

## **Q&A – State Data Center, May 2005**

**Question: The new data center computer room has a water fire suppression system. Why wasn't an FM200 clean agent fire suppression system specified?**

Answer: There are a number of reasons for not specifying an FM200/HFC227 fire suppression system. Here are a few:

1. The water fire suppression system specified is a double interlocked dry pipe system. This is a modern system in which there is no water in the pipe until a sprinkler head is fused. The system will require two alarms being turned in as well as a sprinkler head being fused (or one alarm and a sprinkler head being fused) in order to activate. In either case, there will be an alarm turned in prior to sprinkler activation. This would give properly trained and equipped personnel time to activate the EPO (emergency power off) switch and/or fight a fire with fire extinguishers. Only the sprinkler head that has been fused by heat will release water.
2. There are three clean agent systems which could be used: FM200/HFC227, Inergen, and Novac 1230. Mazzetti & Associates, the engineering firm designing the new data center, prefers to specify Novac 1230 due to its higher NOAEL (No Observable Adverse Effects Level) margin of safety. They calculate the Novac 1230 margin of safety at 67 – 150 percent and the FM200/HFC227 margin of safety at 3 – 20 percent.
3. FM200/HFC227, Heptaflouoropropane, is listed as a greenhouse gas in the Kyoto Protocol, though it is not banned.
4. A water fire suppression system is required by the city of Salem. This is common in many if not most jurisdictions. Any clean agent system can be installed, but it is in addition to a water system, not a replacement for a water system.

Link to state data center Tier III certification information:

[http://www.das.state.or.us/DAS/IRMD/cnic\\_TierIII\\_announce.shtml](http://www.das.state.or.us/DAS/IRMD/cnic_TierIII_announce.shtml).