

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA**

IN THE MATTER OF THE FILING OF)	PS07-002
THE INVESTIGATION OF THE)	
NATURAL GAS INCIDENT OF)	
MARCH 8, 2007, IN MITCHELL,)	RESPONSE
SOUTH DAKOTA.)	

COMES NOW NorthWestern Energy, by and through its attorney of record, and makes this Response to Commission Staff's proposed Scope of Services provided by Expert.

NorthWestern has no position on the expert Staff desires to consult. NorthWestern opposes the proposed scope of services as being beyond the scope of the statutory authority of the Commission under the Pipeline Safety chapter, 49-34B, and opposes any plan for testing in which Staff's expert is allowed to control or dictate the manner of testing, or perform the tests.

Please make no mistake, NorthWestern expects and welcomes the participation of Staff and its expert in investigating whether NorthWestern complied with the pipeline safety laws and regulations, and in outlining the testing procedures intended to be agreed upon by all parties and presented to the Commission. The proposed scope of services, and communications surrounding it, lead NorthWestern to believe that Staff seeks to go beyond its statutory mission in investigating compliance with the pipeline safety laws and regulations.

Earlier this year, an explosion and house fire occurred in Mitchell, South Dakota. In the course of the emergency response to the fire, it was determined that a section of NorthWestern's underground natural gas distribution line had become cracked. The portion of the gas line which contains the crack has been removed and is being stored at NorthWestern's facilities in Huron. The explosion caused property damage to several homes in Mitchell, but there were no alleged personal injuries as a result thereof.

There are several Intervenors in this docket. Some of those Intervenors represent the Mitchell home owners and their insurance companies. Others represent parties who were involved in an excavation at the site prior to the explosion. Because those Intervenors are potential parties in potential future litigation, they have intervened in this matter as interested parties, to the extent that the Commission's permission is required in order to alter (for destructive testing) the portion of the NorthWestern pipeline which contains the crack. SDCL 49-34B-26. No civil litigation has yet been filed. However, because several parties have claimed damages, involved their insurance companies, and hired attorneys to represent them, it is thought to be likely that litigation will ensue.

The Commission is charged by statute with administering a pipeline safety inspection program. SDCL § 49-34B-3. The Commission has also been given rulemaking authority to establish pipeline safety standards not more stringent than federal safety standards for the intra-state transportation of gas and gas pipeline facilities. SDCL § 49-34B-4. The pipeline safety

chapter requires persons who engage in the transportation of gas or own or operate gas pipeline facilities to comply with the requirements of the standards established by the Commission. SDCL 49-34B-5. Furthermore, the Commission may require any person who engages in the business to file a plan for inspection and maintenance of facilities owned and may determine, in the event the plan is found inadequate, to require the plan to be revised. The Commission is also directed to encourage and promote programs designed to prevent damage to natural gas pipeline facilities. SDCL § 49-34B-8.

Most important perhaps, is the statutory direction that any person who engages in intrastate transportation of gas, or who owns or operates facilities, shall establish, maintain and provide such records, reports and information as the Commission may require to determine whether the person has complied with the provisions of this chapter and the standards established under it. Any such person shall, upon request of an employee or agent authorized by the Commission, permit the employee or agent to inspect facilities, books, papers, records and documents relevant to determining whether the person has complied with this chapter and the standards established pursuant to it. Any employee or agent of the Commission, upon presenting appropriate credentials to the individual in charge, may enter upon and inspect gas pipeline facilities at reasonable times and in a reasonable manner. SDCL § 49-34B-7. The Commission may impose civil penalties after notice and opportunity for hearing upon a person violating any provision of the chapter or any rule promulgated pursuant to it. SDCL § 49-34B-12.

Herein lays the potential problem faced by the parties to the docket, NorthWestern and the others. Statute lays out the role of the Commission in setting standards and in enforcing them. However, it is abundantly clear that there is no provision in the pipeline safety chapter or anywhere else which gives the Commission power to determine fault or liability for damages ensuing from the pipe failure. To the extent the Commission would hold a hearing or seek to lay blame for the failure, whether on NorthWestern, one or more of the Intervenors, action would exceed the jurisdiction of the Commission and taint the subsequent litigation, could result in inconsistent rulings, could spoil or ruin the evidence to be presented in a civil action, and would certainly create unnecessary expense for the Commission and the parties.. Neither NorthWestern nor the Intervenors should be subject to two trials on the ultimate issues relating to liability in this matter.

Commission staff has made plainly evident its desire to have its own expert perform destructive testing on the failed pipe. Commission staff somehow has determined that its need to test the pipe in a destructive manner outweighs the needs for the same of the other parties to this docket in litigation. Namely, to have the pipe tested to determine whether it yields evidence tending to show that a particular person is liable at law for the damages which occurred. The Commission is not empowered to determine that, whether for itself or the parties to the docket.

NorthWestern is concerned that the Commission staff wishes to hire its own expert (at NorthWestern's expense) to determine not only compliance with the pipeline safety regulations but also why the pipe failed, the latter determination is not a factual issue for the Commission's resolution. As discussed above, the Commission merely needs to ascertain whether NorthWestern complied with the pipeline safety standards in statute and rule. A determination

of the ultimate liability for the damages caused by the failure is rightly for the courts and not the Commission. NorthWestern urges the Commission staff to take the same role accepted and adopted by other regulatory commissions, which is to allow the pipeline owner to conduct the tests upon the pipe which is property of the owner, to observe those tests in concert with the known parties to the potential proceedings, and to receive the results of the tests in due course.

Commission staff was invited, along with the other known potential parties to litigation, to have its particular expert, advisor or witness examine the pipe, either photographically or in person and determine each party's particular requirements for testing, for ultimate use in litigation. See the attached letter of July 30, 2007. While it is statutorily clear that neither staff nor the Commission have any role in the potential litigation, past that of perhaps witnesses, staff has gone well past the corners of the NW proposal of July 30th. Staff has somehow determined that its need for the destructive testing of the pipe is superior to that of any of the parties, and that staff's witness necessarily will not only participate with others' experts, but also will assume the lead role in the testing process. NorthWestern objects to that.

With respect to the proposed scope of services offered by Commission staff, it is NorthWestern's position that the plan, if it is one, is too detailed and sets forth unnecessary tests given the nature of the failure. NorthWestern would urge the Commission staff to identify the specific and appropriate tests which it feels are necessary in order to determine whether NorthWestern has complied with the pipeline safety standards and forward them to be considered along with the input gained from the other parties to develop a testing plan which prejudices the rights of no one, neither NorthWestern, the other injured parties, the Commission staff or the general public.

Dated this 28 day of August, 2007.

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BY: 

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CERTIFICATE OF SERVICE

I hereby certify that the above Response was served electronically upon the following on the 28 day of August, 2007 by emailing a true and correct copy thereof to them at their last known electronic addresses, to-wit:

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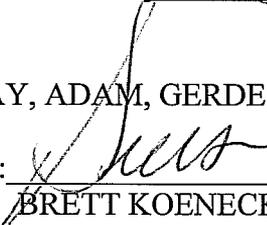
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RE: In the Matter of the Filing of the Investigation of the Natural Gas Incident of March 8, 2007, in Mitchell, South Dakota
PS07-002
Our File: 0230.09

Dear Folks:

This letter regards the docketed matter known as PS07-002 before the Public Utilities Commission involving the gas pipeline failure in Mitchell. I note that some of you are parties to that proceeding, and others of you are apparently interested in some fashion, due to your having been copied on the filings made recently.

As you know, state law makes it a felony to alter, dispose of or destroy the pipe until the Public Utilities Commissioners have entered an order allowing for the same to be done. It is certainly NorthWestern's intention to seek a Commission order allowing exactly that in the near future. I presume that most if not all of you share that intention. NorthWestern would like to present the Commission with a stipulation among us, in the form of a plan for the examination and testing of the pipe, with the expectation that the stipulation would become the essential backbone of the Public Utilities Commission's order allowing the testing and destruction.

Sandra Hanson and I have discussed a manner in which that could happen without giving undue prejudice to any of the parties. We would propose that the parties agree that any party could

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have its expert or agent examine, without altering, the pipe at the NorthWestern offices in Huron, upon reasonable notice being given to the folks there so that they will be available and on hand for the examination, up to and including August 31st.

After that we would think that within two weeks, perhaps by September 12th or the 15th, the parties would submit to each other their proposed plans and requirements for further testing of the pipe, which I would anticipate would be destructive in nature.

We would then schedule a conference call to be held among us sometime before the end of September to see if agreement could be reached on how to proceed. I would expect that the parties could agree on the specifics of the plan for that destructive testing. Either way, then we would ask the Commission to put this matter on its agenda to be heard, in order to determine a final plan for destructive testing.

If we can agree that such a plan is workable, drop me a letter indicating your agreement. If not, let's schedule a conference call and see what we can get hammered out.

Finally, the Commission exercises some judicial functions in the course of performing its duties pursuant to Code. Our state Supreme Court has said on several occasions that the Public Utilities Commission is not a court and may not exercise judicial powers past those granted by the legislature. It seems clear that the facts of this matter won't be and shouldn't be either tried or determined by the PUC. That should be and likely will be done in the courts. I'm not sure what anyone else's intentions are in that regard but I think it's fairly clear that the Commission's investigation process will not result in anything other than a report which is discoverable and admissible pursuant to SDCL § 49-34B-21.

If you have questions or concerns, of course, don't hesitate to call. I look forward to hearing from you.

Very truly yours,

MAY, ADAM, GERDES & THOMPSON LLP



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Proposed Scope of Services

Contractor agrees to provide consulting services to the Staff of the Commission in the following Commission Docket: PS07-002, In the Matter of the Investigation of the Natural Gas Pipeline Incident of March 8, 2007 in Mitchell, South Dakota.

Contractor shall be responsible for the laboratory examination of the 50-5/8" length of 2-5/8" OD natural gas main containing a circumferential crack removed from Northwestern Energy's distribution system in front of the house at 1612 Bridle Drive, Mitchell, South Dakota. The section of main was removed from that location on March 8, 2007 following an explosion and fire resulting in damages estimated to be less than \$500,000.00.

Contractor shall perform such examinations and tests that are necessary to determine the cause or causes for failure of the pipe. Such examinations and test may include but are not limited to the following.

- Background information
- Visual and non-destructive examination
- Physical measurements
- Corrosion examination
- Fractography examination
- Metallographic examination
- Mechanical properties

Contractor shall gather the appropriate available background information regarding the pipe. Such information may include but not be limited to the following: overview of the failure site including local topography; overview of pipe failure area; operating conditions of service; prior test history; vintage and origin of pipe; photographs from the site and of the specimen shortly after removal.

Contractor shall perform visual and nondestructive examination of the pipe in the "as-received" condition before initiating the metallurgical analysis. Documentation may include the following:

- Fracture area and surface
- Seams
- Girth welds
- Coating condition
- Anomalies
- Manufacturing flaws or defects
- Pitting and/or evidence of corrosion on internal and external pipe services.

Contractor shall perform visual examination of the internal and external pipe surfaces in the "as-received" condition and document any anomalies that may be present in the pipe such as the following:

- Cracks
- Crevices
- Dents

- Bends
- Buckles
- Gouges
- Manufacturing defects
- Wrinkles, tents or damage to the coating
- Pitting and/or evidence of corrosion on internal and external pipe surfaces
- Presence of corrosion products and/or deposits□
- Describe coating, and coating damage (disbonding) if any, in the vicinity of fracture origin and at other locations in the failed pipe sample
- Describe any internal coating or linings (if used)
- Examine the pipe sample surface for evidence of stress corrosion cracking
- Examine for evidence of arc burns, excessive grinding around the surface area near the crack
- If corrosion is evident, collect corrosion products for analysis

Contractor shall collect solid and liquid samples, if present, from the pipe surface, and conduct elemental analysis and microbial tests on these samples, as appropriate.

Examples of samples that may be collected are, but not limited to, the following:

- Liquid accumulated underneath the coating. If not enough liquid is present for collection, consider using pH paper to characterize pH.
- Corrosion products and/or deposits from the internal and external surfaces of pipe surface
- Soil adhering to the pipe

If coating is to be removed, it should be removed in a manner that will not be injurious to the pipe. Photographically document and visually inspect the pipe again following coating removal. Note any disbondment or possible adhesion problems with coating.

If it is necessary to inspect the failed section of pipe for cracking, stress corrosion cracking, or any other condition that could affect the long term integrity of the pipeline using nondestructive testing techniques. The surfaces of the pipe surrounding the rupture should be cleaned with an appropriate non-abrasive cleaner and subsequently inspected using a wet fluorescent magnetic particle inspection (WFMT) method. The WFMT method is preferred because internal and external defects can be readily identified. Other nondestructive examination techniques such as Fluorescent Penetrant, Radiographic, Eddy-Current, Ultrasonic Inspection, and Alternating Current Potential Drop may also be used.

The physical location of all samples to be removed from the pipe for examination and metallurgical analysis shall be documented such that all relevant features are visible (graphically and/or photographically).

Contractor shall take appropriate physical measurements of the pipe to include the following:

- Measure the diameter and wall thickness on undisturbed areas of the pipe to confirm the information provided in the background information.

- Measure the diameter and wall thickness at selected locations to determine actual values at these selected locations. Measure and record the diameter and wall thickness of the pipe at each end of each sample. (Wall thickness should be determined based upon four measurements taken 90 degrees apart.)
- Verify roundness and geometry of pipe at the extremities and closer to the failed surface.
- Measure the wall thickness around fracture surfaces and any damaged areas. If corrosion is identified near or around the fracture surfaces, a “corrosion map” should be produced detailing the extent of the corrosion on the pipe surfaces and the pipe wall thicknesses in those areas. This information may be needed to support remaining strength calculations, if required.
- Align the pipe samples to conform to the pre-fracture bend geometry.
- Determine and mark the location of the electric -resistance weld at each end of each sample.
- Determine whether or not any part of each rupture falls within the electric-resistance weld zone.
- Measure and record the length of each sample.
- Record any markings detected on the inside or outside surfaces of the pipes.
- Measure rupture lengths tip-to-tip.
- Measure the shortest circumferential distance from each fracture origin to the nearest electric-resistance weld.
- Measure the axial distance from each fracture origin to the nearest girth weld, if any.
- Map wall thickness of each sample within 12 inches upstream and downstream of each rupture origin. Measurements will be taken on a 2-inch square grid pattern that is centered on the fracture origin and that encompasses 100 percent of the pipe circumference at each origin.
- Determine depths of cracks using direct exploration (grinding), shear wave ultrasonic testing (UT), Alternating Current Potential Drop (ACPD) or other suitable methods.

Contractor shall examine the pipe for evidence of corrosion. Surface deposits and residues associated with the fracture area and adjacent areas should be collected and analyzed to characterize and determine the origin of the deposits.

Based on the results of the visual, non-destructive, and metallographic examinations, the presence of corrosion should be documented, and the type and characteristics of any corrosion present should be evaluated. Remaining strength calculations (RSTRENG/ASME B31G) may be performed on corroded areas to support the failure investigation.

Contractor shall perform a fractographic examination of the failure surface, which may include the following steps.

1. Visually examine the fracture surfaces in detail to identify the characteristics of the fracture, the nature of the original defect, and the failure initiation point(s). It may become necessary to open the fracture surface in order to conduct part of the examination, and a suitable technique that is dependent upon the particular

circumstances of the failure should be used to open the fracture surface.

2. Clean samples in an appropriate manner (Endox or Citronox solution) to remove loose rust, scale, etc. as necessary.
3. Utilize a suitable method to thoroughly document the fracture surface including dimensional documentation. Suitable methods to document the fracture surface include, but are not limited to, the following:
 - Foil method
 - Photographs of macroscopic examination
4. Remove selected fractographic samples as necessary for detailed microscopic examination using optical or scanning electron microscope. Examine and document the fracture surface morphology. When chevron marks are present on the fracture surface, they typically point back towards the fracture origin in steels with an ultimate tensile strength of 60,000 psi and less. It is important to be able to characterize the fracture surface morphology, and fractures can be classified into four groups on a macroscopic scale, as follows:
 - Ductile fractures
 - Brittle fractures
 - Fatigue fractures
 - Fractures resulting from combined effects of stress and environment
 - Under low magnification under TLM, observe if there is evidence of fatigue, and ridges to indicate application of high pressure, such as due to hydrostatic testing.

Contractor shall perform appropriate a metallographic examination of the failure which may include the following steps.

1. Identify metallographic sample origin (sample identification, location, orientation, etc.), perform metallographic evaluation, and take representative photomicrographs. Areas of particular concern are:
 - At or near the fracture origin
 - Fracture surfaces
 - Weld seams
 - Anomalies
 - Areas with indications of defects or cracks identified through visual and/or non-destructive testing
 - Areas exhibiting “typical” microstructures of the base metal, weld metal, and heat-affected-zone
2. Perform micro-hardness profiles at appropriate locations such as the following:
 - At or near the fracture origin
 - Weld seams
3. Metallographic samples should be examined to characterize and validate any appropriate issues specific to the failure such as:

- Pipe specification, grade, and heat treatment
- Weld seam in area of fracture
- Weld seam in un-affected area
- Corrosion
- Indications of outside force damage

Contractor shall perform appropriate tests to determine the mechanical properties of the pipe. Mechanical properties of test specimens should not be taken from areas of the pipe that have been plastically deformed as a result of the failure. These mechanical tests should at least include the following:

- Tensile testing
- Charpy V-notch testing
- Chemical analysis