

LAB

NORTHWEST LABORATORIES

APPLIED INDUSTRIAL RESEARCH

STAFF AFFILIATIONS: A.S.T.M. - A.C.S. - A.I.C.H.E. - A.C.I. - A.S.M. - A.O.C.S. - A.M.E. - N.S.P.E.

200 JAMES STREET • SEATTLE, WASHINGTON 98104 • TELEPHONE MA. 2-0680

Report to: City of Enumclaw Gas Department

Date: June 29, 1972

Report on: Hydrostatic Test

Lab. No. D 6220

IDENTIFICATION: Section 4" High Pressure Gas Main - Welded

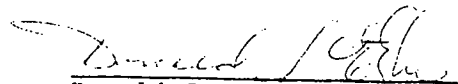
Test Procedure:

Applied hydrostatic load of 5,000 PSI internal air pressure.

Test Results:

Swelling - no failure.

NORTHWEST LABORATORIES


Donald J. Etzler

LWB

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200 JAMES STREET • SEATTLE, WASHINGTON 98104 • TELEPHONE MA. 2-0680

Report to: City of Enumclaw, Gas Department

Date: September 13, 1972

Report on: Steel Pipe

Lab. No. D 6854

IDENTIFICATION: 6" High Pressure Main - Welded

HYDROSTATIC PRESSURE TEST:

Maximum Load

2500 PSIG

Nature of Failure

At edge of Girth Seam

BEND TEST OF PIPE MATERIAL:

Bent flat on itself; no cracks.

NORTHWEST LABORATORIES



Albert O. Wahto

House 15.00

7-14-72

ENUMCLAW GAS SYSTEM
UPRATING HIGH PRESSURE FEEDER

Recommended items for uprating the 12 miles of 6" and 4" high pressure feeder.

1. Make a new map or bring up to date the High Pressure Feeder Drawing, Sheet 2, to show all sectionalizing valves, tap valves ahead of district regulators and connected mains to the feeder. Distribution intermediate pressure mains should be removed from this sheet.
2. Prepare list of services connected to the feeder using attached form.
3. Prepare list of district regulator stations and indicate uprating requirements at each.
4. List the odorizer and pressure rating.
5. Review adequacy of pipeline signs along the pipeline right of way.

CITY OF ENUMCLAW

Utilities

GAS DIVISION

Enumclaw, Washington

April 27, 1973

George Peppin
P. O. Box 1526
Salt Lake City, Utah 84110

Dear George,

The City of Enumclaw Gas Division requests the pressure at the El Paso Station #4080 Enumclaw be reduced to 200# until further notice.

I plan to be in Salt Lake the 22nd, 23rd, and 24th of May. Hope to see you at that time if you are not too busy.

Dale

4/27
Contacted Mike Porter in Vancouver he will take care of this

J. Munnings dropped pressure at Enumclaw 5-4-73 from 250# to 200# at 1:00 pm.

NORTHWEST PIPELINE CORPORATION
REGULATOR AND RELIEF VALVE

INSPECTION/FAILURE REPORT

FORM NWP 1193 (9-84)

(D.O.T. REFERENCE PART 192, SECTIONS 739, 743)

Facility Name Enumclaw Meter Station	Number at this Location: 511	Regulators 2	Relief Valves 1	Meter Code 21-835-017	Date 4-13-87
Customer Name or System Served City of Enumclaw					Check If Equipment Failed. <input type="checkbox"/>

(IF EQUIPMENT FAILED, COVER ONLY ONE ITEM PER FORM)

REGULATOR - PRIMARY		Make Reliance	Model P 101	Serial No. 60	Pressure to Open <input type="checkbox"/> Close <input checked="" type="checkbox"/>
Body Flanged <input checked="" type="checkbox"/> Screwed <input type="checkbox"/>	ANSI or Pressure Rating 600	Body Size 2	I.V. Style or Type	I.V. Size, Area, or % 1 1/2"	I.V. Travel
CONTROLLER	Make Fisher	Type 4100 VR	Output Range	Spring Range 0-500	Valve Positioner Make
Valve Positioner Type	Controlled Variable Flow <input type="checkbox"/>	Back Pressure <input type="checkbox"/>	Reduced Pressure <input type="checkbox"/>		
Lockup Test <input checked="" type="checkbox"/> Other Test <input type="checkbox"/> No Test <input type="checkbox"/>	Supply regulators O.K.? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Controller Condition Good? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Regulator Set Pressure 250	psig	

REGULATOR - SECONDARY		Make Reliance	Model P 101	Serial No. 64	Pressure to Open <input type="checkbox"/> Close <input checked="" type="checkbox"/>
Body Flanged <input checked="" type="checkbox"/> Screwed <input type="checkbox"/>	ANSI or Pressure Rating 600	Body Size 2	I.V. Style or Type	I.V. Size, Area, or % 1 1/2"	I.V. Travel
CONTROLLER	Make Fisher	Type 400 VR	Output Range	Spring Range 0-500	Valve Positioner Make
Valve Positioner Type	Controlled Variable Flow <input type="checkbox"/>	Back Pressure <input type="checkbox"/>	Reduced Pressure <input type="checkbox"/>		
Lockup Test <input checked="" type="checkbox"/> Other Test <input type="checkbox"/> No Test <input type="checkbox"/>	Supply regulators O.K.? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Controller Condition Good? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Regulator Set Pressure 240	psig	

REGULATOR MAINTENANCE/DISASSEMBLY INSPECTION

	PRIMARY		SECONDARY		PRIMARY		SECONDARY		
Inner Valve Condition O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Free From Internal Wear or Erosion	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Valve Seats O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Supply Regulator(s) O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Stem Condition O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Controller in Good Condition?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Guide Condition O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Stainless Capillary in Controller?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Stem Packing O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Replacement Parts Needed?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Diaphragm O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Lockup Test Performed?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
DETAIL CORRECTIVE ACTION TAKEN:					Regulator Set Pressure	_____ psig		_____ psig	

REQUIREMENTS OR POSSIBILITIES FOR FURTHER ACTION:

RELIEF VALVE - PRIMARY		Serial No. 4252K	Make Anderson-Greenwood	Model 33310K34	Inlet Size 3	Outlet Size 4
Orifice Size K	Set-pressure Psig Found: 275	Left: 275	Blowdown (resat) Pressure Psig Found: 272	Left: 272	Size of Valve Under Relief Valve Body: 4	Bore: plug
Mechanical Condition O.K.?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Leaks?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Pilot Condition O.K.?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is valve below r.v. locked open? <input type="checkbox"/>
RELIEF VALVE - SECONDARY		Serial No.	Make	Model	Inlet Size	Outlet Size
Orifice Size	Set-pressure Psig Found:	Left:	Blowdown (resat) Pressure Psig Found:	Left:	Size of Valve Under Relief Valve Body:	Bore:
Mechanical Condition O.K.?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Leaks?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Pilot Condition O.K.?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Is valve below r.v. locked open? <input type="checkbox"/>

RELIEF VALVE MAINTENANCE/DISASSEMBLY INSPECTION

	PRIMARY		SECONDARY		PRIMARY		SECONDARY		
"O" Rings O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Leaks?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Seats O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Pilot Condition O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Plunger or piston O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Replacement parts needed:	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Mechanical Condition O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Is valve below r.v. locked open?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
DETAIL CORRECTIVE ACTION TAKEN:					<div style="border: 2px solid black; padding: 5px; display: inline-block;"> <p style="text-align: center; margin: 0;">RECEIVED</p> <p style="text-align: center; margin: 0;">23 1987</p> </div>				

REQUIREMENTS OR POSSIBILITIES FOR FURTHER ACTION:

Are Regulators and Relief Valves properly installed and free from conditions that might prevent proper operation? If not, detail:

REMARKS:

Signature: *Ted Loring*

NORTHWEST PIPELINE CORPORATION
REGULATOR AND RELIEF VALV' INSPECTION/FAILURE REPORT

FORM NWP 1193 (9-84)

(D.O.T. REFERENCE PART 192, SECTIONS 739, 740)

Facility Name Enumclaw	Number at this Location:	Regulators 2	Relief Valves	Meter Code 21035-	Date 11-23-87
Customer Name or System Served CITY OF Enumclaw					Check If Equipment Failed. <input type="checkbox"/>

(IF EQUIPMENT FAILED, COVER ONLY ONE ITEM PER FORM)

REGULATOR - PRIMARY		Make MOONEY	Model FlowGrid	Serial No. 0787	Pressure to Open <input type="checkbox"/> Close <input type="checkbox"/>
Body Flanged <input checked="" type="checkbox"/> Screwed <input type="checkbox"/>	ANSI or Pressure Rating 2500	Body Size 2"	I.V. Style or Type	I.V. Size, Area, or %	I.V. Travel
CONTROLLER		Make Grove	Type 829S	Output Range	Spring Range 125-350
Valve Positioner Type		Controlled Variable Flow <input type="checkbox"/>		Back Pressure <input type="checkbox"/>	Reduced Pressure <input type="checkbox"/>
Lockup Test <input checked="" type="checkbox"/>	Other Test <input type="checkbox"/>	No Test <input type="checkbox"/>	Supply regulators O.K.? Yes <input type="checkbox"/> No <input type="checkbox"/>	Controller Condition Good? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Regulator Set Pressure 250 psig
REGULATOR - SECONDARY		Make MOONEY	Model FlowGrid	Serial No. 0788	Pressure to Open <input type="checkbox"/> Close <input type="checkbox"/>
Body Flanged <input checked="" type="checkbox"/> Screwed <input type="checkbox"/>	ANSI or Pressure Rating 2500	Body Size 2"	I.V. Style or Type	I.V. Size, Area, or %	I.V. Travel
CONTROLLER		Make Grove	Type 829S	Output Range	Spring Range 125-350
Valve Positioner Type		Controlled Variable Flow <input type="checkbox"/>		Back Pressure <input type="checkbox"/>	Reduced Pressure <input type="checkbox"/>
Lockup Test <input checked="" type="checkbox"/>	Other Test <input type="checkbox"/>	No Test <input type="checkbox"/>	Supply regulators O.K.? Yes <input type="checkbox"/> No <input type="checkbox"/>	Controller Condition Good? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Regulator Set Pressure 240 psig

REGULATOR MAINTENANCE/DISASSEMBLY INSPECTION

	PRIMARY		SECONDARY			PRIMARY		SECONDARY	
Inner Valve Condition O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Free From Internal Wear or Erosion	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Valve Seats O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Supply Regulator(s) O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Stem Condition O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Controller in Good Condition?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Guide Condition O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Stainless Capillary in Controller?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Stem Packing O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Replacement Parts Needed?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Diaphragm O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Lockup Test Performed?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
					Regulator Set Pressure	_____ psig		_____ psig	

DETAIL CORRECTIVE ACTION TAKEN:

REQUIREMENTS OR POSSIBILITIES FOR FURTHER ACTION:

RELIEF VALVE - PRIMARY		Serial No.	Make	Model	Inlet Size	Outlet Size
Orifice Size	Set-pressure Psig Found:	Left:	Blowdown (reseat) Pressure Psig Found:	Left:	Size of Valve Under Relief Valve Body:	Pilot Type Bore:
Mechanical Condition O.K.? Yes <input type="checkbox"/> No <input type="checkbox"/>		Leaks? Yes <input type="checkbox"/> No <input type="checkbox"/>		Pilot Condition O.K.? Yes <input type="checkbox"/> No <input type="checkbox"/>		Is valve below r.v. locked open? yes <input type="checkbox"/> no <input type="checkbox"/>
RELIEF VALVE - SECONDARY		Serial No.	Make	Model	Inlet Size	Outlet Size
Orifice Size	Set-pressure Psig Found:	Left:	Blowdown (reseat) Pressure Psig Found:	Left:	Size of Valve Under Relief Valve Body:	Pilot Type Bore:
Mechanical Condition O.K.? Yes <input type="checkbox"/> No <input type="checkbox"/>		Leaks? Yes <input type="checkbox"/> No <input type="checkbox"/>		Pilot Condition O.K.? Yes <input type="checkbox"/> No <input type="checkbox"/>		Is valve below r.v. locked open? yes <input type="checkbox"/> no <input type="checkbox"/>

RELIEF VALVE MAINTENANCE/DISASSEMBLY INSPECTION

	PRIMARY		SECONDARY			PRIMARY		SECONDARY	
"O" Rings O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Leaks?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Seats O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Pilot Condition O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Plunger or piston O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Replacement parts needed?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Mechanical Condition O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Is valve below r.v. locked open?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>

DETAIL CORRECTIVE ACTION TAKEN:

REQUIREMENTS OR POSSIBILITIES FOR FURTHER ACTION:

Are Regulators and Relief Valves properly installed and free from conditions that might prevent proper operation? If not, detail:

REMARKS: **Removed The Reliance "P" Regulators and replaced them with Mooney's w/ Grove Pilots**

Signature: **D.T. Stone**

NORTHWEST PIPELINE CORPORATION
REGULATOR AND RELIEF VALV INSPECTION/FAILURE REPORT

FORM NWP 1193 (9-84)

(D.O.T. REFERENCE PART 192, SECTIONS 739, 740)

Facility Name <i>Enumclaw</i>	Number at this Location: <i>3-11</i>	Regulators <i>2</i>	Relief Valves <i>1</i>	Meter Code <i>21-835-017</i>	Date <i>4-22-88</i>
Customer Name or System Served <i>City of Enumclaw</i>					Check If Equipment Failed. <input type="checkbox"/>

(IF EQUIPMENT FAILED, COVER ONLY ONE ITEM PER FORM)

REGULATOR - PRIMARY		Make <i>MOONEY</i>	Model <i>Flow GRID</i>	Serial No. <i>0787</i>	Pressure to Open Close, <input type="checkbox"/>
Body Flanged <input checked="" type="checkbox"/> Screwed <input type="checkbox"/>	ANSI or Pressure Rating <i>2500</i>	Body Size <i>2"</i>	I.V. Style or Type	I.V. Size, Area, or %	I.V. Travel
CONTROLLER	Make <i>GROVE</i>	Type <i>829 S</i>	Output Range	Spring Range <i>125-350</i>	Valve Positioner Make
Valve Positioner Type	Controlled Variable	Flow <input type="checkbox"/>	Back Pressure <input type="checkbox"/>	Reduced Pressure <input type="checkbox"/>	
Lockup Test <input checked="" type="checkbox"/> Other Test <input type="checkbox"/> No Test <input type="checkbox"/>	Supply regulators O.K.? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Controller Condition Good? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Regulator Set Pressure <i>250</i>	psig	
REGULATOR - SECONDARY		Make <i>MOONEY</i>	Model <i>Flow GRID</i>	Serial No. <i>0788</i>	Pressure to Open Close, <input type="checkbox"/>
Body Flanged <input checked="" type="checkbox"/> Screwed <input type="checkbox"/>	ANSI or Pressure Rating <i>2500</i>	Body Size <i>2"</i>	I.V. Style or Type	I.V. Size, Area, or %	I.V. Travel
CONTROLLER	Make <i>GROVE</i>	Type <i>829 S</i>	Output Range	Spring Range <i>125-350</i>	Valve Positioner Make
Valve Positioner Type	Controlled Variable	Flow <input type="checkbox"/>	Back Pressure <input type="checkbox"/>	Reduced Pressure <input type="checkbox"/>	
Lockup Test <input type="checkbox"/> Other Test <input checked="" type="checkbox"/> No Test <input type="checkbox"/>	Supply regulators O.K.? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Controller Condition Good? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Regulator Set Pressure <i>240</i>	psig	

REGULATOR MAINTENANCE/DISASSEMBLY INSPECTION

	PRIMARY		SECONDARY		PRIMARY		SECONDARY		
Inner Valve Condition O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Free From Internal Wear or Erosion	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Valve Seats O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Supply Regulator(s) O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Stem Condition O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Controller in Good Condition?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Guide Condition O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Stainless Capillary in Controller?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Stem Packing O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Replacement Parts Needed?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Diaphragm O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Lockup Test Performed?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
					Regulator Set Pressure	_____ psig		_____ psig	

DETAIL CORRECTIVE ACTION TAKEN: _____

REQUIREMENTS OR POSSIBILITIES FOR FURTHER ACTION: _____

RELIEF VALVE - PRIMARY		Serial No. <i>4252K</i>	Make <i>ALGREENWOOD</i>	Model <i>33310K34</i>	Inlet Size <i>3"</i>	Outlet Size <i>4"</i>
Orifice Size <i>K</i>	Set-pressure Psig Found: <i>275</i> Left: <i>275</i>	Blowdown (reseal) Pressure Psig Found: <i>272</i> Left: <i>272</i>	Size of Valve Under Relief Valve Body: <i>4"</i> Bore: <i>plug</i>	Pilot Type <i>Modulator</i>		
Mechanical Condition O.K.?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Leaks? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Pilot Condition O.K.?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is valve below r.v. locked open?	yes <input checked="" type="checkbox"/> no <input type="checkbox"/>
RELIEF VALVE - SECONDARY		Serial No.	Make	Model	Inlet Size	Outlet Size
Orifice Size	Set-pressure Psig Found: _____ Left: _____	Blowdown (reseal) Pressure Psig Found: _____ Left: _____	Size of Valve Under Relief Valve Body: _____ Bore: _____	Pilot Type		
Mechanical Condition O.K.?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Leaks? Yes <input type="checkbox"/> No <input type="checkbox"/>	Pilot Condition O.K.?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Is valve below r.v. locked open?	yes <input type="checkbox"/> no <input type="checkbox"/>

RELIEF VALVE MAINTENANCE/DISASSEMBLY INSPECTION

	PRIMARY		SECONDARY		PRIMARY		SECONDARY		
"O" Rings O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Leaks?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Seats O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Pilot Condition O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Plunger or piston O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Replacement parts needed?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Mechanical Condition O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Is valve below r.v. locked open?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>

DETAIL CORRECTIVE ACTION TAKEN: _____

REQUIREMENTS OR POSSIBILITIES FOR FURTHER ACTION: _____

RECEIVED

Are Regulators and Relief Valves properly installed and free from conditions that might prevent proper operation? If not, detail: *29 1988*

REMARKS: _____

COMPLIANCE & SAFETY

Signature *Ben Ant SR*

NORTHWEST PIPELINE CORPORATION
REGULATOR AND RELIEF VALVE INSPECTION/FAILURE REPORT

FORM NWP 1193 (9-84)

(D.O.T. REFERENCE PART 192, SECTIONS 739, 743)

Facility Name ZNUMCLAW MIS	Number at this Location: 511	Regulators 2	Relief Valves 1	Meter Code 21-835-017	Date 4-27-89
Customer Name or System Served ZNUMCLAW NATURAL GAS					Check If Equipment Failed. <input type="checkbox"/>

(IF EQUIPMENT FAILED, COVER ONLY ONE ITEM PER FORM)

REGULATOR - PRIMARY		Make MOONEY	Model Flow GRD	Serial No. 0787	Pressure to Open <input type="checkbox"/> Close <input type="checkbox"/>
Body Flanged <input checked="" type="checkbox"/> Screwed <input type="checkbox"/>	ANSI or Pressure Rating 2500	Body Size 2"	I.V. Style or Type	I.V. Size, Area, or %	I.V. Travel
CONTROLLER	Make Grove	Type 829 S	Output Range	Spring Range 125-350	Valve Positioner Make
Valve Positioner Type	Controlled Variable	Flow <input type="checkbox"/>	Back Pressure <input type="checkbox"/>	Reduced Pressure <input type="checkbox"/>	
Lockup Test <input checked="" type="checkbox"/> Other Test <input type="checkbox"/> No Test <input type="checkbox"/>	Supply regulators O.K.? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Controller Condition Good? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Regulator Set Pressure 240	psig	

REGULATOR - SECONDARY		Make MOONEY	Model Flow GRD	Serial No. 0788	Pressure to Open <input type="checkbox"/> Close <input type="checkbox"/>
Body Flanged <input checked="" type="checkbox"/> Screwed <input type="checkbox"/>	ANSI or Pressure Rating 2500	Body Size 2"	I.V. Style or Type	I.V. Size, Area, or %	I.V. Travel
CONTROLLER	Make Grove	Type 829 S	Output Range	Spring Range 125-350	Valve Positioner Make
Valve Positioner Type	Controlled Variable	Flow <input type="checkbox"/>	Back Pressure <input type="checkbox"/>	Reduced Pressure <input type="checkbox"/>	
Lockup Test <input checked="" type="checkbox"/> Other Test <input type="checkbox"/> No Test <input type="checkbox"/>	Supply regulators O.K.? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Controller Condition Good? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Regulator Set Pressure 250	psig	

REGULATOR MAINTENANCE/DISASSEMBLY INSPECTION

	PRIMARY		SECONDARY		PRIMARY		SECONDARY		
Inner Valve Condition O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Free From Internal Wear or Erosion	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Valve Seats O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Supply Regulator(s) O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Stem Condition O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Controller in Good Condition?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Guide Condition O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Stainless Capillary in Controller?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Stem Packing O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Replacement Parts Needed?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Diaphragm O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Lockup Test Performed?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
					Regulator Set Pressure		psig		psig

DETAIL CORRECTIVE ACTION TAKEN:

REQUIREMENTS OR POSSIBILITIES FOR FURTHER ACTION:

RELIEF VALVE - PRIMARY		Serial No. 4252 K	Make ANDERSON GREENWOOD	Model 3310K34	Inlet Size 3"	Outlet Size 4"
Orifice Size 1K	Set-pressure Psig Found: 275 Left: 275	Blowdown (reset) Pressure Psig Found: 272 Left: 272	Size of Valve Under Relief Valve Body: 4" Bore: plg	Pilot Type modulator	yes <input checked="" type="checkbox"/>	
Mechanical Condition O.K.?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Leaks? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Pilot Condition O.K.?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Is valve below r.v. locked open?	no <input type="checkbox"/>

RELIEF VALVE - SECONDARY		Serial No.	Make	Model	Inlet Size	Outlet Size
Orifice Size	Set-pressure Psig Found: Left:	Blowdown (reset) Pressure Psig Found: Left:	Size of Valve Under Relief Valve Body: Bore:	Pilot Type	yes <input type="checkbox"/>	
Mechanical Condition O.K.?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Leaks? Yes <input type="checkbox"/> No <input type="checkbox"/>	Pilot Condition O.K.?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Is valve below r.v. locked open?	no <input type="checkbox"/>

RELIEF VALVE MAINTENANCE/DISASSEMBLY INSPECTION

	PRIMARY		SECONDARY		PRIMARY		SECONDARY		
"O" Rings O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Leaks?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Seats O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Pilot Condition O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Plunger or piston O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Replacement parts needed?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Mechanical Condition O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Is valve below r.v. locked open?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>

DETAIL CORRECTIVE ACTION TAKEN:

MAY - 3 1989

REQUIREMENTS OR POSSIBILITIES FOR FURTHER ACTION:

Are Regulators and Relief Valves properly installed and free from conditions that might prevent proper operation? If not, detail:

REMARKS:

Signature *[Handwritten Signature]*

**NORTHWEST PIPELINE CORPORATION
REGULATOR AND RELIEF VALVE INSPECTION/FAILURE REPORT**
FORM NWP 1193 (9-84) (D.O.T. REFERENCE PART 192, SECTIONS 739, 745)

Facility Name <i>Enumclaw M/S</i>	Number at this Location: <i>511</i>	Regulators <i>2</i>	Relief Valves <i>1</i>	Meter Code <i>21-085-017</i>	Date <i>4-27-90</i>
Customer Name or System Served <i>Enumclaw NATURAL GAS</i>					Check If Equipment Failed. <input type="checkbox"/>

(IF EQUIPMENT FAILED, COVER ONLY ONE ITEM PER FORM)

REGULATOR - PRIMARY		Make <i>MOONEY</i>	Model <i>FLOW GRID</i>	Serial No. <i>0787</i>	Pressure to Open <input type="checkbox"/> Close <input type="checkbox"/>
Body Flanged <input checked="" type="checkbox"/> Screwed <input type="checkbox"/>	ANSI or Pressure Rating <i>2500</i>	Body Size <i>2"</i>	I.V. Style or Type <i>50% RESTRICTED</i>	I.V. Size, Area, or % <i>50% RESTRICTED</i>	I.V. Travel
CONTROLLER	Make <i>Groce</i>	Type <i>829 S</i>	Output Range	Spring Range <i>125-350</i>	Valve Positioner Make
Valve Positioner Type	Controlled Variable	Flow <input type="checkbox"/>	Back Pressure <input type="checkbox"/>	Reduced Pressure <input type="checkbox"/>	
Lockup Test <input checked="" type="checkbox"/> Other Test <input type="checkbox"/> No Test <input type="checkbox"/>	Supply regulators O.K.? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Controller Condition Good? Yes <input type="checkbox"/> No <input type="checkbox"/>	Regulator Set Pressure <i>250</i>	psig	
REGULATOR - SECONDARY		Make <i>MOONEY</i>	Model <i>FLOW GRID</i>	Serial No. <i>0788</i>	Pressure to Open <input type="checkbox"/> Close <input type="checkbox"/>
Body Flanged <input checked="" type="checkbox"/> Screwed <input type="checkbox"/>	ANSI or Pressure Rating <i>2500</i>	Body Size <i>2"</i>	I.V. Style or Type <i>50% RESTRICTED</i>	I.V. Size, Area, or % <i>50% RESTRICTED</i>	I.V. Travel
CONTROLLER	Make	Type	Output Range	Spring Range <i>125-350</i>	Valve Positioner Make
Valve Positioner Type	Controlled Variable	Flow <input type="checkbox"/>	Back Pressure <input type="checkbox"/>	Reduced Pressure <input type="checkbox"/>	
Lockup Test <input type="checkbox"/> Other Test <input type="checkbox"/> No Test <input type="checkbox"/>	Supply regulators O.K.? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Controller Condition Good? Yes <input type="checkbox"/> No <input type="checkbox"/>	Regulator Set Pressure <i>240</i>	psig	

REGULATOR MAINTENANCE/DISASSEMBLY INSPECTION

	PRIMARY		SECONDARY		PRIMARY		SECONDARY		
Inner Valve Condition O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Free From Internal Wear or Erosion	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Valve Seats O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Supply Regulator(s) O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Stem Condition O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Controller in Good Condition?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Guide Condition O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Stainless Capillary in Controller?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Stem Packing O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Replacement Parts Needed?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Diaphragm O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Lockup Test Performed?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
					Regulator Set Pressure	_____ psig		_____ psig	

DETAIL CORRECTIVE ACTION TAKEN: _____

REQUIREMENTS OR POSSIBILITIES FOR FURTHER ACTION: _____

RELIEF VALVE - PRIMARY		Serial No. <i>4252 K</i>	Make <i>ANDERSON GREENWOOD</i>	Model <i>3310 K-34</i>	Inlet Size <i>3"</i>	Outlet Size <i>4"</i>
Orifice Size <i>K</i>	Set-pressure Psig Found: <i>275</i> Left: <i>275</i>	Blowdown (reseal) Pressure Psig Found: <i>272</i> Left: <i>272</i>	Size of Valve Under Relief Valve Body: <i>4"</i> Bore: <i>PLUG</i>	Pilot Type <i>modulator</i>		
Mechanical Condition O.K.? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Leaks? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Pilot Condition O.K.? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is valve below r.v. locked open? no <input type="checkbox"/>			
RELIEF VALVE - SECONDARY		Serial No.	Make	Model	Inlet Size	Outlet Size
Orifice Size	Set-pressure Psig Found: _____ Left: _____	Blowdown (reseal) Pressure Psig Found: _____ Left: _____	Size of Valve Under Relief Valve Body: _____ Bore: _____	Pilot Type		
Mechanical Condition O.K.? Yes <input type="checkbox"/> No <input type="checkbox"/>	Leaks? Yes <input type="checkbox"/> No <input type="checkbox"/>	Pilot Condition O.K.? Yes <input type="checkbox"/> No <input type="checkbox"/>	Is valve below r.v. locked open? no <input type="checkbox"/>			

RELIEF VALVE MAINTENANCE/DISASSEMBLY INSPECTION

	PRIMARY		SECONDARY		PRIMARY		SECONDARY		
"O" Rings O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Leaks?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Seats O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Pilot Condition O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Plunger or piston O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Replacement parts needed?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Mechanical Condition O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Is valve below r.v. locked open?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>

DETAIL CORRECTIVE ACTION TAKEN: _____

REQUIREMENTS OR POSSIBILITIES FOR FURTHER ACTION: _____

Are Regulators and Relief Valves properly installed and free from conditions that might prevent proper operation? If not, detail:

REMARKS: _____

Signature *[Signature]*

NORTHWEST PIPELINE CORPORATION
REGULATOR AND RELIEF VAL

INSPECTION/FAILURE REPORT

FORM NWP 1193 (9-84)

(D.O.T. REFERENCE PART 192, SECTIONS 739, 743)

Facility Name ENUMCLAW M/S	Number at this Location: 21-035	Regulators 2	Relief Valves 1	Meter Code 21-035	Date 4-18-91
Customer Name or System Served ENUMCLAW NAT GAS					Check If Equipment Failed. <input type="checkbox"/>

(IF EQUIPMENT FAILED, COVER ONLY ONE ITEM PER FORM)

REGULATOR - PRIMARY		Make Mooney	Model Flow GRID	Serial No. 0788	Pressure to Open <input type="checkbox"/> Close <input checked="" type="checkbox"/>
Body Flanged <input checked="" type="checkbox"/> Screwed <input type="checkbox"/>	ANSI or Pressure Rating 1440	Body Size 2"	I.V. Style or Type 50% RESTRICTED	I.V. Size, Area, or %	I.V. Travel
CONTROLLER Pilot	Make GROVE	Type 829 S	Output Range	Spring Range -125 - 350	Valve Positioner Make
Valve Positioner Type	Controlled Variable	Flow <input type="checkbox"/>	Back Pressure <input type="checkbox"/>	Reduced Pressure <input type="checkbox"/>	
Lockup Test <input checked="" type="checkbox"/> Other Test <input type="checkbox"/> No Test <input type="checkbox"/>	Supply regulators O.K.? Yes <input type="checkbox"/> No <input type="checkbox"/>	Controller Condition Good? Yes <input type="checkbox"/> No <input type="checkbox"/>	Regulator Set Pressure 250	psig	
REGULATOR - SECONDARY		Make Mooney	Model Flow GRID	Serial No. 0787	Pressure to Open <input type="checkbox"/> Close <input checked="" type="checkbox"/>
Body Flanged <input checked="" type="checkbox"/> Screwed <input type="checkbox"/>	ANSI or Pressure Rating 1440	Body Size	I.V. Style or Type	I.V. Size, Area, or %	I.V. Travel
CONTROLLER Pilot	Make GROVE	Type 829 S	Output Range	Spring Range 125 / 350	Valve Positioner Make
Valve Positioner Type	Controlled Variable	Flow <input type="checkbox"/>	Back Pressure <input type="checkbox"/>	Reduced Pressure <input type="checkbox"/>	
Lockup Test <input type="checkbox"/> Other Test <input type="checkbox"/> No Test <input type="checkbox"/>	Supply regulators O.K.? Yes <input type="checkbox"/> No <input type="checkbox"/>	Controller Condition Good? Yes <input type="checkbox"/> No <input type="checkbox"/>	Regulator Set Pressure 240	psig	

REGULATOR MAINTENANCE/DISASSEMBLY INSPECTION

	PRIMARY		SECONDARY		PRIMARY		SECONDARY		
Inner Valve Condition O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Free From Internal Wear or Erosion	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Valve Seats O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Supply Regulator(s) O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Stem Condition O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Controller in Good Condition?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Guide Condition O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Stainless Capillary in Controller?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Stem Packing O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Replacement Parts Needed?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Diaphragm O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Lockup Test Performed?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
					Regulator Set Pressure		psig		psig

DETAIL CORRECTIVE ACTION TAKEN:

REQUIREMENTS OR POSSIBILITIES FOR FURTHER ACTION:

RELIEF VALVE - PRIMARY		Serial No. 42521K	Make AN/9	Model 3310K-34	Inlet Size 3"	Outlet Size 4"
Orifice Size 1K	Set-pressure Psig Found: 275	Left: 275	Blowdown (reseat) Pressure Psig Found: 272	Left: 272	Size of Valve Under Relief Valve Body: 4"	Bore: plug
Mechanical Condition O.K.? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Leaks? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Pilot Condition O.K.? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Is valve below r.v. locked open? no <input type="checkbox"/>
RELIEF VALVE - SECONDARY		Serial No.	Make	Model	Inlet Size	Outlet Size
Orifice Size	Set-pressure Psig Found:	Left:	Blowdown (reseat) Pressure Psig Found:	Left:	Size of Valve Under Relief Valve Body:	Bore:
Mechanical Condition O.K.? Yes <input type="checkbox"/> No <input type="checkbox"/>		Leaks? Yes <input type="checkbox"/> No <input type="checkbox"/>		Pilot Condition O.K.? Yes <input type="checkbox"/> No <input type="checkbox"/>		Is valve below r.v. locked open? no <input type="checkbox"/>

RELIEF VALVE MAINTENANCE/DISASSEMBLY INSPECTION

	PRIMARY		SECONDARY		PRIMARY		SECONDARY		
"O" Rings O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Leaks?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Seats O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Pilot Condition O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Plunger or piston O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Replacement parts needed?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Mechanical Condition O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Is valve below r.v. locked open?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>

DETAIL CORRECTIVE ACTION TAKEN:

REQUIREMENTS OR POSSIBILITIES FOR FURTHER ACTION:

Are Regulators and Relief Valves properly installed and free from conditions that might prevent proper operation? If not, detail:

REMARKS:

Signature *Bob [unclear]*

REGULATOR AND RELIEF VALVE INSPECTION/FAILURE REPORT

FORM WWG 1193 (12-91)

Company <i>NWP</i>		Facility Name <i>Enumclaw m/s</i>	Number at this Location: <i>S11</i>	Regulators <i>2</i>	Relief Valves <i>1</i>	Meter Code <i>2135017-025</i>	Date <i>4-9-92</i>
Customer Name or System Served <i>City of Enumclaw</i>							Check If Equipment Failed. <input type="checkbox"/>

(IF EQUIPMENT FAILED, COVER ONLY ONE ITEM PER FORM)

REGULATOR - PRIMARY		Make <i>Mooney</i>	Model <i>Flow Grid</i>	Serial No. <i>0787</i>	Pressure to Open <input type="checkbox"/> Close <input checked="" type="checkbox"/>
Body Flanged <input checked="" type="checkbox"/> Screwed <input type="checkbox"/>	ANSI or Pressure Rating <i>1440</i>	Body Size <i>2"</i>	I.V. Style or Type <i>50%</i>	I.V. Size, Area, or % <i>50% Restricted</i>	I.V. Travel
<i>Pilot</i> CONTROLLER	Make <i>Grove</i>	Type <i>8295</i>	Output Range	Spring Range <i>125-350</i>	Valve Positioner Make
Valve Positioner Type Controlled Variable <input type="checkbox"/> Flow <input type="checkbox"/> Back Pressure <input type="checkbox"/> Reduced Pressure <input type="checkbox"/>					
Lockup Test <input checked="" type="checkbox"/> Other Test <input type="checkbox"/> No Test <input type="checkbox"/>	Supply regulators O.K.? Yes <input type="checkbox"/> No <input type="checkbox"/>	Controller Condition Good? Yes <input type="checkbox"/> No <input type="checkbox"/>	Regulator Set Pressure <i>250</i> psig		

REGULATOR - SECONDARY		Make <i>Mooney</i>	Model <i>Flow Grid</i>	Serial No. <i>0788</i>	Pressure to Open <input type="checkbox"/> Close <input type="checkbox"/>
Body Flanged <input checked="" type="checkbox"/> Screwed <input type="checkbox"/>	ANSI or Pressure Rating <i>1440</i>	Body Size <i>2"</i>	I.V. Style or Type <i>50%</i>	I.V. Size, Area, or % <i>50% Restricted</i>	I.V. Travel
<i>Pilot</i> CONTROLLER	Make <i>Grove</i>	Type <i>4295</i>	Output Range	Spring Range <i>125-350</i>	Valve Positioner Make
Valve Positioner Type Controlled Variable <input type="checkbox"/> Flow <input type="checkbox"/> Back Pressure <input type="checkbox"/> Reduced Pressure <input type="checkbox"/>					
Lockup Test <input checked="" type="checkbox"/> Other Test <input type="checkbox"/> No Test <input type="checkbox"/>	Supply regulators O.K.? Yes <input type="checkbox"/> No <input type="checkbox"/>	Controller Condition Good? Yes <input type="checkbox"/> No <input type="checkbox"/>	Regulator Set Pressure <i>240</i> psig		

REGULATOR MAINTENANCE/DISASSEMBLY INSPECTION

	PRIMARY		SECONDARY		PRIMARY		SECONDARY		
Inner Valve Condition O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Free From Internal Wear or Erosion	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Valve Seats O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Supply Regulator(s) O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Stem Condition O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Controller in Good Condition?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Guide Condition O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Stainless Capillary in Controller?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Stem Packing O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Replacement Parts Needed?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Diaphragm O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Lockup Test Performed?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
					Regulator Set Pressure	_____ psig		_____ psig	

DETAIL CORRECTIVE ACTION TAKEN: _____

REQUIREMENTS OR POSSIBILITIES FOR FURTHER ACTION: _____

RELIEF VALVE - PRIMARY		Serial No. <i>4252 K</i>	Make <i>Anderson Greenwood</i>	Model <i>3310K-34</i>	Inlet Size <i>3"</i>	Outlet Size <i>4"</i>
Orifice Size <i>K</i>	Set-pressure Psig Found: <i>275</i> Left: <i>275</i>	Blowdown (reset) Pressure Psig Found: <i>272</i> Left: <i>272</i>	Size of Valve Under Relief Valve Body: <i>4"</i> Bore: <i>Plug</i>	Pilot Type <i>Modulator</i>		
Mechanical Condition O.K.? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Leaks? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Pilot Condition O.K.? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is valve below r.v. locked open? no <input type="checkbox"/>		
RELIEF VALVE - SECONDARY		Serial No.	Make	Model	Inlet Size	Outlet Size
Orifice Size	Set-pressure Psig Found: _____ Left: _____	Blowdown (reset) Pressure Psig Found: _____ Left: _____	Size of Valve Under Relief Valve Body: _____ Bore: _____	Pilot Type		
Mechanical Condition O.K.? Yes <input type="checkbox"/> No <input type="checkbox"/>		Leaks? Yes <input type="checkbox"/> No <input type="checkbox"/>	Pilot Condition O.K.? Yes <input type="checkbox"/> No <input type="checkbox"/>	Is valve below r.v. locked open? no <input type="checkbox"/>		

RELIEF VALVE MAINTENANCE/DISASSEMBLY INSPECTION

	PRIMARY		SECONDARY		PRIMARY		SECONDARY		
"O" Rings O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Leaks?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Seats O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Pilot Condition O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Plunger or piston O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Replacement parts needed?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Mechanical Condition O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Is valve below r.v. locked open?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>

DETAIL CORRECTIVE ACTION TAKEN: _____

REQUIREMENTS OR POSSIBILITIES FOR FURTHER ACTION: _____

Are Regulators and Relief Valves properly installed and free from conditions that might prevent proper operation? If not, detail: _____

REMARKS: _____

Signature *Doug Shultz*

REGULATOR AND RELIEF VALVE INSPECTION/FAILURE REPORT

FORM WWG 1193 (12-91)

Company NUUP		Facility Name ENUMCLAW	Number at this Location: 511	Regulators 2	Relief Valves 1	Meter Code 2135017.025	Date 4-19-93
Customer Name or System Served CITY OF ENUMCLAW							Check If Equipment Failed. <input type="checkbox"/>

(IF EQUIPMENT FAILED, COVER ONLY ONE ITEM PER FORM)

REGULATOR - PRIMARY		Make Mooney	Model Flow Grid	Serial No. 0787	Pressure to Open <input type="checkbox"/> Close <input checked="" type="checkbox"/>
Body Flanged <input checked="" type="checkbox"/> Screwed <input type="checkbox"/>	ANSI or Pressure Rating 1440	Body Size 2"	I.V. Style or Type	I.V. Size, Area, or % 50%	I.V. Travel
Pilot CONTROLLER	Make Grove	Type 829S	Output Range	Spring Range 125-350	Valve Positioner Make
Valve Positioner Type	Controlled Variable	Flow <input type="checkbox"/>	Back Pressure <input type="checkbox"/>	Reduced Pressure <input type="checkbox"/>	

Lockup Test Other Test No Test Supply regulators O.K.? Yes No Controller Condition Good? Yes No Regulator Set Pressure **240** psig

REGULATOR - SECONDARY		Make Mooney	Model Flow Grid	Serial No. 0788	Pressure to Open <input type="checkbox"/> Close <input checked="" type="checkbox"/>
Body Flanged <input checked="" type="checkbox"/> Screwed <input type="checkbox"/>	ANSI or Pressure Rating 1440	Body Size 2"	I.V. Style or Type	I.V. Size, Area, or % 50%	I.V. Travel
Pilot CONTROLLER	Make Grove	Type 829S	Output Range	Spring Range 125-350	Valve Positioner Make
Valve Positioner Type	Controlled Variable	Flow <input type="checkbox"/>	Back Pressure <input type="checkbox"/>	Reduced Pressure <input type="checkbox"/>	

Lockup Test Other Test No Test Supply regulators O.K.? Yes No Controller Condition Good? Yes No Regulator Set Pressure **250** psig

REGULATOR MAINTENANCE/DISASSEMBLY INSPECTION

	PRIMARY		SECONDARY		PRIMARY		SECONDARY		
Inner Valve Condition O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Free From Internal Wear or Erosion	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Valve Seats O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Supply Regulator(s) O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Stem Condition O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Controller in Good Condition?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Guide Condition O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Stainless Capillary in Controller?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Stem Packing O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Replacement Parts Needed?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Diaphragm O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Lockup Test Performed?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
					Regulator Set Pressure	_____ psig		_____ psig	

DETAIL CORRECTIVE ACTION TAKEN: _____

REQUIREMENTS OR POSSIBILITIES FOR FURTHER ACTION: _____

RELIEF VALVE - PRIMARY		Serial No. 92-07091	Make A/G	Model PART# 42312L34-S1	Inlet Size 3	Outlet Size 4
Orifice Size L	Set-pressure Psig Found: 275	Left: 275	Blowdown (reseal) Pressure Psig Found: 265	Left: 255	Size of Valve Under Relief Valve Body: 4"	Bore: 4"
Mechanical Condition O.K.? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Leaks? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Pilot Condition O.K.? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Is valve below r.v. locked open? no <input type="checkbox"/>

RELIEF VALVE - SECONDARY		Serial No.	Make	Model	Inlet Size	Outlet Size
Orifice Size	Set-pressure Psig Found:	Left:	Blowdown (reseal) Pressure Psig Found:	Left:	Size of Valve Under Relief Valve Body:	Bore:
Mechanical Condition O.K.? Yes <input type="checkbox"/> No <input type="checkbox"/>		Leaks? Yes <input type="checkbox"/> No <input type="checkbox"/>		Pilot Condition O.K.? Yes <input type="checkbox"/> No <input type="checkbox"/>		Is valve below r.v. locked open? no <input type="checkbox"/>

RELIEF VALVE MAINTENANCE/DISASSEMBLY INSPECTION

	PRIMARY		SECONDARY		PRIMARY		SECONDARY		
"O" Rings O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Leaks?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Seats O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Pilot Condition O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Plunger or piston O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Replacement parts needed?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Mechanical Condition O.K.?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Is valve below r.v. locked open?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Yes <input type="checkbox"/>	No <input type="checkbox"/>

DETAIL CORRECTIVE ACTION TAKEN: _____

REQUIREMENTS OR POSSIBILITIES FOR FURTHER ACTION: _____

Are Regulators and Relief Valves properly installed and free from conditions that might prevent proper operation? If not, detail:

REMARKS:

Signature *Doug [Signature]*