

Ryan Truair
Senior Manager, Code Compliance

May 20, 2021

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

Re: NW Natural Response to Clark County Resource Center Inspection, Report No. 8280

Dear Mr. Mayo:

The Washington Utilities and Transportation Commission (WUTC) Staff conducted a Natural Gas Standard Comprehensive inspection for the Clark County Resource Center on March 1 - 23, 2021. This letter is the response to the findings of Inspection Report 8280, sent on April 19, 2021.

1. Probable Violation:

WAC 480-93-188 Gas Leak Surveys

3) Each gas pipeline company must conduct gas leak surveys according to the following minimum frequencies:

(a) Business districts - At least once annually, but not to exceed fifteen months between surveys. All mains in the right of way adjoining a business district must be included in the survey;

Findings:

Business district leak surveys are not being conducted in all areas that they are required to be performed.

NW Natural Response:

NW Natural (NWN) is striving to implement a repeatable and programmatic method to identify Business Districts and High Occupancy Structures (HOS). In 2020, NWN contracted with a third-party vendor to create and implement a methodology that could integrate into NWN's GIS to identify such sites. At the end of a 12-month pilot program, NWN concluded that the results fell short of expectations and a business decision was made to develop a methodology in-house.

At this time, the in-house concept involves identifying High Occupancy Structures and Areas as individual/remote HOS sites (NWN Special Building) and HOS regions/clusters (or Business Districts) based primarily on the use of Land Use Code (LUC) data sources for the list of facility types shown at the end of the document. To date, NWN has been unable to find a "near perfect" data source, where ideally all parcels have an accurate LUC associated to it. The variability in categorization of parcels with a LUC seems broader and more general (and less specific) in the smaller towns and communities, and better defined in the metropolitan areas, although still lacking some consistency. Consequently, an option is to incorporate Points of Interest (POI) data to capture indication of an HOS site that is missed by LUC data due to too general of coding or miscoding of a parcel.

NWN took a phased approach, as follows. The core phase (Phase 1) focused on HOS sites that should be consistently and reliably identifiable from a data source perspective. This phase centered on critical facility types that may have mobility concerns, along with facility types that are essential in most any city and town. This included facility types such as correctional facilities, hospitals, schools, long-term care facilities, civic services (fire, police, courthouse, city hall), US postal offices and airports.

Future phases incorporated the remaining facility types on the list. As we progressed into future phases, more manual validation by the project team was necessary to establish the validity of being an HOS site or not. The certainty level was less in future review phases due to the information accuracy of the data sources. The last phase, yet to be validated, requires the most manual validation, taking into consideration additional complexities of business and facility types, such as multiple businesses within one structure, proximity of HOS sites to other businesses not on the list, etc. Multiple HOS sites that were nearby in proximity to one another, and often along major arterials, were combined into a Business District asset; the HOS sites that were more remote or isolated in location were designated as Special Buildings.

As an example, the Business District for the core downtown Vancouver area is shown in Figure 1. The grey narrow polygon, shown in the background, indicates the current Business District area as leak surveyed to date. The blue shaded polygon indicates the new Business District per the modeling, where mains and services have been programmatically merged together to define the asset.

The implementation of the new model will be rolled out in conjunction with the introduction of the IQGeo geospatial platform to NWN, which will be replacing MapFrame, and is scheduled to begin in August of this year.

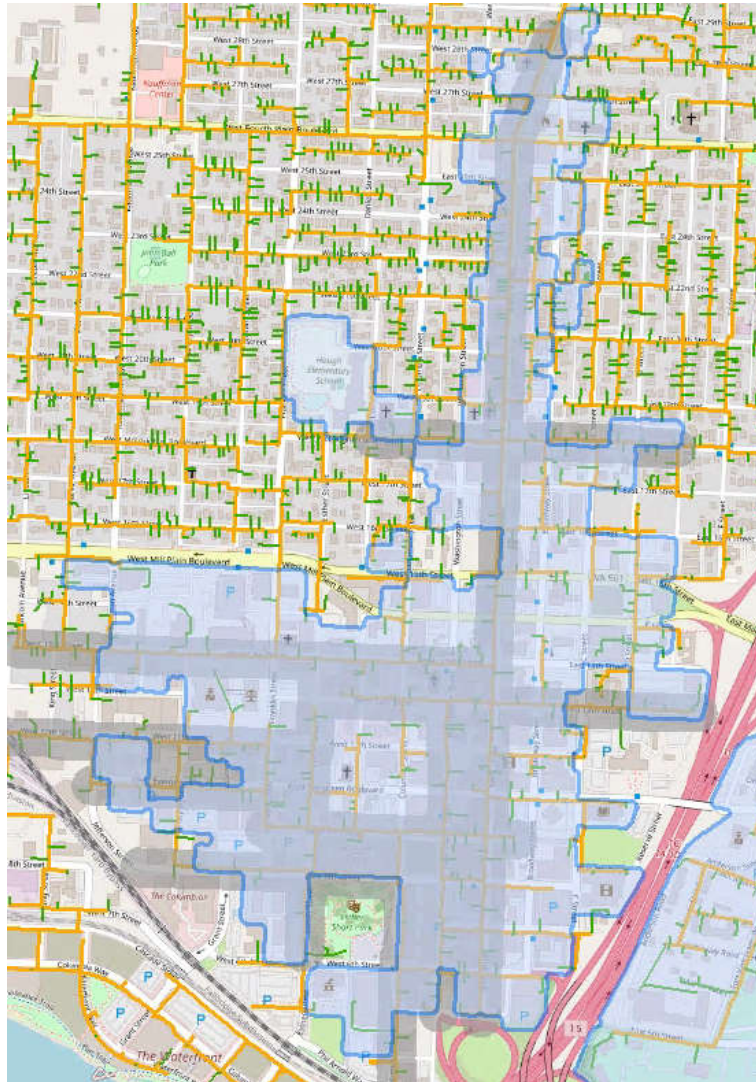


Figure 1 Business District for Downtown Vancouver

Proposed NWN Facility Type List (High Occupancy Structures)

Activity Center: Community Center, Country Club

Dormitory/Frat/Sorority/Res Hall

Care Facility/Nursing Facility: Orphanage, Nursing Home, Convalescent Hospital

Conference Center: Convention Center, Auditorium

Educational Institution: School, Nursery School, High School, Private School, Vocational & Trade School, Sec Educational School, Public School, University

Entertainment Facility: Nightclub, Zoo, Amphitheatre, Amusement Arcade, Amusement Park, Bowling Alley, Billiard Hall, Club, Dance Hall, Race Track, Theater, Tourist attraction/exhibits

Financial Institution

General Store (Large)/Retail Store: Dept Store, Store Franchise, Store Bldg, Retail Trade, Supermarket, Food Stores

Government Building (Large): Public, State Property, County Property, Municipal Property, Police/Fire/Civil Defense, US Postal Service, Federal Property, Federal Bldg, Military Bldg, Airport

Hospital/Large Medical Facility: Hospital, Convalescent Hospital

Hotel/Motel: Hotel, Resort Hotel, Motel, Transient Lodging

Jail/Prison/Correctional Facility: Correctional Facility

Library, Museum

Place of Worship: Religious

Recreational Facility, Lodge, Resort, Casino: Resort Hotel, Casino, Health Club, Gymnasium, Stadium

Restaurant (fine dining, casual dining, cafeteria):
Fast Food Franchise, Bar, Restaurant Bldg, Tavern

Shopping Center, Department Store

At Company's Discretion

2. Probable Violation:**WAC 480-92-170 Tests and Reports for Gas Pipelines**

(7) Each gas pipeline company must keep records of all pressure tests performed for the life of the pipeline and must document the following information:

- (a) Gas pipeline company's name;*
- (b) Employee's name;*
- (c) Test medium used;*
- (d) Test pressure;*
- (e) Test duration;*
- (f) Line pipe size and length;*
- (g) Dates and times; and*
- (h) Test results*

Findings:

Pressure test records were verified and indicated all necessary information as required by WAC 480-93-170(7) for larger construction project records reviewed during this inspection. However, pressure test records for service line installations reviewed did not contain a location on the form to store test medium used or if the test passed or failed in all cases. The items missing from the service line sample test records were:

- (c) Test medium used;*
- (h) Test results*

NW Natural Response:

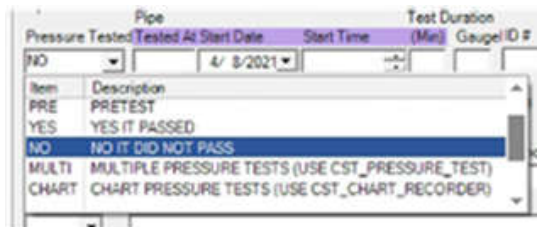
NWN is in the process of adding the test medium field to all pressure testing results. The completion date is scheduled for May 23, 2021. Below is an example of how the record will look with the new field added.

| Installation Information | | | | | | | | |
|-------------------------------|------------------------|--------------------------|--------------------|----------------------|-----------------|-------------|-------------|--------------|
| Completion Date | Pipe Type | Pipe Size | Installed Ftg | Abandoned | Casing Ftg | Extra Equip | Grd Post | |
| 04/29/2021 | POLY | 1 | 123 | NO | 0 | NO | 0 | |
| Pipe As-Built Information | | | | | | | | |
| Pressure Tested | Pipe Tested At | Pressure Test Date | Pressure Test Time | Test Duration | Gauge ID # | Test Medium | | |
| YES | 90 | 04/29/2021 | 08:52:58 | 30 | 1234 | AIR | | |
| Anode | EFV Manuf | Valve | Install Date | Short/Long | Meter Status | Station Ftg | Connect Loc | Connect Type |
| | LYALL | 475 | 04/29/2021 | | NA | 0 | CURB | |
| Installation Type | Installation Method | Construction Methods | Houseline Status | Curb Valve Installed | In/Out/ Feet On | | | |
| CURB SERVICE | NORMAL | EXCAVATE | | | 0 | | | |
| Connection Material | New Pipe Coating | New Pipe Joint Coating | | | | | | |
| POLY-POLY | | | | | | | | |
| Riser Installed? | As Built Remarks | | | | | | | |
| NO | | | | | | | | |
| Has a defect been discovered? | Did you repair a leak? | Performed Flare/Blowdown | | | | | | |
| NO | NO | NO | | | | | | |

Pressure Tested result field that is captured on the records provided during the inspection displays the results only. There is a description that employees completing the test are able to see. Listed below are the results including the descriptions;

- PRE Prestested
- YES Yes it passed
- NO No it did not pass
- MULTI Multiple pressure tests (with direction pointing to an additional report)
- CHART Chart pressure tests (with directions to an additional report)

Below is a screen shot of the drop-down selections available to the employee completing the test record and the description that clarifies the test result.



1. Area of Concern:

WAC 480-93-110 Corrosion Control

(5) Each gas pipeline company must conduct inspections or tests for electrical isolation between metallic pipeline casings and metallic pipelines at least once annually, but not to exceed fifteen months between inspections or tests. The test or inspection must also determine whether the pipeline has adequate levels of

cathodic protection at the casing to pipeline interface. These requirements do not apply to unprotected copper inserted in ferrous pipe.

(b) Whenever electrical isolation tests or inspections indicate that a possible shorted condition exists between a casing and a pipeline, the gas pipeline company must conduct a follow-up test within ninety days to determine whether an actual short exists. The gas pipeline company's procedures manual must have a level or threshold that would indicate a potential shorted condition and must also detail the method of determining whether the casing is actually shorted to the pipeline.

(c) The gas pipeline company must clear the shorted condition where practical.

(d) Whenever a short exists between a line pipe and casing, the gas pipeline company must perform a leak survey within ninety days of discovery and at least twice annually thereafter, but not to exceed seven and one-half months between leak surveys until the shorted condition is eliminated.

Findings:

During the field portion of the inspection, a casing did not meet the operator's minimum isolation criteria of 200mV from the carrier pipe to casing during a field cathodic protection test. The operator did create a work order to document this finding and perform follow up testing. Documentation of work completed to resolve this condition as well as follow up leak survey records are necessary to verify this finding has been remedied.

NW Natural Response:

NWN has abandoned this service and casing. Please find attached [NWN Casing 124305 8709 NE Highway 99 Vancouver](#) that includes documentation related to this abandonment.

2. Area of Concern:

WAC 480-93-124 Pipeline Markers

- (1) Each gas pipeline company must place pipeline markers at the following locations:
 - (f) Over mains located in Class 1 and 2 locations;**

Findings:

Observations during the course of this inspection indicated that the operator's manual states that markers are not required for gas lines that fall within the Urban Growth Area (UGA) because they are considered Class 3

or 4 locations and do not require pipeline marking per 192.707(b)(2). The operator did provide a map containing the UGA and with their pipeline system on it for review, but it did not contain class location information. This practice could result in mains located in Class 1 or 2 locations that also fall within the UGA not being properly marked, presenting a conflict with WAC 480-93-124 .

NW Natural Response:

NWN installs mains to serve customers and believes that instances where Class 1 and Class 2 locations exist within the UGA would be very minimal. A review of class locations will be completed and any enhancements identified during this review will determine if additional marking is needed.

This report finalizes NWN's response to the Clark County Inspection, Report No. 8280.

Sincerely,



Ryan Truair
Senior Manager, Code Compliance
s7b1253

Ryan Truair
Senior Manager, Code Compliance

June 15, 2021

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

Re: NW Natural Update to Clark County Resource Center Inspection, Report No. 8280

Dear Mr. Mayo:

The Washington Utilities and Transportation Commission (WUTC) Staff conducted a Natural Gas Standard Comprehensive inspection for the Clark County Resource Center on March 1 - 23, 2021. This letter is to update the response to the findings of Inspection Report 8280-1, requested on May 25, 2021.

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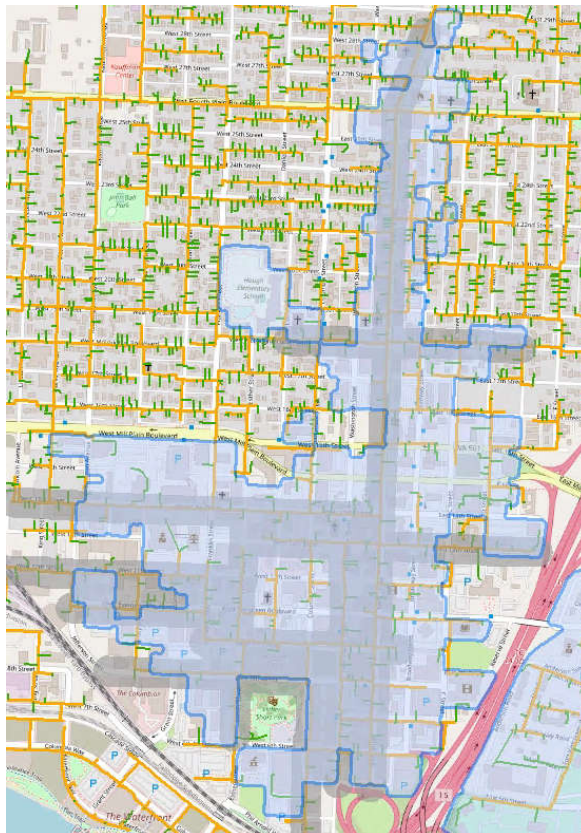


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At Company's Discretion

NWN Update (June 15, 2021)

NWN will continue leak surveying current Business District and Special Building assets through the end of 2021. New assets identified using the new model are currently being migrated over to the new mapping platform. These assets will not be leak surveyed until 2022. Final implementation with the IQGeo mapping system is expected to take place within Q1 of 2022.

This report finalizes NWN's update to the Clark County Inspection, Report No. 8280-1.

Sincerely,



Ryan Truair
Senior Manager, Code Compliance
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