



INPO Classifies Overpower Condition as Significant

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INSTRUCTIONS: *Please share the following information with your employees as soon as possible.*

The Institute of Nuclear Power Operations (INPO) determined April 6 that an overpower condition on Byron Unit 1 is a "significant event," and that Byron Unit 2 and both Braidwood units were also affected.

In 1999, Braidwood and Byron stations began implementing an ultrasonic flow measurement system known as AMAG. The purpose for using this technology was to maximize the accuracy of the feedwater flow measurement, which is a factor used in a calculation to determine reactor power.

When this technology was first used at Byron, the maximum power output was greater than that achieved by Braidwood using the same technology. This difference was not expected because the Byron and Braidwood units are identical. Exelon, vendor and independent technical experts performed multiple evaluations to understand this difference.

After these exhaustive reviews and testing, Exelon confirmed that the AMAG system was providing incorrect data and all four units had been operated above their licensed power level. The worst case overpower condition occurred on Byron Unit 1 where power levels were as high as 102.6%.

Exelon has suspended the use of the AMAG ultrasonic flow measurement system. The technical root cause of the incorrect flow measurement remains unknown. The vendor, with the support of Exelon and other industry users, is working to determine that root cause.

INPO defines a significant event as one that has the potential to cause an appreciable reduction in plant safety or reliability. While Exelon has confirmed that the overpower conditions did not exceed the safety analysis criteria for the four units, it has implemented and continues to implement corrective actions to ensure that all decisions are conservative and properly focused on-plant and personnel safety.

Exelon Nuclear senior management is reviewing how this event might impact the Exelon Nuclear incentive programs. Any decision will be communicated once it is final.

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