



CITY OF KIRKLAND

PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT
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MEMORANDUM

DATE: May 1, 2012

To: Planning Commission

FROM: Joan Lieberman-Brill, AICP, Senior Planner

SUBJECT: Hazardous Liquid Pipelines (Miscellaneous Zoning Code Amendments) ZON12-00002

The Planning Commission asked for additional information on land use development regulations for hazardous liquid pipelines after the presentation by Jim Doherty and follow-up discussion at the April 26, 2012 public meeting. Please see the descriptions and corresponding attachments addressing the requested information below.

This will be discussed at your May 10 meeting along with other items carried over from April 26.

Pam Brady with BP/Olympic Pipeline Company will make a presentation at the beginning of the study session to provide the company's perspective on their Olympic liquid transmission pipeline and risk prevention. She will be available to answer questions.

1. MRSC Model Liquid (And Natural Gas) Transmission Pipeline Consultation Zone Ordinance (Attachment 1)

The model consultation zone ordinance recommends a 660 foot wide consultation zone from the centerline of the pipeline easement, without regard for type of land use. Work that is totally within the existing building footprint, such as residential remodels, is exempt.

The purpose of a consultation zone is to initiate a dialogue between the property developer/owner and the pipeline operator. Local requirements should be clear that the consultation zone is only intended to:

- Alert the transmission pipeline operator that a development near its pipeline is being planned;

- Help protect transmission pipelines by promoting adequate consideration of the potential safety impacts of the development on the pipeline; and'
- Raise awareness of the potential safety impacts of the transmission pipeline on the development.

See page 25 of the PIPA report link in item 3, below, for further background on consultation zones.

2. MRSC Model Liquid (And Natural Gas) Transmission Pipeline Setback Ordinance (Attachment 2)

The model setback ordinance recommends a 50 foot wide setback for all general residential, commercial, and industrial buildings measured from the nearest edge of the pipeline corridor. A small setback of this type is not meant to protect people in the event of a catastrophic rupture.

Jim Doherty offers this explanation on setbacks in the model ordinance: It merely establishes a small setback in order to minimize the likelihood of damage to the pipeline (primarily during the construction phase). It makes sense to have a basic setback of all buildings (25 to 50 feet) so that there is less likelihood of damage to the pipelines when buildings are constructed. Also, damage to transmission pipelines is reduced if the related utility connections and other infrastructure for development are kept away from the pipeline easements.

The model ordinance is silent on high consequence land use setbacks. Jim noted that the model ordinance approached the issue of a general setback (to prevent mainly construction phase damage) and allowable land uses as two separate issues. A jurisdiction might choose to allow single family housing to be built close to a pipeline, but decide that more intensive uses should be sited further from a transmission pipeline. He noted that protecting people from the risks of a catastrophic rupture is done through land use regulations that establish how close various uses are allowed to be built to the pipeline (see setback discussion in item 3 below).

Staff notes that the matrix included in the previous packet shows what several jurisdictions have decided is the appropriate setback depending on land use. High consequence land use setbacks are wider than other uses; modification criteria are provided, and jurisdictions may have a minimum setback limit.

For example, Redmond has a 500' setback for high consequence uses. Modification criterion allows existing high consequence use expansions to be located closer to the pipeline if it meets modification criteria. This approach provides flexibility based on the site specific and characteristics of the development and surrounding area. A minimum 25' setback from the pipeline corridor (i.e. easement) is required for other uses, with a minimum setback of 30 feet from the pipeline if modification criteria are met.

See further discussion of setbacks in the PIPA report link in item 3 below, page 30 -31 and Appendix 1.

3. Recommended Practices from Pipelines and Informed Planning Alliance PIPA (2010) (Attachment 3) and Model Ordinance (Attachment 4)

The recommended practices for transmission pipelines are provided by a taskforce convened by the Pipeline and Hazardous Materials Safety Administration to address siting development near pipelines. The taskforce is referred to as the Pipelines and Informed Planning Alliance (PIPA). These recommended practices are for the pipeline operators, the local jurisdiction, and the applicant/land owner. They are contained in [*Partnering to Further Enhance Pipeline Safety In Communities Through Risk-Informed Land Use Planning Final Report of Recommended Practices*](#) () , called the PIPA Final Report, which was released on December 16, 2010. It offers options on how land use planning and development decisions can help protect the pipeline and growing communities from risk associated with development near pipelines. Refer to the full final report for background on each recommended practice in the attachment.

Local zoning regulations may be drafted to address these recommended practices, at the jurisdictions discretion. The recommended practices are divided into the following:

Baseline (BL) Recommended Practices – these practices should be implemented by stakeholders in preparation for future land use and development.

New Development (ND) Recommended Practices – these practices should be implemented by stakeholders when specific new land use and development projects are proposed.

The recommendations for regulations on the following topics are relevant to the Commission's review.

- Consultation zones, BLO4 (page 25), BLO5 (page 26-29)
- Planning areas, which can be considered for setbacks for high consequence and other land uses, BLO6 (page 30 -31) and Appendix 1
- Modification criteria basis, ND05, ND9, ND11, - ND17, ND19-23, Appendix 1

(Other regulations, not addressed, can be based on surrounding municipality's regulations.)

Finally, the PIPA recommendation report has a model ordinance, Appendix B, which is provided as a template, to be used as a starting point for recommended practices. It can be tailored to local jurisdictions' needs (Attachment 4).

4. Fire Department Emergency response:

Jack Henderson, Deputy Fire Chief of Operations, explained that emergency incident response would be the same regardless of whether or not an industrial or commercial building is near the pipeline easement or not. Those businesses that store volatile materials on site are required to post signs on the exterior of their building that identify the type of hazard. Specific classes of hazardous materials trigger specific emergency response protocols that responders are trained to address. Periodic fire inspections confirm existing conditions.

It is his expectation that interdepartmental communication and coordination of development review occur once land use regulations for development near pipelines is adopted. He had no specific input on consultation zones or setbacks.

Jim Doherty, MRSC responded that he does not know of any jurisdictions that have enacted regulations on that issue – but if any city has looked at that, it might be Austin, Texas. The Austin Planning Dept worked very closely with their fire marshal in evaluating pipeline risks.

He also noted that federal and state regulations have never dealt with the storing of explosives or volatile materials near pipelines. That is a local government concern – it's the City's prerogative to propose regulations. He recommended thinking of the pipeline like any other linear industrial facility – such as a railroad: there is a risk of explosion if a railroad tanker car derails and ruptures – have any jurisdictions attempted to limit the

storing of explosives or volatile materials near railroad tracks? What risks should our government seek to regulate? The risks of explosions can be raised through SEPA analysis – but specific regulations would put the city on much firmer ground if this is an issue that the planning commission thinks should be addressed.

The City of Redmond does not have any Fire Department regulations that prohibit materials due to the proximity to the pipeline. The Zoning Code regulates activities within certain distances to the pipeline; however, there are no restrictions on stored or used materials expressly from their transmission pipeline regulations.

Finally the PIPA report addresses this subject in terms of emergency response. Follow this link to page 92 of the report for further background: [*Partnering to Further Enhance Pipeline Safety In Communities Through Risk-Informed Land Use Planning Final Report of Recommended Practices*](#) (PDF).

5. Recommendations from Jim Doherty (MRSC) relating to transmission pipelines (Attachment 5)
6. Map showing the Puget Sound Energy transmission line easement where the Olympic pipeline is located, with 25 and 50 foot setbacks from the corridor (i.e. PSE easement edge). This is presumably the starting point for considering the appropriate setback for uses other than high consequence land uses. The map will be provided at the study session.

Since the location of the two parallel Olympic pipelines within the easement is not known, we can use the PSE easement as the pipeline corridor for planning purposes, since we know the pipes are located somewhere within this area for much of their route through Kirkland. We also received very general information from Olympic regarding the location of the pipeline where it veers westward from the PSE easement at the north end of the city. That general corridor is represented on this map, also.

Staff recommends that it be the applicant/owner responsibility to show the required and proposed setback, and recorded easement location on all plans as part of a complete development application (e.g. land surface modification, building permit, land use, including subdivision, applications).

7. Staff Recommendation: At this point in the process, staff is recommending the Redmond zoning regulations and definition of high consequence land use as a template for Kirkland (Attachments 6 and 7). Staff also would recommend that the applicant notify the pipeline company and the city receive notification from the pipeline company confirming that, as part of the permit review process. Further research on how that would work is necessary.

Attachments:

1. MRSC model ordinance consultation zone
2. MRSC model ordinance setbacks
3. Recommended Practices from Pipelines and Informed Planning Alliance PIPA (2010)
4. PIPA Model Ordinance
5. Recommendations from Jim Doherty (MRSC)
6. Redmond Zoning Regulations
7. Redmond definition of High Consequence Land Use

cc File ZON12-00002

Appendix C

Land Use/Transmission Pipelines - 6/2/2006 Page C12

C. Consultation Zone Model Ordinance - MRSC

ORDINANCE NO. _____

A

N ORDINANCE ESTABLISHING A CONSULTATION ZONE FOR PERMITS FOR DESIGNATED ACTIVITIES WITHIN 660 FEET OF HAZARDOUS LIQUID OR NATURAL GAS TRANSMISSION PIPELINES

Whereas, hazardous liquid and natural gas transmission pipelines are a crucial part of our energy infrastructure; and Whereas, transmission pipelines need to be protected from activities that may impact the integrity of the pipelines; and Whereas, the best way to balance the interests of property owners, developers, and transmission pipeline operators is to make sure that the permitting agency and all relevant parties are aware of the plans, concerns and interests of the other parties; and Whereas, early communication between the interested parties will assist with prudent land use permitting decisions;

NOW, THEREFORE, THE CITY [COUNTY] OF _____ DOES ORDAIN:

Section 1. Definitions.

- (1) "Transmission Pipeline" means natural gas pipelines as defined in RCW 81.88.010 and all hazardous liquid pipelines.
- (2) "Development Permit", for purposes of this consultation zone requirement, means any permit for activity that involves construction, grade modification, excavation, blasting, land clearing, or the deposit of earth, rocks or other materials that places an additional load upon the soil. Construction that involves work totally within an existing building footprint, such as residential remodeling projects, are specifically exempted from these consultation zone requirements.

Section 2. Consultation Zone Distance.

The consultation requirement applies to development permits involving any parcel that is within 660 feet of the centerline of a transmission pipeline easement. The 660 foot consultation zone distance may be lessened for certain development activities if the distance changes are first reviewed with the pipeline operator(s) and found to be consistent with prudent pipeline operation given the local conditions, such as terrain, soil types, etc. There must be written documentation from the pipeline operator(s) showing their agreement to any lessening of the consultation zone distance for certain types of development permits. The intent of this section is to provide flexibility and to avoid unnecessary paperwork and delays in the permitting process while also

Appendix C

making sure that all activities that may impact the integrity of a transmission pipeline are thoroughly reviewed.

Section 3. Consultation Zone Notification

Whenever any individual applies for a development permit within the consultation zone established for transmission pipelines, the staff at the permit counter shall notify the individual that they are within the consultation zone, explain the relevant application procedures, and provide contact information for the applicable pipeline operator(s). This same procedure shall be followed whenever an individual inquires about development regulations or zoning restrictions for property within the consultation zone.

Section 4. Complete Application for Development Permit within Consultation Zone.

A complete application for any development permit within the designated consultation zone must include written verification from the applicant that:

1. The applicant has contacted the pipeline operator(s) and has provided the pipeline operator(s) with documentation detailing the proposed development activity and where the activity is to take place; and
2. The pipeline operator(s) has reviewed the documents for compatibility with continued safe operation of the transmission pipeline(s).
3. The written verification required by this section can be in any form acceptable to the city [county], including electronic communications, so long as it is clear that the pipeline operator(s) has received and reviewed documentation showing the proposed activity and its location.

Section 5. SEPA Checklist.

A SEPA checklist submitted by an applicant for a development permit involving any parcel that is within 660 feet of the centerline of a transmission pipeline easement must reference the transmission pipeline(s) and provide information concerning any impact the activity will have upon the integrity of the transmission pipeline(s).

Section 6. Effective Date.

[Insert appropriate wording.]

PASSED/ADOPTED this ____ day of _____, 20__.

SIGNATURE LINE:

ATTEST:

APPROVED AS TO FORM: PUBLISHED



Municipal Research and Services Center of Washington
Working Together for Excellence in Local Government

Revised 04/2007

Model Setback Ordinance for Transmission Pipelines

See Also [Commentary on the Model Setback Regulations for Natural Gas Transmission Pipelines](#) following the text of model ordinance

ORDINANCE NO. _____

AN ORDINANCE ESTABLISHING SETBACK REQUIREMENTS FOR NEW HAZARDOUS LIQUID AND GAS TRANSMISSION PIPELINES WITHIN AND THROUGH THE [CITY/COUNTY] OF _____.

NOW, THEREFORE, THE CITY OF _____ DOES ORDAIN:

Section 1. Definition.

Pipeline Corridor shall mean the pipeline pathway through the jurisdiction [designate city or county] in which the pipelines and facilities of a pipeline operator are located, including public rights-of-way and easements over and through public or private property.

Section 2. Setback Requirement for Gas Pipelines.

Setback requirements from gas transmission pipelines for general residential, commercial, and industrial buildings shall be a minimum of 50 feet. The setback distance shall be measured from the nearest edge of the pipeline corridor.

Section 3. Setback Requirement for Hazardous Liquid Pipelines.

The setback requirement from a hazardous liquid pipeline corridor for all general residential, commercial, and industrial buildings shall be a minimum of 50 feet. The setback distance shall be measured from the nearest edge of the pipeline corridor.

Section 5. Effective Date.

[Insert appropriate wording.]

PASSED/ADOPTED this ____ day of _____, 20____.

SIGNATURE LINE:

ATTEST:

APPROVED AS TO FORM:

PUBLISHED:

PIPA Recommended Practices

Recommended Practices - Expanded Version [condensed version]

No	Title and Practice Statement	Local Government	Property Developer/Owner	Transmission Pipeline Operator	Real Estate Commission
Baseline (BL) Recommended Practices					
BLO1	<i>"Obtain Transmission Pipeline Mapping Data"</i> Local government agencies responsible for land use and development planning or the issuance of development permits should obtain mapping data for all transmission pipelines within their areas of jurisdiction from PHMSA's National Pipeline Mapping System or from the transmission pipeline operators and show these pipelines on maps used for development planning.	Yes			
BLO2	<i>"n/a - Recommendation is incorporated into other practices."</i>				
BLO3	<i>"Utilize Information Regarding Development around Transmission Pipelines"</i> Transmission pipeline operators should provide information about their pipelines to local governments and property developers/owners who are planning development around their pipelines. Local government authorities regulating development should use this information to establish requirements regarding land use and development around transmission pipelines.	Yes		Yes	
BLO4	<i>"Adopt Transmission Pipeline Consultation Zone Ordinance"</i> Local governments should adopt land development procedures requiring property developers/owners to consult with transmission pipeline operators early in the development process, so that development designs minimize risks to the populace living or working nearby and are consistent with the needs and legal rights of the operators.	Yes			
BLO5	<i>"Define Transmission Pipeline Consultation Zone"</i> Local governments should define a "consultation zone" to provide a mechanism for communication between property developers/owners and operators of nearby transmission pipelines when new land uses and property developments are being planned.	Yes			
BLO6	<i>"Implement New Development Planning Areas around Transmission Pipelines"</i> Local governments should consider implementing "planning areas" to enhance safety when new land use and property development is planned near transmission pipelines.	Yes			
BLO7	<i>"Understand the Elements of a Transmission Pipeline Easement"</i> Property developers/owners should have an understanding of the elements of and rights conveyed in a transmission pipeline easement.		Yes		
BLO8	<i>"Manage Land Records"</i> Land use agreements between pipeline operators and property owners should be documented and managed and, when necessary, recorded.		Yes	Yes	
BLO9	<i>"Document and Record Easement Amendments"</i> Easement amendments should be documented, managed and recorded.		Yes	Yes	
BLO10	<i>"Implement Communications Plan"</i> Transmission pipeline operators should develop and			Yes	

	implement effective communications plans when communicating acceptable transmission pipeline right-of-way uses and activities to property developers/owners and other stakeholders.				
BL11	<i>"Effectively Communicate Pipeline Risk and Risk Management Information"</i> Transmission pipeline operators should identify barriers to effectively communicating with stakeholders and use communication techniques designed to overcome those barriers and effectively engage stakeholders to communicate with them regarding pipeline risks and how the operator manages such risks.			Yes	
BL12	<i>"Notify Stakeholders of Right-of-Way Maintenance Activities"</i> Transmission pipeline operators should notify affected stakeholders of right-of-way maintenance activities, including vegetation management.			Yes	
BL13	<i>"Prevent and Manage Right-of-Way Encroachment"</i> Transmission pipeline operators should communicate in a documented and timely manner with property developers/owners to prevent or rectify unacceptable encroachments or inappropriate human activity within the transmission pipeline right-of-way.			Yes	
BL14	<i>"Participate to Improve State Excavation Damage Prevention Programs"</i> All pipeline safety stakeholders should participate in the work of organizations seeking to make improvements to state excavation damage prevention programs, especially efforts to reduce exemptions from participation in one-call systems.	Yes	Yes	Yes	
BL15	<i>"Enhance Damage Prevention Practices near High-Priority Subsurface Facilities"</i> Transmission pipeline operators should implement enhanced damage prevention practices within the transmission pipeline right-of-way to ensure that pipeline operators and excavators meet on-site prior to excavation activity near high-priority subsurface facilities.			Yes	
BL16	<i>"Halt Dangerous Excavation Activities near Transmission Pipelines"</i> Transmission pipeline operators should have procedures and established contacts with local enforcement personnel in order to act appropriately to halt dangerous excavation activities that may damage their pipelines and potentially cause an immediate threat to life or property.	Yes		Yes	
BL17	<i>"Map Abandoned Pipelines"</i> When a transmission pipeline operator abandons a transmission pipeline, information regarding the abandoned pipeline should be maintained and included in the information provided to the one-call center.			Yes	
BL18	<i>"Disclose Transmission Pipeline Easements in Real Estate Transactions"</i> As part of all real estate sales contracts, each state should require the disclosure of known transmission pipeline easements on the property.				Yes
<i>New Development (ND) Recommended Practices</i>					
ND01	<i>"n/a - Recommendation is incorporated into other practices."</i>				
ND02	<i>"Gather Information for Design of Property Development near Transmission Pipelines"</i> In designing a proposed property development the property developer/owner should use all reasonable means to obtain information about transmission pipeline facilities in the area of the proposed development.		Yes	Yes	
ND03	<i>"Review Acceptability of Proposed Land Use of Transmission Pipeline Right-of-Way Prior to Design"</i> The property developer/owner should review preliminary information about acceptable land uses on a transmission pipeline right-of-way prior to the		Yes		

	design of a property development.				
ND04	<i>"Coordinate Property Development Design and Construction with Transmission Pipeline Operator"</i> When property development is planned within the consultation zone (reference PIPA Recommended Practice BL05), the property developer/owner and the transmission pipeline operator should communicate to ensure possible impacts of pipeline incidents and maintenance needs are considered during development design and construction.		Yes	Yes	
ND05	<i>"n/a - Recommendation is incorporated into other practices."</i>				
ND06	<i>"Require Consideration of Transmission Pipeline Facilities in Land Development Design"</i> Whenever development is proposed on property containing transmission pipeline facilities, local governments should require that the submitted land development plans address in detail the steps necessary to safely integrate the transmission pipeline into the design of the project.	Yes	Yes		
ND07	<i>"Define Blanket Easement Agreements When Necessary"</i> Upon request by the landowner, a transmission pipeline easement agreement may be defined to an acceptable, reasonable, and safe width and explicit location. State statutes or local government regulations may require easements to be defined prior to the approval of rezoning, subdivision plats and development permits.	Yes	Yes	Yes	
ND08	<i>"Collaborate on Alternate Use and Development of Transmission Pipeline Right-of-Way"</i> Property developers/owners, local governments and transmission pipeline operators may collaborate on alternative use of the transmission pipeline right-of-way and related maintenance.	Yes	Yes	Yes	
ND09	<i>"Provide Flexibility for Developing Open Space along Transmission Pipeline Rights-of-Way"</i> Local governments should consider allowing site planning flexibility in the development of commercial, industrial or residential property whenever a transmission pipeline is located in, or in close proximity to, the proposed development.	Yes			
ND10	<i>"Record Transmission Pipeline Easements on Development Plans and Final Plats"</i> Local governments should require all recorded development plans and final plats to clearly show the location of transmission pipeline easements and identify the pipeline operators.	Yes	Yes		
ND11	<i>"Reduce Transmission Pipeline Risk through Design and Location of New Parking Lots and Parking Structures"</i> Parking lots and parking structures should be preferentially located and designed to reduce the consequences that could result from a transmission pipeline incident and to reduce potential interference with transmission pipeline maintenance and inspections.	Yes	Yes		
ND12	<i>"Reduce Transmission Pipeline Risk through Design and Location of New Roads"</i> Roads and associated appurtenances should be preferentially located and designed to reduce the consequences that could result from a transmission pipeline incident and reduce the potential of interference with pipeline operations and maintenance.	Yes	Yes		
ND13	<i>"Reduce Transmission Pipeline Risk through Design and Location of New Utilities and Related Infrastructure"</i> Utilities (both above and below ground) and related infrastructure should be preferentially located and designed to reduce the consequences that could result from a transmission pipeline incident and to reduce the potential of interference with transmission pipeline maintenance and inspections.	Yes	Yes		

	transmission pipeline maintenance and inspections.				
ND14	<p><i>"Reduce Transmission Pipeline Risk through Design and Location of Aboveground Water Management Infrastructure"</i></p> <p>Storm water and irrigation water management facilities, retention ponds, and other above-ground water management infrastructure should be preferentially located and designed to reduce the consequences that could result from a transmission pipeline incident and to reduce the potential of interference with transmission pipeline operations and maintenance.</p>	Yes	Yes		
ND15	<p><i>"Plan and Locate Vegetation to Prevent Interference with Transmission Pipeline Activities"</i></p> <p>Trees and other vegetation should be planned and located to reduce the potential of interference with transmission pipeline operations, maintenance, and inspections.</p>	Yes	Yes		
ND16	<p><i>"Locate and Design Water Supply and Sanitary Systems to Prevent Contamination and Excavation Damage"</i></p> <p>Individual water supplies (water wells), small public/private water systems and sanitary disposal systems (septic tanks, leach or drain fields) should be designed and located to prevent excavation damage to transmission pipelines, interference with transmission pipeline maintenance and inspections, and environmental contamination in the event of a transmission pipeline incident.</p>	Yes	Yes		
ND17	<p><i>"Reduce Transmission Pipeline Risk in New Development for Residential, Mixed-Use, and Commercial Land Use"</i></p> <p>New development within a transmission pipeline planning area (see PIPA Recommended Practice BL06) should be designed and buildings located to reduce the consequences that could result from a transmission pipeline incident and to provide adequate access to the pipeline for operations and maintenance.</p>	Yes	Yes		
ND18	<p><i>"Consider Transmission Pipeline Operation Noise and Odor in Design and Location of Residential, Mixed-Use, and Commercial Land Use Development"</i></p> <p>Consider noise, odor and other issues when planning and locating developments near above-ground transmission pipeline facilities, such as compressor stations, pumping stations, odorant equipment, regulator stations and other pipeline appurtenances.</p>	Yes	Yes	Yes	
ND19	<p><i>"Reduce Transmission Pipeline Risk through Design and Location of New Industrial Land Use Development"</i></p> <p>New industrial land use development within a transmission pipeline planning area (see PIPA Recommended Practice BL06) should be designed and buildings located to reduce the consequences that could result from a transmission pipeline incident and reduce the potential of interference with transmission pipeline operations and maintenance.</p>	Yes	Yes		
ND20	<p><i>"Reduce Transmission Pipeline Risk through Location, Design, and Construction of New Institutional Land Use Developments"</i></p> <p>New development of institutional facilities that may be difficult to evacuate within a transmission pipeline planning area (see PIPA Recommended Practice BL06) should be designed and the facilities located and constructed to reduce the consequences that could result from a transmission pipeline incident. Such facilities should also be located to reduce the potential of interference with transmission pipeline operations and maintenance activities. Emergency plans for these facilities should consider potential transmission pipeline incidents.</p>	Yes	Yes		
ND21	<p><i>"Reduce Transmission Pipeline Risk through Design and Location of New Public Safety and Enforcement Facilities"</i></p> <p>New development of emergency responder facilities</p>	Yes	Yes		

	<p>new development of emergency responder facilities within a transmission pipeline planning area (see PIPA Recommended Practice BL06) should be designed and the facilities located and constructed to reduce the consequences that could result from a transmission pipeline incident. Such facilities should also be designed and located to avoid the potential of interference with pipeline operations and maintenance. Planning for these facilities should include emergency plans that consider the effects of a transmission pipeline incident.</p>				
ND22	<p><i>"Reduce Transmission Pipeline Risk through Design and Location of New Places of Mass Public Assembly (Future Identified Sites)"</i></p> <p>New development of places of potential mass public assembly within a transmission pipeline planning area (see PIPA Recommended Practice BL06) should be designed and the facilities located and constructed to reduce the consequences of a potential transmission pipeline incident, the risk of excavation damage to the pipeline, and the potential of interference with transmission pipeline operations and maintenance. Planning for these facilities should include emergency plans that consider the effects of a potential pipeline incident.</p>	Yes	Yes		
ND23	<p><i>"Consider Site Emergency Response Plans in Land Use Development"</i></p> <p>Emergency response plan requirements should be considered in new land use development within a planning area (see PIPA Recommended Practice BL06) to reduce the risks of a transmission pipeline incident.</p>	Yes	Yes		
ND24	<p><i>"Install Temporary Markers on Edge of Transmission Pipeline Right-of-Way Prior to Construction Adjacent to Right-of-Way"</i></p> <p>The property developer/owner should install temporary right-of-way (ROW) survey markers or fencing on the edge of the transmission pipeline ROW or buffer zone, as determined by the transmission pipeline operator, prior to construction to provide a clearly defined boundary. The property developer/owner should ensure that the temporary markers or fencing are maintained throughout the course of construction.</p>	Yes	Yes		
ND25	<p><i>"Contact Transmission Pipeline Operator Prior to Excavating or Blasting"</i></p> <p>Anyone planning to conduct excavating, blasting and/or seismic activities should consult with affected transmission pipeline operators well in advance of commencing these activities. Excavating and blasting have the potential to affect soil stability or lead to movement or settling of the soil surrounding the transmission pipeline.</p>	Yes	Yes	Yes	
ND26	<p><i>"Use, Document, Record and Retain Encroachment Agreements or Permits"</i></p> <p>Encroachment agreements should be used, documented, recorded and retained when a transmission pipeline operator agrees to allow a property developer/owner or local government to encroach on the pipeline right-of-way for a long or perpetual duration in a manner that conflicts with the activities allowed on the easement.</p>	Yes	Yes	Yes	
ND27	<p><i>"Use, Document and Retain Letters of No Objection and Conditional Approval Letters"</i></p> <p>Transmission pipeline operators may use, document and retain "letters of no objection" in agreeing to land use activities on or near a transmission pipeline right-of-way. Such land uses may or may not be temporary.</p>	Yes	Yes	Yes	
ND28	<p><i>"Document, Record and Retain Partial Releases"</i></p> <p>Partial releases may be used to allow some part of the transmission pipeline right-of-way to be released from certain easement conditions, and should be documented, recorded and retained.</p>		Yes	Yes	

Appendix B: Model Ordinance

The following model ordinance may be used by cities or other jurisdictions with planning authority (e.g., counties, townships, villages) as a starting point for development of an ordinance to incorporate or promote recommended practices for protecting communities and underground utility infrastructure. Although the model ordinance as written refers directly to transmission pipelines located in a *city*, it may be used by other jurisdictions (with appropriate changes). It is expected that each specific jurisdiction would change the text of the ordinance to fit the circumstances of that jurisdiction.

Bill No. _____

ORDINANCE NO. _____

AN ORDINANCE PROVIDING FOR MINIMUM REQUIREMENTS PERTAINING TO LAND USE, CONSTRUCTION, AND PUBLIC SAFETY NEAR GAS TRANSMISSION AND/OR HAZARDOUS LIQUID TRANSMISSION PIPELINES WITHIN THE CITY

WHEREAS, the United States economy is heavily dependent on gas transmission and hazardous liquids pipelines to transport and distribute energy and raw materials; and

WHEREAS, gas transmission and/or hazardous liquid transmission pipelines extend through portions of the City of; and

WHEREAS, these pipelines, if ruptured or damaged, may pose a risk to public safety and/or the environment; and

WHEREAS, new development in proximity to pipelines should incorporate design features to minimize possible public safety and/or environmental risks; and

WHEREAS, the [Board of Aldermen] [City Council] wishes to minimize risk of rupturing or damaging these pipelines; and

WHEREAS, the National Transportation Safety Board has recognized that third-party damage and pipeline right-of-way encroachment are significant threats to pipeline safety; and

WHEREAS Title 49, Code of Federal Regulations, Parts 192 & 195 provide regulations for transmission pipelines; and

WHEREAS, the City has been encouraged by the U.S. Department of Transportation to adopt policies and regulations intended to reduce the likelihood of accidental damage to gas and hazardous liquid pipelines and to reduce adverse impacts of pipeline failures located within its jurisdiction; and

WHEREAS, the City desires to amend the City Code by adopting policies and regulations intended to reduce the likelihood of accidental damage to the gas and hazardous liquid pipelines and to help reduce adverse impacts in the event of a pipeline failure; and

[WHEREAS, the City held a Public Hearing on these proposed City Code amendments; and]

[WHEREAS, at the Public Hearing, all interested persons and citizens were given an opportunity to be heard on these proposed amendments to the City Code; and]

NOW THEREFORE, BE IT ORDAINED BY THE [BOARD OF ALDERMEN] [CITY COUNCIL] OF THE CITY OF _____ , AS FOLLOWS:

SECTION 1. That Section of the City Code shall be and is hereby amended by adding the following definitions:

CONSULTATION ZONE means an area within _____ feet of a transmission pipeline. See Section 2 below. [Refer to PIPA Recommended Practice BL05.]

DEVELOPMENT PERMIT means, for the purposes of the consultation zone requirements, any permit for activity that involves construction, grade modification, excavation, blasting, land clearing, or the deposit of earth, rocks or other materials that places an additional load upon the soil. Construction that involves work totally within an existing building footprint, such as residential remodeling projects, is specifically exempted from these consultation zone requirements.

GAS TRANSMISSION PIPELINE means a “transmission line” as defined by Title 49, Code of Federal Regulations, Section 192.3.

HAZARDOUS LIQUID PIPELINE means a pipeline designed for the transmission of a “hazardous liquid”, as defined by Title 49, Code of Federal Regulations, Section 195.2.

PERSON means any individual, firm, joint venture, entity, partnership, corporation, association or cooperative.

PIPA REPORT means a report prepared by the U. S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) through the Pipelines and Informed Planning Alliance (PIPA) initiative with support from many participating stakeholders. The report was initially released in 2010 and will be updated as needed. It is available on the PHMSA Pipeline Safety Stakeholder Communications web site at <http://primis.phmsa.dot.gov/comm/>.

PIPELINE means the same as is defined by Title 49, Code of Federal Regulations, Sections 195.2 and 192.3.

PIPELINE FACILITY means the same as is defined by Title 49, Code of Federal Regulations, Sections 195.2 and 192.3.

PLANNING AREA means an area around a transmission pipeline that is defined, based on characteristics of the pipeline and the surrounding area, to determine where the requirements of Section 6 below apply. [Refer to PIPA Recommended Practice BL06.]

TRANSMISSION PIPELINE means gas transmission pipeline or hazardous liquid pipeline as defined above.

SECTION 2. That Section _____ of the City Code shall be and is hereby amended by adding Subsection thereto, which Subsection shall read as follows:

CONSULTATION ZONE

a. Consultation Zone Distance

A consultation zone is hereby established for any parcels within _____ feet of the centerline of a transmission pipeline. [Refer to PIPA Recommended Practice BL05.]

b. Consultation Zone Notification

At application for a development permit, staff at the permit counter shall notify the individual they are within the consultation zone, explain the relevant application procedures, and provide contact information for the applicable pipeline operator(s). This same procedure shall be followed whenever an individual inquires about development regulations or zoning restrictions for property within the consultation zone.

c. Application Process within Consultation Zone

Complete application for development permit within a designated consultation zone must include written verification from applicant that:

1. Applicant has contacted the pipeline operator(s) and has provided them with documentation detailing the proposed development type and place of the activity; and
2. The pipeline operator(s) has reviewed the documents.
3. The written verification required by this section can be in any form acceptable to the City, including electronic communications, so long as it is clear that the pipeline operator(s) has received and reviewed documentation showing the proposed information concerning any impact the activity will have upon the integrity of the transmission pipeline(s). The verification should include all comments received from the operator or a notice from the operator indicating that the operator has no comments.
4. If the operator does not respond within 30 days after being contacted and provided information by the developer pursuant to c.1 above, then the City may waive the requirement for written verification given under c.3 above.

SECTION 3. That Section _____ of the City Code shall be and is hereby amended by adding Subsection thereto, which Subsection shall read as follows:

PLANNING AREA

a. Planning Area Distance

Planning areas are hereby established within the following distances of the pipeline centerlines, for the following transmission pipeline(s).

Pipeline A – YYY feet

Pipeline B – ZZZ feet

Pipeline C –Etc. [See PIPA Report Recommended [Practice BLO6](#)]

b. Applicability of Planning Area

At application for a development permit, staff at the permit counter shall notify the individual they are within the planning area and explain the relevant requirements.

Development within the planning area shall meet the requirements under Section 6 below.

SECTION 4. That Section _____ of the City Code shall be and is hereby amended by adding Subsection thereto, which Subsection shall read as follows:

The plat must provide a note that all existing gas transmission and/or hazardous liquid pipelines or pipeline facilities through the subdivision have been shown, or that there are no known existing gas transmission and/or hazardous liquid pipelines or pipeline facilities within the limits of the subdivision.

The location of all transmission pipelines and related easements shall be shown on all preliminary plat, zoning, building, and record plat maps when proposed development is within the planning area.

For proposed development within the consultation zone around pipeline(s), developer shall forward all site or subdivision plans for review comments to the Pipeline Operators by certified mail, return receipt requested, to be supplied to the City as proof of notification prior to plan approval.

SECTION 5. That Section _____ of the City Code shall be and is hereby amended by adding Subsection thereto, which Subsection shall read as follows:

[Insert selected PIPA Recommended Practices for protecting transmission pipelines]

SECTION 6. That Section of the _____ Code shall be and is hereby amended by adding Subsection thereto, which Subsection shall read as follows:

[Insert selected PIPA Recommended Practices ND11 through ND23, as appropriate, indicating requirements within the planning area]

SECTION 7. Severability. If any term, condition, or provision of this Ordinance shall, to any extent, be held to be invalid or unenforceable, the remainder hereof shall be valid in all other respects and continue to be effective and each and every remaining provision hereof shall be valid and shall be enforced to the fullest extent permitted by law, it being the intent of the Board of Aldermen (or City Council) that it would have enacted this Ordinance without the invalid or unenforceable provisions. In the event of a subsequent change in applicable law so that the provision that had been held invalid is no longer invalid, said provision shall thereupon return to full force and effect without further action by the City and shall thereafter be binding.

SECTION 8. Effective Date. This Ordinance shall be in full force and take effect from and after the date of its final passage and approval.

SECTION 9. Savings. Nothing contained herein shall in any manner be deemed or construed to alter, modify, supersede, supplant or otherwise nullify any other Ordinance of the City or the requirements thereof whether or not relating to or in any manner connected with the subject matter hereof, unless expressly set forth herein.

Read two times and passed this _____ day of _____, 2____.

As Presiding Officer and as Mayor

Attest: _____

City Clerk

Approved this _____ day of _____, 2008.

Mayor

Attest: _____

City Clerk

[The text below is, obviously NOT taken from Special Report 281.]

Recommendations of Jim Doherty

Recommendation 1:

Don't wait for the federal government to tell you what risks are acceptable for your community – bring the issue to your planning commission and start the process for enacting reasonable land use regulations that will minimize risks to your residents.

Recommendation 2:

Establish setbacks for hazardous liquid and natural gas transmission pipelines that minimize the risk of third-party damage to the pipelines.

Recommendation 3:

Make sure that your permit counter personnel are aware of the exact location of every transmission pipeline easement in your jurisdiction, and that nobody obtains a permit for work near a transmission pipeline without clear information regarding the location and the setback restrictions. One-Call regulation compliance is a minimum requirement. Coordination of construction activity with transmission pipeline companies should be required during any excavation work done within one hundred feet (?) of the pipeline.

Recommendation 4:

Use zoning to limit the land uses that will bring large numbers of people into prolonged close proximity to a natural gas transmission pipeline, particularly if those uses involve vulnerable populations. Keep in mind that individuals inside buildings are protected, to some degree, from a natural gas pipeline rupture and explosion; exits should be provided on the side of the building away from the pipeline.

Recommendation 5:

Make sure that all new plats and all city land use/planning documents clearly mark and label the location of transmission pipeline easements.

Recommendation 6:

Support enactment of statewide legislation that requires disclosure of the proximity of a transmission pipeline whenever real property interests are conveyed. My recommendation for *natural gas* pipelines is that such disclosure should be made whenever the property is within 600 feet of the easement. For *hazardous liquid* pipelines, the reasonable distance could be 100 feet. The bottom line is that people should know

RZC 21.26 Hazardous Liquid Pipelines

- 21.26.010 Purpose**
- 21.26.020 Applicability**
- 21.26.030 Development Application Submittal Requirements**
- 21.26.040 Setback Requirements**
- 21.26.050 Requirements for Land Use Compatibility**

21.26.010 Purpose

The purpose of this section is to:

- (A) Help prevent and minimize unnecessary risk to the public health, safety, and welfare due to hazardous liquid pipelines;
- (B) Minimize the likelihood of accidental damage to hazardous liquid pipelines;
- (C) Avoid exposing land uses with high on-site populations that are difficult to evacuate and land uses that serve emergency functions to risk of injury or damage in the event of a pipeline failure;
- (D) Help reduce adverse impacts in the event of a pipeline failure;
- (E) Supplement existing federal and state regulations related to hazardous liquid pipeline corridor management.

The provisions of this section are intended to protect the health, safety and welfare of the general public and are not intended to protect any particular individual, class of individuals, or organization.

21.26.20 Applicability

The provisions of this chapter shall apply to all development on properties within 150 feet of any hazardous liquid pipeline corridor. This chapter does not apply to the conduct of pipeline operators. The conduct of pipeline operators is regulated by the Federal Pipeline Safety Act, 49 U.S.C. §60101, *et seq.*, and the Washington State Pipeline Safety Act, RCW 81.88. Pipelines within public rights-of-way are also regulated by the terms and conditions of franchise agreements between the City and the pipeline operator.

21.26.030 Development Application Submittal Requirements

- (A) Applicants shall show the hazardous liquid pipeline corridor and applicable setbacks on-site plans and subdivision plats for proposed development on properties to which this chapter applies. Modifications to existing structures that do not involve landfilling or excavation on-site or changes to off-site improvements are exempt from this requirement.
- (B) All other applicable development application submittal requirements apply; see RZC 21.76.030, Application Requirements.

21.26.040 Setback Requirements

- (A) Hazardous Liquid Pipeline Corridor ("Corridor"). No landfilling or excavation and no construction or expansion of structures is allowed within the corridor.
- (B) Areas Along the Hazardous Liquid Pipeline Corridor.
 - (1) Construction or expansion of structures or other activities involving landfilling or excavation shall be setback a minimum of 25 feet from the edge of the corridor.
 - (2) The Administrator may expand the setback when necessary to meet the purpose of this section due to site-specific conditions, such as extraordinary land disturbance.

RZC 21.26: Hazardous Liquid Pipelines

- (3) The Administrator may expand the setback when necessary to meet the purpose of this section due to site-specific conditions, such as extraordinary land disturbance.
- (4) The Administrator may reduce the setback due to site-specific conditions and an applicant's demonstration that the purpose of this section will be met. Factors that may be considered include but are not limited to:
 - (a) Pipeline location as determined using normal locating procedures.
 - (b) Type of construction proposed.
- (5) If the Administrator reduces the setback or measures it from a hazardous liquid pipeline, the following applies:
 - (a) The setback shall be a minimum of 30 feet from the nearest hazardous liquid pipeline and shall comply with section (B)(1) above.
 - (b) The setback shall be measured from the nearest edge of the hazardous liquid pipeline.
 - (c) The location of the hazardous liquid pipeline and the reduced setback shall be shown on all approved site plans and subdivision plats.
- (C) Exemptions. Streets, utilities, trails and similar uses shall be exempt from sections (B) (1) and (2) above.
- (D) Emergency Work. In the event of any emergency in which a hazardous liquid pipeline breaks, is damaged, or is otherwise in such a condition as to immediately endanger the life, health, safety, or property of any person, the hazardous liquid pipeline operator shall not be required to comply with this chapter or obtain permits prior to taking corrective action. The hazardous pipeline operator shall, however, notify the City Public Works Director by telephone immediately upon learning of the emergency or, if the emergency occurs outside of the City's normal business hours, immediately upon the commencement of the next business day during which the Redmond City Hall is open for business. The hazardous liquid pipeline operator shall also apply for all required permits not less than the second succeeding business day during which the Redmond City Hall is open for business.
- (E) Setback Protection. Setbacks shall be identified and protected during construction by placement of a temporary barricade and on-site notices. Barricades and on-site notices are subject to review by the Administrator.
- (F) Reasonable Use Provision. The required setback from the hazardous liquid pipeline corridor shall not deny all reasonable economic use of property. An applicant who believes that the required setback does deny all such use may apply for a reasonable use exception under RZC 21.76.070(U), Reasonable Use Exceptions (Critical Areas/Hazardous Liquid Pipelines and High Capacity Transit Corridor Preservation).

21.26.050 Requirements for Land Use Compatibility

- (A) High Consequence Land Uses.
 - (1) New high consequence land uses proposed for location within 500 feet of a corridor are prohibited.
 - (2) Proposed expansions to existing high consequence land uses located within 500 feet of a corridor shall be designed to avoid increasing the level of risk in the event of a pipeline failure, and where feasible, reduce the risk compared to the existing development. Potential techniques to minimize risk include but are not limited to:
 - (a) Site design features, such as maintaining or increasing the distance between occupied structures, or structures that provide critical lifeline functions, and the hazardous liquid pipelines and anticipated flow paths for leaking hazardous materials.
 - (b) Building features, such as design to avoid a significant increase in on-site population or to expedite evacuation.
 - (c) Technological features, such as accelerated notice of a pipeline failure to high consequence land uses to facilitate evacuation or features that help avoid damage in the event of a failure.

- (d) Operational features, such as emergency plans and education programs for occupants and employees concerning pipeline safety, developed in accordance with the procedures in section (B)(2)(b) below.

(B) Other Development in the Willows/Rose Hill and Grass Lawn Neighborhoods.

- (1) Applicants for the following types of new or expanded development shall use appropriate mitigation measures to reduce adverse impacts in the event of a pipeline failure:

- (a) Commercial or industrial.
- (b) Multifamily.
- (c) Religious facilities.
- (d) High consequence land uses proposed for locations not covered by RZC 21.26.050(1) of this chapter.
- (e) Other developments as required by the Administrator that, because of proximity to a corridor, pose a safety concern.

- (2) Mitigation measures intended to reduce risk and minimize impact in the event of a pipeline failure include but are not limited to:

- (a) Site and building design techniques, such as maximizing the distance between new or expanded development and anticipated flowpaths for leaking hazardous materials and controlling ignition sources.
- (b) Emergency procedures, such as emergency plans and guides, employee training and drills, and education programs for occupants and employees concerning pipeline safety, such as what to be aware of and how to respond in the event of a problem.
 - (i) Applicants shall consult with the Fire Department regarding the level of emergency planning and procedures appropriate for the proposed development. Based on the nature, occupancy, or location of a proposed development, the Fire Department may require emergency plans and procedures for any occupancy classifications.
 - (ii) Emergency plans and procedures shall be consistent with the Redmond Fire Code and shall be approved by the Fire Department.

- (C) Location. All land use permits issued for properties that are contiguous to a hazardous liquid pipeline corridor shall be conditioned upon notification of utilities through the one-call locator service prior to commencement of any of the permitted work.

Heavy Consumer Goods Sales, Rental or Service.

The retail sale, rental, or lease of large consumer goods or a combination of the retail sale, rental or lease of such goods with repair and maintenance service and the sale of replacement parts and accessories. Heavy Consumer Goods Sales or Service includes sale of items, such as furniture, hardware, lawn and garden supplies, building materials, electronics and appliances, and heating and plumbing equipment.

Height of Building or Structure.

The vertical distance measured from the average finished grade around the building to the highest point of the structure. The approved average finished grade shall be measured by taking the smallest rectangle around the building and averaging the elevations at the midpoint of each side.

Height, Building (SMP).

The height measured from average grade level to the highest point of a structure, provided that television antennas, chimneys, and similar appurtenances shall not be used in calculating height, except where such appurtenances obstruct the view of the shoreline of a substantial number of residences on areas adjoining such shorelines, or the applicable master program specifically requires that such appurtenances be included, provided further that temporary construction equipment is excluded in this calculation. (SMP)

Heliport.

An airport or landing place for helicopters.

High Consequence Land Use.

A land use that if located in the vicinity of a hazardous liquid pipeline represents an unusually high risk in the event of a pipeline failure due to characteristics of the inhabitants or functions of the use. High consequence land uses include:

- (1) Land uses that involve a high-density on-site population that are more difficult to evacuate. These uses include schools (through grade 12), hospitals, clinics, multifamily housing, or other facilities exclusively for elderly or handicapped, stadiums or arenas, and day care centers, and does not extend to family day care or adult family homes.
- (2) Land uses that serve critical "lifeline" or emergency functions, such as fire and police facilities, utilities providing regional service, or water supplies if exposed to a significant risk that will curtail its lifeline function for a critical period of time.
- (3) Uses with similar characteristics as determined by the Administrator.

Historic Landmark.

A site or structure which has been designated under RZC 21.30, Historic and Archeological Resources, as a historic landmark and is listed on the Redmond Heritage Resource Register.

Home Business.

A business activity which results in a product or service and is conducted in whole or in part on a residential premises and is clearly subordinate to use of the premises as a residence.

Hospitals.

Any institution, place, building or agency or distinct part thereof which qualifies or is required to qualify for a license under Chapter 70.41 RCW, or as a psychiatric hospital licensed under Chapter 71.12 RCW as presently worded or hereafter amended.

Hotel or Motel.

An establishment that provides four or more guest rooms for the lodging and short-term accommodations for travelers and that does not provide gambling. Hotels and motels typically offer food services, recreational services, convention hosting services, laundry services, and similar services required or desired by travelers.

Household.

An individual or two or more persons related by blood or marriage or a group of not more than eight persons who need not be related by blood or marriage living together in a dwelling unit.

Household Income.

All income from all household members over the age of 18 residing in the household. Household income consists of all income that would be included as income for federal income tax purposes (e.g., wages, interest income, etc.) for household members over the age of 18. Income of dependents who reside within a household for less than three months of the year will not be counted toward household income.

