Summary of Written Comments
Hazardous Liquids Pipeline Safety Rulemaking
For CR-101 September 13, 2000 Comments
TO-000712

November 13, 2000

ISSUE	INTERESTED PERSON	COMMENTS	STAFF RESPONSE
1) CR-101 General Comments	Harry Skinner Sumas Mountain Pipeline Safety Association, Everson, WA	Overlooked are the impacts of changing land uses and densities, geological conditions, massive nearby development and repair excavations, etc. along pipeline corridors over time. Monitoring these changes, keeping adjacent land owners and users regularly informed, increasing development setbacks, recording notices on property deeds, preventing or restricting inappropriate or unacceptable developments which present unacceptable hazard levels which impose unacceptable impacts on pipelines are necessary to make adjustments as pipelines age or new lines installed or are replaced, safety precautions, emergency procedures and evacuation plans are developed, etc. Characteristics of sites that may disqualify them as unsuitable for pipelines such as: a) Landslides (existing or potential) b) Flood zones c) Structurally incompetent soil types d) High groundwater levels e) Seismic and blasting zones (rock quarries, earthquake epicenters, etc.)	Staff does not believe that this is within the Commissions authority. - siting - zoning - property assessments - right of way - establishment of easements - set back requirement for building/construction - staff are looking into it. Staff is currently reviewing the new Federal Rule issued 11/3/2000 Pipeline Integrity Management in High Consequences Area. Amendment 195-70. This issue may be one to pass on to Citizens Advisory Group.

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		Describe and classify types of sites to be disqualified as unsuitable for pipeline facilities. Rezone/reclassify all existing and new fuel pipeline corridors as critical hazard zones. Review all existing zoning, land use and critical area ordinances and regulations to reflect the impacts of, and on, existing and future pipeline corridor hazard zones. Develop standards for pipeline site evaluation and ensure they are coordinated among federal state, county and city agency to clarify enforcement responsibilities. Develop a detailed list of required site selection characteristics to ensure protection against pipeline hazards due to natural (wetlands, landslides, earthquake epicenter and fault zones, soil liquefaction zones, floodways, stream ways, storm and weather patterns, etc.) and man made hazards (clear cut logging, mining, blasting zones, mass excavations, major construction, adjacent zoning conflicts, etc.). Consideration to major and especially vulnerable nearby natural resources such as large forest tracts (forest fires), major industrial/commercial/housing complexes, salmon spawning areas, areas of cultural or historic significance, etc. Make property value adjustments for impacts on surrounding properties and negotiate proper compensation where appropriate.	

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		Record deed restrictions on all fuel pipeline corridors and adjacent parcels to acknowledge the hazardous relationship and advise of ongoing responsibilities for mutual protection. Specify setbacks and buffer zones flanking pipelines to protect from and against impacts from neighboring land use operations, even if they extend beyond the easement or right-of-way boundaries. Continually monitor permitted and actual land uses adjacent or nearby to pipeline corridors to ensure against developing hazardous impact conflicts. Maintain a program of public information including emergency response planning, alerts and open communication.	Staff needs clarification on what type of public information program is being referred to beyond the current regulation 49 CFR 195.440.
2) CR-101 General Comments	Chuck Mosher Mayor, City of Bellevue	Requires pipeline operators to periodically submit comprehensive reports on the condition of their hazardous liquid and natural gas transmission pipelines. Require appropriate testing based on the reports and apply these requirements much more rigorously to transmission pipelines in densely populated or environmentally sensitive areas.	Staff is currently reviewing the new Federal Rules issued 11/3/2000 Pipeline Integrity Management in High Consequences Area. Amendment 195-70. Staff agrees that this is important.

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		Require comprehensive reports at least once every four years for pipelines less than 15 years old up to annually depending on age, type of pipeline, incidence and nature of leaks and spills and population densities adjacent to the pipeline. Such reports would cover all leaks and causes of leaks, results of cathodic protection surveys and studies, and findings of past testing. Require appropriate tests (hydrostatic testing, instrumented (smart) pigs, more detailed evaluations of cathodic protection, etc.) if a report reveals significant areas of concern. When necessary, the agency should require the operator to reduce operating pressures, recondition the lines or remove the pipeline from service. Require installation of remote control shut-off valves at a distance of no less than four to ten miles in urban areas and 20-60 miles in rural areas, depending on type and density of development, the presence environmentally sensitive areas, and the application of appropriate engineering standards. The installation of remote valves should include design features and safety procedures to minimize risks associated with valve malfunctions. Require installation of remotely monitored pressure gauges and meters at each pump station and remote valve location. Thorough training for shutting down pumps, locating leaks and spills and shutting appropriate valves as rapidly as possible.	Staff agrees. This will be evaluated in rule development process. This is required in Pipeline Safety Act. Training already required in 195.403.

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		All data from tests and reports made available to local governments and the public in a timely manner.	Staff would like to further discuss this at the Nov. 16, 2000 stakeholder meeting.
3) CR-101 General Comments	J. Brian Menin Issaquah, WA	Review all available data on strength of pipelines such as that referred in Ref. 3 as API Publication 1156 – Effects of Smooth and Rock Dents on L.P. Pipelines, Order No. D 11561, Price $200.00. Review records on proof tests performed by U.S. Steel on sample segments of the pipeline prior to delivery to Olympia. Review records of all pressurization cycles since service was initiated. Review materials specifications for the materials used in manufacturing. Review specifications used for the welding process and test verification data. If none exists, generate S/N curves (Stress versus number of cycles) using standard test coupons with and without notches. If none exists, generate S/N curves using test coupons that include type of weld used in the pipeline.	Staff would like to further discuss these comments at the Nov. 16, 2000 stakeholder meeting.

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		If none exists, generate S/N curves using test coupons that include the weld as well as typical defects found in service. Using historical data collected in paragraph 2, and coupon data from paragraph 3, calculate the probable lifetime of the pipeline for weld affected areas and for weld affected areas containing typical defects. Compare result to actual lifetime and intended goal. Create a test facility of the type described in Ref. 1 unless one already exists. Fabricate segments of the pipe using the original materials and welding techniques. Apply indentations to some of the segments typical of those found in service. Inspect the segments using a smart pig and correlate the reading to the known external damage. Static Tests. Pressurize the segments to failure. Cyclic Tests. Apply cyclic pressure until failure using normal operating pressure interspersed with peak pressures as experienced in service. Compare results to actual lifetime to date and intended goal.	

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		Encourage research into the redesign of pipelines that provide significant improvement in structure integrity which include fail safe features such as dual walls or multiple seamless flexible pipes of smaller diameter. Procuring agency requiring specific conditions to be met prior to acceptance. No doubt pipelines are purchased to standard specifications. I am not sure that the delivered product is subjected to the same kind of rigorous testing that stimulates the intended usage in service. Criteria needs to be improved and should include the effects of foreign object damage, unintended valve closures and sagging due to erosion. Proposed Test Plan for Pipeline Segments. (Attachment)	
4) CR-101 General Comments	David K. Almond Project Manager, City of Redmond	We urge the WUTC to consider rules that will ensure hazardous facilities are maintained, and the associated liquids are transported and handled in a safe manner.	Staff Agrees. This will be considered in the drafting of the proposed rules.
5) CR-101 General Comments	Lee A. James State Gov. Coordinator, The American Society of Mechanical Engineers	The paper emphasizes the use of voluntary consensus standards (e.g. B31.4 and B31.8) in ensuring the integrity of pipelines.	Staff will make “the paper” available to stakeholders for discussion.

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6) CR-101 General Comments	Lynn Spaulding-Carman Community Activist, Felida, WA	State Rulemaking should fall under the Federal level and reinforce their laws. Bring the power back to local control will be troubling since these are Federal Pipelines. The States should take on the role of education of the Counties and Cities. Land use laws are strengthen to protect those residents that live around these pipelines. A rescue plan is in place for emergency purposes. Each county has to comply with GMA laws and there should be a use of the GMA maps for each county to show where these pipelines and other dangerous utilities are in place.	Staff believes that these comments may be better addressed by the Citizen Advisory Committee. Emergency Response Planning is referred to in 49 CFR 195.402.
7) CR-101 General Comments	Dennis R. Bays President, ARCO Western Gas Pipeline Company	Encourage a conscientious review and appropriate reference and use of existing federal regulations and industry standards, rather than attempting to write new standards from scratch.	Staff intends to build upon existing Federal Rules. Staff agrees that we should draw upon industry standards and expertise. Staff also agrees that we should strengthen implementation and enforcement of Federal regulations however, there are gaps in the regulations that need to be addressed for the safety of the citizens of Washington State.

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		A review of the actual relative risks posed by pipeline operation will result in an appropriate focus on damage prevention, and effective implementation and enforcement of existing regulations and standards. Appropriate pipeline inspection and integrity management programs, effective damage prevention programs, and community communication and awareness are all key elements of safe pipeline operation. Encourages WUTC to simply strengthen implementation and enforcement of Federal regulations.	
8) CR-101 General Comments	Ralph Osgood Mayor, City of Tumwater	Require pipeline operators to periodically submit comprehensive reports on the condition of their hazardous liquids and natural gas transmission pipelines. Require appropriate testing based on the reports and apply these requirements much more rigorously to transmission pipelines in densely populated or environmentally sensitive areas. Require comprehensive reports at least once every four years for pipelines less than 15 years old up to annually depending on age, type of pipelines, incidence and nature of leaks and spills and population densities adjacent to the pipeline. Such reports would cover all leaks and causes of leaks, results of cathodic protection surveys and studies, and findings of past testing.	Staff is currently reviewing the new Federal Rules issued 11/3/2000 Pipeline Integrity Management in High Consequences Area. Amendment 195-70.

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		Require appropriate tests (hydrostatic testing, instrumented (smart) pigs, more detailed evaluations of cathodic protection, etc.) if a report reveals significant areas of concern. When necessary, the agency should require the operator to reduce operating pressures, recondition the lines or remove the pipeline from service. Require installation of remote-control shut-off valves at a distance of no less than four to ten miles in urban areas and 20-60 miles in rural areas, depending on type and density of development, the presence of environmentally sensitive areas, and the application of appropriate engineering standards. The installation of remote valves should include design features and safety procedures to minimize risks associated with valve malfunctions. Require installation of remotely monitored pressure gauges and meters at each pump station and remote valve location. Thorough training for shutting down pumps, locating leaks and spills and shutting appropriate valves as rapidly as possible. Provide local jurisdiction with all the data from tests and reports made available to local governments and the public in a timely manner. Additional regulations on requiring **"slow leak detection"** on hazardous liquid pipelines when traversing critical watershed and environmentally sensitive areas.	Staff agrees that leak detection needs to be reviewed.

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9) CR-101 General Comments	Jesse Tanner Mayor, City of Renton	We support the recommendations included in the City of Bellevue's October 6, 2000, letter (attached); however, we would favor a requirement that there be mandatory hydrostatic pressure testing of the pipeline facilities every five years. History has demonstrated that internal pipeline inspection does not necessarily reveal every pipeline flaw, and interpretation of internal inspection results does not always result in needed repairs being made. Established safety measures should be particularly protective of underground aquifers and other drinking water supplies. The City of Renton and other municipalities operate portable water wells in the vicinity of hazardous liquid pipeline facilities. Hazardous liquids pipeline operators should be required to install, maintain, and monitor state-of-the-art leakage detection systems and devices, particularly in environmentally sensitive areas such as drinking water aquifers, population centers, and salmon-bearing streams. Such systems must be able to detect small pipeline leaks that can cause tremendous damage, but that are not discernable using the current pressure and volume based leak detection systems. Earthquake vulnerability studies should be required, with seismic upgrades mandated for facilities for which deficiencies have been found.	Staff is currently reviewing the new Federal Rules issued 11/3/2000 Pipeline Integrity Management in High Consequences Area. Amendment 195-70. Staff agrees that this should be looked at.