



Dustin Johnson, Chair  
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## **SOUTH DAKOTA PUBLIC UTILITIES COMMISSION**

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August 12, 2009

Ms. Patricia Van Gerpen  
SD Public Utilities Commission  
500 E. Capitol Ave  
Pierre, SD 57501

RE: New Docket – SDIP Compliance Issues

Dear Ms. VanGerpen:

On a recent site visit and inspection, I became aware of pipeline safety compliance issues on the South Dakota Interstate Pipeline (SDIP) system. Please open a pipeline safety docket to facilitate commission consideration and action regarding said items.

### **I. FACTUAL HISTORY**

On August 21, 2008 at a regularly scheduled pipeline safety inspection at SDIP I noted several flange stud bolts at the regulator station less than flush with the nut. I noted the issue in my inspection report and recommended the flanges be fixed. October 31, 2008 was the stated corrective action due date. SDIP did not object either in writing or in person to my findings or the recommended corrective action. On April 2, 2009, in correspondence with SDIP, it was admitted the correction was not yet made and an extension was requested. The corrective action due date was extended to July 31, 2009. Again, SDIP did not object to my findings or recommended action. All referenced correspondence with SDIP is attached as Exhibit A.

### **II. CURRENT FACTS**

On August 11, 2009, I inspected an SDIP regulator station in Mina, SD. I was on-site to observe the internal corrosion direct assessment (ICDA) process. While I was on site, it became apparent from observation and from conversation with Mr. Gordon Woods that the corrective action regarding short bolts was not done. He stated that the bolts had been purchased but he had not had time to install. At no time in previous reports or correspondence did Mr. Woods dispute my recommendation regarding the stud bolts but he now questions the validity of the recommendation.

### **III. LAW AND GUIDANCE**

49 CFR Part 192 incorporates ASME standard B16.5-2003 entitled "Pipe Flanges and Flanged fittings" states in a footnote in Annex D - Bolt Lengths: (Annex D is attached as Exhibit B)

2 The equations used in this Annex are for calculated bolt lengths established to ensure full thread engagement of heavy hexagon nuts when worst case tolerances occur on all relevant dimensions of the flanged joint. The use of shorter bolt lengths is acceptable provided that full thread engagement is obtained at assembly (see para. 6.10.2).

An Office of Pipeline Safety training specialist taught me, in the course of my training, to check for short stud bolts when conducting inspections. Guidance materials from The American Gas Association's Gas Technical Committee for 49 CFR 192.147, Part 2, Flange Accessories, paragraph (g) states, "For all flange joints, the bolts or stud bolts used should extend completely through the nuts (see Exhibit C). SDIP's stud bolts do not extend completely through the nuts as can be seen in the following photographs.



#### IV. RECOMMENDED ACTION

Based both on SDIP's failure to reply to initial inspection reports and on the incorporated American Gas Association materials, I recommend the Commission assess a \$50.00 fine for SDIP's non-compliance when it failed to replace the short stud bolts. I also recommend the Commission order SDIP to replace said stud bolts.

Sincerely,

*Nathan D. Solem*

Nathan Solem  
Acting Pipeline Safety Program Manager  
South Dakota Public Utilities Commission

attachments