Woodard, Marina (UTC)

From: Lykken, David (UTC)
Sent: Thursday, September 02, 2010 8:40 AM
To: Woodard, Marina (UTC)
Subject: FW: NW Natural Response to WUTC Inspection Report No. PG-100051 (Clark County)
Attachments: Response PG-100051_e.doc; PG-100051 Enclosure 3.PDF; PG-100051 Enclosure 1.PDF; PG-100051 Enclosure 2.PDF; PG-10051 Enclosure 4.doc

You may have already seen this.

Al printed his own copies.

From: Maurer, Darlene [mailto:darlene.maurer@nwnatural.com]
Sent: Thursday, September 02, 2010 7:43 AM
To: Lykken, David (UTC)
Cc: Jones, Al (UTC); Huddleston, Jon; Colton, Cari; Baribault, Jim; Rogers, Roy
Subject: NW Natural Response to WUTC Inspection Report No. PG-100051 (Clark County)

Mr. Lykken,

The following is an electronic copy of NW Natural's response to WUTC Inspection Report PG-100051 for Clark County, Washington. We are placing the original in U. S. Mail today, September 2, 2010.

Thank you for working with us in obtaining an extension for this response.

Darlene T. Maurer
Pipeline Safety Compliance Specialist
NW Natural
503-226-4211 ext. 4391
1-800-422-4012 ext. 4391

Jon G. Huddleston
Director, Deliver Gas
(503) 226-4211 Ext. 4435
FAX (503) 273-4822
jon.huddleston@nwnatural.com

NW Natural
220 NW 2ND AVENUE
PORTLAND, OR 97209
TEL 503.226.4211
www.nwnatural.com

RECEIVED
SEP 02 2010
WUTC
Pipeline Safety Division

September 2, 2010

Mr. David Lykken
Pipeline Safety Director
Washington Utilities and Transportation Commission
1300 South Evergreen Park Drive SW
P. O. Box 47250
Olympia, Washington 98504-7250

Subject: 2010 Standard Pipeline Safety Inspection, Clark County, Washington Distribution System, Ref. No. Docket PG-100051

Dear Mr. Lykken:

The inspection of NW Natural's facilities in Clark County, Washington, was conducted from June 14-18, 2010 by Mr. Al Jones of the Washington Utilities and Transportation Commission (WUTC). In response to the findings of the audit, dated July 19, 2010, NW Natural reports the following:

Areas of Concern

1. Title 49 CFR §192.481 Atmospheric corrosion control: Monitoring.

(a) Each operator must inspect each pipeline or portion of pipeline that is exposed to the atmosphere for evidence of atmospheric corrosion, as follows:

If the pipeline is located:	*Then the frequency of inspection is:*
Onshore	At least once every 3 calendar years, but with intervals not exceeding 39 months
Offshore	*At least once each calendar year, but with intervals not exceeding 15 months*

(b) During inspections the operator must give particular attention to pipe at soil-to-air interfaces, under thermal insulation, under disbanded coatings, ***at pipe supports****, in splash zones, at deck penetrations, and in spans over water.*

(c) If atmospheric corrosion is found during an inspection, the operator must provide protection against the corrosion as required by §192.479.

Finding(s):

Inspections for atmospheric corrosion under pipe supports had not been conducted at concrete pipe supports for the aboveground water crossing at NE 11th Ave & NE Division; located in Camas. The 8-inch, high pressure main (250 psig) was constructed in 1956. The pipe under the supports needs to be evaluated for atmospheric corrosion or modifications made to prevent the formation of a corrosion cell.

NW Natural response:

NW Natural appreciates Staff's concerns and recommendations regarding the above ground water crossing at NE 11th Avenue and NE Division in Camas, Washington (Identification Number 1-021-055-B-01-B-A). As evidenced by NW Natural's historical inspection records of the 8-inch pipeline crossing, there were no noted indications of leakage or abnormalities in the coating or condition of the pipe posing a threat to pipeline safety. However, on July 9, 2010, in response to Staff's concerns, NW Natural removed the concrete pipe supports and on August 20, 2010, thoroughly inspected the 8-inch pipeline for evidence of atmospheric corrosion. The inspection assessed the pipe coating to be good and there was no evidence of atmospheric corrosion at any location on the pipe (Enclosure 1). Enclosed are photos of the pipeline taken during the August 20, 2010 inspection (see Figures 1-3). In addition, upon closer evaluation, NW Natural determined this span of above ground pipe over a short water crossing does not require pipe supports. As a result, NW Natural decided replacing pipe supports was not necessary.

In summary, NW Natural has taken corrective action to remove the concrete supports of the pipeline crossing to facilitate a full visual inspection of the pipeline in the future.

2. **Title 49 CFR §192.201 Required capacity of pressure relieving and limiting stations.**

   (a) Each pressure relief station or pressure limiting station or group of those stations installed to protect a pipeline must have enough capacity, and must be set to operate, to insure the following:

   (2) In pipelines other than a low pressure distribution system:

   (ii) If the maximum allowable operating pressure is 12 psi gage or more, but less than 60 psi gage, the pressure may not exceed the maximum allowable operating pressure plus 6 psi gage;

Finding(s):

The overpressure protection valves at regulator stations at "C" Street in Washougal (1-022-061) and East Reserve St and 4th Plain Rd in Vancouver (1-014-032) were set two to three psig above the MAOP of the system. The relief valves were reset to allow for build-up pressure to occur below the MAOP of the system. NWN is reminded that operation above the MAOP is not allowed. Pressure control equipment must be designed and configured to prevent operation above the MAOP.

NW Natural response:

NW Natural is strongly committed to pipeline safety and to the appropriate settings of pressure relieving and limiting stations to ensure they do not to exceed MAOP. The MAOP for district regulator 1-022-061-R-01-R-B located at "C" Street in Washougal is 40 psig, and the MAOP for district regulator 1-014-032-R-B at East Reserve Street and Fourth Plain Boulevard in

Vancouver is 50 psig. In accordance with 49 CFR 192.201 (a)(2)(ii), NW Natural procedures allow for pressure-reducing regulators on systems greater than 20 psig, but less than 100 psig, a maximum lock up at MAOP minus 1 psig, and for relief valves the maximum set point at MAOP plus 1 psig. In addition, each pressure reducing regulator's lockup set point must be at least 2 psig below its corresponding relief valve's set point.

On July 9, 2009, NW Natural personnel performed the most recent routine inspection on district regulator 1-022-061-R-01-R-B and its associated relief (Identification Number 1-022-061-R-01-E-A). At the time, the as left set point for the regulator was recorded as 35 psig, and the as left set point for the relief was 40 psig. As Staff observed during the field inspection on June 15, 2010, the as found set point for this relief was 43 psig. In accordance with NW Natural procedures, field personnel immediately reset the relief to 40 psig. On July 15, 2010, NW Natural performed a routine inspection on this regulator and relief, confirmed proper settings, and recorded the as found set point for the regulator as 37 psig and the as left set point as 35 psig. In the same inspection, field personnel found the relief setting at 40 psig, and recorded the as left set point as 40 psig (Enclosure 2). During both inspections on July 9, 2009, and July 15, 2010, the as found and as left settings for the district regulator and relief were within the parameters of the above-referenced NW Natural procedures.

On December 16, 2009, NW Natural personnel last performed a routine inspection on district regulator 1-014-032-R-B. The as left set point for the regulator was recorded as 47 psig, and the as left set point for the relief was 50 psig. Both settings were within the parameters of the above-referenced NW Natural procedures. During the routinely scheduled operations and maintenance activity performed on June 15, 2010, the as found settings were also within NW Natural parameters.

In summary, the set points NW Natural personnel recorded for both referenced regulators and their associated reliefs were within the parameters of the company's procedures and in compliance with 49 CFR 192.201 (a)(2)(ii). During the WUTC inspection when the set points were found to be outside of the company standards, technicians immediately readjusted the relief set point to acceptable standards. Personnel again confirmed proper settings while performing a routine inspection on July 15, 2010. NW Natural appreciates staff's concerns and will continue to conduct inspections of pressure relieving and limiting stations to ensure set points are in compliance with 49 CFR 192.201 (a)(2)(ii).

3. Title 49 CFR §192.721 Distribution systems: Patrolling.

(a) The frequency of patrolling mains must be determined by the severity of the conditions which could cause failure or leakage, and the consequent hazards to public safety.

Finding(s):

At the Washougal River crossing in Camas, the 1958 pipe supports on the bridge should be evaluated for structural integrity.

NW Natural response:

In response to Staff's recommendation for evaluating the structural integrity of pipe supports for the bridge crossing over the Washougal River in Camas, Washington (Identification Number 1-022-056-B-01-B-A), on August 18, 2010, NW Natural individually inspected a total of 43 pipe supports on this crossing. Results of the inspection indicated all pipe supports were in very

good condition. A copy of the inspection record is enclosed (Enclosure 3). Also included in this report are photographs of the as found condition of the pipe supports (see Figures 4-6).

In summary, NW Natural's historical inspection records of this bridge crossing has included the evaluation of pipe supports, and company personnel have not found any indications of leakage or abnormalities to the condition of the pipe that could potentially pose a threat to pipeline safety. However, in response to Staff's recommendation, NW Natural thoroughly inspected the pipe supports on the bridge crossing the Washougal River, Camas, Washington, and determined all 43 supports were in very good condition.

4. **Title 49 CFR §192.465 External corrosion control: Monitoring.**

   (a) Each cathodic protection rectifier or other impressed current power source must be inspected six times each calendar year, but with intervals not exceeding 2.5 months, to insure that it is operating.

Finding(s):

The rectifier at East Mill Plain and Missoula Way is in compliance with inspection requirements. However, the data from this rectifier indicates that it is failing. The rectifier is providing protection to about one mile of bare main.

NW Natural response:

As acknowledged by Staff and as evidenced by inspections conducted six times per year by NW Natural personnel, the company's rectifier located at East Mill Plain Boulevard and Missoula Avenue, Vancouver, Washington, is operational and protecting the company's steel pipelines in accordance with 49 CFR 192.465. This rectifier, in combination with a second rectifier located approximately ¾ miles east of Missoula Avenue at Mill Plain Boulevard and Morrison Avenue, Vancouver, Washington, currently provide adequate levels of cathodic protection to a combination of bare and coated steel pipelines. However, in response to Staff's concerns, NW Natural recently conducted a simulation, turning off the Missoula Avenue rectifier completely and relying solely on the Morrison Avenue rectifier to provide cathodic protection. The simulation confirmed all pipe-to-soil reads exceeded -0.85 volts. As a result of this simulation, NW Natural has determined the smallest incremental increase in voltage from the Morrison Avenue rectifier will easily protect all bare and coated steel piping currently protected by two ground beds. Furthermore, NW Natural has targeted replacement of the bare main in this location, which will also assist in maintaining acceptable and compliant cathodic protection levels.

In summary, NW Natural is aware of the diminishing output of the groundbed associated with the rectifier at Mill Plain Boulevard and Missoula Avenue, and has a plan already in place to provide continuous cathodic protection to the affected steel pipelines in the event of failure.

5. **Title 49 CFR §192.625 Odorization of gas.**

   (a) A combustible gas in a distribution line must contain a natural odorant or be odorized so the concentration in air of one-fifth of the lower explosive limit, the gas is readily detectable by a person with a normal sense of smell.

Finding(s):

NWN need to periodically review their "sniff" test sites and determine if and when the sites many [sic] need to be relocated. The south extremities of the Vancouver distribution system near Interstate -205 were not identified with a test site. Staff recommends that this area be considered for a test site.

NW Natural response:

NW Natural conducts a periodic review of all odorization "sniff" test sites throughout the company's distribution system to determine if new sites need to be added or existing sites need to be relocated or abandoned. Several factors are considered during this review, including where the new distribution system expansion has taken place since the last review, where the odorizers are located, and site availability. In addition, when technicians conduct a test, they make note of any factors that may have changed at the site, including nearby odors that may affect the test, site access issues, and abnormally low or high test readings. The Engineering Supervisor reviews these factors, and new sites are added or existing sites are relocated or eliminated on a case-by-case basis.

Regarding Staff's concern about the southern extremities of the Vancouver distribution system near Interstate 205, as evidenced by the enclosed map (Enclosure 4), NW Natural currently has three existing odorization test sites in this area. "OD" denotes an odorization test site, and "OR" denotes an odorizer location. The reading for these test sites have historically been both acceptable and consistent, and there are no recorded issues associated with these sites that would necessitate their relocation. As a result, NW Natural has determined these existing odorization test sites adequately monitor the concentration of odorant in this area of the Vancouver distribution system in accordance with 49 CFR 192.625.

This report summarizes our activities in response to the pipeline safety inspection of the company's Clark County operations.

Sincerely,

Jon G. Huddleston
Director, Deliver Gas

cc: Al Jones

Enclosures (4)

dtm659

Figure 1. NE 11th Avenue and NE Division water crossing, Camas, Washington: Pipe after concrete supports were removed.

Figure 2. NE 11th Avenue and NE Division water crossing, Camas, Washington: Close-up view of pipe condition after concrete supports were removed.

Figure 3. NE 11th Avenue and NE Division water crossing, Camas, Washington: Close-up view of repair to pipe coating at point where concrete supports were removed.

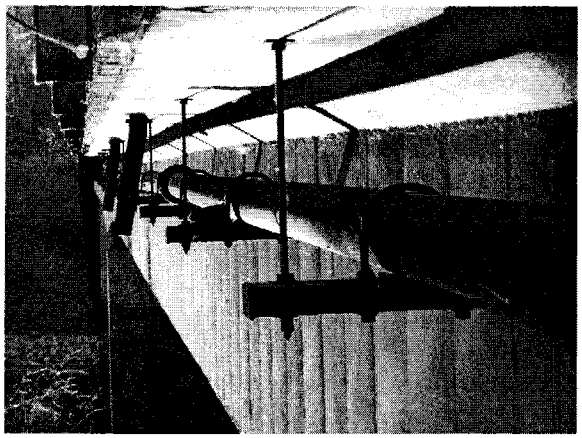


Figure 4. Washougal River Bridge Crossing: View of as found condition of pipe supports.

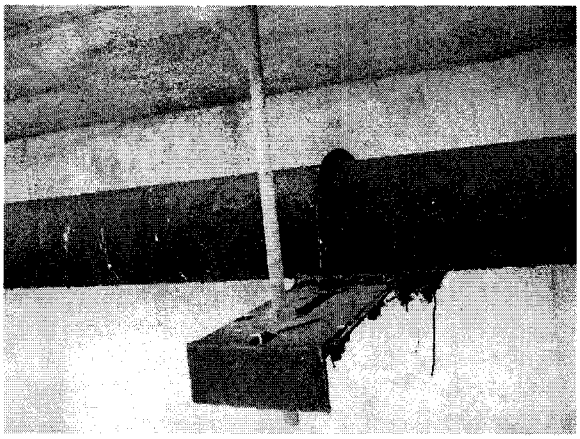


Figure 5. Washougal River Bridge Crossing: Close up view of as found condition of pipe supports.

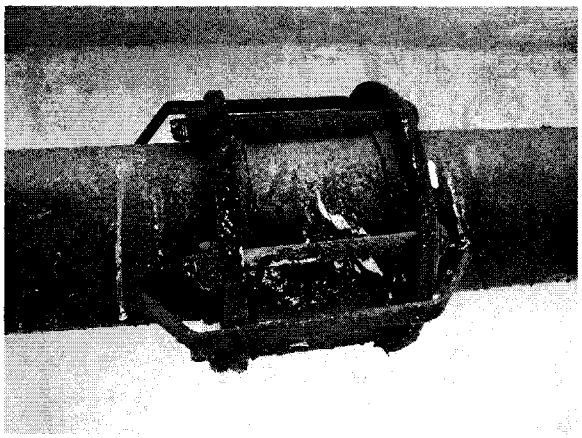


Figure 6. Washougal River Bridge Crossing: Close up view of as found condition of pipe supports.

NW Natural®

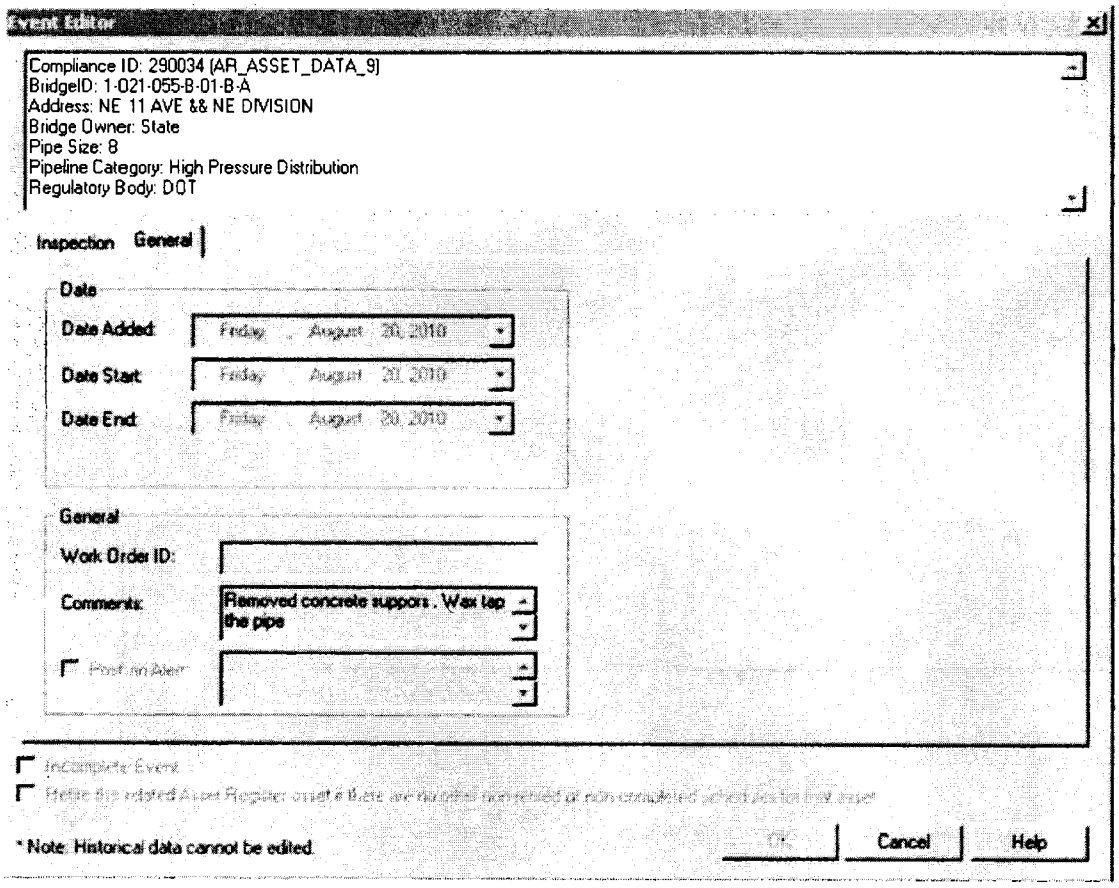
Completed Annual Bridge Insp/ Patrol (PTROL-BXng-Ann) Inspections

Created By NNG\dtm

Created On 8/20/2010 10:11:37 AM

Inspection Date	Inspected By	Field Device	Asset Location	City	State	Inspection Comments
NWN ID: 1-022-056-B-01-B-A						
Inspection						
08/18/2010	knp	Perkins, Keith	WASHOUGAL RIVER CAMAS	Camas	WA	Checked all 43 pipe supports, all are in good condition. Dressers were checked with Sensit Gold S/N 9111 no leaks found. Gas main and supports are in good condition.

MAOP : 0	**PipeSize : 6.0000**	**Casing Vents Condition :**	**Leakage Indication : No**	**Line Surveyed for Leaks : Yes**
Pipeline Marker Condition : Adequate	**Condition of Pipe at Ground Transition :**	**Condition of Pipe Through Abutment : 5-Not Required**	**Indication of Movement : No**	**Pipe Coating Condition : 1-Good**
Expansion Joint Condition :	**Atmospheric Corrosion : 0-No Corrosion**			


Event Editor
Compliance ID: 290034 (AR_ASSET_DATA_9)
BridgeID: 1-021-055-B-01-B-A
Address: NE 11 AVE && NE DIVISION
Bridge Owner: State
Pipe Size: 8
Pipeline Category: High Pressure Distribution
Regulatory Body: DOT
Inspection
General
Date
Date Added:
Friday August 20, 2010
Date Start:
Friday August 20, 2010
Date End:
Friday August 20, 2010
General
Work Order ID:
Comments:
Removed concrete suppors . Wax lap the pipe
Post an Alert
Incomplete Event
* Note: Historical data cannot be edited.
OK
Cancel
Help

Event Editor

Compliance ID: 290034 (AR_ASSET_DATA_9)
BridgeID: 1-021-055-B-01-B-A
Address: NE 11 AVE && NE DIVISION
Bridge Owner: State
Pipe Size: 8
Pipeline Category: High Pressure Distribution
Regulatory Body: DOT

Inspection | General

Attribute	Value
Verify Asset Data	Yes
Casing Vents Condition	
Leakage Indication	No
Line Surveyed for Leaks	Yes
Pipeline Marker Condition	Adequate
Condition of Pipe at Ground Transition	1-Good
Condition of Pipe Through Abutment	5-Not Required
Indication of Movement	No
Pipe Coating Condition	1-Good
Expansion Joint Condition	
Atmospheric Corrosion	0-No Corrosion
Maintenance Required	N/A
Maintenance Performed	Yes

* Indicates a mandatory field

☐ Incomplete Event

☐ [illegible]

* Note: Historical data cannot be edited.

OK | Cancel | Help

ParentID/ChildID/Insp Type	Inspection Date	Inspected By	Field Device	Inspection Comments

1-021-055-R-02-V-A - Manufacturer: N/A, Model: N/A, Valve Type: Plug Valve, Valve Size (in): 2

Annual Master Set Inspection (MS-Yearly) - Inlet Valves

	Locked	*Lubed*	*Operated*	*Cleaned Box*	*Atmospheric Corrosion*
Inspection	07/01/2010	lab	Truck 3996		
	No	No	Yes	No	N/A

1-022-061-R-01 Address: 56' N OF 'C' ST, Washougal, WA

1-022-061-R-01

Annual Master Set Inspection (MS-Yearly) - District Regulator Sets

	Operated All Key Valves	*Atmospheric Corrosion*	*Vehicle Protection*
Inspection	07/15/2010	lab	Truck 3996
	Yes		Adequate

1-022-061-R-01-R-B - Reg Function: Primary, Reg Manf: Mooney, Reg Model: FLOWGRID, Inlet MAOP: 250, Outlet MAOP: 40

Annual Master Set Inspection (MS-Yearly) - Regulators

	As Found Inlet	*As Found Set Point*	*As Left Set Point*	*Feeding*
Inspection	07/15/2010	lab	Truck 3996	
	200	37	35	Yes

1-022-061-R-01-E-A - Relief Function: Primary, Relief Manf: American, Relief Model: *AXIAL FLOW, Relief Size: 4, Relief Inlet Type: Plug Valve, Relief Inlet Size: 4

Annual Master Set Inspection (MS-Yearly) - Relief Valves

	As Found Set Point	*As Left Set Point*	*As Left*	*Vehicle Protection*
Inspection	07/15/2010	lab	Truck 3996	
	40	40	Below Ground	Adequate

ParentID/ChildID/Insp Type	Inspection Date	Inspected By	Field Device	Inspection Comments

1-022-061-R-01-V-A - Manufacturer: N/A, Model: N/A, Valve Type: Plug Valve, Valve Size (in): 4

Annual Master Set Inspection (MS-Yearly) - Inlet Valves

	Locked	*Lubed*	*Operated*	*Cleaned Box*	*Atmospheric Corrosion*
Inspection	07/15/2010	lab	Truck 3996		
	No	No	Yes	No	N/A

4-001-031-R-01 Address: CNR NE 164 ST & NE 10 AVE, Vancouver, WA

4-001-031-R-01

Annual Master Set Inspection (MS-Yearly) - District Regulator Sets

	Operated All Key Valves	*Atmospheric Corrosion*	*Vehicle Protection*
Inspection	04/14/2010	lab	Truck 3996
	Yes		Adequate

4-001-031-R-01-R-C - Reg Function: Primary, Reg Manf: Mooney, Reg Model: FLOWGRID, Inlet MAOP: 250, Outlet MAOP: 50

Annual Master Set Inspection (MS-Yearly) - Regulators

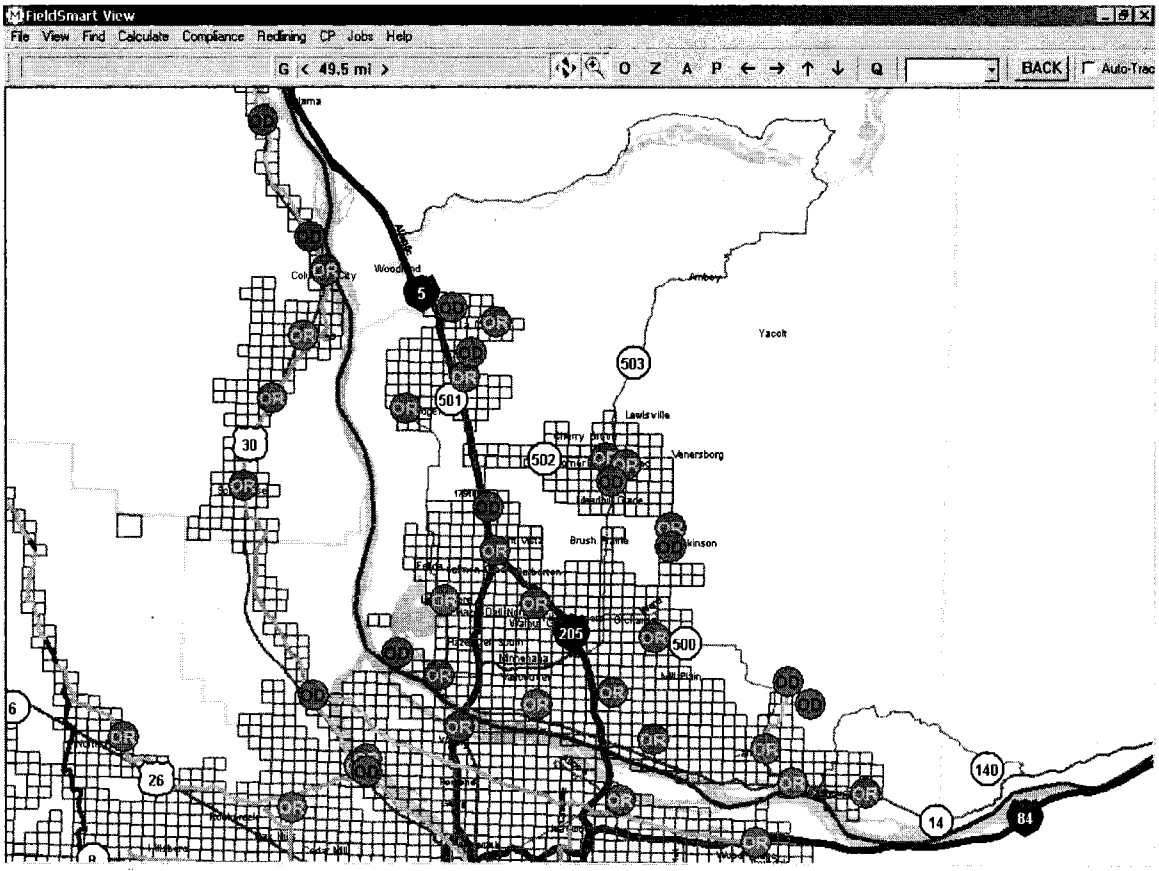
	As Found Inlet	*As Found Set Point*	*As Left Set Point*	*Feeding*
Inspection	04/14/2010	lab	Truck 3996	
	220	49	45	Yes

4-001-031-R-01-E-A - Relief Function: Primary, Relief Manf: American, Relief Model: *AXIAL FLOW, Relief Size: 6, Relief Inlet Type: Ball, Relief Inlet Size: 6

Annual Master Set Inspection (MS-Yearly) - Relief Valves

	As Found Set Point	*As Left Set Point*	*As Left*	*Vehicle Protection*
Inspection	04/14/2010	lab	Truck 3996	
	50	50	Yes	Adequate

Enclosure 4


FieldSmart View
File View Find Calculate Compliance Redlining CP Jobs Help
G < 49.5 mi >
BACK
Auto-Trac
Yacolt
Lewisville
Venersborg
Brush Prairie
Hinson
Woodland
5
503
501
502
30
205
500
6
26
140
14
84