

ONE CALL COMPLAINT FORM
South Dakota One Call Notification Board
c/o South Dakota Public Utilities Commission
500 East Capitol Avenue
Pierre, SD 57501-5070
Telephone (605) 339-0529
www.sdonecall.com

1. ACTION REQUESTED BY

Complaint filed by: Individual Company

Person filing complaint: Brett Koenecke

Company: NorthWestern Energy

Address: 503 S. Pierre Street, Pierre, SD 57501

Phone Number: 605-224-8803 Ext: _____

Email Address: Koenecke@magt.com

Date: 1/14/09

* Note if you are filing on behalf of a company, please make sure you have the proper authority to file the complaint.

2. ACTION REQUESTED AGAINST

Name of excavator/facility operator: Arden Lemke dba Lemke Digging and Geo Thermo Drilling

Phone Number: 605-996-6467 Ext: _____

Address: 40374 259th Street, Mitchell, SD 57301

Was a locate requested from SD One Call? Yes No

Locate ticket #: 040840536 Start date on ticket: 03/29/04

Did excavator wait until the start date/time on the ticket before commencing excavation?
Yes No N/A

Buried facilities exposed by hand or non-invasive equipment prior to excavation? Yes No N/A

3. FACILITY INVOLVED (if any)

Type of facility involved: Natural Gas

Operator of facility (if known): NorthWestern Energy

Operator address: 600 Market Street, Huron, SD 57350

Phone Number: 605-353-7462

Depth of cover: 48 inches Pressure 20 psi

Voltage: N/A # of cable repairs: N/A

4. MARKING

Were facilities marked? Yes No N/A

Was the marking complete prior to the start time on the ticket? Yes No N/A

Did the excavator pre-mark with white paint? Yes No N/A

Was the facility marked accurately (within 18 inches)? Yes No N/A

Have you discussed the previous statements with the other party? Yes No
Did the excavator use reasonable care to maintain locate marks for the life of project?
 Yes No N/A

Have you discussed the previous statements with other party? Yes No N/A
Is there agreement? Yes No

If no please explain

5. DAMAGE (if any)

Fatalities None Injuries None Length of hospitalization N/A

Estimated property damage(s) less than \$500,000.00

Number of customers affected approximately 15

Damaged in: Public Private

Photos of damaged facility

Additional information

6. PROBABLE VIOLATION

Specific statute(s) or rule(s) that was violated: SDCL 49-7A-12

Address/location of probable violation: Bridle Drive, Mitchell, SD

Date of probable violation: 03/08/07 Time of probable violation: 11:31 am

Have you discussed this probable violation with the party this action is filed against?

Yes No

Name of party with whom you discussed the probable violation:

Description of probable violation: Lemke was known to have dug in the area and is

Thought to have stuck, damaged and reburied the failed pipe. The cause of the damage was not determined until 2008 when experts for the parties including the PUC met and tested the pipe and the PUC issued a report.

Include other documents or photos with this complaint: Yes No

Signature of Complainant: /s/ Brett Koenecke, Attys for NorthWestern Energy

November 20, 2008

Ms. Patty VanGerpen, Executive Director
South Dakota PUC
500 E Capitol
Pierre, SD 57501

Re: Northwestern Energy Incident – March 8, 2007
Mitchell, South Dakota

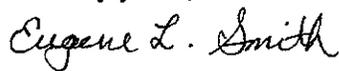
A length of 2-3/8" O.D. steel pipe removed from a Northwestern Energy gas main that leaked at a pressure of 18 psig in Mitchell, South Dakota was sent to Stork Twin Cities Testing for visual examination and laboratory testing. The examination and laboratory testing was performed at Stork on January 16 and 17, 2008 under the direction of Dr. John Kiefner of Kiefner & Associates, Inc. Dr. Kiefner was retained at the request of the South Dakota Public Utility Commission (SDPUC). The testing was performed in accordance with a test protocol prepared by Dr. Kiefner that was agreed to by parties witnessing the testing. A list of the attendees is shown in Table 1. EN Engineering's Eugene L. Smith participated in the examination and laboratory testing.

The following were determined during visual examination of the length of steel pipe:

- the ends were identified as A and B, respectively and the length of the pipe measured 51 inches, no girth welds were found;
- the leak was at a circumferential crack located 28 inches from the A end, the crack was 5-3/4- inches long across the bottom of the pipe (as positioned in the ground); the maximum crack opening was approximately, 3 mm (0.118-in.); 1-3/4" of the circumference across the top was not cracked; a band of external coating, approximately 2-1/4 to 3-inches wide surrounding the crack was missing;
- there were three locations (of varying lengths and distances from the A end) where the pipe external coating was damaged/missing and white deposits formed on the steel; the deposits were checked with an acid resulting in gas evolution indicating they are calcareous deposits (calcium carbonate and bicarbonate) resulting from exposure of the steel to cathodic protection; samples taken from the white deposits were examined by EDS during SEM examination and found to contain large amounts of Calcium further indicating these are calcareous deposits; calcareous deposits form when coating is damaged and steel is exposed to the cathodic protection;

- the pipe was deflected (bent) downward at the crack 28 inches from the A end with a maximum deflection of 11 mm (0.44 inches) in a span of 19-1/2 to 48 inches from the A end;
- based on examination of the ID surface of the pipe and metallographic examination of a ring cut from the B end of the pipe in the unetched and etched conditions it appears the pipe is furnace butt-welded;
- based on a chemical analysis performed on the pipe near the B end, the pipe appears to be butt welded, class II per API 5L, dated Mar, 1955;
- results of a tensile test obtained 34-3/4 inches from the A end indicates the pipe is butt welded, class II per API Specification 5L, dated March, 1955;
- the wall thickness measured (0.162") on the tensile test specimen indicates the pipe is standard wall with a nominal thickness of 0.154"
- circumferential gouges are present along mid length of the fracture, a 1-9/16 inch long gouge is present along the A edge of the fracture and a gouge approximately 2 inches long is present along the B edge of the fracture;
- there were no indications of any pipe steel defects during microscopic examination of the two metallographic specimens taken across the fracture;
- based on the downward deflection in the pipe across the crack, the instances of external coating damage along the pipe, the circumferential gouges at and along the fracture and the absence of any pipe steel defects at the fracture it is concluded the damage to the pipe and the fracture were caused by third party damage.

Sincerely yours,



Eugene L. Smith, P.E.
Chief Metallurgist
EN Engineering

Table 1

List of Attendees

<u>Name</u>	<u>Company / Firm</u>	<u>Dates Present</u>
Kara Semmler, Staff Attorney	South Dakota Public Utilities Commission	January 16, 2008
Nathan Solem, Utility Analyst	South Dakota Public Utilities Commission	January 16, 2008
Daris Ormesher	South Dakota Public Utilities Commission	January 16, 2008
Dr. John F. Kiefner, P.E., Advisor	Kiefner & Associates Inc	January 16-17, 2008
Eugene Smith, P.E., Engineer	EN Engineering	January 16-17, 2008
David J. Kramer, P.E., Engineer	Crane Engineering	January 16, 2008
S. N. Bhatt, P. E., Engineer	MEM Engineering	January 16, 2008
Larry D. Hanke, P.E., Engineer	Materials Evaluation and Engineering Inc	January 16, 2008
Richard Kielty, P.E., Engineer	Stork Twin City Testing	January 16-17, 2008
Lawrence "Bud" Eastman, CFI	Fire Check Inc	January 16, 2008
Roy Wise	Richardson Law Firm	January 16, 2008
Paul Linde	Shaffer Law Office	January 16, 2008
Jeffrey M. Baill, Attorney	Yost & Baill LLP	January 16, 2008