



ABSTRACT

**APPLICATION OF THE INTERNATIONAL GUIDELINES
FOR
MACHINERY BREAKDOWN PREVENTION AT NUCLEAR POWER PLANTS**

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William G. Wendland, P.E.
American Nuclear Insurers
Town Center, Suite 300S
29 South Main Street
West Hartford, Connecticut, 06107-2430 USA
Telephone: 860-561-3433 Extension 302
FAX: 860-561-4655
E Mail: bwendland@amnucins.com

For more than forty years as a specialized branch of the worldwide insurance industry, the nuclear insurance pools have underwritten property damage protection for nuclear facilities throughout the world. At power plants insured by the pools, an enviable record of operational safety has been attained. Nevertheless, electrical and mechanical equipment does break down occasionally. Although these failures do not necessarily compromise nuclear safety, they can cause significant damage to equipment, leading to a considerable loss of generating revenue and causing sizeable insurance losses.

Since insurance companies have a large financial stake in nuclear power plants, their goal is to minimize insurance losses, including the failure of systems and equipment and ensuing consequential damages. To ensure that the insurance risk is properly underwritten, insurance companies analyze loss information, develop loss prevention guidelines and focus loss control activities on those areas where insurance risk is most significant.

This paper provides a chronology of the development of the "International Guidelines for Machinery Breakdown Prevention at Nuclear Power Plants" and describes the results of insurance inspections conducted using these guidelines. Included is a summary of guideline content and of insurance loss experience between 1962 and 1999.