

## **Leaks from Buried Pipe, Pre-Initiative**

The Nuclear Regulatory Commission's (NRC's) Buried Piping Action Plan requires that the NRC monitor the effectiveness of the Industry's Underground Piping and Tanks Integrity Initiative. As part of that process, Milestone 1-9 of the Buried Piping Action Plan requires that the NRC determine an event rate (number of events per year) prior to implementation of the initiative and compare that to the event rates during implementation of the initiative and once the initiative is fully implemented. Based on the Commission's direction to not change how the reactor oversight process addresses leaks of radioactive material for individual plants, it is the NRC's current intent that this information will be used to assess whether the initiative is being implemented in a "committed and enduring fashion" on an industry-wide basis.

For the purpose of this inquiry, and as a result of consultation with stakeholders, the NRC has determined: that the initiative began in 2010 and will be fully implemented by 2015; that an "event" is a leak from a buried or underground pipe which is safety related, or contains radioactive (licensed) material, or hazardous material; and that the operating experience database (EPIX) database maintained by the Institute for Nuclear Power Operations (INPO) is the best source of data for making this determination. One complicating issue in conducting this inquiry is that the buried pipe degradation reporting requirements for the EPIX data base changed substantially in 2009. Reporting requirement changes were sufficiently significant that data from 2008 and prior are not comparable to data from 2009 and later.

Given that implementation of the initiative began in 2010, the NRC has determined that the only data available which are suitable to determine the pre-initiative leak rate are those contained in the EPIX data base for the year 2009. In a query of the data base in mid October 2012, the NRC identified 19 leaks meeting the above criteria. This number is slightly higher than was obtained in a similar query in March 2012 indicating that data for "old" events are still being entered into the database.

Based on the above analysis, it is the NRC's intent to use 19 events as the pre-initiative leak rate unless that number is modified by future entries into the database. This pre-initiative number will be compared to similar numbers obtained during and following the implementation of the initiative as described above.