

similar is the 1996 Ford Escort that was manufactured for sale in the United States and certified by its manufacturer, Ford Motor Company, as conforming to all applicable Federal motor vehicle safety standards.

The petitioner claims that it carefully compared the non-U.S. certified 1996 Ford Escort to its U.S. certified counterpart, and found the two vehicles to be substantially similar with respect to compliance with most Federal motor vehicle safety standards.

J.K. submitted information with its petition intended to demonstrate that the non-U.S. certified 1996 Ford Escort, as originally manufactured, conforms to many Federal motor vehicle safety standards in the same manner as its U.S. certified counterpart, or is capable of being readily altered to conform to those standards.

Specifically, the petitioner claims that the non-U.S. certified 1996 Ford Escort is identical to its U.S. certified counterpart with respect to compliance with Standard Nos. 101 *Controls and Displays*, 102 *Transmission Shift Lever Sequence . . .*, 103 *Defrosting and Defogging Systems*, 104 *Windshield Wiping and Washing Systems*, 105 *Hydraulic Brake Systems*, 106 *Brake Hoses*, 108 *Lamps, Reflective Devices and Associated Equipment*, 109 *New Pneumatic Tires*, 110 *Tire Selection and Rims*, 111 *Rearview Mirror*, 113 *Hood Latch Systems*, 114 *Theft Protection*, 116 *Brake Fluid*, 118 *Power Window Systems*, 124 *Accelerator Control Systems*, 201 *Occupant Protection in Interior Impact*, 202 *Head Restraints*, 203 *Impact Protection for the Driver from the Steering Control System*, 204 *Steering Control Rearward Displacement*, 205 *Glazing Materials*, 206 *Door Locks and Door Retention Components*, 207 *Seating Systems*, 208 *Occupant Crash Protection*, 209 *Seat Belt Assemblies*, 210 *Seat Belt Assembly Anchorage*, 212 *Windshield Retention*, 214 *Side Impact Protection*, 216 *Roof Crush Resistance*, 219 *Windshield Zone Intrusion*, 301 *Fuel System Integrity*, and 302 *Flammability of Interior Materials*.

Petitioner also contends that the vehicle complies with the Bumper Standard at 49 CFR Part 581 and with the Theft Prevention Standard at 49 CFR Part 541.

The petitioner states that the only modification that must be made to the vehicle is the addition of a vehicle identification number plate that meets the requirements of 49 CFR Part 565.

Interested persons are invited to submit comments on the petition described above. Comments should refer to the docket number and be submitted to: Docket Section, National Highway

Traffic Safety Administration, Room 5109, 400 Seventh Street, SW, Washington, DC 20590. It is requested but not required that 10 copies be submitted.

All comments received before the close of business on the closing date indicated above will be considered, and will be available for examination in the docket at the above address both before and after that date. To the extent possible, comments filed after the closing date will also be considered. Notice of final action on the petition will be published in the **Federal Register** pursuant to the authority indicated below.

**Authority:** 49 U.S.C. 30141(a)(1)(A) and (b)(1); 49 CFR 593.8; delegations of authority at 49 CFR 1.50 and 501.8.

Issued on: November 29, 1999.

**Marilynne Jacobs,**

*Director, Office of Vehicle Safety Compliance.*  
[FR Doc. 99-31299 Filed 12-1-99; 8:45 am]

**BILLING CODE 4910-59-P**

## DEPARTMENT OF TRANSPORTATION

### Research and Special Programs Administration (RSPA), DOT

[Docket No. RSPA-99-5611; Notice 19]

#### Pipeline Safety: Intent To Approve Project and Environmental Assessment for the Northwest Pipeline Corporation; Pipeline Risk Management Demonstration Project

**AGENCY:** Office of Pipeline Safety, Research and Special Programs Administration, DOT.

**ACTION:** Notice of intent to approve project and environmental assessment.

**SUMMARY:** As part of its Congressional mandate to conduct a Risk Management Demonstration Program, the Office of Pipeline Safety (OPS) has been authorized to conduct demonstration projects with pipeline operators to determine how risk management might be used to complement and improve the existing Federal pipeline safety regulatory process. This Notice announces OPS's intent to approve Northwest Pipeline Corporation (a part of Williams Gas Pipeline) as a participant in the Pipeline Risk Management Demonstration Program. This Notice also provides an environmental assessment of Northwest's demonstration project. Based on this environmental assessment, OPS has preliminarily concluded that this proposed project will not have significant environmental impacts.

This Notice explains OPS's rationale for approving this project, and summarizes the demonstration project provisions that would go into effect once OPS issues an order approving Northwest as a Demonstration Program participant. OPS seeks public comment on the proposed demonstration project so that it may consider and address these comments before approving the project. The Northwest demonstration project is one of several projects OPS plans to approve and monitor in assessing risk management as a component of the Federal pipeline safety regulatory program.

**ADDRESSES:** OPS requests that comments to this Notice or about this environmental assessment be submitted on or before January 3, 2000 so they can be considered before project approval. However, comments on this or any other demonstration project will be accepted in the Docket throughout the 4-year demonstration period. Written comments should be sent to the Dockets Facility, U.S. Department of Transportation, Plaza 401, 400 Seventh Street, SW., Washington, DC 20590-0001. Comments should identify the docket number RSPA-99-5611. Persons should submit the original comment document and one (1) copy. Persons wishing to receive confirmation of receipt of their comments must include a self-addressed stamped postcard. The Dockets Facility is located on the plaza level of the Nassif Building in Room 401, 400 Seventh Street, SW., Washington, DC. The Dockets Facility is open from 10:00 a.m. to 5:00 p.m., Monday through Friday, except on Federal holidays. You may also submit comments to the docket electronically. To do so, log on to the DMS Web at <http://dms.dot.gov>. Click on Help & Information to obtain instructions for filing a document electronically.

**FOR FURTHER INFORMATION CONTACT:** Elizabeth Callsen, OPS, (202) 366-4572, regarding the subject matter of this Notice. Contact the Dockets Unit, (202) 366-5046, for docket material. Comments may also be reviewed online at the DOT Docket Management System website at <http://dms.dot.gov/>.

#### SUPPLEMENTARY INFORMATION:

##### 1. Background

The Office of Pipeline Safety (OPS) is the Federal regulatory body overseeing pipeline safety. As a critical component of its Federal mandate, OPS administers and enforces a broad range of regulations governing safety and environmental protection of pipelines. These regulations have contributed to a good pipeline industry safety record by

assuring that risks associated with pipeline design, construction, operations, and maintenance are understood, managed, and reduced. Preserving and improving this safety record is OPS's top priority. On the basis of extensive research, and the experience of both government and industry, OPS believes that a risk management approach, properly implemented and monitored, offers opportunities to achieve:

- (1) Superior safety, environmental protection, and service reliability;
- (2) Increased pipeline operation efficiency and improved efficiency and utilization of industry and government resources; and
- (3) Improved communication and dialogue among industry, the government, and other stakeholders.

A key benefit of this approach is the opportunity for greater levels of public participation.

As authorized by Congress, OPS is conducting a structured Demonstration Program to evaluate the use of a comprehensive risk management approach in the operations and regulation of interstate pipeline facilities. This evaluation will be performed under strictly controlled conditions through a set of Demonstration Projects to be conducted with interstate pipeline operators. A Presidential Directive to the Secretary of Transportation (October 16, 1996) stated that in implementing the Pipeline Risk Management Demonstration Program: "The Secretary shall require each project to achieve superior levels of public safety and environmental protection when compared with regulatory requirements that otherwise would apply." Thus, the process to select operators for this Demonstration Program involves a comprehensive review to ensure that the proposed project will provide the superior safety and environmental protection required by this Directive. OPS may exempt a participating operator from particular regulations if the operator needs such flexibility in implementing a comprehensive risk management program; however, regulatory exemption is neither a goal nor requirement of the Demonstration Program. This document summarizes the key points of this review for Northwest's demonstration project, and evaluates the safety and environmental impacts of this proposed project.

## 2. OPS Evaluation of Northwest's Demonstration Project Proposal

Using the consultative process described in Appendix A of the Requests for Application for the

Pipeline Risk Management Demonstration Program (62 FR 14719), published on March 27, 1997, OPS has reached agreement with Northwest on the provisions for a demonstration project covering Northwest's entire transmission pipeline system that OPS regulates. This section summarizes the key points considered in evaluating the Northwest demonstration project.

### *Company History and Record*

Northwest Pipeline Corporation operates approximately 3,900 miles of interstate natural gas transmission line running through six western States, originating at the Canadian border near Sumas, Washington. The pipeline traverses the populated regions of western Washington and Oregon, through the agricultural areas of eastern Oregon, Washington, and Idaho States, and into the isolated areas of southwest Wyoming, Utah and Colorado. The original pipeline was installed in 1956, with parallel line segments added in the seventies, eighties, and nineties. The pipeline system has 52 compressor stations and 407 meter stations.

Before entering into consultations with Northwest, OPS determined that Northwest was a good demonstration program candidate based on an examination of the company's safety and environmental compliance record, its accident history, and its commitment to working with OPS to develop a project meeting the Demonstration Program goals.

Northwest has experienced 22 reportable releases since OPS began collecting accident data in 1984. Five of these releases were caused by damage from third parties excavating near the line; two events resulted from external corrosion; seven events were caused by construction or material defects; seven events were due to landslides damaging the pipeline; and one event occurred during routine maintenance, injuring several workers. This event, which occurred in 1987, caused the only injuries on record for any Northwest incident. Consequences of all but the most recent incidents are recorded as monetary estimates of property damage/loss, varying from \$0.00 to \$719,000.00. The reports rarely identify the basis for the property damage/loss figures; in some cases, these figures include the cost of pipeline excavation and repair. OPS is aware of environmental consequences from two of these incidents: a 1995 incident involving damage to land cover and a small grove of trees near the release, and a 1999 incident that caused a fire and damaged three to five acres of ground cover and trees. OPS has records of service

interruptions to customers from six of the incidents; this year, 10,000 customers in Walla Walla, Washington were affected when a pipeline lateral failed due to a construction defect. OPS has not found any regulatory noncompliance with these events.

Northwest has attributed 14 reportable incidents to two causes: construction or material defects (seven), and landslides damaging the pipeline (seven). The company does not believe construction or material defects represent a significant risk to its system. These seven incidents were spread across six states over a 15-year period. Their causes are typical for a pipeline constructed in 1956 and include defective longitudinal seams in pipe received from the factory, a gouge made during original construction, and defective welds made in the field connecting pipe components to the mainline. The company has not experienced deaths, injuries, or notable environmental damage as a result of any of these incidents; in fact, two of these releases were discovered during routine leak surveys. The most recent incident due to a construction defect occurred on January 2, 1999, and resulted in the disruption of natural gas service to approximately 10,000 customers in Walla Walla, Washington. Although Northwest believes this failure was an isolated incident (it was due to a defective field weld from 1958), the company is evaluating other locations where similar construction defects could be present. For any pipeline locations where Northwest is proposing regulatory alternatives, the company has internally inspected the pipeline using an in-line inspection tool and has failed to find evidence of additional construction or material defects.

The company believes geologic hazards, or landslides, represent its most significant risk. Hazards due to landslides and other geologic activity receive very little emphasis in pipeline safety regulations since they are not a widespread problem in the industry. Three Northwest incidents due to landslides occurred in the early 1980's near Rangely, Colorado. As a result of this experience, the company has conducted an enhanced geological monitoring program and has not experienced additional incidents at that site. Four additional landslide incidents occurred between 1995 and 1999, all in western Washington where Northwest is proposing regulatory alternatives as part of this demonstration project.

The most recent landslide incident occurred on February 26, 1999, near North Bonneville, Washington, about 30 miles northeast of Portland, Oregon. The

26-inch mainline ruptured, resulting in a fire that damaged a newly-constructed, unoccupied lodge and two mobile homes, and burned three to five acres of ground cover and trees. Approximately 365 customers lost natural gas service. In 1996, the company had identified the potential for this slope failure and since then, has monitored pipe stress in the vicinity of the release. Because record rainfall in the area for December 1998 and January and February 1999 (244% in February) significantly increased the potential for slide activity, the line was helicopter patrolled a month before the failure.

The company is continuing its root cause analysis of the failure to determine why its monitoring approach in this case was insufficient. The company will include OPS in discussions about areas where it may increase its focus on geologic hazards as a result of this incident. Lessons learned from this incident will be applied to the risk management program by improving strategies and approaches for identifying the potential for and monitoring land movement (especially in wet weather), training personnel to recognize potential signs of land movement, and re-examining other areas identified as at risk for landslide activity. OPS will include these activities in the audit plan (see Section 6) it is developing for this project.

OPS believes this incident should not affect Northwest's eligibility to participate in the Demonstration Program. Rather, OPS believes this incident reinforces the need for a demonstration project focused on identifying geologic hazards and preventing failures that are caused by land movement. Four of the five reportable incidents on the western Washington segment in the vicinity of Northwest's proposed regulatory alternatives have been due to land movement (the fifth was due to excavator damage to the pipeline). The company has demonstrated that its existing geologic monitoring approach (described in Section 5.2) has successfully averted three land movement failures in this area. OPS believes Northwest can most effectively improve safety by continuing to refine its approach to identifying and remediating geologic hazards in western Washington.

Northwest and OPS also are collaborating on follow-up to a corrosion incident that occurred on January 13, 1998, in Wolf Creek in southwest Oregon. Northwest determined its cause to be stress corrosion cracking, a condition difficult to predict and detect. Section 5.2

describes the stress corrosion cracking monitoring program that Northwest has implemented. The company has not found indications of stress corrosion cracking at any other sites along the pipeline.

After reviewing data on the remainder of Northwest's reported incidents (which are due to corrosion and third party damage), OPS is satisfied with the company's follow-up activities and that any lessons learned have been appropriately factored into the company's risk management program. Section 5 describes the in-line inspection program Northwest is conducting to address corrosion risks, and the damage prevention program the company is conducting to address excavation risks.

#### *Consultative Evaluation*

During the consultations, a Project Review Team (PRT), consisting of representatives from OPS Headquarters and Western Region, pipeline safety officials from the Washington Utilities and Transportation Commission and the Utah Department of Commerce, and risk management experts, met with Northwest to discuss Northwest's existing Risk Management Program and its expected development during the course of the demonstration project. These discussions addressed the current risk assessment and risk control processes Northwest uses, planned expansion, improvement, and integration of these processes, proposed regulatory alternatives, and proposed performance measures to ensure superior performance is being achieved. The discussions addressed the adequacy of Northwest's risk management systems and technical processes, and communications with outside stakeholders. The consultation process also included an environmental assessment, which is described in Appendix B of this Notice.

The consultation process focused on three major review criteria:

1. Whether Northwest's proposed risk management demonstration program is consistent with the Risk Management Program Standard and compatible with the Guiding Principles set forth in that Standard;

2. Whether the risk control alternatives Northwest proposed can be expected to produce superior safety, environmental protection, and reliability of service compared to that achieved from compliance with the current regulations; and

3. Whether Northwest's proposed risk management demonstration program includes a company work plan and a performance monitoring plan

adequately assuring that the expectations for superior safety, environmental protection, and service reliability are actually being achieved during implementation.

The demonstration project provisions described in this Notice evolved from these consultations, as well as from any public comments received to date. Once OPS and Northwest consider comments received on this Notice, OPS intends to issue an order approving the Northwest demonstration project.

### **3. Statement of Project Goals**

The Northwest Pipeline System transports pressurized natural gas which is lighter than air and flammable. If released as a result of a pipeline leak or rupture, natural gas can potentially ignite causing fires or explosions. Ensuring that pipeline leaks and ruptures do not occur is the highest priority for OPS and Northwest. Through risk management, Northwest intends to continuously improve the level of safety in operating these lines. OPS and the company believe that by applying and refining Northwest's Risk Management Program, and by implementing the proposed risk control alternatives, the demonstration project will exhibit superior protection.

### **4. Demonstration Project Locations**

Northwest is proposing to include its entire natural gas transmission system in the demonstration project. Northwest's pipeline system originates at the Canadian border near Sumas, Washington, and traverses the States of Washington, Oregon, Idaho, Wyoming, Utah, and Colorado. Northwest is focusing its proposed regulatory alternatives to control the increased risk from population increases along the pipeline (see Section 5.3) in six specific geographic locations in western Washington State:

- Four pipe segments (ranging from 1.2 to 2.1 miles each) located between the Chehalis and Washougal Compressor Stations.
  - In Clark County, 3 miles north of Camas, Washington.
  - Along the border of Cowlitz and Clark Counties, in Woodland, Washington.
  - In Cowlitz County, about 1 mile north of Woodland, Washington.
  - In Cowlitz County, about 3 miles southeast of Longview, Washington.
- One pipe segment (about 3 miles) located between the Washougal and Willard Compressor Stations in Skamania County in the Columbia River Gorge.
- One pipe segment (about 0.5 miles) located between the Mt. Vernon and

Snohomish Compressor Stations in Skagit County north of Seattle.

As experience is gained from these segments, and as risks are assessed for other portions of the Northwest gas transmission system, additional class change locations may be proposed for regulatory alternatives. OPS and Northwest will work together to establish criteria and a process for demonstrating when regulatory alternatives can provide superior protection at additional class change locations. (See Section 6 of the Notice for a description of how OPS will oversee this project.)

## 5. Project Description

### 5.1 Risk Management Program Development

Northwest's existing safety and pipeline integrity programs are based on and utilize the expertise of the people most familiar with the pipeline system's construction, operation, maintenance, and history to identify the specific sources and causes of risk, and define projects to reduce or control these risks. Corporate operating experience supplements this knowledge and experience. A number of Northwest's current risk control activities and programs build on and go beyond compliance with current pipeline safety regulations.

Northwest has begun to expand, enhance, and integrate its existing safety and integrity programs into a comprehensive risk management program that will satisfy the requirements of the Program Standard over the course of the demonstration project. During the demonstration project, Northwest is committed to building on its existing risk management system to improve how the company:

- Critically analyzes and systematically investigates all aspects of system design and operation for potential risks;
- Integrates risk-related information from all parts of the company into a comprehensive portrayal of risk, including the nature and location of the most significant risks on the pipeline system;
- Systematically and consistently considers public and environmental protection in the company's approach to develop, evaluate, and implement all capital improvement and risk reduction projects; and
- Enhances the communication and sharing of risk information within the company to improve awareness and understanding of the critical aspects of

the company's operations that are essential to prevent accidents.

Northwest's risk management program work plan, submitted with its application and comprising Appendix A of this document, includes activities and milestones for all of the major program development activities that will be performed during the demonstration project.

### 5.2 Risk Control Programs for Improved Protection

- In assessing the risks on its system, Northwest has determined that some of the most significant risks are from geologic hazards where ground movement could result in pipeline failures. In 1997 and 1999, the company experienced failures in western Washington from landslides caused by high levels of rainfall on areas of slope instability. To address these risks, Northwest has implemented a comprehensive geologic hazard identification, monitoring, and remediation program, and will continue to expand and improve this program as part of the demonstration project.

The geologic hazards program helps identify where land movement might be a threat to pipeline safety, and implements activities that are designed to prevent failures in these locations. Northwest used geotechnical consultants to conduct a survey of its pipeline right-of-way to identify and prioritize areas susceptible to land movement. This geotechnical review identified several areas having an immediate threat of land movement where the company rerouted pipe, or took other actions to stabilize slopes and prevent land movement near the pipeline.

The company is also implementing a comprehensive monitoring program that measures precursors to land movement including pipe strain, soil movement, and moisture level. Company personnel regularly monitor these instruments for indication of potential land movement. Using this early warning, the company is able to relieve stress on the pipe and prevent ruptures. The company has demonstrated that through this warning and remediation, it has prevented at least three ruptures in recent years.

One new element of the geological hazard monitoring program is a collaborative project with OPS's Western Region to examine the feasibility of remotely monitoring strain gauges. Through remote monitoring, the company is immediately informed of indications of potential land movement and is able to respond more rapidly to take protective actions. Remote monitoring can be especially helpful in

areas that may be difficult to access locally. This project involves transmitting strain gauge readings directly to the Northwest gas control center in Salt Lake City. When strain gauge readings indicate stresses on the pipe consistent with potential land movement, a Northwest employee is dispatched immediately to the scene to assess the situation, and begin remediation activities if appropriate. Through this remote monitoring program, and its expanded and improved geological hazards program, Northwest will improve protection for the public and environment in the vicinity of geologic hazards.

To provide further non-required protection, Northwest is also proposing a stress corrosion cracking coupon monitoring program. This program warns of possible stress corrosion cracking, a failure mechanism difficult to predict and detect. Through collaboration with Northwest in this program, OPS will better understand the conditions that contribute to stress corrosion cracking, thus, contributing to the ongoing OPS initiatives to address stress corrosion cracking nationwide.

### 5.3 Regulatory Alternatives Providing Superior Protection

In addition to the programs described in the previous section, Northwest has also identified a few short pipe segments in Washington where it believes alternatives to the current regulations addressing population increase near a pipeline (49 CFR 192.611) would result in superior safety, environmental protection, and reliability. These six locations are described in Section 4.

#### 5.3.1 Current Regulatory Requirements

This section describes the current regulatory requirements in 49 CFR 192.611 that govern actions taken when population density increases along the pipeline.

OPS categorizes all locations along a gas pipeline according to the population near the pipeline (see 49 CFR 192.5). Locations with the smallest population (10 or fewer buildings intended for human occupancy within an area that extends 220 yards on either side of the centerline of any continuous one mile length pipeline) are designated as Class 1. As the population along the pipeline increases, the class location increases. For example, Class 2 locations have more than 10 but fewer than 46 buildings intended for human occupancy; Class 3 locations have 46 or more buildings, or are areas where the pipeline lies within 100 yards of either a building or small, well-defined

outside area (such as a playground, recreation area, outdoor theater, or other place of public assembly) that is occupied by 20 or more persons on at least 5 days a week for 10 weeks in any 12 month period. Class 4 locations are any class location unit where buildings with four or more stories above ground are prevalent (e.g. large apartment buildings).

Some of the Northwest line segments described in Section 4 are changing from Class 1 to 2 (in Skamania County, Washington, in the Columbia River Gorge; and in Cowlitz County one mile north of Woodland, Washington) and some are changing from Class 2 to 3 (in Clark County three miles north of Camas, Washington; on the border of Cowlitz and Clark Counties in Woodland, Washington; in Cowlitz County three miles southeast of Longview; and in Skagit County north of Seattle).

Pipeline safety regulations place more stringent design and operational requirements as the class location increases. When a pipe segment changes to a higher class (e.g., from class 1 to class 2), the operator must lower operating pressure to provide an additional margin of safety, or reconfirm that an adequate safety margin exists through pressure testing. In situations where it is not possible to reconfirm through testing, the operator must replace the pipe with new, stronger pipe if the operator does not want to lower operating pressure.

Because of the importance of providing reliable natural gas service to its customers, Northwest is not considering operating pressure reduction as a realistic alternative since this would decrease the quantity of gas that the company could deliver. To comply with pipeline safety regulations, Northwest would have to replace pipe in four of these short segments, and pressure test two others. Replacing older pipe with stronger, new pipe eliminates the possibility that defects from the original construction, as well as corrosion that may have occurred since installation, will result in a failure. In pressure tests, water is injected into the pipe at elevated pressures to test whether existing pipe is in good enough condition to operate at the elevated pressures.

### 5.3.2 Northwest's Risk Control Alternatives

For each class location change area described in Section 4, Northwest has performed risk analyses to understand and characterize the existing risks to the pipeline, and has defined specific alternatives to replacing pipe or

pressure testing for controlling these risks. These activities are listed below, and summarized in Table 1.

- Internally inspecting class location change segments using geometry and magnetic flux leakage in-line inspection tools, which are not required under current regulations. These tools will identify any indications of wall loss (e.g. corrosion), as well as any dents and gouges from initial construction damage or third party excavators working along the pipeline right-of-way. OPS reviews results of these internal inspections as they are completed.

- Internally inspecting an extended length of pipe on either side of each class change segment to further extend the benefits of the better integrity analysis. The total length of pipe that has been<sup>1</sup> internally inspected is approximately 160 miles; of this, 10.8 miles comprise the six class location change sections.

- Repairing indications of corrosion or existing construction and outside force damage identified by the internal inspection. Northwest is using a conservative repair criteria in the class location change sites that repairs small dents and anomalies that are well below the threshold where pipeline integrity might be compromised.

- Conducting detailed, on-site geological hazard surveys for each of the class location change sites. These surveys will identify potential land movement and other geologic hazards, and will specify monitoring and remediation activities to address significant threats to the pipeline. Northwest has already installed strain gauges at known or suspected geologic hazards in or near the class location change sites. Near the Shirley Gordon class location change site, Northwest has already remediated one potential landslide, and installed a remotely monitored strain gauge (see discussion in Section 5.2).

- Enhancing damage prevention activities in the class location change sites, as well as system-wide. Damage caused by excavators near the pipeline represents one of the highest risks to the six class location change sites. This multi-faceted damage prevention program includes:

<sup>1</sup> OPS reviewed the results of this internal pipe inspection and a follow-up remediation project to repair damage. This review confirmed that corrosion metal loss and construction defects are not significant threats to the pipeline system's integrity. This was confirmed not only in the six small segments, but across the entire pipeline distance examined in the inspection program. OPS concluded from these results that the regulatory-required solution to replace pipe or pressure test would have little impact on the most significant risks affecting Northwest's pipelines.

- Improving communication with local, county, and state planning commissions regarding future development plans near the pipeline so Northwest can address potential excavation risks. Northwest has recently obtained formal review status with the Washington Department of Natural Resources, and now participates in reviewing proposed projects such as logging, road development, and mining in the forested areas near its pipeline right-of-way. This allows Northwest to get involved at the planning stage to be sure such projects do not adversely impact the safety of its pipeline.
- Improving outreach with local developers, excavators, and utilities that may be working near the pipeline. Northwest is an active participant and sponsor of damage prevention meetings. The company distributes its Developer's Handbook which provides standards and procedures to be followed when planning land use development near Northwest's pipeline right-of-way. The Developer's Handbook also provides explicit instruction for performing excavation activities near the right-of-way to ensure that the pipeline is not damaged.
- Having more frequent face-to-face contact with landowners and residents near the pipeline right-of-way in class location change areas.
- Expanding distribution of information on pipeline awareness and potential hazards to nearby residents. Residents within 220 yards on either side of the pipeline receive pipeline safety information annually in the class location change sites.
- Promoting "green belts" and other strategies with landowners to protect pipeline easements from development and construction activity;
- Surveying landowners and residents near the class location change sites, excavators and emergency personnel to assess the effectiveness of public awareness and damage prevention programs. The feedback from these surveys will be used to improve Northwest's damage prevention program.
- Installing additional and more effective pipeline markers to alert potential excavators of the line's presence in the class location change sites; and
- Conducting more frequent aerial and local patrolling, including weekend patrols.
  - Installing remote operators on its mainline block valves to rapidly close valves and isolate a segment of line that experiences a failure. This minimizes

the quantity of gas that is released and, in the event of ignition, would minimize the duration of the fire and the

associated environmental damage and property loss; and

- Engaging state and local emergency management organizations to participate

in training and exercises for a more effective and coordinated response in an emergency.

TABLE 1—ALTERNATIVE ACTIVITIES

Project site	Prescriptive requirements	Alternative activities
<b>Snohomish to Mt. Vernon 46.2 Miles</b>		
1. Snohomish, Class 2 to 3, 0.6 miles, Milepost 1394.7 to 1395.3, Highest risk: 3rd party damage.	Pipe Replacement .....	<ul style="list-style-type: none"> <li>o Run both wall loss &amp; geometry pigs.</li> <li>o Repair anomalies 46mi (at exemption site, use more stringent repair criteria than standard industry practice).</li> <li>o Increase public awareness.</li> <li>o Work w/local Emergency Mngmt. Depts. in joint training/conferences.</li> <li>o Implement recommendations from on-site hazard surveys performed by geologic experts.</li> </ul>
<b>Washougal to Chehalis 73 Miles</b>		
2. Camas, Class 2 to 3, 1.2 miles, Milepost 1216.9 to 1218.1, Highest risk: 3rd party damage.	Pipe Replacement .....	<ul style="list-style-type: none"> <li>• Run both wall loss &amp; geometry pigs.</li> <li>• Repair anomalies 73mi (at exemption site, use more stringent repair criteria than standard industry practice).</li> <li>• Increase public awareness.</li> <li>• Work w/local Emergency Mngmt. Depts. in joint training/conferences.</li> <li>• Implement recommendations from on-site hazard surveys performed by geologic experts (including additional strain gage at Shirley Gordon).</li> </ul>
3. Woodland, Class 2 to 3, 2.1 miles, Milepost 1242.9 to 1245.0, Highest risk: 3rd party damage.	Pipe Replacement .....	<ul style="list-style-type: none"> <li>• Increase/improve signs marking pipeline right-of-way.</li> <li>• Monitor for stress corrosion cracking.</li> <li>• Install two remotely operated valves to rapidly isolate the pipeline in the event of rupture.</li> </ul>
4. Rose Valley, Class 2 to 3, 2.3 miles, Milepost 1256.3 to 1258.6, Highest risk: 3rd party damage.	Pipe Replacement .....	
5. Shirley Gordon, Class 1 to 2, 1.8 miles, Milepost 1245.2 to 1247.0, Highest risk: land movement.	Pipe Requalification .....	
<b>Willard to Washougal 41 Miles</b>		
6. Gorge Area, Class 1 to 2, 2.8 miles, Milepost 1199.0 to 1201.8, Highest risk: land movement.	Pipe Requalification .....	<ul style="list-style-type: none"> <li>• Run both wall loss &amp; geometry pigs.</li> <li>• Repair anomalies 41mi (at exemption site, use more stringent repair criteria than standard industry practice).</li> <li>• Increase public awareness.</li> <li>• Work w/local Emergency Mngmt. Depts. in joint training/conferences.</li> <li>• Implement recommendations from on-site hazard surveys performed by geologic experts.</li> <li>• Monitor for stress corrosion cracking.</li> </ul>

As part of the company's risk evaluation, Northwest has compared the risk reduction produced by these alternatives to that achieved by the current regulations. OPS has reviewed this evaluation in detail and concluded that the alternative risk control activities can be expected to reduce safety and environmental risk below that which would be achieved by compliance with current regulations. Furthermore, because of the resources saved by not having to replace pipe in these six locations, Northwest is able to enhance its geological hazards and stress corrosion cracking programs described in Section 5.2, and conduct internal inspections on additional portions of its system.

OPS is proposing to exempt Northwest from the pressure confirmation requirements of 49 CFR 192.611. In lieu of compliance with this requirement, Northwest will implement and monitor the effectiveness of the risk control alternatives described in this section as well as its geologic hazards and stress corrosion cracking programs.

## 6. Regulatory Perspective

### *Why Is OPS Considering This Project?*

OPS has conducted a careful and extensive review of Northwest's proposed Risk Management Demonstration Project. OPS believes that Northwest, in accordance with its work plan, will continue to build on its current risk management system to

develop, document, and implement a risk management program fully consistent with the requirements and principles of the Risk Management Program Standard.

OPS believes that the proposed risk control alternatives should improve protection for the environment and the communities in the vicinity of Northwest's pipeline facilities. OPS believes Northwest's risk-based justification of the alternatives to the class change regulations is technically sound. During the demonstration project, OPS will review the process that Northwest uses to verify superior performance of the proposed risk control alternatives in reducing risk to the public, workers, the environment, and service availability.

OPS also believes that the Northwest demonstration project will help OPS achieve the overall goals of the Risk Management Demonstration Program. In particular, as a result of this project there will be an increased sharing of information between the company and government about potential pipeline risks and activities to address those risks. This sharing will increase OPS's knowledge and awareness about potential pipeline threats, and thereby support a more effective regulatory role in improving safety and environmental protection. Northwest will also further the development of analytical tools for identifying and assessing risks. As part of this effort they will be linking risk assessment analytical models directly to a geographical information system that provides accurate, up-to-date, location-specific information about pipe line design, operation, and right-of-way environmental characteristics. Northwest also intends to enhance its geologic hazard identification, monitoring, and remediation program through this project, including expanding the Northwest/OPS remote strain gauge monitoring project (described in Section 5.2). OPS will also get better information about conditions contributing to stress corrosion cracking (described in Section 5.2). Finally, OPS believes that Northwest will develop and demonstrate systematic processes for reallocating resources within the company to address the most significant risks.

#### *How Will OPS Oversee This Project*

After approving the Northwest Risk Management Demonstration Project, the PRT will continue to monitor the project. The PRT is designed to be a more comprehensive oversight process that draws maximum technical experience and perspective from all

affected OPS regional and headquarters offices, and from any affected state agencies that would not normally provide oversight on interstate transmission projects.

One of the primary functions of the PRT will be to conduct periodic risk management audits. These risk management audits will be used to observe company performance of the specific terms and conditions of the OPS Order authorizing this Demonstration Project. OPS is developing a detailed audit plan, tailored to the unique requirements of the Northwest Demonstration Project. This plan will describe the audit process (e.g., types of inspections, methods, observation of company review of risks and risk control options, frequency of audits), and the specific requirements for reporting performance measurement data, lessons learned from incidents and other unexpected events, and milestone and other information to OPS.

OPS retains its authority to enforce Northwest's compliance with the pipeline safety regulations. OPS plans to exempt compliance from those regulations previously described in Section 5 where Northwest has demonstrated that its proposed risk alternatives are superior to the regulations. Should the demonstration project performance measures or other information subsequently indicate that superior protection has not been achieved or is unlikely to continue to be achieved, then OPS can require Northwest to again comply with those regulations from which it had been exempted.

#### *Information Provided to the Public*

OPS has previously provided information to the public about the Northwest project, and has requested public comment, using many different

sources. OPS aired an electronic town meeting on September 17, 1997 that enabled viewers of the two-way live broadcast to pose questions and voice concerns about candidate companies (including Northwest). An earlier **Federal Register** Notice (62 FR 40135; July 25, 1997) informed the public that Northwest was interested in participating in the Demonstration Program, provided general information about technical issues, and identified the geographic areas the demonstration project would traverse.

Since August 1997, OPS has used an internet-accessible data system called the Pipeline Risk Management Information System (PRIMIS) to collect, update, and exchange information about all demonstration candidates, including Northwest (PRIMIS can be accessed from the OPS web site: <http://ops.dot.gov>). At a November 19, 1997, public meeting hosted by OPS in Houston, Texas, Northwest officials presented a summary of the proposed demonstration project and answered questions from meeting attendees. (Portions of this meeting were broadcast on January 15, 1998, and on March 26, 1998.) OPS has provided a prospectus, which includes a map of the demonstration project system, to State officials and community representatives who may be interested in reviewing project information, providing input, or monitoring the progress of the project. This Notice is OPS's final request for public comment before OPS intends to approve Northwest's participation in the Demonstration Program under the terms of the work plan.

Issued in Washington, DC, on November 23, 1999.

**Richard B. Felder,**

*Associate Administrator for Pipeline Safety.*

**BILLING CODE 4910-60-P**

**APPENDIX A: NORTHWEST PIPELINE CORPORATIONS WORK PLAN**

TABLE I: NORTHWEST RISK MANAGEMENT PROGRAM WORK PLAN			
No.	Milestone Name	Activity	Milestone Dates
1	Develop a risk management program for Northwest and prepare a program document describing the program and processes.	<ul style="list-style-type: none"> <li>Develop an approach for incorporating risk management process into Northwest's daily operation. Developments include:               <ul style="list-style-type: none"> <li>Perform on-site data verification/gathering for all districts which includes the following tasks:                   <ul style="list-style-type: none"> <li>✓ Data gathering meetings</li> <li>✓ Data entry</li> <li>✓ Creation of IAP baseline for entire Northwest system</li> </ul> </li> <li>Perform on-site training, model verification, identify potential high-risk areas, and evaluate risk control projects which includes the following tasks:                   <ul style="list-style-type: none"> <li>✓ Expert panel meetings</li> <li>✓ Budget estimates and requests</li> <li>✓ Project evaluation and justifications</li> <li>✓ Budget approvals</li> </ul> </li> </ul> </li> <li>Submit initial performance measures.</li> <li>Submit a program document that will describe RM processes, integration of existing programs, communications plan, management of change and performance measures.</li> <li>Develop cost/benefit model that will improve existing economic tool used to evaluate and prioritize candidate projects by incorporating risk into the model. This includes:               <ul style="list-style-type: none"> <li>Define basis for how the relative importance for model categories are established,</li> <li>Develop guidance for consistent use of the multi-attribute model by Northwest personnel, and</li> <li>Define information requirements for completion of the model.</li> </ul> </li> </ul>	4 <sup>th</sup> Quarter 1999  1 <sup>st</sup> Quarter 2000  1 <sup>st</sup> Quarter 2000
2	Develop a formalized risk management policy and procedure.	<ul style="list-style-type: none"> <li>Submit risk management policy and procedures that will:               <ul style="list-style-type: none"> <li>Detail steps of the risk assessment, risk control and performance monitoring of the process.</li> <li>Define and document the roles and responsibilities of all key RM personnel.</li> <li>Contain specific requirements for collecting, processing, storing, and reporting of risk assessment results and development of risk controls data.</li> </ul> </li> </ul>	1 <sup>st</sup> Quarter 2000



3	Develop an integrity assessment program policy and procedure.	<ul style="list-style-type: none"> <li>• Submit IAP policy and procedure that will:               <ul style="list-style-type: none"> <li>▸ Contain steps for documenting the collection, processing, storing, and reporting of risk assessment data,</li> <li>▸ Contain necessary steps for modifying the algorithm when necessary, and</li> <li>▸ Contain necessary steps for yearly reviews of the algorithm.</li> </ul> </li> </ul>	1 <sup>st</sup> Quarter 2000
4	Modify existing budget policy and procedure to include the risk management procedure in the budget process.	<ul style="list-style-type: none"> <li>• Submit modified budget policy and procedure that will:               <ul style="list-style-type: none"> <li>▸ Reflect the timing of the risk management process steps.</li> <li>▸ Reflect the specific documentation for collecting, processing, storing, and reporting of budget decisions.</li> <li>▸ Describe how risk is systematically and consistently incorporated into the project selection process.</li> </ul> </li> </ul>	1 <sup>st</sup> Quarter 2000
5	Develop a compressor station policy and procedure.	<ul style="list-style-type: none"> <li>• Develop and field-test the risk assessment process for compressor stations.</li> </ul>	1 <sup>st</sup> Quarter 2000
6	Provide additional formalization and documentation to Northwest's existing Geologic Hazard Program.	<ul style="list-style-type: none"> <li>• Submit a revised geologic hazard policy and procedure that will:               <ul style="list-style-type: none"> <li>▸ Provide specific indicators to constitute the frequency with which strain gauges and other land movement indicators will be monitored, taking into account weather and soil saturation conditions.</li> <li>▸ Populate GIS database from all geologic hazard reports for enhanced data analysis.</li> <li>▸ Submit final consolidated report on the cooperative agreement with the remotely monitored strain gauges.</li> <li>▸ Perform a periodic review of geologic hazard program to determine and evaluate the effectiveness of the program and recommendations for improvement.</li> <li>▸ Perform a program evaluation of all past geologic hazard recommendations and evaluation of need.</li> <li>▸ Create and action plan to address evaluation reports and re-mediation activities specifically for the class location areas.</li> <li>▸ Evaluate existing forms for improvement of documentation of geologic hazard reconnaissance.</li> <li>▸ Perform geological training for field personnel.</li> </ul> </li> </ul>	<p>January 31, 2000</p> <p>October 30, 1999</p> <p>4<sup>th</sup> Quarter 1999</p> <p>Annual</p> <p>January 31, 2000</p> <p>January 31, 2000</p> <p>October 30, 1999</p> <p>Annual</p>
7	Provide SCC testing enhancement schedule	<ul style="list-style-type: none"> <li>• Install additional SCC coupon monitors based on SCC program evaluation.</li> <li>• Replace pipe with potential for SCC near Myrtle Creek, Oregon.</li> <li>• Perform additional SCC testing when pipeline is exposed due to internal inspection or SCC program criteria.</li> <li>• Test internal inspection tool capable of detecting SCC in Oregon.</li> <li>• Evaluate SCC monitoring program.</li> </ul>	<p>4<sup>th</sup> Quarter 1999</p> <p>4<sup>th</sup> Quarter 1999</p> <p>Ongoing</p> <p>4<sup>th</sup> Quarter 2000</p> <p>Annual</p>

8	Communications activity.	<ul style="list-style-type: none"> <li>• Land use in planning and developing.               <ul style="list-style-type: none"> <li>▶ Work with land use agencies throughout the system to provide input into development along the ROW.</li> </ul> </li> <li>• Obtain formal reviewing status with the Department of Natural Resources (DNR) for evaluation of projects associated with DNR approvals.               <ul style="list-style-type: none"> <li>▶ Participate in DNR project review concerning forest practice issues within the State of Washington (logging, roadways, mining). Comments will be made during forests practices application process and will be evaluated by DNR during review and approval process. The forest practices approval will be conditions as deemed appropriate by the DNR.</li> </ul> </li> <li>• Develop handbook.               <ul style="list-style-type: none"> <li>▶ Utilize existing handbook and modify as necessary.</li> </ul> </li> <li>• Class location area extended boundaries of communication.               <ul style="list-style-type: none"> <li>▶ Complete all distribution of additional safety material to class location change areas considered for demo program.</li> </ul> </li> <li>• Communication survey.               <ul style="list-style-type: none"> <li>▶ Complete survey evaluating existing public awareness and emergency response efforts and evaluate current communications program.</li> </ul> </li> <li>• Send Prospectus to county commissions and regional environmental agencies.</li> <li>• Evaluate enhanced use of radio.</li> <li>• Post risk management information on Williams internet internal web page.</li> </ul>	<p>Ongoing 1<sup>st</sup> Quarter 1999</p> <p>Ongoing 4<sup>th</sup> Quarter 1999</p> <p>3<sup>rd</sup> Quarter 1999</p> <p>After Prospectus is prepared by OPS. 1<sup>st</sup> Quarter 2000 4<sup>th</sup> Quarter 1999</p>
9	Damage prevention.	<ul style="list-style-type: none"> <li>• Weekend patrols.               <ul style="list-style-type: none"> <li>▶ Evaluate weekend patrols for effectiveness.</li> </ul> </li> <li>• Increased patrol frequency.               <ul style="list-style-type: none"> <li>▶ Continue with normal frequency of once a week for mainline north and once every other week for mainline south.</li> </ul> </li> <li>• Increased line-marking effectiveness in class location area if necessary.</li> <li>• Evaluate DAMQAT and Common Ground "Best Practices" information for additional damage prevention program enhancements.</li> <li>• Evaluate current damage prevention program for enhancements.</li> </ul>	<p>3<sup>rd</sup> Quarter 2000</p> <p>Ongoing</p> <p>4<sup>th</sup> Quarter 1999 1<sup>st</sup> Quarter 2000 4<sup>th</sup> Quarter 1999</p>

10	Schedule for completion of Alternatives.	<ul style="list-style-type: none"> <li>• Chehalis to Washougal section. <ul style="list-style-type: none"> <li>▶ Run MFL tool</li> <li>▶ Run Geometry tool</li> <li>▶ Repair anomalies according to repair criteria</li> <li>▶ Complete SCC test</li> <li>▶ Enhance public awareness in class location change segments</li> <li>▶ Complete communications survey for newly contacted public</li> <li>▶ Complete installation of remotely operated valves</li> <li>▶ Complete communications hook up of remotely operated valves</li> <li>▶ Complete geologic hazard evaluation for class location change segments</li> <li>▶ Complete geologic hazard recommendations</li> </ul> </li> <li>• Snohomish to Mt. Vernon section. <ul style="list-style-type: none"> <li>▶ Run MFL tool</li> <li>▶ Run Geometry tool</li> <li>▶ Repair anomalies according to repair criteria</li> <li>▶ Enhance public awareness in class location change segment</li> <li>▶ Complete communications survey for newly contacted public</li> <li>▶ Complete geologic hazard evaluation for class location change segments</li> <li>▶ Complete geologic hazard recommendations</li> </ul> </li> <li>• Willard to Washougal section. <ul style="list-style-type: none"> <li>• Run MFL tool</li> <li>• Run Geometry tool</li> <li>• Repair anomalies according to repair criteria</li> <li>• Enhance public awareness in class location change segment</li> <li>• Complete geologic hazard evaluation</li> <li>• Complete geologic hazard recommendations</li> </ul> </li> </ul>	<p>3<sup>rd</sup> Quarter 1998 3<sup>rd</sup> Quarter 1998 3<sup>rd</sup> Quarter 1999 3<sup>rd</sup> Quarter 1998 3<sup>rd</sup> Quarter 1998 3<sup>rd</sup> Quarter 1999 3<sup>rd</sup> Quarter 1998 3<sup>rd</sup> Quarter 1999 3<sup>rd</sup> Quarter 1999 TBD after geological hazard report is completed.</p> <p>3<sup>rd</sup> Quarter 1996 3<sup>rd</sup> Quarter 1996 3<sup>rd</sup> Quarter 1999 3<sup>rd</sup> Quarter 1999 3<sup>rd</sup> Quarter 1999 3<sup>rd</sup> Quarter 1999 TBD after geological hazard report is completed.</p> <p>4<sup>th</sup> Quarter 1999 4<sup>th</sup> Quarter 1999 3<sup>rd</sup> Quarter 2000 3<sup>rd</sup> Quarter 1999 3<sup>rd</sup> Quarter 1999 TBD after geological hazard report is completed.</p>
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## Appendix B: Environmental Assessment

### A. Introduction and Background

As authorized by 49 U.S.C. 60126, the Office of Pipeline Safety (OPS) is implementing a Risk Management Demonstration Program to evaluate the use of risk management in the Federal pipeline safety regulatory process. This evaluation is being performed under strictly controlled conditions through a set of demonstration projects being conducted with interstate pipeline operators. Through the Demonstration Program, OPS will determine whether a risk management approach, properly implemented and monitored through a formal risk management framework, achieves superior safety and environmental protection, as well as increased efficiency and service reliability of pipeline operations. OPS also expects the program to evaluate how well risk management improves communication among industry, the government, and other stakeholders on important pipeline safety and environmental issues and concerns.

A Presidential Directive to the Secretary of Transportation (October 16, 1996) stated that in implementing the Risk Management Demonstration Program: "The Secretary shall require each project to achieve superior levels of public safety and environmental protection when compared with regulatory requirements that otherwise would apply." Thus, the process to select operators for this Demonstration Program involves a comprehensive review to ensure that the proposed project will provide the superior safety and environmental protection required by this Directive.

In April 1997, Northwest Pipeline Corporation (Northwest) submitted a Letter of Intent to OPS asking to be considered as a Demonstration Program candidate. Using the consultative process described in Appendix A of the Requests for Application for the Pipeline Risk Management Demonstration Program (62 FR 14719), published on March 27, 1997, OPS worked extensively with the company to develop a definition of a Demonstration Project that will provide superior safety and environmental protection. OPS is prepared to finalize an agreement with Northwest on the Demonstration Project provisions and initiate this project.

This Environmental Assessment summarizes the OPS safety and environmental review for the Demonstration Project proposed by Northwest Pipeline Corporation (Northwest). This document is prepared in accordance with section 102(2)(c) of the National Environmental Policy Act (42 U.S.C. Section 4332), the Council on Environmental Quality regulations (40 CFR Sections 1500–1508), and Department of Transportation (DOT) Order 5610.1c, Procedures for Considering Environmental Impacts. It was prepared to assist in the agency's planning and decision-making. This document concisely describes OPS' proposed action to approve a Risk Management Demonstration Project with Northwest, addresses the alternative approaches considered, the environment

affected by this action, the consequences to the environment of the alternatives considered, and a list of the agencies and organizations consulted. This Environmental Assessment provides sufficient evidence to determine that approval of the Northwest Risk Management Demonstration Project will have no significant impact on the environment.

### B. Description of Proposed Action

This section summarizes the proposed Northwest Risk Management Demonstration Project that has been established through the consultative process with OPS. The project's primary purpose is to demonstrate that Northwest's risk management program will improve safety and environmental protection.

Northwest has begun to expand, enhance, and integrate its existing safety and integrity programs into a comprehensive risk management program that will satisfy the requirements of the Risk Management Program Standard (distributed at a January 28, 1997, public meeting in New Orleans, LA, and available on the OPS website at <http://ops.dot.gov>) over the course of the four-year demonstration project. During the demonstration project, Northwest is committed to building on its existing risk management system to improve how the company:

- Critically analyzes and systematically investigates all aspects of system design and operation for potential risks;
- Integrates risk-related information from all parts of the company into a comprehensive portrayal of risk, including the nature and location of the most significant risks on the pipeline system;
- Systematically and consistently considers public and environmental protection in the company's approach to develop, evaluate, and implement all capital improvement and risk reduction projects; and
- Enhances the communication and sharing of risk information within the company to improve awareness and understanding of the critical aspects of the company's operations that are essential to prevent accidents.

Northwest has described its vision for risk management program enhancements over the next four years and beyond in its Risk Management Demonstration Project Application, and in discussions with OPS. Northwest's risk management program Work Plan, submitted with its application, includes descriptions and milestones for all of the major program development activities. In approving this project, OPS will issue a Risk Management Order that requires:

- Implementing all risk management program development milestones included in the Northwest Work Plan, including specific activities in the following areas:
  1. Institutionalizing a Formalized Risk Program
  2. Program Integration Across the Entire Pipeline System
  3. Risk Assessment Processes and Tools
  4. Risk Control Activity Selection Processes and Tools
  5. Performance Measurement and Feedback Processes

6. Roles and Responsibilities

7. Training

8. Documentation

9. Communication

- Sharing information with OPS about key risks on the Northwest system and the most effective activities to manage these risks.

- Implementing Northwest's Performance Monitoring Program, and reporting of all program-wide and project-specific performance measures to OPS.

The remainder of this section describes the specific risk control programs and activities Northwest will perform on its system to achieve superior safety and environmental protection. Section B.1 discusses two major system-wide initiatives, while Section B.2 addresses specific risk control activities that are being proposed in lieu of compliance with pipeline safety requirements when population density increases in the vicinity of the pipeline.

#### B.1 Risk Management Programs for Improved Protection

In assessing the risks on its system, Northwest has determined that some of the most significant risks are from geologic hazards where ground movement could result in pipeline failures. In 1997 and 1999, the company experienced failures in western Washington from landslides caused by high levels of rainfall on areas of slope instability. To address these risks, Northwest has implemented a comprehensive geologic hazard identification, monitoring, and remediation program, and will continue to expand and improve this program as part of the demonstration project.

The geologic hazards program helps identify where land movement might be a threat to pipeline safety, and implements activities that are designed to prevent failures in these locations. Northwest uses geotechnical consultants to survey its pipeline right-of-way to identify and prioritize areas susceptible to land movement. The initial geotechnical review identified several areas having an immediate threat of land movement where the company rerouted pipe, or took other actions to stabilize slopes and prevent land movement near the pipeline.

As part of its on-going geological hazard and assessment program, the company may identify additional areas that require remediation or rerouting. In these situations, the company considers the local environmental conditions, interacts with the responsible state and federal agencies, and takes appropriate precautions for environmental protection. When pipeline rerouting is performed, approval by the Federal Energy Regulatory Commission requires a review of environmental impacts posed by the project. Through the Risk Management Demonstration Project, OPS will have a greater awareness of these activities and will have an opportunity to provide input to the geological hazards program.

The company is also implementing a comprehensive monitoring program that measures precursors to land movement including pipe strain, soil movement, and moisture level. As of early 1999, Northwest

had installed 76 strain gauges, 21 piezometers, and 15 inclinometers on their system at locations identified by the geological hazards survey as being susceptible to land movement. Most of this instrumentation is in the following locations:

- In the vicinity of Douglas Pass between Rangely and Grand Junction in northwest Colorado;
- Between Vancouver, Washington and The Dalles, Oregon (east of the Portland area along the Columbia River); and
- Between Vancouver, Washington and Chehalis, Washington (north of the Portland area along the I-5 corridor, west of the Cascade Range).

Company personnel regularly monitor these instruments for indication of potential land movement. Using this early warning, the company is able to relieve stress on the pipe and prevent ruptures. The company has demonstrated that through this advance warning and remediation, it has prevented at least three ruptures in recent years.

One new element of the geological hazard monitoring program is a collaborative project with the OPS Western Region to examine the feasibility of remotely monitoring strain gauges. Through remote monitoring, the company is immediately informed of indications of potential land movement and is able to respond more rapidly to take protective actions. Remote monitoring can be especially helpful in areas that may be difficult to access locally. The Northwest/OPS project installed remote transmitters at the following three locations:

- Kalama Site, located approximately 25 miles north of Portland, Oregon;
- Mt. Pleasant Site, located approximately 26 miles north of Portland, Oregon; and
- Vail Mountain Site, located approximately 70 miles north of Portland, Oregon.

Strain gauge readings are transmitted directly to the Northwest gas control center in Salt Lake City. When strain gauge readings indicate stresses on the pipe consistent with potential land movement, a Northwest employee is dispatched immediately to the scene to assess the situation, and begin remediation activities if appropriate. These remediation activities typically involve slope stabilization, or localized excavation to relieve excessive stresses on the pipeline. Through this remote monitoring program, and its expanded and improved geological hazards program, Northwest will improve protection for the public and environment in the vicinity of geologic hazards.

To provide further non-regulatory required protection, Northwest is also proposing a stress corrosion cracking coupon monitoring program. This program warns of possible stress corrosion cracking, a failure mechanism that is difficult to predict and detect. This program involves installing test coupons in the right-of-way (but not attached to the pipeline itself) in locations where soil conditions might be conducive to stress corrosion cracking. Northwest has currently installed coupons at several locations in western Oregon. Through collaboration with Northwest in this program, OPS will better understand the conditions that contribute to stress corrosion cracking, thus contributing to

other OPS initiatives to address stress corrosion cracking nationwide.

## *B.2 Risk Control Activities for Improved Protection*

In addition to the geotechnical and stress corrosion cracking programs previously described, Northwest has also identified a few short pipe segments in Washington where it believes alternatives to the current regulations addressing population increase near a pipeline (49 CFR 192.611) would result in superior safety, environmental protection, and reliability. These six locations are described in Section D of this environmental assessment.

### *B.2.1 Current Regulatory Requirements*

This section describes the current regulatory requirements in 49 CFR 192.611 that govern actions taken when population density increases along the pipeline.

OPS categorizes all locations along a gas pipeline according to the population near the pipeline (see 49 CFR 192.5). Locations with the smallest population (10 or fewer buildings intended for human occupancy within an area that extends 220 yards on either side of the centerline of any continuous one mile length pipeline) are designated as Class 1. As the population along the pipeline increases, the class location increases. For example, Class 2 locations have more than 10 but fewer than 46 buildings intended for human occupancy; Class 3 locations have 46 or more buildings, or are areas where the pipeline lies within 100 yards of either a building or small, well-defined outside area (such as a playground, recreation area, outdoor theater, or other place of public assembly) that is occupied by 20 or more persons on at least 5 days a week for 10 weeks in any 12 month period. Class 4 locations are any class location unit where buildings with four or more stories above ground are prevalent (e.g., large apartment buildings).

The Northwest line segments described in Section D consist of some which are changing from Class 1 to 2 (in Skamania County, WA, in the Columbia River Gorge, and in Cowlitz County, one mile north of Woodland, WA), and some which are changing from Class 2 to 3 (in Clark County, three miles north of Camas, WA; on the border of Cowlitz and Clark Counties in Woodland, WA; in Cowlitz County, three miles southeast of Longview; and in Skagit County, north of Seattle).

Pipeline safety regulations place more stringent design and operational requirements as the class location increases. When a pipe segment changes to a higher class (e.g., from class 1 to class 2), the operator must lower operating pressure to provide an additional margin of safety, or reconfirm that an adequate safety margin exists through pressure testing. In situations where it is not possible to reconfirm through testing, the operator must replace the pipe with new, stronger pipe if the operator does not want to lower operating pressure.

Because of the importance of providing reliable natural gas service to its customers, Northwest is not considering operating pressure reduction as a realistic alternative since this would decrease the quantity of gas

that the company could deliver. Because pipe wall thickness prevents the ability to pressure test the line, Northwest would have to replace pipe in these short segments to comply with pipeline safety regulations. Replacing older pipe with stronger, new pipe eliminates the possibility that defects from the original construction, as well as corrosion that may have occurred since installation, will result in a failure.

### *B.2.2 Northwest's Risk Control Alternatives*

For each class location change area described in Section D, Northwest has performed risk analyses to understand and characterize the existing risks to the pipeline, and defined the following specific alternatives to replacing pipe for controlling these risks.

- Internally inspecting class location change segments using an in-line inspection tool;

- Internally inspecting an extended length of pipe on either side of each class change segment. The total length of pipe that has been<sup>1</sup> internally inspected is approximately 160 miles.

- Repairing indications of corrosion or existing construction and outside force damage identified by the internal inspection for the entire 160 mile distance which includes the six class location change sites;

- Performing enhanced damage prevention activities. Damage caused by excavators near the pipeline represents one of the highest risks to the six class location change sites. This multi-faceted damage prevention program includes:

- Improving communication with local, county, and state planning commissions regarding future development plans near the pipeline so Northwest can better address potential excavation risks;
- Improving outreach with local developers, excavators, and utilities that may be working near the pipeline;
- Having more frequent face-to-face contact with landowners and residents near the pipeline right-of-way;
- Expanding distribution of information on pipeline awareness and potential hazards to nearby residents;
- Promoting “green belts” and other strategies with landowners to protect pipeline easements from development and construction activity;
- Using more visible pipeline markers to alert potential excavators of the line's presence; and
- Increasing aerial and local patrolling frequency including weekend patrols.

- Installing remote operators on its mainline block valves to rapidly close valves and isolate a segment of line that experiences

<sup>1</sup> OPS reviewed the results of this internal pipe inspection and documentation of the follow-up remediation projects to repair damage. This review confirmed that corrosion metal loss and construction defects were not significant threats to the pipeline's integrity. This was confirmed in the six small segments and across the entire pipeline distance examined in the inspection program. Based on these results, OPS concluded that the regulatory-required solution to replace pipe would have little impact on the most important risks affecting Northwest's pipeline.

a failure. This minimizes the quantity of gas that is released, and, in the event of ignition, would minimize the duration of the fire and the associated environmental damage and property loss; and

- Engaging state and local emergency management organizations to participate in training and exercises for a more effective and coordinated response in an emergency.

As part of the company's risk evaluation, Northwest has compared the risk reduction produced by these alternatives to that achieved by the current regulations. OPS has reviewed this evaluation in detail and concluded that the alternative risk control activities can be expected to reduce safety and environmental risk below that which would be achieved by compliance with current regulations. Furthermore, because of the resources saved by not having to replace pipe in these six locations, Northwest is able to enhance its geological hazards and stress corrosion cracking programs described in Section B.1, and conduct internal inspections on additional portions of its system.

As part of approving the Northwest Risk Management Demonstration Project, OPS is proposing to exempt Northwest from the pressure confirmation requirements of 49 CFR 192.611. In lieu of compliance with this requirement, Northwest will implement and monitor the effectiveness of the risk control alternatives described in this section as well as its geologic hazards and stress corrosion cracking programs. Commitments for implementing these activities will be included in the Risk Management Order authorizing the Northwest Demonstration Project.

### C. Alternatives Considered

The Northwest Risk Management Demonstration Project described in the previous section (i.e., the "proposed action") evolved through a consultative process that began in the fall of 1997 and concluded in 1999. Consistent with the guiding principles established in the Program Framework (62 FR 14719), the consultation was conducted in partnership with the company. The process was not designed to be a one-sided, review process in which OPS approves or rejects a Demonstration Project proposal. Instead, the consultation process uses the collective expertise and experience of the company, OPS, and state pipeline safety representatives to define a Demonstration Project that will achieve the OPS programmatic goals (including superior safety and environmental protection) and be acceptable to the company.

This consultation process was a highly iterative interaction involving a number of meetings and discussions between OPS and Northwest personnel. These reviews and discussions covered a broad range of management systems and technical subjects, all of which were important in defining the Demonstration Project. These subjects included:

- Existing safety, pipeline integrity, and risk management programs and processes;
- Pipeline design, operation and maintenance procedures and practices;
- Operating experience and compliance record;

- Leak and incident history, including a thorough discussion of ground movement related events that have occurred in the last several years;

- Potential risk management program and process improvements;

- The approach used to identify and evaluate risks on the Northwest system (including a discussion of the computer model used to assist in the risk assessment process);

- The risk assessment results, including the most important system-wide and location specific risks;

- The risk control activities and programs proposed by Northwest to address the most significant system-wide risks, as well as risks in the six class location change sites;

- Observation of the specific pipeline right-of-way conditions in the class location change areas described in Section D;

- Performance measures for evaluating the effectiveness of its risk management program, as well as the individual risk control programs and activities designed to achieve superior performance; and

- Communication and outreach activities to inform the public and solicit input on the project.

The starting point for the OPS/Northwest consultation was the project definition proposed in Northwest's initial Letter of Intent. Through a series of meetings, the Demonstration Project gradually evolved. During the consultation, a number of alternative project definitions were considered. The alternatives considered various risk management programmatic approaches, different types and combinations of risk control activities, and different approaches to implement risk control activities. The final set of risk management program improvements, and risk control activities and programs described in Section B was the result of this evolutionary process. All of the issues raised by OPS, state regulators, and other stakeholders about Northwest's proposed project have been discussed within the consultative process, resolved to OPS's satisfaction, and are reflected in Northwest's application. Implementation of this Risk Management Demonstration Project is OPS's preferred alternative.

While the specific provisions in Section B represent a solid starting point for a successful Demonstration Project, this does not mean that additional changes will not be made over the four-year demonstration period. It is important to recognize that the Risk Management Demonstration Project includes a performance monitoring and feedback element. Through performance measurement and evaluation, OPS and Northwest will monitor the effectiveness of the Demonstration Project provisions. Based on this experience and feedback, changes to the specific risk control activities and programs may be made to enhance the level of safety and environmental protection provided by this project.

In addition, Northwest and OPS have agreed to work together to continually evaluate the most significant risks on the Northwest system and to identify cost-effective risk control activities (beyond the

current regulatory requirements) to address these risks. Performance monitoring and feedback will lead to program improvements and additional risk control activities. It is highly likely that the Demonstration Project will continue to evolve over the four-year period to provide enhanced protection of the people and the environment in the vicinity of Northwest's facilities.

In addition to approval of the Northwest Demonstration Project, OPS also considered denial of the Northwest Demonstration Project application. Denial of this project would result in a considerable loss of valuable information to OPS concerning the sources of risks along the Northwest pipeline and the most effective means of managing these risks. OPS believes that denial of this project will result in a lost opportunity to provide superior safety and environmental protection for the communities living along the pipeline. Denial would also significantly diminish OPS's ability to evaluate the effectiveness of an institutionalized, integrated, and comprehensive risk management program in producing superior performance, and would hinder OPS's ability to satisfy the objectives of the risk management demonstration program, and the requirements of the previously-mentioned Presidential Directive.

### D. Affected Environment

The product transported in the Northwest Pipeline System is pressurized natural gas which is lighter than air and flammable. If released as a result of a pipeline leak or rupture, natural gas can potentially ignite causing fires or explosions. Northwest's and industry's experience demonstrates that pipeline rupture-initiated fires almost always result in localized damage to the vegetation and animal life immediately adjacent to the failure site. A review of Northwest's recent ruptures showed that the area impacted by fire is less than 7 acres. It is possible that a rupture occurring in a heavily forested area in the dry summer season<sup>2</sup> could result in a forest fire, which would have a more extensive impact on wildlife and vegetation. However, the likelihood of a such an occurrence is believed to be very low. Other than localized vegetation damage in the event of a fire or explosion, there are no significant environmental impacts from natural gas pipeline leaks or ruptures.

Even though the environmental impacts from natural gas pipeline failures are minimal, Northwest and OPS have conducted a review of the environment in the vicinity of the pipeline to understand the resources which could be affected by pipeline failures on the Northwest system. The remainder of this section summarizes the key environmental features both system-wide and in the locations impacted by the regulatory alternatives described in Section B.2.2.

Northwest Pipeline Corporation operates approximately 3,900 miles of interstate

<sup>2</sup> Ground movement, which has been the most predominant cause of incidents on the Northwest system, occurs in the rainy season when landslide areas become active. The wet vegetation and saturated conditions at this time of the year significantly reduce the likelihood of the fire spreading beyond the immediate rupture site.

natural gas transmission line running through six western states, originating at the Canadian border near Sumas, Washington. The Northwest pipeline system traverses various terrain ranging from the forested foothills of the Cascade Range in Washington to rolling farmlands of Oregon and Idaho to the high desert, rangeland and Colorado Plateau areas in Wyoming, Utah and Colorado. The Northwest pipeline system could best be described by splitting the system into three distinct segments. These segments are the forested areas of western and southern Washington, rolling farmlands of eastern Oregon and western Idaho, and the semi-arid rangelands of southeastern Idaho, southern Wyoming and western Colorado. A summary of the environmental features of each region is provided below.

The first segment cuts through forested areas of western and southern Washington and the Columbia River Gorge along the Oregon-Washington border. The pipeline system passes through numerous state parks, the Fort Lewis Military Reservation, and the Columbia River Gorge National Scenic Area. The forested areas can be characterized as forests dominated by Douglas fir and Western hemlock and an understory of common fern, Oregon grape, serviceberry, and others. Numerous swift flowing rivers and streams are crossed that provide habitat to numerous salmon and other game and non-game fish species. The forests provide habitat to many bird species including the Northern Spotted owl, peregrine falcon, bald eagles, and others. Due to the large amount of annual rainfall many wetlands are associated with the system; more than in any other area crossed by the pipeline system.

The majority of the pipeline parallels Interstate 5 from the Canadian border to the Columbia River and as such, this portion of Northwest's system intersects areas of high residential, commercial and industrial use. Population densities are higher throughout this area than any other area of the system. Cultural resources have been discovered throughout the area that are both pre-historic and historic in nature.

The second segment begins where the pipeline system leaves the Columbia River and climbs up the foothills of eastern Oregon, including the Blue Mountains, and continues on to the rangelands of southeastern Idaho. This area is characterized by rolling hills and contains farmlands and dairies, the Snake River and Snake River plain, agricultural lands, the Fort Hall Indian Reservation, and low to moderate population densities. The pipeline also crosses the Umatilla Indian Reservation and Umatilla National Forest. Annual precipitation is much lower than the first segment and most if not all of the agricultural areas are irrigated. Vegetation types range from agricultural crops to stands of spruce, fir and aspen to semi-arid grasses and shrubs. Wildlife that could be encountered in this segment includes mule deer, pheasants, small mammals, and birds of prey. Few wetlands are associated with this segment and most rivers and streams that are crossed are small. Only a few cultural resource sites have been located throughout this area.

The third segment begins near Pocatello Idaho, located in the southeast corner of the

state and continues through southwestern Wyoming into eastern Utah and southwest Colorado, ending near Durango Colorado. Population densities near the pipeline are low. The pipeline crosses sections of the Wasatch-Cache National Forest, Caribou National Forest, Flaming Gorge National Recreation Area, the Colorado River, Ashley National Forest, Arches National Park and the Southern Ute Indian Reservation. The terrain varies from rolling hills, to steep mountain ranges containing pinyon-juniper woodlands, lodgepole pine, and Englemann spruce. The understory is shrub woodland. Western high desert and the Colorado Plateau characterize the majority of this section. Most of the land crossed is managed by the Bureau of Land Management and is used primarily as rangeland for cattle and sheep. Sagebrush is the dominant plant species and overall vegetation is sparse. Annual precipitation is generally less than 15 inches per year with the majority coming in the form of snow. Wildlife species include mule deer, antelope, moose, small mammals and foraging raptors. Only a small amount of agricultural lands are crossed. This area contains many cultural resource sites and most are pre-historic.

Although Northwest is including its entire pipeline system in the Demonstration Project, locations at which OPS is considering regulatory alternatives are limited to specific geographic locations in western Washington. As described in Section B, Northwest is proposing alternative ways to control the increased risk due to population increases along the pipeline at six specific locations. In addition, Northwest is performing internal inspection and repair activities for extended segments of their pipeline around each of these class location change sites. The local environmental features for these extended areas and the six specific class location change sites are described below.

*Right-of-way between the Chehalis and Washougal Compressor Stations (73 miles).* Northwest has performed internal inspection and repair activities for this section of their system as described in Section B.2.2. The pipeline route from Northwest's Chehalis compressor station to the Washougal compressor station traverses mostly areas of mixed forests containing Douglas fir, western hemlock, sword fern, maples, oaks and other hardwoods as well as native shrubs.

A good portion of the 53 miles of forested lands are considered commercial timber land owned by both large timber corporations and small local forest product companies. The pipeline also traverses 12 miles of agricultural land and 8 miles that are considered residential, industrial or commercial lands. Much of the pipeline route is accessible to the public. There are areas of low population densities beyond the designated residential areas where housing is typically located on large view lots throughout this segment.

This section of Northwest's pipeline crosses the Fort Lewis Military Reservation for 4.4 miles. This area is wooded and used primarily for training military personnel. No designated state parks or state recreational areas are crossed, although many of the larger streams are used for recreation.

Within this 73 miles section are 75 stream or river crossings and 30 wetland areas

covering approximately 10,300 feet of right-of-way. The significant river crossings include the Little Washougal river, East Fork of the Lewis river, Lewis river, Kalama river, Coweman river, Toutle river and the Cowlitz river.

Within the Chehalis to Washougal section are four segments ranging in length from 1.2 to 2.3 miles where OPS is considering alternatives to the requirements of 49 CFR 192.611. These locations and the specific environmental features at each site are described below:

- 3 miles north of Camas, WA in Clark County:* This 1.2 mile segment is changing from class location 2 to 3 (See section B.2.1 for definition of class locations). This segment contains 50 houses on large lots evenly dispersed across the class location change area. Within this segment are two stream crossings. One of these streams is habitat for the Coho Salmon and Steelhead Trout. The Hairy-Stemmed Checkermallow (listed as an endangered species by Washington state) also grows in the vicinity of the pipeline right-of-way. There are no known cultural or paleontological resources in the class location change area.
- Along the border of Cowlitz and Clark Counties in Woodland, WA:* This 2.1 mile segment is changing from class location 2 to 3. This segment contains approximately 90 houses, the majority of which are near the center of the segment. Homes are sparse toward both ends of the 2.1 mile segment. However, additional construction continues. The Lewis River (a tributary of the Columbia River) passes through this segment. There is also one wetland area, that experiences seasonal flooding. There are no threatened or endangered plant or aquatic species in this segment. There are no known cultural or paleontological resources in the class location change area.
- 1 mile north of Woodland in Cowlitz County:* This 1.8 mile segment is changing from class location 1 to 2. The section contains 22 houses evenly dispersed throughout the area, with several new large lots planned. This segment contains one creek crossing. There are no threatened or endangered plant or aquatic species in this segment. There are no known cultural or paleontological resources in the class location change area.
- 3 miles southeast of Longview, WA:* This 2.3 mile segment is changing from class location 2 to 3. There are 73 houses on large lots evenly dispersed throughout the class location change segment. This segment contains three stream crossings. There are no threatened or endangered plant or aquatic species in this segment. There are no known cultural or paleontological resources in the class location change area.

*Right-of-way between the Washougal and Willard Compressor Stations (41 Miles):* As part of its risk control alternatives, Northwest performed an internal inspection and repair project over this section in 1999. The right-of-way between the Willard and Washougal compressor stations features approximately 31 miles of dense stands of Douglas fir, western hemlock, sword fern, and associated understory. The pipeline crosses rugged,

rocky terrain and sections of the Gifford Pinchot National Forest as well as 26 miles of the Columbia River Gorge National Scenic Area. Due to the steep terrain, public access is low.

Other notable areas crossed are one mile of Washington State's Beacon Rock State park, and a small section of land owned by the City of North Bonneville. The pipeline is near the city of Stevenson, Washington and the Willard National Fishery. Approximately seven miles of crop and pastureland are crossed, and about three miles of the pipeline system are cross-residential or commercial lands. Population densities within this section are low. Within this 41 mile section are 31 stream crossings and 6 wetland areas. This section of Northwest's system receives more annual rainfall than any other location.

Within the Washougal to Willard section there is one 2.8 mile segment located in Skamania County in the Columbia River Gorge where OPS is considering alternatives to the requirements of 49 CFR 192.611. This segment is changing from class location 1 to 2. This segment has 26 houses dispersed evenly throughout the area on large lots. Within this class location change site are six stream crossings, each draining into the Columbia River, and two wetland areas. One of these creeks is habitat to the Chum and Coho Salmon. There are no known cultural or paleontological resources in the class location change area.

*Right-of-way between the Mt. Vernon and Snohomish Compressor Stations (46 miles):* Northwest has performed internal inspection and repair activities for this section of their system as described in Section B.2.2. The Mt. Vernon to Snohomish portion of the Northwest system can be characterized as mainly forested lands, including about four miles of evergreen forest, 22 miles of mixed forest, and 12 miles of deciduous forest. No national forests are crossed, but this section contains many areas that are commercially logged. Also in this section are small areas of crop and pastureland (approximately 3 miles) and residential areas (3 miles). This section also crosses a small commercial quarry for approximately 0.3 miles. The terrain varies from the coastal foothills of the Cascade Range to gently sloping to level pastureland. This section of the line also parallels Interstate 5.

Within the 46 mile section, there are 29 stream and river crossings. The major rivers are the North Fork Stillaguamish River, the South Fork Stillaguamish River, and the Snohomish River. There are 37 designated wetlands that intersect the pipeline right-of-way between the Snohomish and Mt. Vernon compressor stations.

In the Mt. Vernon to Snohomish section there is one 0.6 mile pipe segment in Skagit County, north of Seattle, WA where OPS is considering alternatives to the requirements of 49 CFR 192.611. This segment is changing from class location 2 to 3. This segment contains a combination of housing with acreage, large lots, and subdivision housing. This site contains no stream crossings or wetlands. There are no endangered or threatened species, cultural or paleontological resources near the right-of-way.

OPS believes Northwest's Demonstration Project is unlikely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of designated critical habitat. OPS has briefed the U.S. Fish and Wildlife Service and the National Marine Fisheries Service on this project, and they agree with OPS's assessment.

### **E. Environmental Consequences of Proposed Action and Alternative**

This section describes the environmental impacts of the two alternatives described in this Environmental Assessment: approval or denial of the Northwest Risk Management Demonstration Project. As stated in the previous section, the environmental impacts of natural gas pipeline failures are minimal, restricted to the vegetation and fauna in the immediate vicinity of the failure location that may burn if a fire or explosion occurs. The more significant risk impacts affecting this decision relate to public safety, property protection, and service reliability.

#### **E.1 Environmental Impact of Project Approval**

OPS's preferred alternative is to approve the Northwest Demonstration Project described in Section B. OPS believes that the risk control activities Northwest is proposing for the Demonstration Project will provide superior safety and environmental protection when compared to current regulatory requirements. This additional environmental protection comes primarily from reducing the likelihood that pipeline failures will occur. If the number of failures is reduced, the cumulative environmental damage from these failures will also be reduced. The reduction in the likelihood of future pipeline failures is expected to be realized system-wide through several activities and programs that exceed regulatory requirements, including:

- An expanded and enhanced geological hazards program. Northwest should improve its ability to anticipate when land movement near its pipeline might occur, and take appropriate action to prevent failure. Since some of the more significant geological hazards are in forested lands, a fire resulting from a pipeline failure could cause localized damage to the flora and fauna in the immediate vicinity of the failure site. Although highly unlikely, a failure in a heavily forested area could result in a larger forest fire with more severe consequences. Northwest's geological hazard program should reduce the likelihood of such an event.

- The surveying, monitoring, and remediation activities associated with the Northwest geological hazards program have minimal environmental impact. The surveys to identify locations susceptible to ground motion are conducted on foot or from the air, and involve no ground disturbance. Installing monitoring equipment (strain gauges, piezometers, and inclinometers) involves only localized soil disturbance. The extent of ground disturbance associated with remediation activities depends on the geologic features of the site and the action

taken to minimize the likelihood of land movement. Mitigation of landslides or other geologic hazards sometimes involves heavy equipment and soil disturbance for grading slopes, installing surface and subsurface drains, and stabilizing streams and riverbanks. However, this disturbance is confined to well-defined areas near the right-of-way, and is necessary to help prevent even larger disturbances that might be caused by a landslide. When remediation activities are required, Northwest consults with appropriate federal, state, and local environmental and land use agencies to ensure the proposed work provides appropriate protection for the area affected by the remediation.

- The stress corrosion cracking coupon monitoring program. Northwest should be able to better understand when this condition might occur, and thus take appropriate remedial action.

Conducting the stress corrosion cracking coupon monitoring program has minimal environmental impact. Installation and removal of the coupons involves localized ground disturbance within the right-of-way on ground that has already been disturbed during the pipeline construction. Northwest also constructs a small enclosure over the coupon installation site to house instrumentation and other test equipment. This structure covers an area approximately five by seven feet. Stress corrosion cracking coupon testing is not performed near areas with sensitive environmental resources.

In addition, Northwest is proposing specific activities to reduce the risk from increased population at the specific sites identified in Section D. These specific activities are being proposed in lieu of pipe replacement at these sites (See Section B.2.1)

- Enhanced third party damage prevention activities should reduce the likelihood that excavators will damage the line.

- Internal inspection and repair of anomalies will produce additional protection from corrosion, construction and material defects, and prior outside force damage.

In addition, Northwest is also proposing to install remote operators on block valves near areas of relatively high land movement potential. These remotely operated valves will allow the gas control center to rapidly isolate a section of the line if a failure occurs, thereby minimizing the duration of any fire that might occur. In some situations, the ability to rapidly isolate the failed segment of line might minimize the associated environmental damage caused by a fire. Installation of remote operators on valves involves no environmental impact.

Northwest will also be conducting improved training and exercises with emergency personnel on how to respond effectively to pipeline failures. A more effective, coordinated response effort could also be important in limiting the extent of environmental damage, should a fire result.

Finally, the cleaning tool that is run prior to conducting the pipeline internal inspection also provides some indirect environmental benefits. This tool removes liquid hydrocarbons that collect in the line. These liquids could be discharged through the relief valves and thus dispersed to the



environment during a system blowdown. Northwest has experienced such a release in the past. Without the system modifications performed to allow internal inspection, this cleaning operation can not be performed. For the Chehalis to Washougal section that was inspected in 1998, this cleaning recovered 1900 gallons of liquids.

For these reasons, OPS is satisfied that the proposed project will provide superior protection for people living near the Northwest pipeline system. Although the project is expected to provide environmental benefits, due to the minimal environmental impact associated with gas pipeline failures, these beneficial impacts are not expected to be significant.

#### *E.2 Environmental Impact of Project Denial*

If OPS denies this Demonstration Project, Northwest would be required to replace or requalify pipe in the six class location change segments. OPS has determined that the risk control programs and activities described in Section B.1 and B.2.2 will reduce risk more than replacing or requalifying pipe. Thus, if required to replace or requalify pipe, the level of environmental protection would be slightly less than with the proposed action.

Pipe replacement also introduces some adverse environmental impacts that are avoided with the proposed action. Pipe replacement involves excavation of the right-of-way to replace the pipe segment. This results in disturbance of the vegetation and wildlife in the immediate vicinity of the pipeline.

To illustrate the reduction in construction-related environmental impacts, Northwest estimates that replacement and requalification of the four class location change segments in the Chehalis to Washougal section would impact approximately 110 acres of vegetation.

Denial of this project would also result in a loss of access to information to OPS concerning the sources of risks along the Northwest pipeline, as well as information on stress corrosion cracking and geological hazards that would be useful in addressing these hazards on the nation's other pipeline systems.

#### **F. Environmental Justice Considerations**

In accordance with Executive Order 12898 (Federal Actions to Address Environmental Justice in Minority and Low-Income Populations), OPS has considered the effects of the demonstration project on minority and low-income populations. As explained above, approval of this project is expected to result in improved safety and environmental protection compared to currently applicable regulations, along all sections of the Northwest gas pipeline transmission system. Residents near the facility will have a comparable or greater level of protection than they presently have, regardless of the residents' income level or minority status. Therefore, the proposed project does not have any disproportionately high or adverse health or environmental effects on any minority or low-income populations near the demonstration facility.

#### **G. Information Made Available to States, Local Governments, and Individuals**

OPS has made the following documents publicly available, and incorporates them by reference into this environmental assessment:

(1) "Demonstration Project Prospectus: Northwest Pipeline Corporation", October 1999, available by contacting Elizabeth M. Callsen at 202-366-4572. Purpose is to reach the public, local officials, and other stakeholders, and to solicit their input about the proposed project. Mailed to over 300 individuals, including Local Emergency Planning Committees (LEPC) and other local safety officials, Regional Response Teams (RRT) representing other Federal agencies, state pipeline safety officials, conference attendees, and members of public interest groups.

(2) Northwest "Application and Work Plan for DOT-OPS Risk Management Demonstration Program", available in Docket No. RSPA-99-5611 at the Dockets Facility, U.S. Department of Transportation, Plaza 401, 400 Seventh Street, SW., Washington, DC 20590-0001, (202) 366-5046.

OPS has previously provided information to the public about the Northwest project and has requested public comment, using many different sources. OPS aired four electronic broadcasts (June 5, 1997; September 17, 1997; December 4, 1997; and March 1998.) reporting on demonstration project proposals (the last three of which provided specific information on Northwest's proposal). Two earlier **Federal Register** notices (62 FR 40135; July 25, 1997, and 62 FR 53052; October 10, 1997) informed the public that Northwest was interested in participating in the Demonstration Program, provided general information about technical issues and risk control alternatives to be explored, and identified the geographic areas the demonstration project would traverse.

Since August 1997, OPS has used an internet-accessible data system called the Pipeline Risk Management Information System (PRIMIS) to collect, update, and exchange information about all demonstration candidates, including Northwest (PRIMIS can be accessed from the OPS website at <http://ops.dot.gov>).

At a November 19, 1997, public meeting OPS hosted in Houston, TX, Northwest officials presented a summary of the proposed demonstration project and answered questions from meeting attendees. (Portions of this meeting were broadcast on December 4, 1997, and March 1998.)

#### **H. Listing of the Agencies and Persons Consulted, Including Any Consultants**

##### *Persons/Agencies Directly Involved in Project Evaluation*

Stacey Gerard, OPS/U.S. Department of Transportation  
Tom Fortner, OPS/U.S. Department of Transportation  
Ed Ondak, OPS/U.S. Department of Transportation  
Bruce Hansen, OPS/U.S. Department of Transportation  
Linda Daugherty, OPS/U.S. Department of Transportation  
Chris Hoidal, OPS/U.S. Department of Transportation/Western Region

Zack Barrett, OPS/U.S. Department of Transportation/Western Region  
Joe Robertson, OPS/U.S. Department of Transportation/Western Region  
Kent Evans, Utah Department of Commerce  
Dennis Lloyd, Washington Utilities and Transportation Commission  
Robert Brown, Cyclo Corporation (consultant)  
Jim Quilliam, Cyclo Corporation (consultant)  
Jim vonHerrmann, Cyclo Corporation (consultant)

##### *Persons/Agencies Receiving Briefings/Project Prospectus/Requests for Comment*

Regional Response Team (RRT), Regions 8 and 10, representing the Environmental Protection Agency; the Coast Guard; the U.S. Departments of Interior (including the U.S. Fish and Wildlife Service), Commerce (including National Marine Fisheries Service), Justice, Transportation, Agriculture, Defense, State, Energy, Labor; Health and Human Services; the Nuclear Regulatory Commission; the General Services Administration; and the Federal Emergency Management Agency.

#### **I. Conclusion**

Based on the above-described analysis of the proposed demonstration project, OPS has determined that there are no significant impacts associated with this action.

[FR Doc. 99-30906 Filed 12-1-99; 8:45 am]

**BILLING CODE 4910-60-P**

## **DEPARTMENT OF TRANSPORTATION**

### **Saint Lawrence Seaway Development Corporation Advisory Board; Notice of Meeting**

Pursuant to Section 10(a)(2) of the Federal Advisory Committee Act (Public Law 92-463; 5 U.S.C. App. I) notice is hereby given of a meeting of the Advisory Board of the Saint Lawrence Seaway Development Corporation (SLSDC), to be held at 9:00 a.m. on Friday, December 3, 1999, at the Hotel Intercontinental, 360 Rue St. Antoine, Montreal, Quebec, Canada. The agenda for this meeting will be as follows: Opening Remarks; Consideration of Minutes of Past Meeting; Review of Programs; New Business; and Closing Remarks.

Attendance at meeting is open to the interested public but limited to the space available. With the approval of the Administrator, members of the public may present oral statements at the meeting. Persons wishing further information should contact not later than December 2, 1999, Marc C. Owen, Advisory Board Liaison, Saint Lawrence Seaway Development Corporation, 400 Seventh Street, SW, Washington, DC 20590; 202-366-6823.

Any member of the public may present a written statement to the Advisory Board at any time.