

JOHN N. HUGHES
Attorney at Law
Professional Service Corporation
124 West Todd Street
Frankfort, Kentucky 40601

Telephone: (502) 227-7270

Email: jnhughes@johnnhughespsc.com

June 29, 2015

Mr. Jeff Derouen
Executive Director
Public Service Commission
211 Sower Blvd.
Frankfort, KY 40601

Case No. 2015-00169

Dear Mr. Derouen:

In response to the staff's telephone request on Friday June 26, 2015, the following information is provided to supplement the application:

Originally chlorine was fed as a gas when the first pumping station was built in 1963 using a small chlorine storage and feed building. A second building was later built in 1993 to house the one-ton cylinders when the second pumping station was built. The District converted to liquid sodium hypochlorite in 1998 by retrofitting tanks and pumps into these two existing buildings. The newer building currently contains two large tanks for storing the sodium hypochlorite in bulk, and the other original 1963 chlorine building houses the smaller "day" tanks and chemical feed pumps. After experiencing problems with the original buried conduit between the bulk tanks and the day tanks, new buried PVC conduit was installed around 2000 to transfer the chemical between the two chemical storage buildings. The following leaks have occurred on the existing chlorine storage and feed system (these records are available since 2008 when work order system was implemented):

4/20/2015 - repaired leak on transfer line on top of day tank

3/5/2015 - repaired leak on piping supplying pump

12/2/2014 - solution tube in the 1040 pump building was clogged, which in turn, built up pressure and dumped into the containment through the relief. Chemical had to be pumped out of containment and disposed.

6/13/2014 - leak on degassing line 1040 pump station

3/21/2014 - leak on degassing line 1080 pump station

7/24/2013 - suction side piping to 1080 pump station broke and filled containment

4/15/2013 - leak on underground pipe to 1080 pump building, replaced 8' this is part of old Cl gas line

3/21/2013 - leak on underground pipe to 1040 pump building, replaced 2' of old Cl gas line

1/8/2013 - bulkhead fitting on day tank plus fitting in bottom cracked

12/4/2008 - underground line to 1040 pump building broke, replaced 3'

10/20/2008 - leak on underground pipe from bulk tank to day tank

6/9/2008 – day tank level sensor went bad and spilled into containment area

Chemical containment in the modified buildings is not adequate to properly contain all of the spills that may occur. The following spills were not able to be contained:

1/10/2013 - transfer pump head split and drained bulk tanks into containment, containment leaked to the outside of building

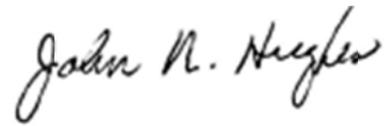
10/17/2006 – day tanks leaked to the outside of building when level sensor failed and transfer pump did not shut down upon filling day tank

The original 1963 chlorine building will be demolished as part of this project and all existing buried chemical feed piping will be abandoned and replaced with new piping. The newer 1993 building will have the large chemical storage tanks removed by District staff and it will be re-purposed as maintenance storage for items such as pumping parts inventory.

The new building will have facilities for containing and detecting spills that may occur from a broken pipe or other failure. The containment area will have a sensor to detect a spill, the storage tanks will have high level alarms and levels sensors to detect a rapid drop in tank level associated with a loss of chemical, and pressure gauges will be installed on pumped feed lines to detect high pressure from a clog that may lead to over pressurization and bursting as well as loss of pressure from a leak. These alarms will be connected to the SCADA system for remote monitoring of the status of the chlorine system.

Please let me know if additional information is needed.

Very truly yours,

A handwritten signature in black ink that reads "John N. Hughes". The signature is written in a cursive style with a large, prominent initial "J".

John N. Hughes

Attorney for Northern Kentucky Water
District