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February 19, 2003

Mr. Greg Koonce, Esq.

Attorney at Law

McKINLEY & SMITH

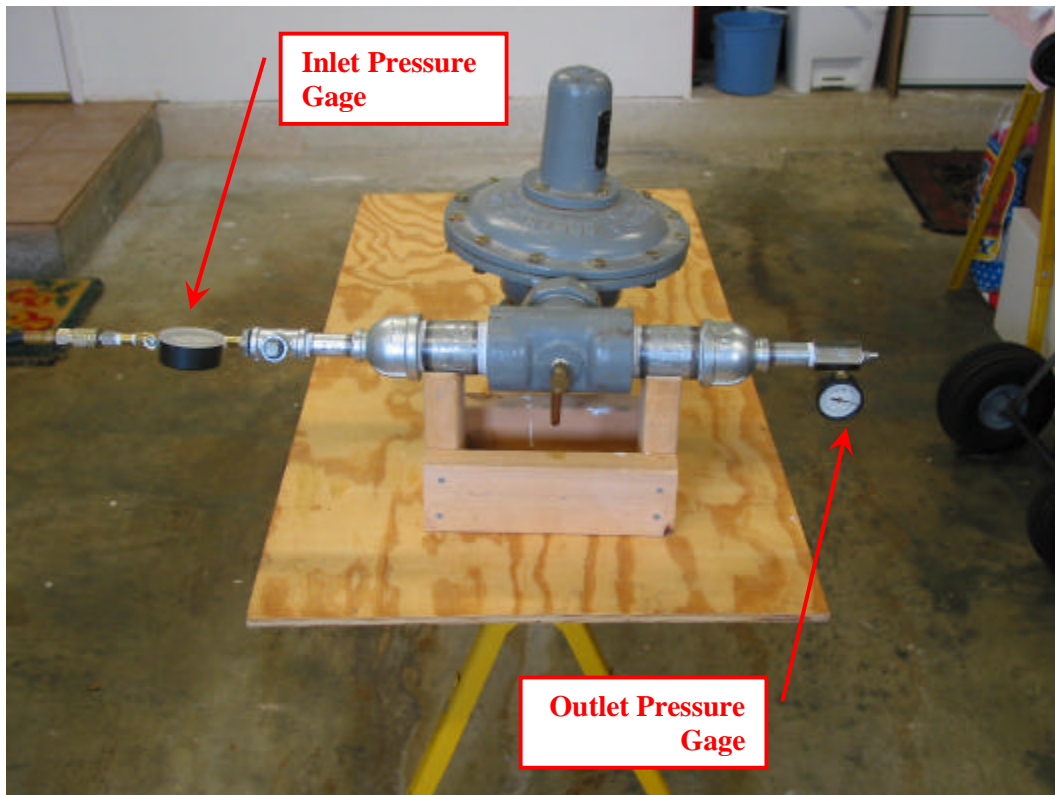
3445 American River Drive, Suite A

Sacramento, California 95864-5743

Re: California Hydronics vs. Kirkwood Mountain Utilities

Dear Greg:

Please accept this letter as a response to your request for a report on my testing & inspection of the Fisher regulator involved in the explosion at Kirkwood Mountain Utilities that is the basis for the referenced litigation. Not knowing the condition of the regulator settings, on November 11th of 2002, I initially tested the regulator with 250 psi gages. These gages lacked the sensitivity to accurately measure the low pressure setting of the regulator. On November 12th of 2002 I then switched these gages for a 60 psi gage on the inlet side and a 30 psi gage on the outlet side. I did not connect the downstream control line connection because I did not know if it was connected at the time of the incident and I did not want to alter the condition of the regulator in any way. The test setup I used is shown in the following photograph.



At 14 psi inlet pressure the outlet pressure was 6.5 psi. At 38 psi inlet pressure, the outlet pressure was 7.0 psi. Under both test conditions the outlet pressure gage fluctuated between 4 and 7 psi initially and then stabilized. Digital movies of the operation of the regulator during these tests are shown on the CD that I sent to you (see files "100-0067_MVI – Variation in Outlet Pressure" and "100-0071_MVI – Variation in Outlet Pressure - Test 5"). These files can be viewed with Windows Media Player or similar digital media software on your computer.

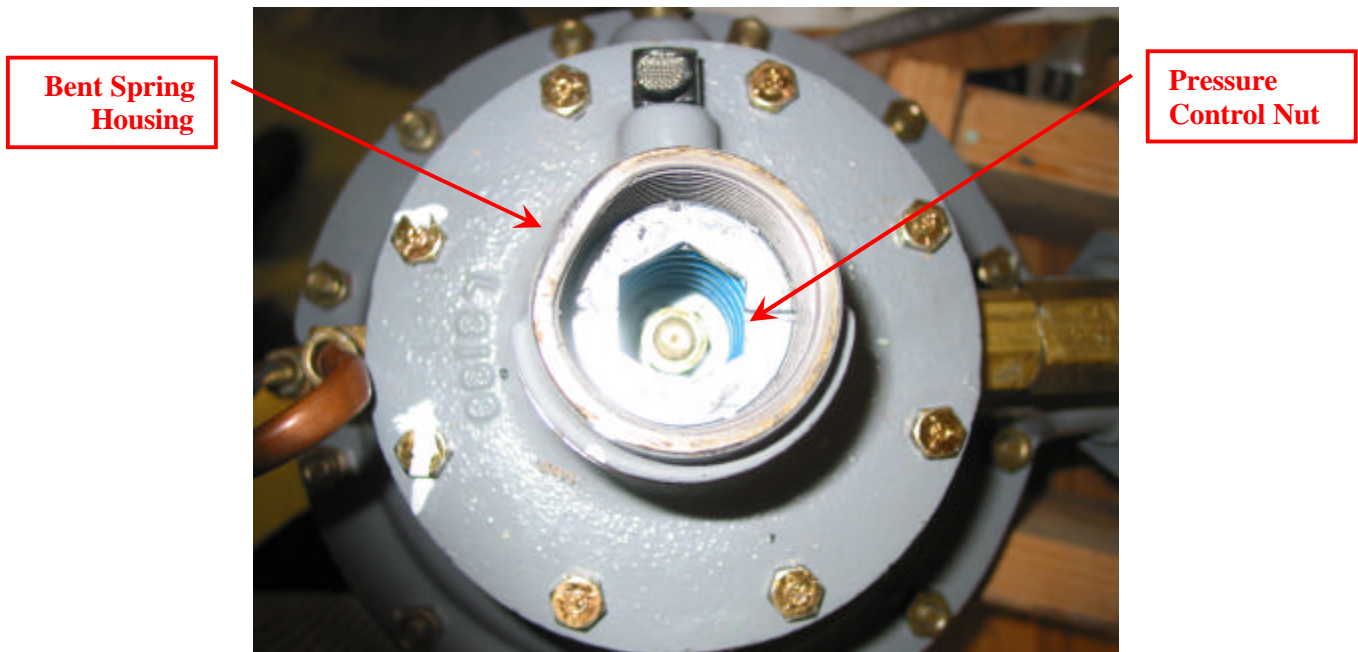
On January 14th of 2003, I monitored the testing of an exemplar regulator as well as the incident regulator at Aptech Engineering, Inc., 1253 Reamwood Ave., Sunnyvale, CA. The test setup for the incident regulator at Aptech is shown in the following photograph:



The initial test setup had a downstream control line connecting the regulator to the outlet pipe. For inlet pressures between 25 psi and 125 psi the outlet pressure was steady at an average value of 4 ½ psi for flow rates from 0 cfh (cubic feet per hour) to 600 cfh. When the downstream control line was removed and the inlet pressure held constant at 100 psi, the outlet pressure peaked at 12 psi and then dropped to a steady 4 ½ psi at 0 cfh. When gas flow was started, the outlet pressure cycled between 2 psi and 6 ½ psi and the flow rate cycled between 50 cfh and 125 cfh. As the gas flow was increased, the outlet pressure cycled between 0 psi and 8 psi and the flow rate cycled between 50 cfh and 500 cfh. A digital movie of the cyclical flow rate and pressure caused by the disconnected downstream control line is shown on the enclosed CD (see the file entitled "MVI_0091 – No

Downstream Control Line Test”). When the gas flow was stopped at the end of testing without the downstream control line, the pressure peaked at 11 psi and dropped slowly to 5 psi.

Finally, the exemplar regulator’s pressure control spring housing was damaged between the time I tested the regulator on November 11th of 2002 and the time it was tested at Aptech on January 14th of 2003. It appeared to have been damaged during shipping. This damage did not appear to affect the operation of the regulator in any way. This damage is shown in the following photograph:



On January 16th of 2003 I inspected components of the exhaust flue, the gas-control valve train for the burner, and the gas-control valve train for the pilot attached to the incident boiler at California Hydronics, 2293 Tripaldi Way, Hayward, CA. Details of the individual components are shown in photographs on the enclosed CD. Both valve trains are downstream from the Fisher regulator and upstream from the incident boiler, and the actual explosion occurred in the flue which is downstream from the boiler. No testing of these components was allowed during this inspection. A general overview of these components are shown in the following photographs.



Burner Gas-Control Valve Train



Pilot Gas-Control Valve Train



Flue Components

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If you have any further questions or concerns regarding these matters or I might help you in any way, please do not hesitate to call me.

Sincerely,

W. Charles Perry, M.S., P.E.
Principal Engineer