

Integrity Pressure Testing

Here is just one of the many hazards we must address during Construction. We must respect of the amount of stored energy during the integrity pressure testing - hydro testing and especially pneumatic testing we perform. Proper safe distance must be maintained depending on the amount of stored energy. Also, let us not become complacent when we see the same hazards every day – think about “what if” situations in our work, whether it is in the field or in the office.

This incident occurred 4 May 2011 on a pipeline project during a hydro-test of new piping.

The fabrication, consisting of 24" sch. 30 (.562 wall) pipe & fittings, was in the process of being hydro-tested when the failure occurred. There was approximately 80 linear feet of piping included in the test. The piping was to be pressurized to 2160 psi. When the test pressure reached 1740 psi, there was a loud noise, similar to a gunshot.

4 of workers were impacted by the water pressure release. Two were thrown under a truck – One received a bad contusion on his head when he hit the under-carriage of the truck, and the other worker received a severe laceration to his cheek. A third worker lost several teeth when he was hit in the mouth by test equipment which was propelled by the rush of water. Luckily, the fourth worker was not injured.

This is a very sobering situation considering the number of hydro tests we administer during Construction. It is very easy to get lulled into a false sense of security after looking at hundreds of hydro & pneumatic tests. It is easy to begin thinking, “I've looked at a thousand tests - nothing's going to happen...” It is easy to become complacent with hazards you have in your job every day.

