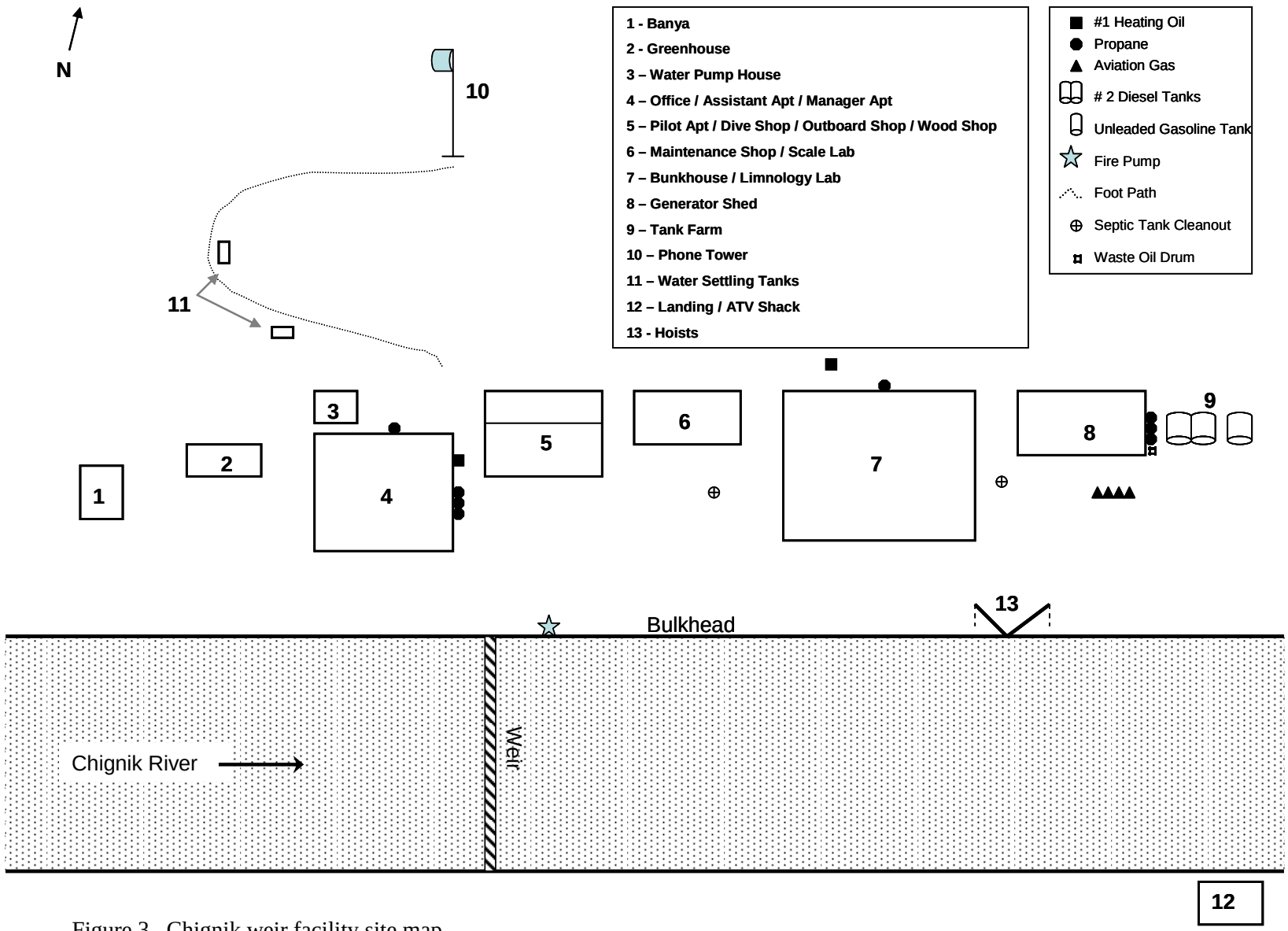

Figure 3.–Chignik weir facility site map.

APPENDIX A. PERSONAL USE OF OFFICE TECHNOLOGIES

Appendix A1.–State of Alaska policy on personal use of office technologies.

State Policy Regarding Personal Use of State Office Technologies

It is in the best interests of the state to encourage Alaska's state employees to learn to use the new office technologies that are fundamental to their future success as state employees. Use of technology that meets the ethical standards and provides exposure, education or experience is allowable and encouraged under this policy.

The office environment has a wide variety of technologies such as: digital telephone services (voice mail, message broadcasting, message and call forwarding), fax servers, image scanning and copying (color, reduction, enlargement, binding, collating), shared and stand-alone computers (fixed, portable), pagers (text and voice), cellular phones, data networks (local, regional, global), dial-up network facilities, Global Positioning Systems(fixed, portable), VHF and CB radios (fixed, portable), and wireless dispatched office pick-up/delivery courier services.

Use of Office Technologies is no different from use of any other state provided item in the workplace. Executive Branch public employees of the State of Alaska must conform to applicable Alaska statutes, Orders and Codes. Recognizing the very different agency missions or division specific needs, agencies may adopt more stringent, specific, or detailed guidelines. Reasonable use and common sense must prevail in the workplace use of Office Technologies. All policies must contain:

Prohibited uses of office technologies (not necessarily limited to the following):

1. Use for any purposes which violate a United States or State of Alaska law or the Alaska Administrative Code.

2. Use for any commercial activities, including commercial advertising, unless specific to the charter, mission, or duties of the government agency.

3. Use for access to or distribution of indecent or obscene material or child pornography.

4. Harassing other users, computing systems and/or damaging or altering the software components of same.

5. Use for fund raising, political campaign activities, or public relations activities not specifically related to state government activities.

6. Any activity which adversely affects the availability, confidentiality or integrity of any office technology.

The Executive Branch Ethics Act states a public employee may not "use state time, property, equipment, or other facilities to benefit personal or financial interests" (AS 39.52.120(b)(3)). Further, "standards of ethical conduct for members of the executive branch need to distinguish between those minor and inconsequential conflicts and those conflicts of interests that are substantial and material." (AS 39.52.110 (a)(3)).

Applicable Statutes, Administrative Orders and Codes that you may refer to include, but are not limited to: AS 39.52, Alaska Executive Branch Ethics Act; Administrative Order #81, Nondiscrimination and Non Harassment; Administrative Code 9 AAC 52, Alaska Executive Branch Code of Ethics; AS 39.25.160, Alaska Little Hatch Act; AS 24.60, Legislature Standards of Conduct.

-continued-

The State of Alaska reserves the right to routinely monitor Internet and E-mail use by individuals and report such use to appropriate supervisors. Contents of State Employees' computers are also subject to "Public Records" requests. This policy is to be read and signed by all employees in the presence of their supervisor or agency human resources staff and filed in each employee's personnel file. The signature of the employee constitutes acknowledgement of their obligation to abide by the policy. Use of the Internet and other office technology is a revocable privilege. User accounts and password access may be withdrawn if a user violates this policy. Violations may also result in possible personnel action up to and including termination and depending on the severity may result in criminal prosecution and/or civil liability. After reading and signing this policy, state employees have 48 hours after the date signed to clear any material that does not conform with this policy from any office technology.

_____
Signature of Employee

_____
Printed Name of Employee

_____
Department

_____ _____
PCN Date

_____
Signature of Supervisor

_____
Printed Name of Supervisor

_____
Department

_____ _____
PCN Date

State of Alaska
Office Technology Policy
http://www.state.ak.us/local/akpages/ADMIN/info/policy/offpol.pdf
Revised June 8, 2006

APPENDIX B. WORK SCHEDULE

Appendix B1.–Chignik crewmember work schedule.

	Sunday	Monday	Tuesday	Wesnesday	Thursday	Friday	Saturday
Early	0600-1000 1100-1430 **(7.5)**	0600-1000 1100-1430 **(7.5)**	0600-1000 1100-1430 **(7.5)**	0600-1000 1100-1430 **(7.5)**	0600-1000 1100-1230 **(5.5)**	**OFF**	0600-1000 1100-1430 **(7.5)**
Day	0800-1200 1300-1630 **(7.5)**	0800-1200 1300-1630 **(7.5)**	0800-1200 1300-1630 **(7.5)**	0800-1200 1300-1430 **(5.5)**	**OFF**	0800-1200 1300-1630 **(7.5)**	0800-1200 1300-1630 **(7.5)**
Late	1300-1700 1800-2130 **(7.5)**	1300-1700 1800-2130 **(7.5)**	1300-1700 1800-1930 **(5.5)**	**OFF**	1300-1700 1800-2130 **(7.5)**	1300-1700 1800-2130 **(7.5)**	1300-1700 1800-2130 **(7.5)**
Maintenance	0800-1200 1300-1630 **(7.5)**	0800-1200 1300-1430 **(5.5)**	**OFF**	1300-1700 1800-2130 **(7.5)**	0800-1200 1300-1630 **(7.5)**	0600-1000 1100-1430 **(7.5)**	0800-1200 1300-1630 **(7.5)**
Boat Gate	**Assistant**	**Manager**	**Smolt**	**Day**	**Early**	**Late**	**Maintenance**

Shift Specific Responsibilities

Early:
1) Review and record weir counts (2100 - 0500)
2) Complete and file weir count data sheets
3) Burn DVD archive
4) Turn off camera and boat gate lights
5) Check skiffs - bilge as necessary

Day:
1) Coordinate ASL sampling

Late:
1) Turn on camera and boat gate lights
2) Clean office - sweep/mop floors, empty trash, and clean coffee pot/sink/monitors
3) Check skiffs and facility - close doors and turn off lights

APPENDIX C. TIMESHEETS

Appendix C1.–Sample crewmember timesheet.

ALASKA DEPARTMENT OF FISH AND GAME Time and Attendance Report

Pay period ending: 10/15/2006 SSN: 123-45-6789 Name: John C. Weir Division Commercial Fisheries

Record times in military format. Example: 6:00 p.m. = 18:00. If you work past midnight, stop at 23:59 and resume at 00:01 the next day.

Day	Date	Start	Stop	Start	Stop	Start	Stop	Start	Stop	Start	Stop	Leave Taken		Sea Duty	Standby	Hazard	Code 1	Code 2	Code 3	Code 4	Holiday / Leave	Work Hrs Total
Sun	10/1																0.00				0.00	0.00
Mon	10/2	8:00	12:00	13:00	16:30												7.50				0.00	7.50
Tue	10/3	8:00	12:00	13:00	16:30												7.50				0.00	7.50
Wed	10/4	8:00	12:00	13:00	16:30	19:00	19:15								7.50		7.75				0.00	7.75
Thu	10/5	8:00	12:00	13:00	16:30										7.50		7.50				0.00	7.50
Fri	10/6	8:00	12:00	13:00	16:30												7.50				0.00	7.50
Sat	10/7	8:00	12:00	13:00	14:30												5.50				0.00	5.50
Sun	10/8																0.00				0.00	0.00
Mon	10/9	8:00	12:00	13:00	16:30												7.50				0.00	7.50
Tue	10/10	8:00	12:00	13:00	16:30												7.50				0.00	7.50
Wed	10/11	8:00	12:00	13:00	16:30	21:15	21:30								7.50		7.75				0.00	7.75
Thu	10/12	8:00	12:00	13:00	16:30										7.50		7.50				0.00	7.50
Fri	10/13	8:00	12:00	13:00	16:30												7.50				0.00	7.50
Sat	10/14	8:00	12:00	13:00	14:30												5.50				0.00	5.50
Sun	10/15																0.00				0.00	0.00
																	0.00				0.00	0.00
TOTALS															30.00	0.00	86.50	0.00	0.00	0.00	0.00	86.50

	Charge to:		
	Notation	CC/LC	%
1	Chignik	11340623/11340623	100%
2			
3			
4			
		Total	100%

	Comments		Comments
10/1		10/9	
10/2		10/10	
10/3		10/11	Boatgate standby
10/4	Boatgate standby	10/12	Boatgate standby
10/5	Boatgate standby	10/13	
10/6		10/14	
10/7		10/15	
10/8			

We certify that the information provided above is true and correct.

Employee's Signature Date:

Supervisor's Signature Date:

Approving Officer Signature Date:

Leave Use Codes

H=Holiday X=Comp Ann
S=Sick Y=Comp Pers
A=Annual C=Court
P=Personal L=LWOP

**** Premium Pay Codes (PPC)**

110 - Sea Duty 250 - Straight Time
206 - Hazard 251 - Overtime
211 - Standby

Holiday, Leave, Overtime and Premium Pay Overrides

**Codes	Hours	CC/LC
Leave & Holiday	0.00	No code needed for Leave & Holiday