

Mark R. Thompson
Director of Regulatory Affairs
Tel: 503.721.2476
Fax: 503.721.2516
email: mark.thompson@nwnatural.com



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VIA ELECTRONIC FILING

Public Utility Commission of Oregon
Attention: Filing Center
201 High Street SE Suite 100
Post Office Box 1088
Salem, Oregon 97308-1088

Re: UM 1635: OPUC Review of NW Natural’s Site Remediation Recovery Mechanism

With this filing, Northwest Natural Gas Company (“NW Natural” or “Company”) provides the following report to update the Commission on the operation of the Site Remediation and Recovery Mechanism (“SRRM”) and the status of remediation of sites located at the Portland Harbor. The SRRM was first established in Commission Order 12-408 (October 26, 2012) as an outcome of the Company’s 2011 general rate case proceeding (Docket UG 221), where the company sought a mechanism to begin amortization of amounts that had been deferred up to that point. Further development of the SRRM and details regarding how the mechanism would operate were finalized in Orders 15-049 (February 20, 2015, the “2015 Order”) and 16-029 (January 16, 2016), in Docket UM 1635, which was established to determine outstanding details around how the mechanism would operate. In the 2015 Order, the Commission stated: “We will revisit our decisions regarding the deferral and amortization of future remediation expenses, as well as the treatment of remaining insurance proceeds, in three years, or when NW Natural obtains greater certainty regarding its future remediation costs, whichever occurs first.”¹

Because it has been three years from the 2015 Order, NW Natural provides this update for the Commission’s review. This update includes an explanation of the SRRM and how it has operated as intended, the impact of the SRRM on customers and the Company, and the status of the deferred accounts associated with the SRRM. Additionally, the update provides the status of remediation efforts at the Portland Gas Manufacturing site, Gasco, and Portland Harbor. With regard to our certainty regarding future costs at these sites, at this time we do not have greater certainty as we are still in the early stages of the remediation process.

NW Natural is not requesting that the Commission take any action at this time, as we believe that the mechanism should be allowed to continue to operate as established by the Commission in Orders 12-408, 15-049, and 16-029. NW Natural would be happy to present the information contained in this report to the Commission at an upcoming public meeting, to ensure

¹ Order No. 15-049 at 14.

that the Commission has an opportunity to discuss the SRRM and ask NW Natural any questions about the operation of the SRRM to date.

Background

Since 2003, the Company has deferred environmental remediation costs associated with its predecessor's operations that contaminated soil, groundwater, and surface water at certain sites near the Portland Harbor. In 2011, as part of NW Natural's general rate case, UG 221, the Company proposed a recovery mechanism to allow the Company to recover the past and future costs of the environmental remediation activities. As an outcome of the rate case (Order No. 12-408), the Commission approved the framework of a recovery mechanism, but reserved the specific elements of the mechanism for a docket to be initiated subsequent to the rate case proceeding. The framework established for the SRRM in Order No. 12-048 authorized the Company to recover, subject to an earnings test, deferred expenses prudently incurred for purposes of environmental remediation, and included recovery conditions that would help to smooth the billing impacts to customers from year to year.

In Orders 15-049 and 16-029 in Docket No. UM 1635, further details regarding the SRRM, such as the allocation of insurance proceeds, state allocation, and the specifics of the earnings test were determined. A detailed explanation of how the Company complies with the Commission's Orders was submitted to the Commission on March 11, 2016 in the Company's Amended Compliance Filing, NWN OPUC Advice No. 15-03B/ADV18 in Docket UM 1635. At its core, the SRRM operates as follows:

- NW Natural defers environmental remediation expenses in its deferral account.
- Each year, NW Natural files an application for a prudence review of the remediation expenses from the previous year by March 15th in Docket UM 1732.
- Upon Commission determination that the environmental expenses are prudent, those expenses are then offset by a \$5 million tariff rider that the Company collects annually in base rates.
- Remaining expenses are then offset by any carryover offsets (tariff rider, insurance proceeds, and interest on insurance proceeds) from the prior year. This would occur if the available offsets exceeded the expenses in the prior year.
- Any remaining expenses are then offset with \$5 million of insurance proceeds, plus interest accrued on the insurance proceeds during the prior year. While the Company received a significant amount (around \$150 million) of recoveries from insurance through litigation, approximately one-third of the balance was applied to actual expenses as of December of 2012, with the remaining two-thirds applied over an approximate 20 year period, which resulted in approximately \$5 million to be applied each year.
- Any expenses left to be recovered are transferred to the SRRM account.
- The balance of each year's expenses can be further offset with the Company's retained earnings to the extent the Company earns over its authorized return on equity after adding 50% of the Company's optimization revenues.
- Each year, 20% of the SRRM account is included in rates concurrent with the Purchased Gas Adjustment filing, to be amortized in bills during the PGA tracker period (November – October)

The SRRM has been applied in each Purchased Gas Adjustment filing for the past 3 years, for rates effective November 1, 2015², 2016, and 2017. For each year, environmental costs have been offset by recoveries from ratepayers from the \$5 million tariff rider, from an application of the insurance proceeds balance in the amount of \$5 million each year, and from year-to-year carry forward amounts due to the relatively low level of environmental expense during the period.

Impacts to Customers

The residential rate per therm for recovery of SRRM amounts over the past three years are shown in the following table, which accounts for the \$5 million tariff rider in base rates and the annual amortization of the SRRM. Because the post-prudence account will be reduced by annual amortizations, and because only 20% of new deferred costs will be subject to amortization after the year incurred, the amortization account is also not expected to change materially year to year.

Residential Customers Rate Per Therm (Cents)	2015-2016 PGA Year	2016-2017 PGA Year	2017-2018 PGA Year
1 Base Rate Rider	0.976	0.976	0.976
2 SRRM Amortization	1.572	1.934	1.198
3 Total	2.548	2.910	2.174

The following table shows the percentage of an average residential customer's bill represented by the Base Rate Rider, and the amortization of the SRRM in each year of the last three years.

Residential Customer Bill Impact	2015-16 PGA Year	2016-17 PGA Year	2017-18 PGA Year
Base Rate Rider	0.8%	0.9%	0.9%
SRRM Amortization	1.4%	1.8%	1.1%

Impacts to Company's Financial Stability

Under the earnings test ordered by the Commission in 2015, NW Natural was disallowed recovery of \$15 million of deferred costs, through the 2012 period.³

The ability to defer and recognize recoveries of these deferred amounts more generally has helped NW Natural avoid material and detrimental expense that would negatively affect the

² Rates in 2015 were set based on an agreed upon amount, in light of the fact that some implementation details awaited the Commission's order in January of 2016. The SRRM balance was then adjusted to reflect the Commission's 2016 order.

³ Order No. 15-049 at 18.

Company's financial stability. Also, the amortization aspect has helped NW Natural mitigate cash flow issues that may develop if amortization were not occurring, due to the large amount of remediation expense that NW Natural has been required to finance. There is an ongoing potential impact to the Company to the extent that it has earnings above its most recently determined authorized ROE, where costs to be added to the post-prudence account could be absorbed by the company under the earnings test that has been put in place. To date, since the initiation of the SRRM three years ago, the Company has not earned at a high enough level to trigger this provision.

Status of Deferred Accounts

There are several deferred accounts that are administered for the recovery of environmental expenses. Account balances as of December 31, 2017 are shown in the following table, followed by a narrative describing each account.

Balance at December 31, 2017

Environmental Post Prudence	186182	29,770,927
Base Rate Rider - 2017	186161	(5,000,000)
Amortization - SRRM	186183	4,700,431
Environmental Insurance Recovery - OR	186160	(78,899,694)
Insurance Carryforward - 2017	186282	(11,671,383)

The "post prudence account" is the holding account for existing expenses subject to amortization. New accruals are added each year and one-fifth is then transferred to the amortization account to be billed during the subsequent year's PGA period.

The "base rate rider account" accumulates the collection from customers of \$5 million each year. At the end of each calendar year, the account holds the intended \$5 million.

The "amortization account" is the current year's amount to be billed and recovered from customers. The year-end balance will already have been reduced for collections during November and December, following the rate change in the annual PGA, effective November 1 of each year.

The insurance recovery account holds the balance of insurance receipts that have yet to be applied against deferred costs. The balance is typically reduced by \$5 million each year.

The insurance carry-forward account represents amounts that would have been applied to deferred costs but that were not needed, particularly due to a low level of new deferred expense.

Additionally, the total amount received from customers to date to cover remediation expenses is \$31,443,595.

2017 Site Remediation Status

The remediation process prescribed by the federal Environmental Protection Agency (EPA) and the Oregon Department of Environmental Quality (ODEQ) begins with a remedial investigation (RI) to determine the nature and extent of contamination at a site, followed by a risk assessment (RA) to establish whether the contamination poses unacceptable risks to humans and the environment. Next, a feasibility study (FS) or an engineering evaluation/cost analysis (EE/CA) evaluates various remedial alternatives. From this study, the regulatory agency selects a remedy and issues a Record of Decision (ROD).

After a ROD is issued, we would seek to negotiate a consent decree or consent judgment for designing and implementing the remedy. Remediation may include treatment of contaminated media such as sediment, soil and groundwater, removal and disposal of media, institutional controls such as legal restrictions on future property use, or natural recovery. Following construction of the remedy, the EPA and ODEQ also have requirements for ongoing maintenance, monitoring, and other post-remediation care that may continue for many years.

The EPA and the ODEQ have required NW Natural to undertake investigation and cleanup actions at two former manufactured gas plants in Portland. Due to the complex nature of these sites and their proximity to the Willamette River, final costs are highly uncertain and impossible to accurately predict at this time, particularly with respect to the Gasco site, despite many years of investigation at the agencies' direction.

Although EPA issued a record of decision in 2017 for the entire Portland Harbor Superfund Site, which includes the Gasco Sediment Site, the details and timing of remedy implementation must be worked out during remedial design and the harbor-wide settlement process. Because of the amount of detail still to be resolved, EPA's estimated \$1.05 billion net present value remedy cost for Portland Harbor was prepared at only a +30/-50% level of confidence. Further, the voluntary settlement process among approximately 140 potentially responsible parties that must precede remedy implementation has been deferred at least two years while EPA conducts additional "baseline sampling."

In the meantime, DEQ continues to examine potential upland risks associated with the Gasco site before moving forward with a feasibility study evaluating cleanup options. Only at the smaller former Portland Gas Manufacturing Site has DEQ selected a specific remedy, for which NW Natural is now preparing design documents in anticipation of performing cleanup in 2019.

The following provides a detailed update of the status of remediation at the primary environmental sites:

Portland Gas Manufacturing

The ODEQ issued a Record of Decision for the Portland Gas Manufacturing Site in July 2017. The selected remedy requires dredging of one area of tar-like material and a few other areas of shallow sediment and installation of a treatment cap in the dredged areas. Other areas will be capped without dredging, will be allowed to recover naturally, or will be covered by sand to accelerate the natural recovery process. The remedy also requires institutional controls, and long-term inspection and maintenance. The estimated net present value cost of the ROD remedy is \$9.9 million.

The Administrative Consent Order for the PGM site was amended in August 2017 to allow remedial design work for the PGM site to begin without delay. Accordingly, pre-design investigations were completed in late 2017, and remedial design is now underway.

In 2018, NW Natural hopes to complete remedial design work and obtain necessary permits, as well as negotiate a consent judgment for implementation of the cleanup. We anticipate construction of the remedy during the 2019 in-water work window. Following construction, we expect to implement a long term monitoring and maintenance plan.

Gasco:

Source control: The groundwater source control system was placed in service on September 30, 2013 and has been operating at full capacity since that time. Following a period of optimization, ODEQ approved the system for long-term operation on December 30, 2016. During 2017, NW Natural also evaluated potential stormwater source control options for the Gasco property and worked to complete a source control evaluation of Doane Creek.

In 2018, we expect to implement a few interim measures, such as minor regrading and downspout disconnections to improve stormwater infiltration while any necessary final actions to address potential stormwater discharges to the river are evaluated as part of the upland Feasibility Study. We are also continuing to discuss the details and timing of a potential shallow fill-zone water recovery system; at ODEQ's direction conceptual designs for such a system were prepared and submitted in 2015. A determination of eventual costs are pending the evaluation of those designs.

Upland cleanup: In November 2015, DEQ determined that the portion of the Siltronic property formerly owned by Portland Gas & Coke (commonly known as the Allen Tract) should be incorporated into the Gasco site for remedy selection and implementation. In 2017, NW Natural worked with ODEQ to develop the scope for an addendum integrating the Allen Tract into the 2015 risk assessment for the Gasco property. Field investigations to support the Gasco Feasibility Study were also performed in 2017.

We hope to complete the risk assessment addendum in 2018, which will allow preparation of the Feasibility Study. We currently expect the FS to be submitted in 2020. After the FS is approved, ODEQ will select a final remedy for the entire upland site. Design and construction of the remedy will follow ODEQ issuance of a Record of Decision. Until such time, we will not have more visibility as to final expected costs.

Portland Harbor

Gasco Sediments Site: In 2009, NW Natural signed a separate order with EPA for remedial design for the Gasco Sediment Site within Portland Harbor. In July 2017, NW Natural submitted a "Basis of Design" work plan to EPA. The work plan proposes the development of multiple technical memoranda describing how site-specific information and data, including information and data developed for the 2012 Engineering Evaluation/Cost Analysis, will be used to refine technology assignments and other aspects of the ROD.

EPA and NW Natural are currently working through technical details of several of the memoranda. Some key technical issues we are discussing with EPA include:

- Remedial technology assignments (e.g. dredging and capping) in specific areas
- Details of dredge prism and cap configurations
- Dredge containment requirements
- EPA's January 2017 determination that PAHs are significantly less toxic than EPA previously believed
- EPA's selection of cleanup levels that are inconsistent with EPA risk assessments
- Waste disposal requirements

Following resolution of the "Basis of Design" issues, NW Natural will collect additional data necessary to design the Gasco remedy and prepare remedial design engineering documents. The 2009 order is for remedial design only and does not extend to construction of the remedy; EPA and NW Natural intend that construction of the remedy will follow entry of a judicial consent decree. Again, costs for construction are uncertain.

Harborwide: NW Natural was a signatory to the 2001 Administrative Order for Remedial Investigation and Feasibility Study of the Portland Harbor Superfund Site. The RI/FS is completed, and EPA certified completion of this order in October 2017.

EPA issued its Record of Decision for Portland Harbor in January 2017. EPA estimates the cost of the selected remedy at \$1.05 billion net present value and projects 13 years of construction to complete active cleanup. There are about 140 Potentially Responsible Parties (PRPs) that will share in the \$1.05 billion cost. The ROD indicates EPA will exercise site-specific flexibility during remedial design, and EPA may decide to break the site into smaller "work areas." ODEQ may take a lead role in overseeing portions of the cleanup.

EPA will begin implementation of the harborwide remedy through an initial round of baseline sampling. In December 2017, four parties signed an order with EPA agreeing to conduct this initial sampling. NW Natural will participate in helping to fund this sampling, which will also support the allocation of Portland Harbor response costs.

The baseline sampling work is expected to be completed in about 2 years, at which time the parties to the ongoing allocation expect to be able to proceed with completion of the allocation and development of a settlement offer to EPA. Accordingly, on January 9, 2018, the federal court renewed the stay of the *Arkema v. Anderson Roofing et al* litigation until January 15, 2020. This litigation is among the harborwide PRPs to determine a final allocation between the parties for cleanup of the site. NW Natural's share in the allocation is not known at this time.

On January 30, 2017, the Confederated Tribes and Bands of the Yakama Nation filed a lawsuit against NW Natural and 29 other potentially responsible parties for alleged Portland Harbor response costs and natural resource damage assessment costs related to the Portland Harbor Superfund Site, as well as natural resource damage assessment costs related to the Multnomah Channel, Lower Willamette and Columbia Rivers. The defendants, including NW Natural, have filed several motions to dismiss some or all claims in the case. NW Natural, the Port of Portland, the City of Portland and the United States have also filed motions to stay any portions of the case that survive the motions to dismiss. Oral argument on these motions is scheduled for April 13, 2018.

Conclusion and Commission Consideration

NW Natural does not request any action of the Commission at this time with respect to the SRRM, and instead believes that it should continue to operate, with updates provided by the Company over time. The Company would be happy to present the information contained in this report at an upcoming public meeting, to ensure that the Commission has a chance to consider any aspect of it or ask questions of NW Natural concerning the SRRM.

Please address correspondence on this matter to me with copies to the following:

Zach Kravitz
Associate Counsel
NW Natural Gas Company
220 NW Second Avenue
Portland, Oregon 97209
Telephone: 503.220.2379
Fax: 503.220.2584
Email: zdk@nwnatural.com

eFiling
NW Natural Rates & Regulatory Affairs
220 NW Second Avenue
Portland, Oregon 97209
Telephone: (503) 226-4211, ext. 3589
Telecopier: (503) 721-2516
Email: eFiling@nwnatural.com

Very truly yours,

NW NATURAL GAS COMPANY

/s/ Mark R. Thompson

Mark R. Thompson
Director of Regulatory Affairs