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DEFICE OF ADMINISTRATI

Chief, Rules and Directives Review Branch United States Nuclear Regulatory Commission Washington, D.C. 20555

Subject: Comments On Proposed Generic Communication: NRC Generic Letter; Analog-to-Digital Replacements Under the 10 CFR 50.59 Rule, 57 FR 36680, Dated August 14, 1992

Gentlemen:

Toledo Edison (TE), a subsidiary of Centerior Energy, is partial owner of and is responsible for operation of the Davis-Besse Nuclear Power Station (DBNPS). Toledo Edison has been authorized for power operation of the DBNPS since April 1977. As a 10 CFR 50 licensee, TE has a vested interest in any policies the NRC may adopt which can affect the management and operation of a commercial nuclear power plant.

Toledo Edison has reviewed the proposed NRC Generic Letter, published in the Federal Register on August 14, 1992 (57 FR 36680), entitled "Analog-to-Digital Replacements Under the 10 CTR 50.59 Rule" and has the following comments regarding this issue.

The proposed generic letter will prove to be counterproductive to industry efforts to upgrade existing analog systems. The generic letter suggests a lack of confidence in licensees' ability to thoroughly consider some aspects of analog-to-digital upgrades when performing unreviewed safety question determinations. As a result, the Staff considers all digital upgrade modification of safety related systems to be unreviewed safety questions, but offers no definition or criteria by which the industry or the NRC can reach a conclusion. This appears to circumvent the rulemaking process by denying licensees the option of following the existing 10 CFR 50.59 regulation.

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In the proposed generic letter, the Staff raises a number of concerns. As stated in the Federal Register notice, the most notable of these concerns involves the use of software. Digital technology is fundamentally no more complex than existing hardwired technology. Whereas existing analog systems are typically modified via hardware changes, digital technology provides flexibility through the ability to modify systems by software changes. The challenge is to control and validate software changes with the same degree of formality as hardware changes are currently controlled. Existing design controls have been effectively adapted to the control of software. There is ample evidence of successful integration of digital technology outside the nuclear industry in the aerospace, defense, and chemical industries.

Toledo Edison believes that rather than publishing the proposed generic letter, the Staff should consider publishing specific criteria concerning such issues as diversity, commercial dedication of digital electronics, administrative requirements for software verification, validation, and installation, pre-operational and post-maintenance testing, etc. to be used in the design of digital systems. Digital systems which meet the NRC's criteria should not require further NRC review. If the proposed generic letter is pursued, the NRC should clarify that it is only applicable to protection systems that are required to meet IEEE 279, such as the Reactor Protection System and the Safety Features Actuation System.

Please refer any questions regarding these comments to Mr. Robert W. Schrauder, Manager - Nuclear Licensing, at (419) 249-2366.

Very truly yours.

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