

SUBAGREEMENT 2  
BETWEEN THE  
ILLINOIS DEPARTMENT OF NUCLEAR SAFETY  
AND THE  
U. S. NUCLEAR REGULATORY COMMISSION

SUBAGREEMENT 2  
PERTAINING TO ASME CODE COMPLIANCE  
BETWEEN THE  
STATE OF ILLINOIS  
AND THE  
U.S. NUCLEAR REGULATORY COMMISSION

I. Authority

The Nuclear Regulatory Commission (NRC) and the Illinois Department of Nuclear Safety (IDNS) entered into this Subagreement under the authority of the Memorandum of Understanding (MOU) of April 1984, between Illinois and NRC (49 FR 20586; 5/15/84) and under Section 274i. of the Atomic Energy Act of 1954, as amended.

II. Background

A. NRC and the ASME Code

1. The Atomic Energy Act of 1954, as amended, and the Energy Reorganization Act of 1974, as amended, require the Nuclear Regulatory Commission (NRC) (previously the Atomic Energy Commission (AEC)) to license and regulate, among other activities, the manufacture, construction, and operation of utilization facilities (nuclear power plants) in order to assure the common defense and security and to protect the health and safety of the public. Under these statutes, the NRC has the ultimate responsibility to regulate nuclear power plant safety.
2. In June 1971, AEC promulgated regulations which established minimum quality standards for the design, fabrication, erection, construction, testing, and inspection of boiling and pressurized water-cooled nuclear power plants by requiring conformance with appropriate editions and addenda of specified published industry codes and standards. These regulations, 10 CFR §50.55a (and the now revoked §115.43a), have provided specific guidance to manufacturers and users of structures, systems and components of nuclear power plants for meeting Criterion 1 of the NRC's "General Design Criteria for Nuclear Power Plants" in Appendix A of 10 CFR Part 50 (See 36 FR 11423; 6/12/71). That criterion requires that structures, systems and components of nuclear power plants important to safety be designed, fabricated, erected, and tested to quality standards that reflect the importance of the safety functions to be performed. In particular, these regulations have required pressure vessels, piping, pumps, and valves that were part of a reactor's coolant pressure boundary to be constructed (e.g., designed, fabricated, inspected, and tested) in accordance with ASME Code Editions and Addenda.

3. The AEC stated in the preamble of the regulations, among other things that:
  - i. it accepted the ASME inspection process;
  - ii. licensees, vendors and others could use the ASME inspection and survey systems in partial fulfillment of its requirements to the extent that they were shown by the description of the quality assurance program required by §50.34(a)(7) to satisfy the applicable requirements of Appendix B of 10 CFR Part 50;
  - iii. §50.55a(b)(2) (now §50.55a(a)(3)) provides a basis for the authorization of alternatives to the requirements of the specified ASME Code sections and other standards if it can be shown that an acceptable level of safety will be provided; and
  - iv. it is considered that a significant improvement in the level of quality in construction of structures, systems and components important to safety would be afforded by compliance with the requirements of more recent versions of an ASME Code than those specified in the amendments and it encouraged such compliance whenever practicable, regardless of the date of purchase of equipment or the provisions of the amendments.
4. Presently, to promote the safe operation of nuclear components, NRC requires use of Section III, Division 1, of the ASME Code for construction of Class 1, 2, and 3 components, and Section XI, Division I, of the ASME Code for inservice inspections of these components.
5. In March of 1981, NRC, ASME, and the National Board of Boiler and Pressure Vessel Inspectors (NB) entered into an "Exchange of Correspondence" that set forth "Principles" for "The Accreditation and Inspection of Nuclear Supplier Quality Assurance Programs." These principles define the NRC's, the ASME's, and the NB's responsibilities and actions with respect to the ASME/NB accreditation program and third party inspection of Certificate Holders providing products and services to nuclear facilities in accordance with ASME Code, Section III (Divisions 1 and 2). The key objective of the Exchange of Correspondence was to provide NRC licensee and license applicants with a non-duplicative, efficient and effective procedure for implementing the ASME/NB nuclear accreditation program and the monitoring of supplier quality

assurance (QA) activities to ensure compliance with NRC, ASME, and NB programmatic QA requirements.

6. On March 31, 1986, the NRC's Office of Inspection and Enforcement distributed Information Notice No. 86-21 informing NRC licensees, construction permit holders and vendors of NRC's recognition of ASME's Accreditation Program for holders of N, NPT, NA, and NV stamps and Certificates of Authorization.
7. NRC's endorsement of the system established under ASME consisted of a detailed assessment of the ASME's infrastructure from which, among other things, NRC has determined that it provides an effective inspection program that NRC can accept to carry out its mission.

B. Illinois, IDNS, and the ASME Code

1. The ASME Code provides rules for the construction of heating boilers, power boilers, pressure vessels and nuclear power plant components. Also, the ASME Code provides recommended rules for the care and operation of heating boilers, recommended guidelines for the care of power boilers, and rules for the inservice inspection of nuclear power plant components. The ASME has an Accreditation System that is used to ensure the quality of construction of ASME Code components. The ASME Accreditation System is based on a program of authorized inspection, which requires an Authorized Inspection (AI), (an Authorized Nuclear Inspector (ANI) in the case of the nuclear sections of the ASME Code), designated or approved by an Authorized Inspection Agency (AIA) to inspect independently the activities of a Certificate Holder during construction under the ASME Code. In addition, Section XI of the ASME Code provides the rules and requirements for inservice inspection, including inservice testing, of nuclear power plants. Section XI is also based on a program of authorized inspection which requires that an Authorized Nuclear Inservice Inspector (ANII) from an AIA independently review the owner's inservice inspection plan, verify that the required tests and inspections have been performed, the requirements met, and the results correctly recorded.
2. In accordance with the provisions of Section 2 of the Illinois Boiler and Pressure Vessel Safety Act (Ill. Rev. Stat. 1985, ch. 111½, par. 3202) the Illinois Board of Boiler and Pressure Vessel Rules adopted the ASME Boiler and Pressure Vessel Code.

3. In pertinent part, Section 2a of the Illinois Boiler and Pressure Vessel Safety Act (Ill. Rev. Stat. 1985, ch. 111½, par. 3202a) provides that IDNS shall have sole State jurisdiction with respect to ASME Code compliance over all boilers and pressure vessels contained within or upon or in connection with any nuclear facility within the State of Illinois and that IDNS shall have the same authority and shall have and exercise the same powers in relation to such boilers and pressure vessels as the Board or the State Fire Marshal has and exercises in relation to other boilers and pressure vessels within the State of Illinois.
4. Illinois also enters into this Subagreement to facilitate implementing its responsibilities with respect to ASME code compliance under the Illinois Boiler and Pressure Vessel Safety Act.

### III. Scope

- A. This Subagreement defines the way in which the NRC and IDNS will cooperate in the planning and conducting of inspections of nuclear power plants to ensure compliance with NRC's regulations and the Exchange of Correspondence on ASME Section III and Section XI components. This Subagreement does not apply to investigations or inquiries conducted by the NRC. Except as provided in [VII.B.13.](#), this Subagreement does not apply to IDNS's inspections of, and enforcement actions regarding boilers, pressure vessels and appurtenances not covered in a Final Safety Analysis Report (FSAR)/Updated Safety Analysis Report (USAR).
- B. For the purpose of this MOU, "Inspection" is defined as an audit, observation, examination, review, and related functions to verify whether an item, component, or activity conforms to specified requirements of the ASME Code Sections III and XI. The scope of these inspections shall be limited to those systems, described in the FSAR/USAR.
- C. Nothing in this Subagreement is intended to restrict or expand the statutory authority of NRC, Illinois, or IDNS, or to affect or vary the terms of any agreement in effect under the authority of Section 274b. of the Atomic Energy Act of 1954, as amended; nor is anything in this Subagreement intended to restrict or expand the authority of Illinois and IDNS on ASME Code matters not within the scope of this Subagreement.

### IV. Purpose and Intent

- A. Although NRC has the ultimate responsibility to regulate nuclear power plant safety under the Atomic Energy Act and Energy Reorganization Act, noted above, NRC recognizes the interest of Illinois in the overall safety and health of its citizens. For this reason, NRC and IDNS agree to cooperate in implementation of NRC's safety programs related to nuclear power plants. Further, NRC recognizes that, to the extent that IDNS supports NRC's safety mission, additional resources are applied to overall nuclear safety. Thus, NRC recognizes IDNS's desire to participate in NRC's inspections of nuclear power plants.
- B. The objective of this Subagreement is to provide a framework for IDNS to assist NRC in performing safety inspections under 10 CFR §50.55a. IDNS intends to verify owner's compliance with Sections III and XI of the ASME Code for all safety-related systems, applicable nonsafety-related systems, components, and supports of these systems and components, as described in the FSAR/USAR of nuclear power plants. It is intended that these verifications will apply to Section III construction activities and to Section XI inservice inspection activities after Section III requirements have been met. The NRC will take appropriate enforcement actions for joint inspections conducted under this Subagreement.
- C. Within this framework NRC and IDNS intend that IDNS's role in ASME Code activities not only help maintain safety, enhance joint understanding, reduce duplication of effort, and provide a unified position on matters of joint concern, but also that it be well-defined, appropriately controlled and agreed to in advance by NRC and IDNS to minimize potential jurisdictional and technical disputes.
- D. IDNS inspectors may accompany NRC personnel inspecting nuclear power plant components manufactured outside Illinois but intended to be used within it.

V. NRC's General Responsibilities

NRC is responsible for conducting safety inspections of nuclear power plants to assure that the plants are designed, constructed, tested, and operated in accordance with pertinent NRC regulatory requirements. These inspections are conducted in accordance with the NRC Inspection Manual using personnel appropriately qualified to perform the necessary tasks. The NRC will take appropriate enforcement actions for joint inspections conducted under this Subagreement.

VI. IDNS's General Responsibilities

- A. Assist the NRC when requested in performing planned NRC safety inspections under 10 CFR §50.55a.

- B. Cooperate with the NRC in such inspections to assure that these components meet the requirements of the ASME Code as adopted and endorsed by the NRC.
- C. Conduct inspections at manufacturing facilities, materials suppliers, AIAs, architect/engineers and other ASME related activities not covered in this Subagreement to verify ASME Code

compliance; IDNS will provide the results of these activities to NRC for information.

- D. Inspect boilers and pressure vessels in nuclear facilities within the State of Illinois and issue Inspection Certificates as required by Sections 10 and 11 of the Illinois Boiler Pressure Vessel Safety Act, provided that IDNS's activities under this paragraph shall not be inconsistent with Federal law and the rules, policies, and practices of the NRC.

## VII. Implementation - NRC's and IDNS's Specific Responsibilities

IDNS and NRC agree to work in concert to assure that the following training, inspection and enforcement, and information exchange protocol are followed.

### A. Training

1. IDNS's inspectors accompanying NRC's inspectors will be qualified and certified by IDNS in accordance with the NRC Inspection Manual, or its equivalent. Based on IDNS inspector performance, NRC reserves the right to revoke IDNS inspector certification under this Subagreement and it shall provide the reasons for the action in writing to IDNS.
2. NRC will use its best efforts to make space available in its inspector training courses, seminars, and special orientation programs to accommodate the training needs of IDNS inspectors.
3. IDNS will pay the travel and per diem expenses of its inspectors attending training courses. Where NRC establishes special training classes, IDNS agrees to reimburse NRC for its costs of training IDNS inspectors.
4. IDNS personnel who inspect vessels and appurtenances not covered in an FSAR/USAR shall meet the qualification requirements under Illinois State law and are not required to be qualified and certified in accordance with the NRC Inspection Manual or its equivalent.

### B. Inspections and Enforcement

1. IDNS's activities are not intended to duplicate NRC's regulatory activities.
2. IDNS's inspectors are responsible for meeting all requirements of an NRC licensee related to personal safety and access at the plant site.

3. Before IDNS's inspectors are qualified and certified under this Subagreement, they may participate with NRC inspectors as observers at safety inspections or work under the guidance and direction of NRC's inspectors.
4. To facilitate cooperation and efficient use of resources, NRC and IDNS inspectors will conduct joint team safety inspections under this Subagreement. An NRC inspector will lead the team and be in charge of the inspection.
5. For these joint team safety inspections, NRC and IDNS will work together to develop inspection plans. For reactive inspections in which a quick response is necessary, time may not permit the joint development of an inspection plan or IDNS's participation in such an inspection. NRC will involve IDNS to the maximum extent possible consistent with protection of the public health and safety.
6. IDNS will use NRC to channel any IDNS information request to a licensee which is made to support the planning and implementation of the joint team safety inspections.
7. NRC and IDNS will perform safety inspections in accordance with the inspection plans using applicable procedures in the NRC Inspection Manual.
8. Should IDNS develop inspection findings or otherwise identify problems about ASME Code compliance, it will identify these promptly to the NRC inspection team leader.
9. IDNS may attend and participate in the NRC's inspection entrance and exit meetings with licensees of nuclear power plants in Illinois or with vendors fabricating systems or components for use in Illinois on matters within the scope of this Subagreement.
10. Within 15 working days after completing its portion of a safety inspection, IDNS will document to NRC its inspection's scope, details and results in a report written in the format described in the NRC Inspection Manual. The NRC team leader will use the information in preparation of the NRC's final report.
11. If, based on its review of the IDNS report, NRC identifies potential violations of NRC regulatory requirements, NRC will take appropriate enforcement action as prescribed in Appendix C of 10 CFR Part 2. If

NRC proposes escalated enforcement action, based on IDNS findings, it will give IDNS reasonable notice of the time and place of the enforcement conference, and IDNS may attend that conference. At NRC request, IDNS will assist NRC during any enforcement conferences or hearings at which NRC takes enforcement action as a result of a violation identified by an IDNS inspector.

12. IDNS will be given reasonable notification of and the opportunity to participate in NRC inspections of a licensee's corrective action(s) resulting from a joint team safety inspection.
13. IDNS will give reasonable notification to NRC of its inspections of boilers, pressure vessels, and appurtenances not covered in an FSAR/USAR.
14. IDNS will inform NRC if it is unable to participate in an NRC inspection activity.

C. Information Exchange

1. IDNS and NRC agree to the greatest extent possible and in good faith to make available to each other information within the intent and scope of this Subagreement. Specifically, NRC recognizes the value of IDNS's data acquisition system and IDNS agrees to make available to NRC data in this system related to activities under this Subagreement.
2. IDNS and NRC agree to meet periodically at mutually agreeable times and places to exchange information on matters of common concern pertinent to this Subagreement.
3. IDNS and NRC agree to consider each other's identified information needs and concerns, as well as those of the licensee, when developing inspection plans.
4. NRC agrees to make available to IDNS inspection-related documentation for inspections conducted under this Subagreement.
5. IDNS will not publicly disclose inspection findings prior to the release of the NRC inspection report.
6. To preclude the premature public release of sensitive information, IDNS and NRC shall protect sensitive information to the extent permitted by the Federal Freedom of Information Act, the Illinois Freedom of Information

Act and other applicable authority. IDNS and NRC shall consult with each other before releasing sensitive or proprietary information related to findings under this Subagreement.

VIII. Contacts

- A. The principal contacts for this Subagreement will be the Director, Division of Reactor Safety, NRC, Region III, and the Manager, Office of Nuclear Facility Safety, IDNS. These individuals may designate appropriate staff representatives for the purpose of administering this Subagreement.
- B. Identification of these contacts is not intended to restrict communication between NRC and IDNS staff members on technical and other day-to-day activities.

IX. Resolution of Conflicts

If disagreements arise about ASME Code related issues, NRC or IDNS may consult ASME or the National Board, as necessary. ASME is the final authority on such issues concerning ASME Code compliance regarding ASME Code stamped components. Should conflicts or disagreements occur between NRC and IDNS, NRC and IDNS will jointly work together to resolve these differences. The NRC's General Counsel is the final authority to interpret the Commission's regulations.

X. Effective Date

This Subagreement will take effect after it has been executed by both parties.

XI. Duration, Termination, and Modification

This Subagreement may be amended or modified upon written agreement by both parties and may be terminated upon 30 days written notice by either party.

XII. Separability

If any provision of this Subagreement, or the application of any provision to any person or circumstance is held invalid, the remainder of this Subagreement and the application of such provisions to other persons or circumstances shall not be affected.

FOR THE NUCLEAR REGULATORY COMMISSION,

James M. Taylor Date: April 9, 1990  
Executive Director for Operations

FOR THE ILLINOIS DEPARTMENT OF NUCLEAR SAFETY,

Thomas W. Ortziger Date: May 15 1990  
Director