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Sent: Wednesday, October 17, 2018 11:28 AM
To: El-zoghbi Muhamed
Subject: PLD18MR003 -- Merrimack -- Regulator Risk Program from DIMP 7.2.3

Here is what the Ma M&R Group is doing re risk assessment as it is covered in the DIMP

7.2.3 Regulator Model Evaluation
This evaluation process uses Company personnel field experience and knowledge to help Field Engineering and System Operations assess and prioritize the risk associated with regulator stations. This process helps allocate capital for replacement projects and also drives recommendations for consideration of other risk mitigation activities.
This process was implemented in Columbia Gas of Massachusetts during 2011 and 2012. During implementation, all proposed station data was reviewed and validated with Field Engineering, System Operations, and System Planning. Multiple team reviews were performed to ensure the data properly reflected the relative risk ranking of the stations as compared with previously identified project listings.
The ranking model is updated annually. After each update, System Operations and Field Engineering meet to discuss the latest model revision. During the discussion, capital projects or mitigation actions are developed for the top ranking projects.
The model evaluation is based on a number of factors, each of which are assigned a point weighting, and are used to calculate a relative risk score. These factors are:
(a) Capacity
a. Customer growth
b. Poor regulator performance
c. 100% Capability
(b) Labor
a. Bypassing required
b. Remote location
(c) Environmental, Health & Safety
a. Confined Spaces
b. Potential unsafe work area
c. Potential pipeline exposure to hazardous liquid(s)
d. Potential soil exposure to hazardous liquid(s)
e. Potential exposure to hazardous material(s)
f. Risk of vehicular damage
g. Potential for flooding in flood zone
h. Historical Submerging of Vault
(d) Design
a. Obsolete equipment
b. Excessive noise
c. Primary relief valve(s)
d. Restriction to modification of setting
e. System lacks redundancy
f. Station lacks redundancy

g. Non-standard set/ Improper materials
h. Pre vs Post Code
i. Meets current design criteria
(e) Misc
a. Poor Gas Quality
b. Leakage
c. Atmospheric Corrosion
d. Facility Security
e. Vandalism
f. Historical Reliability
(f) Station component failures
a. Internal freezing
b. External freezing
c. High maintenance history
d. Large customer loss
e. MAOP excursion
f. Critical Station Parameters
g. Special needs customers
h. Potential customer loss downstream
More details on can be found in the Regulator Model Evaluation file, under the tabs labeled “Definitions” and “Tables.”

The Regulator Model Evaluation file is, therefore, a tool which measures the relative risk of our regulator stations, and directs the attention of engineers and operators to those regulator stations that offer significant risk reduction opportunities. Once Field Engineering and System Operations identify those regulator stations, they take ownership of the corresponding projects to address these stations.

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