# **American Nuclear Society**

### WITHDRAWN

October 25, 1995 ANSI/ANS-59.2-1985

# safety criteria for HVAC systems located outside primary containment

## an American National Standard

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published by the American Nuclear Society 555 North Kensington Avenue La Grange Park, Illinois 60525 USA American National Standard Safety Criteria for HVAC Systems Located Outside Primary Containment

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> The primary objective of this standard is to set forth minimum requirements for new light water reactor nuclear plants for the design of heating, ventilating and air conditioning (HVAC) systems, located outside of primary containment. It is written to assist design engineers in evaluating and developing HVAC systems necessary for the accomplishment of required nuclear safety functions.

> Other design considerations such as occupational safety including "as low as reasonably achievable" (ALARA) power generation criteria, and property protection may indicate a need for HVAC in areas not specifically covered by this standard. The designer should also consider potential adverse conditions that may result from misoperation or malfunction of HVAC systems.

> Application of this standard requires close coordination between HVAC design engineers and engineers of other disciplines such that HVAC system limitations and interactions with other systems are considered. It is also essential that the various modes of operation of the plant are reviewed against the operational modes of HVAC systems.

> Each nuclear power plant at its selected site has varied conditions that affect the design parameters of the HVAC systems. Site dependent conditions such as plant layout, environmental surroundings, etc. must be coordinated with the site related engineering efforts.

> The development of this standard began in 1973 under Working Group ANS-32.2 at which time it was entitled, "Safety-Related HVAC Systems." A reorganization of the working group took place in early 1978 with an initial meeting being held in May, 1978. At the time of approval, the membership of the working group was:

- N. Tolle, Secretary, Burns and Roe, Inc.
- L. T. Ahlman, Ebasco Services Incorporated
- C. P. Chen, Battelle/Office of Nuclear Waste Isolation
- G. E. German, Tennessee Valley Authority
- J. G. Hahn, Bechtel Power Corporation
- E. Nicolaysen, Gibbs and Hill, Inc.
- D. P. Notley, U.S. Nuclear Regulatory Commission
- J. Robinson, M&M Protection Consultants

\*The American Nuclear Society's Nuclear Power Plant Standards Committee (NUPPSCO) had the following membership at the time of its approval of this standard:

L. J. Cooper, Chairman M. D. Weber, Secretary

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C. J. Gill ... Bechtel Power Corporation
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<sup>\*</sup>This roster indicates NUPPSCO members' affiliations at the time of consensus committee ballot.

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