

| 1/4/2008 | Category | Document Title | Date | Abstract | Website | Prepared for | Prepared by |
|---|----------|--|-----------------|--|---|--|---|
| Federal Initiatives Land Use Planning Next to Pipelines | | | | | | | |
| | | TRB Special Report 219- Pipelines and Public Safety, Damage Prevention, Land Use, and Emergency Preparedness | 1988 | The committee that developed this report recommended collaboration on damage prevention and public preparedness programs, land use measures, and emergency preparedness programs. The committee stopped short of recommending specific development setbacks that would provide more uniform land use control across the nation. Instead, it pointed out a number of procedural changes in land development review and regulation that would reduce the risk of inadvertent damage. Although more uniform public policies on land use near pipelines might be desirable, differences in local conditions argue against establishing definitive standards or limits of specific land uses near pipeline rights-of-way. | http://onlinepubs.trb.org/onlinepubs/sr/sr219/SR219_00.pdf | TRANSPORTATION RESEARCH BOARD | |
| | | Pipeline Safety Improvement Act of 2002 | 2002 | The Pipeline Safety Improvement Act of 2002, which was signed into law on December 17, 2002, mandates significant changes and new requirements in the way the natural gas industry ensures the safety and integrity of its pipelines. The law applies to natural gas transmission pipeline companies. Central to the law are the requirements it places on each pipeline operator to prepare and implement an "integrity management program." | http://ops.dot.gov/library/docs/107_cong_public_laws.pdf | Congress | |
| | | TRB Special Report 281 - Transmission Pipelines and Land Use: A Risk-Informed Approach - Committee for Pipelines and Public Safety: Scoping Study on the Feasibility of Developing Risk-Informed Land Use Guidance near Existing and Future Transmission Pipelines | September, 2004 | The Pipeline Safety Improvement Act (PSIA) of 2002 required the Secretary of Transportation, in conjunction with the Federal Energy Regulatory Commission (FERC) and other appropriate federal and state agencies and local governments, to undertake a study of land use practices, zoning ordinances, and preservation of environmental resources with regard to pipeline rights-of-way and their maintenance. The Act also required the Secretary to promote the adoption of practices, laws, and ordinances by federal agencies and state and local governments in reducing the risks and hazards associated with encroachment on pipeline rights-of-way. In light of the PSIA requirements, PHMSA contracted with the TRB to study the feasibility of developing risk-informed land use guidance for application adjacent to transmission pipelines. The TRB convened an expert committee of 12 members from academia, pipeline industry, local governments, and consultants to conduct the study and provide recommendations to OPS. | http://onlinepubs.trb.org/onlinepubs/sr/sr281.pdf | TRANSPORTATION RESEARCH BOARD | |
| Land Rights US | | | | | | | |
| | | THE NECESSITY OF ADEQUATE FINDINGS/REASONS TO SUPPORT MUNICIPAL LAND USE DECISIONS | April, 2004 | In land use cases, Minnesota courts are looking for a sufficient statement of the reasons given by the city to grant or deny an application request. The role of the court is to examine the city's reasons and ascertain whether the record before the city council supports | http://www.lmnc.org/pdfs/LCWorkshop04/NecessityAdequateFindings.pdf | League of Minnesota Cities Insurance Trust | Susan Sager |
| | | An Interstate Natural Gas Facility on My Land? What Do I need to Know? | Unknown | The Federal Energy Regulatory Commission is charged by Congress with evaluating whether interstate natural gas pipeline projects proposed by private companies should be approved. The Federal government does not propose, construct, operate, or own such projects. The Commission's determination whether to approve such a project may affect you if your land is where a natural gas pipeline, other facilities, or underground storage fields might be located. We want you to know: 1) How the Commission's procedures work; 2) What rights you have; 3) How the location of a pipeline or other facilities is decided; and 4) What safety and environmental issues might be involved. | http://www.ferc.gov/for-citizens/citizen-guides/citiz-guide-gas.pdf | FERC | FERC |
| | | Dealing with Public Risks Involved in Land Use Planning | Jun-01 | The paper focuses on land use planning issues that raise fiscal, safety, and legal risks to local communities in a variety of critical areas. It is a collection of papers from a symposium by PERI to stimulate dialogue about ways cities and counties can minimize these risks in developing long-range land use policy strategies, and in carrying out day-to-day development review responsibilities. | www.riskinstitute.org/PERI/PTR/Risk+Management_PT_R_1004.htm | Public Entity Risk Institute (PERI) | |
| | | The Liquid Pipeline Industry in the United States: Where It's Been, Where It's Going | April, 2004 | The outlook for the liquid pipeline industry in the US is for improving environmental and safety performance, albeit at the same time that the public's expectations continue to rise rapidly, with little tolerance for operational incidents. Issues relating to rights of way will become even more contentious and expensive. | www.aopl.org/posted/888/Final_Rabinow_print_40804_47626.pdf | Association of Oil Pipe Lines | Richard, Rabinow |
| | | Takings Law in Plain English: Regulatory Takings after Lucas; Henry N. Butler | May-06 | Explanation of terms related to regulatory takings. | www.cacities.org/index.jsp?zone=lsq&previewStory=212 | League of California Cities | |
| | | REGULATORY TAKINGS DEVELOPMENTS SINCE LUCAS | 1993 | Regulatory-induced reductions in property value are potentially characterized as takings subject to the just compensation provisions of the Takings Clause. The Supreme Court's recent interpretation of this Amendment has provided important clarification on the limits imposed upon government entities when restricting landowner's use and enjoyment of their property. These limitations on government powers are becoming more important as states and municipalities seek to more comprehensively regulate land use through new strategies such as "Smart Growth" and will have particular application as landowners and state and local governments attempt "Smart Rebuilding" in the wake of the 2005 Hurricane season. | www.cato.org/pubs/regulation/reg16n3q.html | Cato Institute | |
| | | Second Anniversary of Kelo and the State of Property Rights in America | August, 2006 | On the second anniversary of the U.S. Supreme Court's <i>Kelo vs. New London</i> decision a look at property rights. | http://www.finkellaw.com/CM/PublishedWorks/Regulatory%20Takings%20since%20Lucas%20Paper.pdf | William R. Padgett, Reason Foundation - free minds and free markets | |
| | | Easement language | Jun-07 | | http://www.2007/06/26/2nd-Anniversary-of-Kelo.aspx | Adrian Moore | |
| Risk-Informed Decision Making | | | | | | | |
| | | Planning for the Unexpected: Land Use Development and Risk | February-05 | This book is available to purchase. Planning for the Unexpected: Land-Use Development and Risk is a concise review of risk management fundamentals. The author presents the strategic principles of risk management and provide examples of how it can be better incorporated by local city planners. | www.planning.org/APAStore/Search/Default.aspx?ps=2438 | APA Planning Advisory Service | Laurie Johnson, Laura Dwellley Samant, and Suzanne Frew |
| | | Risk Management Standards | 2003 | History and synopsis of risk management standards around the world. National "standards" on risk management first appeared in Australia and New Zealand in 1971 then in Canada in 1997 and in the United Kingdom in 2000. Other countries and regions (Europe) are currently studying similar standards, and the International Standards Organization is preparing a list of common global definitions for risk management terms. | www.riskreports.com/standards.html | Risk Management Reports | |
| | | Website with links to all major risk management groups. | Current | Website with links to all major risk management groups. The website also contains concise information (Riskipedia) about risk management (http://riskipedia.riskreports.com/display/RPA/The+RISKIPEDIA - free risk information available to everyone everywhere) | www.riskreports.com/links.html | Risk Management Reports | |
| | | Elements in risk management | 2000 | Website by Chemical Industries Association - Periodic problems with this website. | http://www.cia.org.uk/ps/%20CO%20demo/riskelements.htm | | |
| | | A PRIMER ON RISK MANAGEMENT IN THE PUBLIC SERVICE A Background Document for CCMD's Action-Research Roundtable on Risk Management | Unknown | This primer is not meant to be an exhaustive review or treatment of risk management. Rather, the intent is to create a common point of departure for learning and work on what constitutes good risk management and what obstacles might be encountered in incorporating risk management into government decision making. To encourage a broad readership, an effort has been made to avoid technical jargon and to keep the primer succinct. | http://www.cspc-efrc.gc.ca/Research/publications/pdfs/Risk-Primer-REV.pdf | Stephen Hill University of Calgary | |
| Other Land Use Near Transmission Lines Documents | | | | | | | |
| | | API GUIDELINES FOR PROPERTY DEVELOPMENT | 2004 | Guidelines for Property Development, which helps increase awareness about how to conduct land development and use activity along pipeline rights-of-way. | http://global.ihc.com/doc_detail.cfm?currency_code=USD&customer_id=1254C2C3C0A&shopping_cart_id=282448332F4A50384A5B3D38220A&rid=API&country_code=US&lang_code=ENGL&term_s_key=04442197&term_key_date=951231&input_doc_number=&input_doc_title=guidelines%20for%20property%20development | | |
| | | BUILDING SAFE SCHOOLS: Invisible Threats, Visible Actions (50 State Survey: Existing School Siting Laws, Policies and Regulations) | Dec. 2005 | To better inform policy discussions surrounding the siting of schools, a survey of the laws, regulations and policies (referred to hereafter as "policies") related to the siting of schools on or near sources of environmental pollution in all fifty states was conducted. | www.childproofing.org/documents/building_safe_schools.pdf | | |
| | | Expanding Natural Gas Pipeline Infrastructure to Meet The Growing Demand For Cleaner Power - Final Report Of The Keystone Dialogue On Natural Gas Infrastructure | March-02 | The Dialogue focused on three broad topics relating to natural gas pipeline infrastructure: (1) natural gas pipeline infrastructure needs, (2) the challenges of siting new or expanded pipeline infrastructure, and (3) the safety, integrity, and reliability of natural gas pipeline infrastructure. Appendix A - A recent report prepared by the IOGCC/NARUC Pipeline Siting Work Group contained the following recommendations aimed at helping state and local bodies move through the permitting process. | www.keystone.org/spp/documents/GasPipelineReport-FINAL%20VERSION-JTL.PDF | The Keystone Center | The Keystone Center |
| Risk-Informed Land Use Planning Near Pipelines In the US | | | | | | | |
| | | California Department of Education Proposed Standard Protocol for Pipeline Risk Analysis | 2007 | Review and preparation of pipeline risk analyses CA school districts must submit to CDE. Intended to provide a consistent basis for risk analysis of pipelines near schools. | www.cde.ca.gov/ls/fals/protocol07.asp | California Department of Education School Facilities Planning Division | URS Corporation |

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| California | CDE's Pipeline Risk Analysis Protocol Total Individual Risk (TIR) Estimating Aid | 2007 | California Department of Education PIPELINE RISK ANALYSIS PROTOCOL TOTAL INDIVIDUAL RISK (TIR) ESTIMATING AID To be used in conjunction with the CDE Guidance Protocol for School Site Pipeline Risk Analysis | www.cde.ca.gov/ia/sf/protocol07.asp | | |
| Washington State (MRSC) | Washington Model Pipeline Ordinances - Website | Current | Municipal Research and Services Center of Washington's website | www.mrsc.org/subjects/PubSafe/PipeSafety/Model.aspx | Municipal Research & Services Center, Seattle | |
| Washington State (MRSC) | SETBACKS AND ZONING FOR NATURAL GAS AND HAZARDOUS LIQUID TRANSMISSION PIPELINES | August, 2004 | This paper contains: a brief introduction, excerpts from a prepublication copy of the TRB report and a concluding section containing the author's recommendations. Attached are copies of the recently amended MRSC model setback ordinance, and code provisions enacted by Austin, Texas. | www.mrsc.org/subjects/pubsafe/setbacks.pdf | Municipal Research & Services Center, Seattle | Jim Doherty, Legal Consultant |
| Washington Utilities and Transportation Commissions (WUTC) | Gas Regulation | 2007 Draft | Regulation for Gas Pipelines which includes proximity of pipelines to buildings in section 480-93-020. | http://www.wutc.wa.gov/rms2.nsf/177e98ba5918c738425a550054e1e838687206275490189287383005811861?OpenDocument | | |
| Washington Utilities and Transportation Commissions (WUTC) | WUTC Website | Current | Land Use Planning for Pipelines The presence of a pipeline forms a relationship between pipeline operator, local government and property owner. How this relationship is managed can affect directly the safe operation of the pipeline and consequently the public health and safety of the surrounding community. In 2004 and 2005, a group of city, county, state and industry representatives conducted a series of workshops throughout the state for local government officials, talking in particular with planning, permitting and public works sections. The purpose of these workshops was to exchange ideas and explore the range of tools available to manage and make effective decisions concerning land use in proximity to transmission pipelines. | www.wutc.wa.gov/webimage.nsf/1fd8daa538d44dba855704d006438029fe01a11e8383f88257097005d6218?OpenDocument | | |
| Edison Township New Jersey | Edison Township Municipal EFFECTIVENESS OF U.S. AND INTERNATIONAL PIPELINE REGULATIONS WITH REGARD TO LAND USE PLANNING | June-05 | Section 17.08.210 Interference with pipelines | http://iprimis.phmsa.dot.gov/comm/publications/MunicipalCodes/EdisonTownship.pdf | | |
| Edison Township New Jersey | Edison Township Municipal EFFECTIVENESS OF U.S. AND INTERNATIONAL PIPELINE REGULATIONS WITH REGARD TO LAND USE PLANNING | | The transmission pipeline incident in Edison, New Jersey in March, 1994 raised public concerns about the safety of siting of transmission pipelines in proximity to populated areas. One of the responses to this incident was the issuance of a contract by the United States Department of Transportation (USDOT) to the New Jersey Institute of Technology (NJIT) to study this and other issues with regard to pipeline safety. | http://transportation.njit.edu/ncip/publications/intregulation.html | Institute for Transportation New Jersey Institute of Technology | |
| Austin, Texas | City of Austin HL Ordinance | April, 2003 | The City of Austin has enacted an ordinance that regulates structures built near a pipeline transporting hazardous materials. The ordinance -- approved by the At City Council on April 10, 2003 -- is designed to ensure greater public safety. The ordinance requires special construction standards, determined by the Fire Department, for new structures within 200 feet of a pipeline. In addition, uses requiring special evacuation assistance are prohibited within 500 of such a pipeline unless it is a structure within 200-500 feet of the pipeline and the Fire Chief makes a safety recommendation to City Council. In those cases, the City Council makes the final determination. | http://www.ci.austin.tx.us/news/02/pipeline_ord.htm | | |
| Examples of Safety Reviews with QRA's of Transmission Pipelines | | | | | | |
| US | PIPELINE SAFETY ASSESSMENT SCHULTE ROAD SPORTS COMPLEX | March, 1998 | This report provides an analysis of the pipelines' safety, considering the potential future use of the surrounding land. Tetra Tech collected and reviewed documents related to the two PG&E pipelines to evaluate pipeline failure rates, risks associated with natural gas pipeline failures, and risks commonly experienced by members of the public. Tetra Tech also reviewed various other documents provided by PG&E and the City of Tracy, including but not limited to pipeline safety records, pipeline facility plans, pipeline and facility specifications, waiver applications, waiver agreements, settlement agreements, and other reports and associated documents. | http://www.ci.tracy.ca.us/city_council/meetings/agendas/2007/12/18/04.pdf | The City of Tracy CA | Tetra Tech |
| Ireland | INDEPENDENT SAFETY REVIEW OF THE ONSHORE SECTION OF THE PROPOSED CORRB GAS PIPELINE | January-06 | The report presents the detailed findings of the review of the onshore section of the proposed Corrib pipeline, which ranges from a general consideration of the process followed in selecting the preferred design option, to detailed analysis of highly technical aspects of the engineering design and risk assessment. | http://www.mavogasinfo.com/download/Advantica_Report.pdf | The Minister for Communications, Marine & Natural Resources UK | Advantica |
| India | Cross-country Pipeline Safety Assessment | 2003 | Pipeline safety assessment studies were carried out at the design stage of cross-country Natural gas pipeline for implementation of various safety measures. The level based decisions for the pipeline are easy for implementation at this stage, since the pipeline is proposed and various modifications can be easily carried out. costs incurred on such modifications are also minimal. Risk level for the pipeline is computed through the use of Event tree analysis, Consequence analysis, Vulnerability analysis and Individual risk computation. Pipeline design parameters like pipeline thickness, its depth cover, routing, locations of sectionalizing valve and site specific surrounding population density, terrain etc. was considered for arriving at the risk level for the pipeline. Mitigation measures and design modifications were implemented to bring the undesired risk to acceptable level. | www.iitk.ac.in/che/jpp/papers/full%20papers/M%20-%20055.doc | National Environmental Engineering Research Institute (NEERI), Nagpur, India | |
| New Brunswick Canada | Commentary on the Risk Analysis for the Proposed Emera Brunswick Pipeline Through Saint John, NB | October, 2006 | Accufacts Inc. has been asked to comment on the recent Risk Analysis ("RA") performed on the proposed Emera Brunswick Pipeline route through Saint John, NB Brunswick by the Saint John Fire Department. In a previous individual report concerning this proposed high pressure gas transmission pipeline through the city of Saint John, Accufacts concluded: "For most gas transmission pipelines, the large thermal impact zones generated from early (within minutes) ignition sets the "controlling case" defining the potential impact zone. | http://ipstrust.org/library/docs/accufacts_report_fd_ra.pdf#search=accufacts | Saint John Fire Department. | Richard B. Kuprewicz, President, Accufacts Inc. |
| | Safety Review of the Proposed Onshore Section of the Corrib Gas Pipeline | 2005 | Powerpoint presentation by Advantica of the safety review. includes useful flowchart of a QRA process. | http://www.dcmnr.gov.ie/NR/rdonlyres/4CA02A2D-8FAC-4F76-8372-1839D95FA773/0/AdvanticaPresentationonDraftReport.pdf | Advantica | |
| Risk- Informed Land Use Planning Outside of US | | | | | | |
| EU - Seveso | GUIDANCE ON LAND USE PLANNING AS REQUIRED BY COUNCIL DIRECTIVE 96/82/EC (SEVESO II) M.D. CHRISTOU & S. PORTER (Editors) 1999 | 1999 | This guidance document is intended to assist with the interpretation of the requirements on land-use planning contained within the Seveso II Directive and, where relevant, on the provisions on land-use planning laid down within the UNECE Convention on the Transboundary Effects of Industrial Accidents. It has been assumed that the relevant requirements within the UNECE Convention will be implemented through the same laws, regulations and administrative provisions which are intended to bring the Seveso II Directive into force. However it may be noted that the land-use planning provisions within Seveso II apply to all establishments covered by the Directive whilst the Convention has a more restricted scope corresponding to only those establishments covered by Article 9 of the Directive, i.e. so called "upper tier" establishments. | http://mahbsrv.jrc.it/downloads-pdf/Landuse2.pdf | European Commission | M.D. CHRISTOU & S. PORTER |
| EU - Seveso | LAND USE PLANNING GUIDELINES IN THE CONTEXT OF ARTICLE 12 OF THE SEVESO II DIRECTIVE 96/82/EC AS AMENDED BY DIRECTIVE 105/2003/EC, ALSO DEFINING A TECHNICAL DATABASE WITH RISK DATA AND RISK SCENARIOS, TO BE USED FOR ASSESSING THE COMPATIBILITY BETWEEN SEVESO ESTABLISHMENTS AND RESIDENTIAL AND OTHER SENSITIVE AREAS LISTED IN ARTICLE 12. | 2006 | The document is intended to give guidance for risk assessment in Land Use Planning (LUP) in general as far as the major accident potential of industrial establishments is concerned. The main aim in this respect was to combine the understanding of the land use planners and the risk assessment experts in a coherent view. In this respect it may offer especially land use planners not familiar with industrial risk assessment considerations a quick and comprehensive information resource. It will also assist with the use of the risk/hazard assessment database which the Major Accident Hazards Bureau (MAHB) was assigned to develop and which shall provide proposals for key factors in this respect. By defining best practice of risk assessment in Land Use Planning the underlying principles of the risk/hazard assessment database are described. | http://mahbsrv.jrc.it/downloads-pdf/LUP%20Guidance-2006.pdf | European Commission | M. D. CHRISTOU, M. STRUCKL and T. BIERMANN |
| EU - Seveso | Land Use Planning Policies & Good Practices | 2006 | Powerpoint presentation on a "Workshop for Pipeline Safety". Seveso II directive Article 4: Exclusic This Directive shall not apply to the following: ...d) the transport of dangerous substances in pipelines, including pumping stations, outside establishments covered by this Directive. The presentation discusses the different approaches European countries are taking to meet the Seveso II directive and the challenges they face such as reliable failure rates. Implies that pipelines may be a high tier facility. | www.unec.org/env/ta/water/pipeline/haguepresentation/SessionIII-1MichaelStruckl.ppt | European Commission | Michael Struckl & Michaelis Christou |
| EU - Seveso - All EU Members | Website of European Working Group on Land Use Planning (EWGLUP) | Current | The website has links to land use planning documents of all EU member countries LUP and other documents that were developed from the Seveso directive. Terms of Reference for the work of a European Working Group on Land-use Planning in the Context of Article 12 of Directive 96/82/EC (Seveso II Directive). | http://landuseplanning.jrc.it/index.html | | |
| UK | Health and Safety Executive's (HSE) IMPLEMENTATION OF THE FUNDAMENTAL REVIEW OF LAND USE PLANNING - Great Britain | 1999 | The Health and Safety Commission in agreement with the Office of the Deputy Prime Minister, Scottish Executive and Welsh Assembly, all support the principle of providing 'standing advice' via the devolution of HSE's land use planning decision tool (PADHI+) to planning authorities. | www.hse.gov.uk/landuseplanning/ffrup/images/news4.pdf | Health Safety Executive | |
| UK | IGE/TD/1 Edition 4 | 2001 | Recommendations apply to design, construction, inspection, testing, operation, and maintenance, of pipelines designed, after the date of publication for dry natural gas for Maximum Operating Pressure 16 to 100 bar. Provides graphs of setbacks. | http://lorien.ncl.ac.uk/ming/safety/pipeline/pipeline_codes.pdf | | |
| UK | PD 8010 - 1 - 2004 | 2004 | The published document takes into account issues that are outside of the scope of BS EN 14161:2003 and updates the content of BS 8010-1, BS 8010-2.8 and BS 8010-3. | www.bsi-global.com/en/Standards-and-Publications/Industry-Sectors/Manufacturing/Manufacturing-Standards/PD-80102004/ | | |

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| UK | PD 8010-3 DPC Code of practice for pipelines. Guide to the application of pipeline risk assessment to proposed developments in the vicinity of major hazard pipelines – Supplement to PD 8010-1:2004 | 2005 | PD 8010-3 DPC will give recommendations for the risk assessment of major accident hazard pipelines (MAHPs), guidance on the modeling of failure consequences and determination of failure frequencies for the prediction of individual and societal risks. The principles of PD 8010-3 are based on best practice for the quantified analysis of new pipelines and existing pipelines. It is not intended to replace or duplicate existing risk analysis methodology, but is intended to support the application of the methodology and provide recommendations for its use. PD 8010-3 is applicable to buried pipelines on land that can be used to carry category D and category substances that are hazardous by nature of being flammable or liable to cause harm to persons. | http://www.bsigroup.com/en/Standards-and-Publications/Industry-Sectors/Risk/Risk-Publications/PD-8010-3-DPC/ | | |
| UK | Health and Safety Executive's (HSE) Website | Current | Health & Safety Executive regulates health, safety and integrity issues for all natural gas and other applicable pipelines in Great Britain, in territorial waters and the continental shelf. This site concentrates on Major Accident Hazard (MAH) pipelines. There is a link to "Procedure for setting land use planning zones for MAH pipelines". | http://www.hse.gov.uk/pipelines/hseandpipelines.htm | | |
| Canada | Risk-based Land Use Planning Guidelines Major Industrial Accidents Council of Canada | June-95 | This MIACC risk assessment product is one of six publications dealing with hazardous substances and urban areas. It provides the reader with background material and advice on the use of risk assessment in respect to the development of land use plans for situations where more comprehensive methods are not justified. | | Major Industrial Accidents Council of Canada | |
| Canada | Land use planning for pipelines: A guideline for local authorities, developers, and pipeline operators | August-04 | Canada (MIACC), a multi-stakeholder partnership that included federal, provincial, and municipal governments, industry, labor, emergency response groups, public interest groups, and academics. As part of its dissolution in 1999, MIACC transferred the ownership of this Guideline to the Pipeline Risk Assessment Steering Committee (PRASC), whose membership included the National Energy Board (NEB), the Alberta Energy and Utilities Board (EUB), the Transportation Safety Board of Canada (TSB), Canadian Standards Association (CSA) committee members, the Canadian Gas Association (CGA), the Canadian Association of Petroleum Producers (CAPP), and the Canadian Energy Pipeline Association (CEPA). Under the auspices of PRASC, a multi-stakeholder task force was formed to continue the development of this Guideline. PRASC transferred the ownership of this Guideline to CEPA, and CEPA subsequently transferred it to CSA. Throughout the development of this Guideline, input has been provided by representatives of the pipeline industry, government and regulators. | http://www.cepa.com/index.aspx?site_guid=20B417BE-EDD6-497C-AFCA-B0D26BFF93FE&page_guid=4E05CD71-929E-40D1-94E7-DB904C3942A1 | Major Industrial Accidents Council of Canada (Now owned by Canadian Standards Association, CSA) | |
| Israel | Choosing a Standard for Natural Gas Pipelines Design and Construction | January, 2004 | The Israeli governments, Ministry of National Infrastructures, had to create an agreed safety practice for the natural gas systems pipelines. A new Code had to be developed or adapted. The report compares land use regulations of different countries. The report includes tables for acceptable separation of buildings to transmit pipelines. Chain of possible events following a gas leak were defined. The hazard level as determined for one person was chosen. They decided to adopt the Dutch standard NEN 3650. | http://ictat.tau.ac.il/cff4.pdf | A Report of Israeli Actions on Transfer of Technologies for Natural Gas Transportation, Storage and Utilization for Developers and Suppliers. | Amnon Einav |
| Communications Process | | | | | | |
| | Planning Public Forums: Questions to Guide Local Officials | 2007 | Increasingly, local officials are organizing and supporting public forums to help inform their decision-making. Their interest is to: • Achieve the best policy result by promoting the overall public interest; • Maximize the public's satisfaction with the ultimate decision; and • Foster the public's support for the agency. The emphasis is on designing appropriate forums for public deliberation. Typically in such forums, members of the public participate in reasoned discussions that result in new ideas, visions, general preferences, or detailed recommendations. In turn, these results are considered by policymakers and help shape public decisions and actions. | http://www.cacities.org/resource_files/25304_ILG_PlanPublicForums.pdf | League of California Cities | INSTITUTE FOR LOCAL GOVERNMENT Collaborative Governance Initiative |
| | An Ounce of Prevention: Best Practices for Making Informed Land Use Decisions | Unknown | An Ounce of Prevention focuses on the underlying procedures that are common to all land use decisions. It walks through the typical decision-making process - from design and drafting ordinances to issuing a final decision and hearing appeals - and identifies practical strategies to reduce the risk of litigation. | http://www.riskinstitute.org/PER/PTR/Risk+Management/PTR_1144.htm | Public Entity Risk Institute (PERI) | Public Entity Risk Institute (PERI) |
| | NPMS Website | Current | The National Pipeline Mapping System (NPMS) is a geographic information system (GIS) created by the U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS) in cooperation with other federal and state governmental agencies and the pipeline industry. The NPMS consists of geospatial data, attribute data, public contact information, and metadata pertaining to the interstate and intrastate gas and hazardous liquid transmission pipelines, liquefied natural gas (LNG) plants, and hazardous liquid breakout tanks jurisdictional to PHMSA. | http://www.npms.phmsa.dot.gov/ | | |
| Washington State (maintained of MSRC's website) | Land Use Planning in Proximity to Natural Gas and Hazardous Liquid Transmission Pipelines in Washington State | June-06 | This report is focused on land use in proximity to existing pipelines. The appendices a reference documents associated with this report deal with the details of many of the issues and provide some thoughts on options that can be used in managing the relationships among stakeholders. | http://www.msrc.org/andcomiscilandusegas.pdf | Washington Utilities and Transportation Commission | |
| | Pipeline Operator Awareness Programs | Current | Current regulations require pipeline operators to develop and implement public awareness programs consistent with the requirements of the Pipeline Safety Improvement Act (PSIA) of 2002 and the guidance provided by the American Petroleum Institute (API) Recommended Practice (RP) 1162, "Public Awareness Programs for Pipeline Operators". Under the regulations, pipeline operators provide the Affected Public with information about how to Recognize, Respond To, and Report pipeline emergencies. The importance of using One-Call notification systems prior to excavation is emphasized for all stakeholders. Emergency Officials and Local Public Officials are provided information about the location of transmission pipelines to enhance emergency response and community growth planning. Operators must review their programs for effectiveness and enhance the programs as necessary. Operators must include in their programs activities to advise affected municipalities, school districts, businesses, and residents of pipeline locations. Of significance | http://primis.phmsa.dot.gov/comm/PublicEducation.htm | OPS | |
| Operations/Maintenance of the ROW | | | | | | |
| | Black Out 2003 - BASF Professional Vegetation Management Magazine Article | August-03 | Report summarizing FERC Report recommending electric utilities to take more aggressive steps to trim and clear cut trees near transmission lines. | http://www.wmanswers.com/magazines.aspx?pid=688 | | |
| | Utility Vegetation Management and Bulk Electric Reliability Report from FERC | September, 2004 | Electric transmission owners and operators conduct vegetation management to prevent physical contact between transmission lines and nearby vegetation that cause a transmission line to fail. On August 14, 2003, an electric power blackout affected large portions of the Northeast and Midwest United States and Ontario, Canada. President George W. Bush and Prime Minister Jean Chretien established a joint U.S.-Canada Power System Outage Task Force (Task Force) to investigate the causes of the blackout and how to reduce the possibility of future outages. One of the four primary causes of the blackout was inadequate vegetation management (tree pruning and removal). | http://ferc.gov/industries/electric/indus-act/reliability/vsmgmt-rpt-final.pdf | FERC | |
| | Research and Development in Natural Gas Transmission and Distribution | March-07 | The purpose of the study is to determine the current and projected R&D budgets of government agencies, the pipeline industry, manufacturers, and research consortiums; the focus of their funded research, and the prudent and correct levels of investment and research for the future for the natural gas transmission and distribution pipeline sectors. The study will attempt to gauge the natural gas industry's investment in R&D in comparison with similar type of industries and determine if the level of investment is sufficient to address the industry needs. Due to uncertainties of disjointed approaches that currently exist, the industry is at possible risk of underinvestment in R&D that could negatively impact customers and the safe, reliable, and cost effective delivery of natural gas to residential and business consumers. | http://www.gasfoundation.org/ResearchStudies/research.htm | American Gas Foundation | |
| | Example Easement Language | Unknown | The two examples in this appendix are taken from documentation used by the Gallatin Val Land Trust (easement agreement), and the City of Billings and Yellowstone County (encroachment permit) to acquire trail rights-of-way. Each easement is tailored to meet the needs of the Grantor and the Grantee. | http://www.gallatin.mt.gov/public_documents/gallatincomplandep/Uploadedpdfs/appendix%20n.pdf | | |
| | Example easement language - City of Salem, Oregon | June-05 | The documents listed are the City's current (January 6, 2004) standard deed and easement merge form used for public improvements in the City of Salem. If believe alternative language is absolutely necessary, the language must have prior approval of the City Attorney's Office before document is signed by Grantor and submitted to the City. | http://www.cityofsalem.net/departments/spubwork/pwepj/p/publications/deedease/index.htm | | |
| | Court Case about Pipeline Easement - Right to replace pipe - Norbert Scharger, et al., Respondents, vs. Northern Natural Gas Company, petitioner | June-05 | An easement is an interest in land possessed by another which entitles the grantee of the interest to a limited use or enjoyment of that land. <i>Minneapolis Athletic Club v. Cohler</i> , 287 Minn. 254, 258, 177 N.W.2d 786, 789 (1970). The extent of an easement depends entirely upon the construction of the terms of the agreement granting the easement. <i>Hwy. 7 Embers, Inc. v. Northwestern Nat'l Bank</i> , 256 N.W.2d 271, 275 (Minn. 1977). "When the terms of an easement grant are unclear, extrinsic evidence may be used to aid in the interpretation of the easement grant; however, when the language granting the easement is clear and unambiguous, the court is not to determine the meaning of the easement." <i>Norbert Scharger, Inc. v. Great Lakes Transmission Co.</i> , 565 N.W.2d 23, 26 (Minn. 1997). While ambiguities in contract agreements are resolved against the drafter, e.g., <i>Cherne Indus., Inc. v. Grounds & Assoc., Inc.</i> , 278 N.W.2d 81, 89 (Minn. 1979), "[g]enerally, an easement grant is to be strictly construed against the grantor." <i>Bergh</i> , 565 N.W.2d at 26 (citing <i>Romanchuck v. Plotkin</i> , 2 Minn. 156, 160, 1979). | http://caselaw.ln.fidlaw.com/scripts/getcase.pl?court=mn&vol=sc%5C9803%5Ccx962319&invol=1 | | |
| | No. 96.103 IN THE COURT OF APPEALS OF THE STATE OF KANSAS SOUTHERN STAR CENTRAL GAS PIPELINE, INC., Appellant, v. GORDON and JENNIFER CUNNING, Appellees, v. MICHAEL RONNEBAUM, Appellee. SYLLABUS BY THE COURT | May 18, 2007. | Southern Star Central Gas Pipeline, Inc. (Southern Star), appeals the district court's decision denying its petition for possession, ejectment, and trespass based upon an alleged encroachment on Southern Star's pipeline easement across land owned by Gordon and Jennifer Cunning. Southern Star claims the district court erred in not enforcing Southern Star's easement rights and by not requiring the Cunnings to remove a garage which had been built near the pipeline. We disagree and affirm. | http://www.kscourts.org/Cases-and-Opinions/opinions/ctapp/2007/0518/96103.htm | | |
| Technical Risk Documents | | | | | | |

| Category | Document Title | Date | Abstract | Website | Prepared for | Prepared by |
|---------------------------------|---|---------|--|---|---|---|
| | DEVELOPMENT AND IMPLEMENTATION OF RISK ASSESSMENT METHODS | 2001 | The possibility of accidental releases can never be discounted, and it is important that pipeline operators have an understanding of the causes and potential consequences of such releases in order to help manage the risks involved. The development of techniques to allow quantified risk assessments of natural gas pipelines and associated facilities to be undertaken has accelerated in recent years, supported by mathematical modeling and experimental validation. These techniques offer operators the opportunity to optimize safety by targeting areas where risk can be reduced most cost-effectively, and to optimize the use of assets by avoiding inappropriate restrictions on operations. Risk assessment techniques have been developed by Advantica for a broad range of gas industry applications, including offshore platforms, reception terminals, high and low pressure pipelines, compressors, gas storage and LNG sites. This paper describes the background to the development of these techniques, the framework that has been established in the UK for decision-making based partly on results of quantified risk analysis (QRA) | http://66.102.1.104/scholar?hl=en&lr=&q=cache:NgoUJQhneQJ:www.advantica.co.uk/library/items/Technical_Papers/Papers/ready%2520for%2520Site_Development%2520and%2520Implementation%2520of%2520Risk%2520Assessment%2520Methods%2520for%2520Natural%2 | R.J. Harris and M.R. Acton (Advantica Technologies Ltd) | |
| | ESTIMATING THE INFLUENCE OF NATURAL HAZARDS ON PIPELINE RISK AND SYSTEM RELIABILITY IPC04-0238 | 2004 | Natural hazards (also known as ground movement or geohazards) can cause pipeline failures, with consequences ranging from injury/death, environmental impact, and property damage, to lengthy service disruption and a failure to achieve delivery targets. In North America and western Europe, pipeline failures resulting from natural hazards are typically rare (but costly) events. However, where difficult ground conditions have not been properly accounted for in pipeline design, construction, and operation, natural hazards may have an overriding influence on pipeline risk and reliability. These issues are discussed, and a framework for estimating the influence of natural hazards on pipeline risk and system reliability is introduced. | http://64.233.169.104/search?q=cache:eCa2XTe91aMj:www.bgcengineering.info/Publications/BJP%2520IPC04-0238%2520Reliability.pdf+ESTIMATING+THE+INFLUENCE+OF+NATURAL+HAZARDS+ON+PIPELINE+RISK+AND+SYSTEM+RELIABILITY&hl=en&ct=clnk&cd=1&gl=us | | BGC Engineering |
| | California Guidance Protocol for School Site Pipeline Risk Analysis - 3.0 Consequences and Likelihood of Pipeline Failures | Unknown | Description of liquid pipeline failure. | www.cde.ca.gov/lr/f/s/f/documents/v1/protcolsec3.pdf | | |
| | Model simulates pipeline, tank-storage failure | 1983 | There is an important need for accurate mathematical models to predict the source rates and resulting safety impacts of accidental releases of materials from gas liquid pipelines and from cryogenic storage tanks. Two major types of hazards can develop after a structural failure of a pipeline or hydrocarbon storage tank: a combustion hazard or a toxic chemical hazard. Both of these types of hazards can affect the safety of personnel in the vicinity of the structural failure. A flammable vapor cloud can form after a pipeline or tank fracture and, if an ignition source is present, the cloud can detonate, or explode. In the case of a crude oil or gas-pipeline failure, a toxic cloud may also develop due to the presence of hydrogen sulfide (H ₂ S). Even in low concentrations, inhalation of H ₂ S may cause physical impairment or death. The existence of these two potential hazards—a flammability hazard or a toxic chemical hazard—prompts the need to conduct safety analysis studies of facilities and transport systems that carry pressurized fluids and gases. However, the simulation modeling of the flammability or toxicity concentration limits. | http://www.oxtl.gov/energy/citations/product_biblio.jsp?os=6819773 | Scientific Research Associates Glastonbury, CT | Drivas, P.J. ; Sabnis, J.S. ; Teuscher, L.H. |
| Great Britain | Pipelines Safety - Risk Quantification | 2000 | This lecture will cover the following aspects • How are pipeline failure risks quantified? • What pipeline databases exist for failure rates? • What are typical failure rates for pipelines • How is Consequence Analysis carried out? • Which Risk Criteria are applied for pipelines? Presentation includes useful graphs of likelihood of risk based on distance from pipeline. | http://lorien.ncl.ac.uk/mino/safety/pipeline/pipeline-risk.pdf | University of Newcastle Upon Tyne | |
| Criticality of Pipelines | | | | | | |
| | The Role of Energy Pipelines and Research in the United States: Sustaining the Viability and Productivity of a National Asset | May-06 | This report surveys the contributions of oil and gas pipelines in meeting the Nation's energy needs, the critical role that research played in making those contributions possible up until now, and how research will be necessary in the future to meet the challenges facing pipelines. Continued, even increased, dependence on pipelines is clear. Future demand for oil and natural gas will grow, requiring greater capacity for distribution across the nation and into communities, but regional patterns of supply and demand will shift, requiring reconfigured pipeline movements. Research is essential to improve pipeline safety, supply reliability, environmental performance, security and efficiency as the system encounters higher capacity utilization and higher bars for performance. | http://www.inqaa.org/cms/28/4854.aspx | The Steering Committee on Energy Pipelines and Research | Cheryl J. Trench, President, Allegro Energy Consulting and Thomas O. Miesner, Principal, Miesner LLC |