McCHORD PIPELINE

A Subsidiary of U.S. Oil & Refining Co.

June 25, 2010

David L. Lykken
Pipeline Safety Director
Washington Utilities and Transportation Commission
1300 S. Evergreen Park Drive SW
PO Box 47250
Olympia, WA 98504-7250

Subject: Response to 2010 HAZ Liquid Pipeline Safety Standard Inspection (Docket PL-100012)

Mr. Lykken

This letter is in response to the WUTC audit conducted from May 17-19, 2010. There were three areas of concern noted from the audit. The responses are listed as follows:

Response to area of concern regarding pipe wrap at soil-to-air interface (Item #1a):
McChord Pipeline recognizes the disbanded tape wrap. This area has been removed and an inspection has been performed. Surface rust was discovered; so this area was cleaned, primed, and re-wrapped to prevent atmospheric corrosion. See Attachment #1 for a field investigation report and photographs.

Response to area of concern regarding corrosion under pipe supports at McChord Air Force Base terminal and MPL Pump Station (Item #1b):
McChord Pipeline recognizes the potential corrosion problem with saddle style pipe supports. (Water can accumulate between the pipe and the saddle and crevice corrosion can result.) The Chief Engineer has ordered new fiberglass reinforced plastic (FRP) shields for installation. A maintenance work order has been written to have the supports removed, inspect for corrosion, and then install FRP shields. The FRP shield will be bonded to the pipe. This work has a target completion date within 12 months. See Attachment #2 for a copy of the work order.

Response to area of concern regarding corrosion under pipe supports at the USOR pump station (Item #1c):
The uncoated portion of piping at the pump station is a pig launcher. This section is isolated from the main system. McChord Pipeline recognizes that this section is prone to atmospheric corrosion. This piece will be removed, cleaned, and painted within the next 90 days. See attachment #3 for a copy of the work order.

P.O. Box 2255/Tacoma, Washington 98401-2255
Telephone (253) 593-6085 Fax (253) 383-9970

Response to area of concern regarding employee knowledge on cathodic protection system (Item #2):
McChord Pipeline has a close partnership with Northwest Corrosion Engineering to monitor cathodic protection. This company has had a history with McChord Pipeline since 2002; the consultant is also a NACE certified instructor. In addition to data analysis, NW Corrosion Engineering has also provided informal training for McChord Pipeline employees. This has allowed MPL supervisors to become familiar with abnormal conditions relating to cathodic protection. The McChord Pipeline Chief Inspector monitors the rectifier weekly; any issues are communicated to Northwest Corrosion Engineering for correction. Annual cathodic protection checks are also done by Northwest Corrosion Engineering; these results are discussed in detail with the Chief Pipeline Engineer. McChord Pipeline will consider a formal course on cathodic protection basics.

Response to area of concern regarding WAC 480-75-300 Leak Detection calculations.
McChord Pipeline has added a section in the Operation Manual on how the leak detection rates are calculated. Attachment #4 is an updated page from the Operations Manual; it will be included in the upcoming manual revision due in October 2010.

McChord Pipeline appreciates WUTC pointing out these areas of concern, and we take these items very seriously. McChord Pipeline strives to keep an open relationship with the WUTC to improve pipeline safety and regulatory compliance. Please advise myself or Corey Herrick, Chief Engineer, if any further action is required on this item.

Sincerely,

David E. Rutherford, V.P.

for Alan J. Cabodi President

CC (w/o att): RWS, JPW
CC: CGH

Attachments:
#1 = Field investigation report and photographs of pipe wrap at MAFB
#2 = Work order for installing FRP shields
#3 = Work order for coating pig launcher at MPL pump station
#4 = Updated section in Operations Manual. (Complete manual revision is due October 2010.)

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ATTACHMENT #1
FIELD INVESTIGATION REPORT AND PHOTOGRAPHS

McCHORD PIPELINE COMPANY — FIELD INVESTIGATION REPORT

LOCATION

PREPARED BY:	DATE	REVIEWING SUPERVISOR	DATE	FIR NUMBER
D. Williamson	6/17/10	CGH	6/17/10	MPL-004

RESPONSIBILITY	LOC-UN-LOC	COD(NG: (CHECK ALL THAT APPLY) E	V	C	S	R	R/W NUMBER	ATLAS PAGE	MILE POST NUMBER
MCPIPE								1A	STAKE # 134+53

INVESTIGATION BECAUSE OF: (Circle One)
ONE CALL SYSTEM LINE PATROL AIR PATROL OTHER: WRAP REPAIR
REPORT BY A or B BELOW

TICKET OR FLIGHT REFERENCE NUMBER: White Audit DATE: 5/17/10 WORK ORDER REQUEST NUMBER:

INVESTIGATION

	(A) CONTRACTOR/DEVELOPER	(B) ON PROPERTY OWNED BY:	(C) PROPERTY LOCATION (IF DIFFERENT THAN (B))
NAME	MPL		
ADDRESS	3001 Marshall Ave	MAFB	
CITY/TWP/COUNTY STATE	Tacoma, WA		
PHONE NUMBER	253-383-1651		
COMMENTS:	Williamson		

(D) PERSON CONTACTED (A OR B OR C):

ACTIVITY WAS: (Circle One) APPROVED DISAPPROVED BPL NOT INVOLVED

WRITTEN NOTICE (EXHIBIT B) WAS GIVEN TO (A - B - C) ABOVE

PROPERTY TYPE (Circle One)
STREET SIDEWALK LAWN
CROP WOODS WETLANDS
OTHER: Fuel Storage

ENCROACHMENT

ACTIVITY (Check)	COMPLETED	UNDERWAY	PROPOSED	EFFECT	TEMPORARY	PERMANENT
FILL				REDUCED ACCESS		
CUT				REDUCED COVER		
BORE OR PILE DRIVE				INCREASED COVER		
CONSTRUCT				REDUCED SUPPORT		
MOVE EQUIPMENT				OTHER (COMMENT BELOW)		
STOCKPILE				ENCROACHMENT NOTICE (EXHIBIT C) WAS GIVEN TO (A - B - C) ABOVE		
OTHER (COMMENT BELOW)						

PIPE VISUAL INSPECTION

COATING TYPE: (CIRCLE ONE)
NONE COAL TAR EPOXY SOMASTIC OTHER

CONDITION OF COATING: (CIRCLE ONE)
GOOD DAMAGED DISBONDED

EXTERIOR CONDITION OF PIPE: (CIRCLE ONE)
GOOD PIT CORROSION GENERAL CORROSION
DENT STRESS CONCENTRATOR DENT W/STRESS CONC.
OTHER: Surface Rust

INTERIOR CONDITION OF PIPE: (CIRCLE ONE)
GOOD PIT CORROSION GENERAL CORROSION
OTHER:

PIPE LINE CROSSING

TYPE OF CROSSING:
STEEL COPPER NON-METALIC CABLE

UTILITY:
ELECT. SEWER GAS TELE/TV WATER PETROLEUM
OTHER:

SIZE:

FACILITY DAMAGE: (CIRCLE ONE OR MORE)
NONE COATING PIPE

NON-DESTRUCTIVE TESTING REQUIRED:
YES NO

CROSSING WAS: _____ FEET _____ INCHES OVER UNDER BPL AT STAKE NO. 134+53

TEST WIRES INSTALLED BY:	TEST STATION TYPE(S):	AT STAKE NUMBER(S):	ANODES INSTALLED BY:	AT STAKE NUMBER(S):
COMPANY FOREIGN			COMPANY FOREIGN	

RELEASE

CAUSE

LOCATION: _____ FEET N W E S OF
STAKE NUMBER:

PRODUCT TYPE	AMOUNT OUT	RECLAIMED	LOST	SOIL TYPE	AREA AFFECTED	AREA EXCAVATED	CLEANUP COMPLETED: YES NO

DISPOSITION OF CONTAMINATED MATERIAL:

REPAIR

REPAIRS: (CIRCLE ONE)
COATING REPAIR ONLY
DEFECT REMOVAL
SLEEVE INSTALLATION
PIPE REPLACEMENT

SIZE: 2"

GRADE/SERIES: B

WALL THICKNESS: .280

TYPE OF PIPE: SMLS ERW

LENGTH: 3 FEET 0 INCHES

STAKE NUMBER(S): FROM: 134+53 TO: 134+56

DRAWING ATTACHED: YES NO

COMMENTS

FOLLOWUP REQUIRED BY REGIONAL R/W AGENT: (Circle One) YES NO NOT SURE

INVESTIGATION PERFORMED BY COMPANY EMPLOYEE NUMBER	DATE	WORK HOURS
Williamson	6/17/10	1.0
Calton	6/17/10	1.0
	/ /	
	/ /	
	/ /	

REMARKS OR LOG:

WRAP ON MPL AT STAKE # 134+53 ON MAFB
WAS found to Be Disbonded. Removed WRAP
cleaned pipe to Bare Metal, Reprimed & wrapped.
NO pitting Found only surface corrosion. SEE Photos
Attached

DISTRIBUTION: Originals — District Manager → Operations Supervisor
Copy: Local Records

FORM MC-5A/12-93

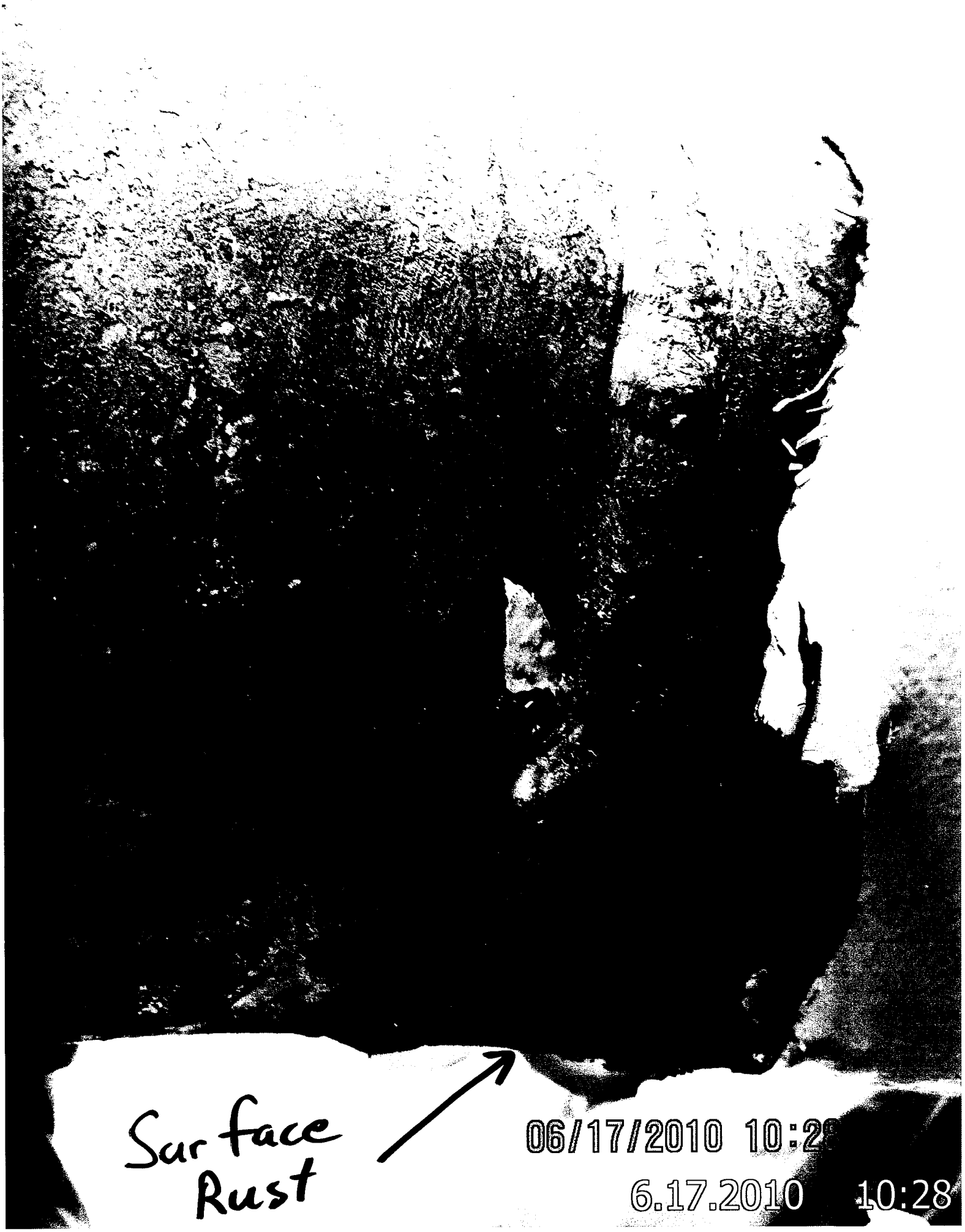
Disbanded wrap

CALPICO 20 MIL

CALPICO 10 MIL

6.17.2010 10:21

06/17/2010 10:21


Surface Rust
06/17/2010 10:2
6.17.2010 10:28


New wrap
06/17/2010 11:25
6.17.2010 11:25

ATTACHMENT #2
WORK ORDER FOR INSTALLING FRP SHIELDS

Work Order Details // 383277

INSTALL FRP SHIELDS UNDER PIPE SUPPORTS

WO:	383277	**Status:**	WENG	**Parent:**	
Report Date:	6/17/2010	**Target Start:**		**Target Finish:**	
Reported By:	USCGH	**Work Phone:**	680-6653	**Work Type:**	CM
Priority:		**Supervisor:**		**Work Type 2:**	SAF
Unit:	MCPIPE	**Lead:**		**GL Account:**	52007-MNT01-MCPIPE____
Project		**Lead Craft:**		**Contractor:**	PW

Location: MCPIPELINE McChord Pipeline- Pipeline
Asset:
Job Plan:

Material
Description: INSTALL FRP SHIELDS UNDER PIPE SUPPORTS

WORK LOCATION IS AT MCCHORD AIRFORCE BASE FUELS STORAGE TERMINAL AND MPL PUMP STATION.

WORK TO BE PERFORMED BY TOTAL WESTERN:

THE CURRENT SADDLE STYLE PIPE SUPPORTS ARE PRONE TO CREVICE CORROSION. IN ORDER TO MITIGATE THIS DAMAGE, DO THE FOLLOWING:

- LOWER THREADED PIPE SUPPORT (THIS MAY REQUIRE PAINT REMOVAL WITH SOLVENT)
- CLEAN THE PIPELINE TO SOUND METAL
- JPW WILL INSPECT THE PIPELINE FOR ANY CORROSION DAMAGE
- IF NO DAMAGE IS PRESENT, APPLY ADHESIVE TO FIBERGLASS REINFORCED PLASTIC SHIELD AND THEN PUT THE SHIELD ON THE PIPE.
- RAISE PIPE SUPPORT TO TOUCH THE BOTTOM OF THE FRP SHIELD.

FOR ANY QUESTIONS, CALL JOHN WILLIAMSON AT 253-377-0933

EMPLOYEES SELECTED FOR THIS TASK MUST HAVE A MAFB PASS.

ATTACHMENT #3
WORK ORDER FOR PAINTING THE PIG LAUNCHER

Work Order Details // 383279

PAINT MPL PIG LAUNCHER

WO: 383279	**Status:** WENG	**Parent:**	
Report Date: 6/17/2010	**Target Start:** 7/19/2010 3:04:02	**Target Finish:**	7/27/2010 3:04:09 PM
Reported By: USCGH	**Work Phone:**	**Work Type:**	CM
Priority:	**Supervisor:**	**Work Type 2:**	SAF
Unit: MCPIPE	**Lead:**	**GL Account:**	52007-MNT01-MCPIPE____
Project	**Lead Craft:**	**Contractor:**	IM

Location: MCPIPELINE McChord Pipeline- Pipeline
Asset:
Job Plan:

Material

Description: PAINT MPL PIG LAUNCHER

WORK LOCATION IS AT MPL PUMP STATION.

MECHANICAL WORK TO BE PERFORMED BY TOTAL WESTERN:
CHECK WITH OPERATIONS TO VERIFY SMART PIG LAUNCHER IS BLOCKED IN, DRAINED, AND DEPRESSURIZED. REMOVE PIG LAUNCHER SPOOL AND DELIVER DOWN TO INDUSTRIAL MARINE PAINT BOOTH. ADD BLIND FLANGES TO OPEN FLANGES. (THIS ACTIVITY SHALL BE DONE WHEN THERE IS NO JET TRANSER.)
REINSTALL AFTER PAINTING IS COMPLETE.

PAINTING TO BE PERFORMED BY INDUSTRIAL MARINE:
BLAST AND PAINT SMART PIG LAUNCHER SPOOL. COREY HERRICK WILL PROVIDE PAINT SPECIFICATIONS AND COLOR.

FOR ANY QUESTIONS, CALL COREY HERRICK @ 253-405-5107

Task Work Orders

Task WO	Description	GL Account	Cont.	Status
384281	TW TO REMOVE PIG LAUNCHER WORK LOCATION IS AT MPL PUMP STATION. MECHANICAL WORK TO BE PERFORMED BY TOTAL WESTERN: CHECK WITH OPERATIONS TO VERIFY SMART PIG LAUNCHER IS BLOCKED IN, DRAINED, AND DEPRESSURIZED. REMOVE PIG LAUNCHER SPOOL AND DELIVER DOWN TO INDUSTRIAL MARINE PAINT BOOTH. ADD BLIND FLANGES TO OPEN FLANGES. (THIS ACTIVITY SHALL BE DONE WHEN THERE IS NO JET TRANSER.) REINSTALL AFTER PAINTING IS COMPLETE. PAINTING TO BE PERFORMED BY INDUSTRIAL MARINE: BLAST AND PAINT SMART PIG LAUNCHER SPOOL. COREY HERRICK WILL PROVIDE PAINT SPECIFICATIONS AND COLOR. FOR ANY QUESTIONS, CALL COREY HERRICK @ 253-405-5107	52007-MNT01-MCPIPE____	PW	WENG

Date Completed **Completed By** **Supervisor**

Monday, June 28, 2010

ATTACHMENT #4
REVISED SECTION IV FROM MPL OPERATIONS MANUAL

IV. ABNORMAL OPERATIONS

Leak Indications: During Transfer Status------

A. Excess flow at the U.S. Oil Pump Station meter or decreased flow at the McChord Terminal meter may indicate a leak.

1. AFB Remote Telemetry in Operation:

"A" Reformer will monitor accumulated short variation on FQI-1436 [AFB totalizer-USO totalizer] and if it exceeds -2000 gallons the pipeline will be shut down and SS notified. The variable is alarmed at -2000 gallons. Proceed to immediately reconfirm the totalizer meter readings. If there is a -2,000 gallon variance contact the SS and the McChord Terminal PIC and proceed with shutdown as outlined below. A static pipeline pressure test will be performed immediately.

The "A" Reformer Operator will monitor the 15 minute short variation FQI-1438 [AFB totalizer-USO totalizer] and if it exceeds -546 gallons the pipeline will be shut down per the steps below and SS notified. The variable is alarmed at -546 gallons with a high priority alarm.

Verify the alarm by reviewing the trend for FQI-1438, the pipeline pressures and any start-up or shutdown events on the pipeline. Verify the pipeline remote telemetry status.

If you get the alarm, confirm the differential with the FQI-1436 accumulated flow differential. If confirmed by the FQI-1436 data and the FQI-1436 trend, shutdown the pipeline transfer immediately. Notify the Shift Supervisor and the P/G East who will notify the McChord AFB receiving station.

Record the AFB and US OIL meter readings. The SS will contact the OM&S Operations Superintendent.

As soon as authorized by the OM&S Operations Superintendent or his designee a static pipeline pressure test will be performed.

Watch the volume of the repressurization jet fuel and verify it confirms to the pressurization procedure # 14-60.

Complete the repressurize pipeline procedure #14-60 filling in all information to determine jet fuel volume required.

Contact the MPL inspector and OM&S Operations Superintendent with the results prior to restarting the Pipeline.

Note: The basis for the -546 gallon limit is compliance with WAC 480-75-300 leak detection requirement. This requirement states that the leak detection system must be capable of detecting an eight percent flow leak with in fifteen minutes or less. [maximum pipeline flow is 650 barrels per hour or 455 GPM. Therefore, 455 GPM times 15 minutes times the limit of 0.08 (8 %) equals 546 gallons. (455 X 15 X .08 = 546)]

2. AFB Remote Telemetry Out of Service:

If the accumulated short variation on U.S. Oil Form B exceeds -2,000 gallons [AFB totalizer-USO totalizer], the pipeline must be shut down. The variance is calculated once per hour based upon on-the-hour totalizer readings at the ends of the pipeline. Proceed to immediately reconfirm the totalizer meter readings. If there is a 2,000 gallon variance contact the SS and the McChord Terminal PIC and proceed with shutdown. A static pipeline pressure test will be performed immediately.

B. Decreased pressure at the U.S. Oil Pump Station or decreased pressure at the McChord Terminal may indicate a leak. If the pressure at either location drops more than 15 psi and there is no obvious reason such as a tank switch or change in McChord filters, the pipeline must be shutdown. This sudden drop in line pressure will be alarmed as PI-1407A on the Net90 and is monitored by the "A" Reformer operator.

If the pressure at the U.S. Oil Pump Station drops to below 175 psig, the P-1401 pump will be automatically shutdown by PAL-1405. This could be caused by a massive leak in the pipeline.

The normal static head of jet fuel filled pipeline provides a 135 PSIG pressure at the U.S. Oil Pump Station.