COMMITTEE E-10
ON
NUCLEAR TECHNOLOGY
AND APPLICATIONS

LONG RANGE PLAN

WITH REGARD TO MEMBERSHIP

OBJECTIVE: Membership is our only asset. We must maintain an adequate membership of scientists, engineers, regulators and business people who represent producer, user, and general interest groups.

Strategy 1: Continued emphasis will be placed on achieving dominant user interests in production, review, acceptance of standards, and quality assurance provisions.

Strategy 2: Emphasis shall be placed on increasing electric utility representation in E-10 activities since they represent a significant segment of user interests.

Strategy 3: With the wide use in international commerce of ASTM standards, increased international participation in standards production is essential. International participation in symposia, conferences, and workshops is also important and foreign representatives are encouraged to be part of the planning and programming committees.

WITH REGARD TO NATIONAL AND INTERNATIONAL STANDARDIZATION

OBJECTIVE: To increase the use of ASTM standards worldwide and to provide a means for ASTM members to have influence on national and international standards development.

Strategy 1: Through ASTM's new relationship with ANSI, maintain close liaison with the Nuclear Standards Board.

Strategy 2: Monitor the development of new nuclear related ISO standards and participate where appropriate.

Strategy 3: Where ASTM has leadership, submit ASTM standards for ISO approval, or chair ISO task groups.

Strategy 4: Continue our long relationship with the European Working Group on Reactor Dosimetry (EWGRD).

WITH REGARD TO SCOPE

OBJECTIVE: Promote the advancement of nuclear science and technology and the safe application of nuclear energy.

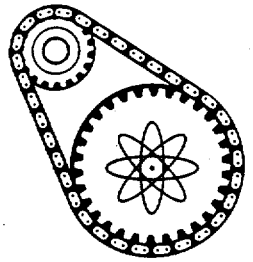
Strategy 1: Standardize measurement techniques and specifications for radiation effects and dosimetry including materials response, instrument response, and fuel burnup.

Strategy 2 Standardize the nomenclature and definitions used in or relating to testing methods or instruments in support of the nuclear and radiation processing industries.

Strategy 3: Maintain a broad expertise in application of nuclear science and technology, especially the measurement of radiation effects from environments of nuclear reactors, particle accelerators, and radioisotopes.

Strategy 4: Maintain a broad expertise in the applications of radioisotopes.

Strategy 5: Provide guidelines and practices for all aspects of dosimetry for radiation processing.



WITH REGARD TO ORGANIZATIONAL STRUCTURE AND QUALITY OF SERVICE

OBJECTIVE: To be flexible and responsive to the needs of participants as the organization responds to changing standardization needs.

Strategy 1: Anticipate when a need exists to form task groups and subcommittees by convening formative meetings and establishing a scope of activities. By responding to requests made of ASTM E-10 and other organizations, provide a framework for resolution of the defined issues.

Strategy 2: Emphasize a closer sense of participation among E-10 members, ASTM, and other committees.

Strategy 3: Upgrade E-10 capabilities for planning and forecasting and develop liaison with other organizations.

Strategy 4: Develop different models for committee operations and services to be responsive to the needs of international commerce.

WITH REGARD TO COMMUNICATIONS

OBJECTIVE: The committee's mode of operation is characteristic of ASTM groups, that of voluntary standardization based on the consensus principle, involving all interested and affected parties.

Strategy 1: Conduct two meetings of 3 to 5 days in duration per year to produce, review, and process standards. One of these meetings will be held in conjunction with Committee C-26 on the Nuclear Fuel Cycle.

Strategy 2: Sponsor scientific and technical symposia, conferences, workshops and publications in the appropriate fields of specialization. The Radiation Effects and Reactor Dosimetry Symposia and the workshops on Dosimetry for Radiation Processing will go forward as major E-10 efforts.

Strategy 3: Perform liaison with related ASTM committees and other technical societies and organizations, both national and international. Liaison activities shall ensure that efforts not duplicate or be duplicated by other standards groups but also that areas of interest be covered within or outside the ASTM framework.

Strategy 4: Advise other technical committees of the Society in our field of expertise.

WITH REGARD TO ASSIGNMENTS

OBJECTIVE: Recognizing that standards development is based on need, and a consensus process is appropriate, ensure that at least one member of E-10, well versed in ASTM procedures, be available to participate in task group activities.

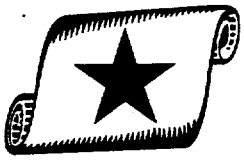
Strategy 1: Continue to develop concept and practice of team approach to accomplishing E-10 work so that the consensus process will be fully realized. Develop a clearly defined role for team members.

Strategy 2: Provide enhanced communications capability and administrative support to E-10 membership. The intent is to make better use of computer technology and mass media to minimize time spent by members in simply giving out information and filing data.

Continued ▶

Strategy 3: Give priority to member education and renewal. Workshops, conferences, continuing education programs, and similar activities will be undertaken to awaken a desire and ability on the part of E-10 members to be efficient in sharing responsibility for nuclear technology development.

Strategy 4: Establish focal points for coordinating E-10 and ASTM resources to alleviate demands at the task group level. After establishing which support needs are better handled by ASTM staff or by E-10 technical people, implement a program through a series of communications efforts.



WITH REGARD TO HONORS AND AWARDS

OBJECTIVE: The goal of honors and awards is to recognize outstanding performance of E-10 participants and to implement the required actions necessary for these persons to receive an appropriate award from E-10 and ASTM.

Strategy 1: Identify persons for ASTM Society honors and awards to reward outstanding performance by E-10 members for personal honor and recognition and to make the activities of E-10 well known to ASTM headquarters staff.

Strategy 2: Seek out persons for E-10 Peter Hedgecock honorary membership by solicitation of input from all E-10 officers and subcommittee chairmen. These awards not only recognize outstanding contributions but also represent honor and appreciation by peers to the recipients. These awards will stimulate pride and technical excellence in all aspects of E-10 activities.

Strategy 3: To present special certificates of appreciation for specific action or contribution to E-10. The recipient does not have to be a member of E-10 as these awards are intended to recognize contributions to E-10 by members, spouses, staff persons, or participants, including international participants to E-10 sponsored symposia. There are no limits or restrictions to these awards, and they will be granted whenever special recognition is merited. These awards enable E-10 to make immediate response of recognition and to maintain a high degree of personal rapport within the committee's diverse membership.

Strategy 4: Increase continued support to E-10 members for their activities by giving wide publicity of E-10 awards to the management of the organizations of the awardee.

WITH REGARD TO FINANCE AND MANAGEMENT

OBJECTIVE: To continually strengthen financial capabilities to support E-10 operations and planned growth.

Strategy 1: Use the E-10 fund which derives its proceeds from conducting symposia and workshops to provide up-front financial support on Radiation Effects and Dosimetry symposia. As need arises for support of other symposia, conferences, and workshops, funding will be considered as a high priority effort.

Strategy 2: Provide funding for E-10 honors and awards recognition of outstanding performance by participants. The most valuable and only avenue for E-10 to recognize individual contributors is through an effective and financially supported awards program.

Strategy 3: Develop careful planning and tracking system for providing financial support for planned growth. An *ad hoc* task group will be formed by the Executive Committee, if necessary, to develop the methods for determining the adequacy of the planning process for any new scope of activities.

Strategy 4: ASTM staff will provide budgeting processes, reporting procedures, and auditing results to accentuate accountability.

Attachment 6

Issue No. 99-1 March 1999

THE NCS Communicator

A PUBLICATION
OF THE ASME BOARD ON
NUCLEAR CODES AND STANDARDS

The purpose of this publication is to communicate information concerning codes and standards activities under the Board on Nuclear Codes and Standards (BNCS) to participants in ASME Codes and Standards, other interested members of ASME, and the public. Information is provided on the current status of programs, future goals, related activities, events and meeting schedules, current publications, and committee participants. Comments and suggestions for future editions are encouraged and welcome.

In this issue

ASME International

The Chairman's View

As we begin 1999, it seems fitting to reflect upon what we have accomplished and where we are going as we approach the turn of the century.

In an earlier Communicator, we discussed the five goals established for BNCS to carry out. Let us now look at what progress has been made regarding each of these goals.

1. Best use of volunteers, our valued limited resource. This involves focusing on significant issues, addressing them in a timely manner and assuring that not only safety but cost impacts are appropriately considered. Good progress has been made including prioritizing items relative to their impact on safety, economics, and maintenance in that order, increased use of teleconferences and E-mail, and producing Code Cases involving the use of risk- based technologies, to name a few. Greater use of these initiatives by all committees and subcommittees is certainly encouraged to satisfy this goal.

2. Streamlining to meet changing environment and user needs. This involves recognizing the nuclear industry is struggling to survive and to remain competitive in the US and on an international basis as well. Shifting from design and construction of the past, to operations and maintenance of the present, and applying lessons learned to position ourselves to meet the needs of the advanced reactor projects of the future, is the challenge before us. Besides the topics mentioned under Goal 1 above, progress has begun on topics involving performance based standards, containment systems for nuclear spent fuel and high level waste transport packaging, condition monitoring, decontamination/decommissioning/restoration, and nuclear risk management.

3. Encouraging frank and open discussions on issues. This is essential for achieving timely consensus nuclear codes and standards, in compliance with our approved procedures. Progress is being made by revision to our procedures reflecting the redesigned process that takes into account input, comments and concerns expressed by volunteers. Another example is a greater involvement and input early in the process on draft changes to codes and standards by subcommittees, committees, Board members and other interested parties prior to the vote by the standards committee.

4. Increasing the stature of nuclear codes and standards. This is essential to the future success of the society. To accomplish this, we must maintain the lead as an international codes and standards organization. This is being accomplished by greater involvement by international members on ASME nuclear codes and standards committees and BNCS. The international community is the area of growth both in usage and recognition of our nuclear codes and standards. For example, ASME BPV Code sales shifted 20% during one code cycle resulting in North American sales 62%, and International sales of 38% with the 1995 Edition. This trend is expected to continue during the next Edition cycle.

5. Maintaining an effective interface with regulatory bodies and other industry groups. This will be emphasized to assure common understanding and effective implementation of nuclear codes and standards consistent with regulations. Some progress has been made through active participation by regulatory representatives at subcommittee, committee and BNCS meetings, as well as presentations by ASME Nuclear C&S participants to NRC Commissioners, ACRS Subcommittees, and NRC Senior Staff at Workshops, Symposiums and Conferences. Letters, E-mail and teleconferences with NRC staff and other industry groups such as Utility Owners groups, EPRI and NEI have supplemented this. More needs to be done to understand the current needs of the regulators, industry groups and ASME nuclear codes and standards organizations to collectively work in harmony toward maintaining a viable nuclear industry for the 21st century.

Looking to the future, ASME International's focus is on the 21st century, recognizing it must be approached on a global basis. To accomplish this, let us look at ASME Codes and Standards Global Initiatives.

1. Effective implementation of the Redesigned process. A redesign of the standards development process has taken place to produce new and revised standards faster while maintaining a sound technical basis. The need for change was based on the old process taking too much human effort to get actions accomplished. The pace of the work has changed by a widening of the technological development, greater computer usage and data interchange systems. The technology has become more

complex and the wide acceptance of ASME codes and standards has broadened the scope of required consensus. The redesigned process has been designed so that the following things must be preserved:

- The products, documents and responses, are technically correct
- The process produces consensus documents
- Due process is maintained protecting ASME from legal complications, and
- ASME marks and copyrights are protected.

2. Metrication of ASME Codes and Standards. This is being driven by industry needs. Each committee is addressing this with the expectation of having this done by the end of 1999 by using SI units with either soft or hard conversions.

3. Use of Alternative materials. This is being implemented by calling out acceptable alternatives to existing materials that may be specified for ASME codes and standards applications from sources outside North America.

4. Remove Conservatism (e.g. allowable stress criteria). This will change the design margins to take into account the improvements that have been made over the years in material properties. This is an example of ASME codes and standards operating at the cutting edge to reduce costs without compromising safety.

5. Separation of Administrative & Technical Requirements. This is intended to help clarify and separate requirements involving third parties such as jurisdiction/regulators that may vary from country to country.

6. Joint Conformity Assessment Teams. This involves joint teams with representatives from ASME and other countries such as South Korea performing reviews of manufacturers to satisfy both ASME accreditation criteria and local jurisdictional requirements. The objective is to reduce the economic impact on the company being surveyed.

7. Encouraging greater participation by non-US volunteers. Members on BNCS now include representatives from Canada, Japan and South Korea. China may possibly participate in the near future.

As we approach the next century, our vision should encompass the following:

- Global nuclear community must continue to work in harmony to maintain high standards to protect the health and safety of the public we serve.
- ASME International must set the example and help lead the way.
- We must use the latest technology including probabilistic risk assessments; performance-based methodology; and condition monitoring.
- We must make the best use of collective resources to provide realistic and practical solutions to maintain and expand the nuclear power option throughout the world as part of the solution to the global climate change.

In closing, I want to thank all the NC&S volunteers and ASME staff for all the time, effort, dedication, and sacrifices they have made to make ASME Nuclear Codes and Standards the success it enjoys today. I also want to thank all the sponsors for allowing the volunteers to participate and contribute their many talents. Additional help is needed by more participation on committees for grass root support of standardization of nuclear technology.

James A. Perry
Vice President
Nuclear Codes and Standards

ASME Nuclear Codes and Standards Programs

BOARD ON NUCLEAR CODES AND STANDARDS

The ASME Board on Nuclear Codes and Standards (BNCS) is charged with the management of all ASME activities related to codes, standards and accreditation activities directly applicable to nuclear facilities and technology. The Board assesses the need for codes and standards, assigns new scopes to existing committees, establishes the necessary committee structure for their development, and ensures that all committees reporting to the Board operate under accredited procedures and provide for due process.

During the early years of commercial nuclear power, ASME produced a code for the construction of nuclear vessels used in the reactor coolant pressure boundary, containment and auxiliary systems. As the industry grew, ASME responded by broadening the code coverage to include rules for construction of other nuclear components and in service inspection of nuclear reactor coolant systems. Later the scope of ASME nuclear codes and standards was expanded to include air cleaning activities for nuclear power reactors, operations and maintenance of nuclear power plants, quality assurance programs, cranes for nuclear facilities, qualification of mechanical equipment, concrete reactor vessels and containment. Recently containment systems for spent fuel and high-level waste transport packaging were added. Currently BNCS constituted a committee to prepare standards for risk management for nuclear facility applications. It is expected that the first of these standards will provide the criteria and methods for applying risk assessment methodology to commercial nuclear power plant applications to ensure a high level basis for consistent and sound risk-informed decisions. The goal is to provide criteria to identify the adequacy of PRA elements that are necessary to support various risk-informed applications.

Internationally, ASME nuclear codes and standards have grown both in usage and recognition. For example the ASME Boiler and Pressure Vessel Code is accepted by more than fifty-seven countries.

BNCS focuses on globalization of its codes, standards and guides by encouraging and promoting their use in the international community by actively seeking participation of international members on its technical and supervisory committees and in accreditation activities. Current activities of specific committees follow.

The Boiler and Pressure Vessel Subcommittee on Nuclear Power (SC III)

Chairman: *Charles J. Pieper (Chicago Bridge & Iron Co.)*

Vice Chairman: *Robert M. Jessee (Lockheed Martin Energy Systems)*

Subcommittee III of the Boiler and Pressure Vessel Main Committee is responsible for Section III which provides rules for nuclear power plant components and nuclear spent fuel storage canisters and transport containments. These rules are contained in three divisions. Division 1 covers metallic components for power plants, Division 2 addresses concrete containment vessels for power plants, and Division 3 provides rules for construction of containment systems and transport packaging for spent fuel. Division 2 is maintained in co-operation with the American Concrete Institute.

A recent action approved by the Main Committee is the addition of the NS Certificate covering entities which design and manufacture supports. Previously, there was no certificate type under which both functions could be performed other than the N-Certificate. Also, stamping and a data report were required for each support. This action provides a more logical basis for qualifying manufacturers of these supports, and it eliminates the stamping requirements and simplifies the data reports.

Other items recently passed by the Main Committee include:

- Incorporation of Case N-394 "Restricted Lift to Achieve Reduced Relieving Capacities of Full Lift, Nozzle Type and Flat Seated Safety and Relief Valves for Compressible Fluid Applications" into Section III.
- Nonmandatory appendix providing guidance on environmental effects on components.
- Rules for design of Class 2 & 3 multistage radially split barrel casing pumps (Type N).
- A new code case that provides rules for Class 1, Type M pumps.

During 1999 a major area of activity will be directed towards expanding the scope and updating the requirements of Division 3. The first edition published essentially mirrored regulatory technical requirements for Type B containments. This was done with the intent that it would be a starting point from which changes could be made through the consensus process. Several changes are currently being discussed by the concerned subgroups and more proposals are expected. In addition, expansion of the scope to cover storage packaging and containment is expected.

The Subgroup on Containment Systems for Spent Fuel and High-Level Waste Transport Packagings (SG-NUPACK) has primary responsibility for developing and bringing forward proposals for Division 3. New mem-

bers having technical expertise in this area especially those supported by utilities or manufacturers are being sought. Interested parties should contact the Subcommittee Secretary.

Meetings of the Subcommittee and its supporting groups are held four times a year in conjunction with the Boiler and Pressure Vessel Code meetings and are open to the public.

For further information, contact:
Christian Sanna, Secretary, SC III
Phone: (212)591-8513
Fax: (212)591-8501
E-mail: sannac@asme.org

The Boiler and Pressure Vessel Subcommittee on Nuclear In service Inspection (SC XI)

Chairman: *Owen F. Hedden (ABB CE Operations)*

Vice Chairman: *Thomas J. Mawson (Northeast Utilities)*

This Subcommittee is responsible for Section XI Divisions 1, 2, and 3. While the primary concern is safety, the Subcommittee has not been confronted with safety issues for several years. The present concern is to maintain safe operation while reducing the cost of power plant examinations, testing, evaluation, and repair programs. Actions have been taken to eliminate rules for examinations, tests, evaluations, and repairs when it is shown that they are not necessary for safe operation. In addition, standard procedures and methodology have been provided for examinations, tests, evaluations, and repairs. This reduces utility costs since they do not have to develop them individually.

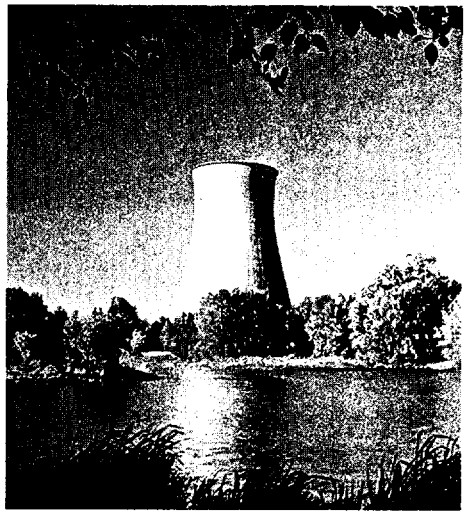
NRC's proposed amendment to 10CFR50.55a was featured in the last issue of *The NCS Communicator.* Depending on its final form, it has the potential for additional reduction in industry burden, depending on the manner in which it incorporates the Section XI revisions and Code Cases. If they are adopted without prohibitive modifications, utilities will be able to update by reference to the regulation rather than applying for and negotiating each individual revision and Case.

The following are approved committee actions:

- Code Case N-622 was proposed to implement revisions to Appendix VIII, UT qualification by performance demonstration in response to modifications proposed by a joint NRC-SCXI-PDI task group. A number of changes are being introduced to make the rules workable. This is a "breakthrough" achievement, since it reflects agreement between the industry and NRC on the outstanding issues. It supersedes the modifications NRC proposed in the draft regulation that was objectionable to the industry. *See feature article on page 13.*
- Two actions have been taken reducing the extent of nozzle examinations: Code Case N-619 and Code Case N-613.
- Appendix G refinements, while they appear minor, have opened restrictions on RPV pressure-temperature operating limits. This postpones the need for RPV annealing.
- Case N-513 established provisions for temporary acceptance of flaws, including leaks, in low energy Class 3 piping.
- Case N-606 provides for weld repair of BWR CRD stub tube welds without preheat or post-weld heat treatment. This permits a repair without draining the RPV, with great savings.
- Case N-589 provides rules for use of cured-in-place pipe liners.
- NRC had incorporated the requirements for both metal and concrete containments from the 1992 Addenda to Section XI into Federal Regulations. Now both the industry and NRC agree that alternatives are needed. Such alternatives are provided in Code Cases N-590 and N-591.

The following are still under consideration by the committee:

- Case N-602 was proposed to provide for material procurement based on the Owner's Appendix B QA commitments rather than Section III NCA-3800. This puts newer units on the same basis as older ones, and permits simpler QA implementation, usually with lower procurement costs.
- Code Case N-618 was proposed for the one-time use of a decommissioned reactor vessel as a shipping container. It would be used to carry contaminated materials, such as reactor internals, to a burial site.



Examples of technical objectives for 1999:

- Incorporate pilot plant results and NRC comments into risk-informed inspection criteria
- Incorporate EPRI/industry initiatives into containment rules
- Remove the requirement for circumferential weld examination for BWR RPV
- Develop rules for qualification of UT procedures by use of computer modeling
- Develop flaw acceptance and evaluation criteria for Class 2 and 3 components
- Consider weld residual stress and cladding effects in flaw evaluation criteria
- Include Master Curve characterization of fracture toughness for analysis of flaws.
- Reduce restrictions on sharing weld procedure and welder qualifications between repair organizations by incorporating standard welding procedures.
- Because of changes in the way the weld examination sampling program has been

interpreted and enforced recently, there is a need for changes in Section XI to return to the original objective of assessing general overall condition. The Owner is now being penalized after-the-fact for providing incomplete access for examination of 100% of the length (or, per Case N-460, 90%) of specified welds. A rationale has been developed explaining the original basis for weld examination sampling in Section XI.

Finally, the Subcommittee intends to develop rules for both plant license extension and appropriate plant decommissioning-related activities.

Meetings are conducted 4 times a year and are open to the public. In 1999, 3 will be held in conjunction with the Boiler and Pressure Vessel Committee.

For further information, contact:
Joseph Saltarelli, Secretary, SC XI
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Fax: (212) 591-8501
E-mail: saltarellij@asme.org

The Committee on Nuclear Air and Gas Treatment

Chairman: *Raymond Weidler (Duke Power)*

Vice Chairman: *Richard Porco (Ellis & Watts)*

This committee is, and has been, actively pursuing the use of its Codes and Standards both internationally and in areas of the U.S. nuclear industry, particularly with the U.S. Departments of Energy and Defense.

Internationally, Korea has built four plants to ASME Codes and Standards and has four plants under construction that specify the ASME CONAGT Code on Nuclear Air and Gas Treatment, AG-1, and the ASME CONAGT Standard N 509, Nuclear Power Plant Air Cleaning Units and Components. Also, ASME Codes and Standards are being used in Taiwan. China and Canada do not specify ASME Codes and Standards, but will accept them as alternatives. Japan makes selective use of ASME Codes and Standards.

The Committee is now pursuing additional use of its Codes and Standards by the Department of Energy and the Department of Defense for their nuclear facilities. Currently, the scope of Codes and Standards under CONAGT applies to air and gas treatment components used in nuclear safety-related systems in nuclear facilities. However, these Codes and Standards were written when it was anticipated that their major usage would be in nuclear power plants. Therefore, there are some subtle, but important revisions that the Committee has to work out to broaden their usage to nuclear facilities. For example, the definition of a nuclear safety-related system used by the DOE is slightly different from that used by the USNRC. This definition must be changed to make it compatible with the requirements used by both agencies.

CONAGT covers requirements for the following equipment used in nuclear air and gas treatment systems:

DIVISION I
- General Requirements
- Subsection AA Common Articles

DIVISION II
- Ventilation Air Cleaning and Ventilation Air Conditioning
- Fans and Blowers
- Dampers and Louvers
- Ductwork
- Refrigeration Equipment
- Conditioning Equipment
- Moisture Separators
- Prefilters
- HEPA Filters
- Type II Adsorber Cells
- Type III Sorbers
- Adsorbent Media
- Frames
- Other Adsorbers*
- Metal Media Filters*
- Low Efficiency Filters*
- Special Round and Duct Connected HEPA Filters*
- Instrumentation and Control

DIVISION III
- Process Gas Treatment*
- Pressure Vessels, Piping, Heat Exchangers, and Valves*
- Noble Gas Hold Up Equipment*
- Compressors*
- Other Radionuclide Equipment*
- Hydrogen Recombiners*
- Gas Sampling*

DIVISION IV
- Testing Procedures
- Field Testing of Air Treatment Systems
- Field Testing of Gas Processing Systems*
- Personnel Qualification*
- Laboratory Qualification*

** In the course of preparation.*

The Committee is always open to, and welcomes, input from interested parties. Anyone that is interested in providing input or applying for membership on any CONAGT group should contact:

Joseph Saltarelli, Secretary, CONAGT
Phone: (212)591-7005
Fax: (212)591-8501
E-mail: saltarellij@asme.org

Committee on Nuclear Risk Management (CNRM)

Chairman: *Sidney A. Bernsen*

Charter

The approved Committee on Nuclear Risk Management (CNRM) charter is: "To develop, revise, and maintain standards and guides on risk management techniques supporting PRA and performance-based applications within ASME nuclear codes and standards".

Membership

The initial membership has been approved and the committee held meetings on July 31, 1998 and February 19, 1999. Current voting membership consists of 18 individuals representing a broad spectrum of experience and interests. Membership includes representatives from other ASME nuclear standards committees, ANS, IEEE and other individual experts; NRC participation is active and constructive.

Sources to be considered for additional membership include the following:

(1) EPRI (ref. PSA Applications Guide)
(2) INPO (ref. PRA Certification)
(3) International Countries: Japan, France, Spain, U.K., Canada
Organizations: IAEA, IEC, Nuclear Energy Agency of the OECD (Paris),
(4) American Nuclear Insurers
(5) DOE
(6) National Board of Boiler & Pressure Vessel Inspectors
(7) NFPA (need liaison)
(8) Academia (Practitioners – help in advancing the state-of-the-art and research)

Status Of Proposed Standard On Risk Management

The approved Scope statement for the draft standard under development by the project Team is:

"This Standard sets forth the criteria and methods for developing and applying risk-assessment methodology to be used in risk-informed decisions for commercial nuclear power plants".

This initial effort is concerned primarily with Level 1 events at full power for light water nuclear power plants. Deferred issues are expected to include internal flooding, some level 2 issues, fire and external events.

Schedule

The CNRM operates under the Redesigned Process Procedures. based on these procedures, a tentative plan and schedule for completion of the initial proposal has been established. Modifications may be necessary depending upon the extent and substance of comments received and the effort necessary to resolve them.

During January, 1999, the Project Team made final editorial corrections and resolved outstanding issues in order that the draft could be released for the pre-vote review. In February, 1999, the Project Technical Manager determined that the draft standard was ready for the pre-vote review and comment. This is being solicited via the ASME Web Site from the CNRM (standards committee), BNCS, other interested ASME committees and groups, external organizations and individuals, and the public expressing an interest. This review and comment is conducted prior to the standards committee vote. The deadline for receipt of comments is May 1, 1999. After the Project Team completes its disposition of comments and adjustments to the draft standard, it will be submitted to CNRM for vote.

Expansion Of Coverage

To facilitate future expansion of coverage a CNRM Task Group has been assigned to develop recommendations for how fires, earthquakes and other natural phenomena, level 2, shutdown and low power operations should be addressed by CNRM. The Task Group has been requested to: (1) identify subject matter; (2) identify organizations or other resources to accomplish tasks; (3) provide guidance on how issues should be coordinated; and (4) provide a suggested timetable for completion.
A public notice has been issued by ASME announcing that the CNRM activity is underway and soliciting assistance of anyone interested in participating in the activity.
For further information, contact:

Gerry Eisenberg, Secretary CNRM
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Fax: (212)591-8501
E-mail: eisenbergg@asme.org

Committee on Operation and Maintenance of Nuclear Power Plants (O&M)

***Chairman:** James P. Pelletier (Nebraska Public Power District.)*

***Vice Chairman:** John Groth (South Texas Project)*

This committee is responsible for the OM-Code and OM-S/G (Standards and Guides). The committee has been deeply involved in implementing risk-informed concepts, and thus, the following is presented:

The Almost Perfect Application of the PRA: RI-IST

As the ASME developed the RI-IST methodology, it became clear that the blending of this risk based information and expert input process would make up for any insufficiencies of the plant specific PRA. The RI-IST methodology uses the concept of a multi-disciplined expert panel to perform this blending and decide whether the component is of high or low safety significance (HSSC or LSSC). After five years of effort (the ASME research process and the ASME code case development process), the O&M Committee approved the OMN-3 Code Case to apply the PRA to IST. This code case requires implementation of a risk-informed process and prescribes rigorous requirements for the expert panel in order to make up for the shortcomings of the plant specific PRA. The ASME RI-IST methodology is a near perfect application of the PRA, since most of the IST components are modeled in the PRA.

Implementation of this near perfect application of the PRA has been slow. About twenty plants have been involved in demonstration or pilot projects over the past five years to ensure that this ASME methodology has been well thought out. Yet, by early 1999, one plant has been allowed by the NRC licensing process to apply this methodology: the NRC pilot plant Comanche Peak. On the positive side, a licensing application for the San Onofre plant was submitted in December, 1998. In an even better turn of events, the Spanish have already applied the ASME OMN-3 code case for safety categorization of IST check valves and applied the ASME OMN-4 code case for the appropriate testing strategies for those check valves for one of their PWR stations.

The ASME O&M Committee is in the final stages of approving RI-IST component testing strategy code cases for pumps, AOVs, and MOVs. With the completion of these code cases, the vast majority of IST components can be converted to a RI-IST program.

If a U.S. plant desires to use this ASME methodology, it has to make a formal licens-

ing submittal, requiring rounds of RAIs, and incurring substantial agency fees. The regulatory side of the process to date makes the return on investment somewhat questionable in terms of cost and time, even though it improves plant safety. Now that the NRC has completed its regulatory review of the general RI-IST process by issuing regulatory guides and standard review plans, it should take the San Onofre station substantially less elapsed time and review man-hours to complete the RI-IST licensing process. With the NRC approval process of the next few RI-IST licensing applications, it is expected that the efficiency of applying the ASME code cases will be demonstrated. This demonstration should allow a large number of operating plants to apply RI-IST programs cost-effectively, thereby also improving plant safety.

Meetings of the O&M Committee are held four times a year and are open to the public.

For further information, contact:
Jess Moon, Secretary, O&M Committee
Phone: (212) 591-8514
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Committee on Qualification of Active Mechanical Equipment in Nuclear Power Plants

Chairman: *Richard W. Barnes (ANRIC)*

Vice Chairman: *Robert G. Visalli (Kerotest Manufacturing Corp.)*

This Committee is responsible for the QME-1 standard. The purpose of this Standard is to provide basic principles and guidance to demonstrate the qualification of active mechanical equipment used in nuclear power plants. Qualification is intended to confirm the adequacy of the equipment to function over the expected range of service conditions, including design basis event and post-design basis event conditions, as well as in-service inspection and test conditions. Qualification is not intended to confirm adequacy of the equipment to function beyond its specified service conditions even though qualification margins should assure additional capability. Section QV provides qualification guidance for valve assemblies using electric actuators and Section QP provides qualification guidance for pump assemblies using electric motor drivers that have been previously qualified per the appropriate IEEE standards. Requirements in Section QR, General Requirements, outline methods for qualifying these components for dynamic effects. The latest edition is QME-1-1997.

Extensive data on the performance of mechanical and electrical equipment during actual strong motion earthquakes and seismic qualification tests has been accumulated. Intensive review of this data has led to the identification of specific equipment attributes which will ensure that the equipment will successfully operate during and after strong motion earthquakes. The ASME QME Committee established a joint Special Working Group with the Institute of Electrical and Electronics Engineers to address the production of rules for the seismic qualification of electrical and mechanical components in nuclear power plants and facilities. That group has completed its work and has submitted a proposal for QME Committee consideration. Seismic operability qualification methods are being drafted. A proposed draft of a new Section on Qualification of Dynamic Restraints has been distributed for pre-vote review and comment under the redesigned process. Other priority items are:

1. Attempt to facilitate USNRC endorsement of QME-1
2. Update QME-1 to current practice and issue addenda with changes

(Changes to Sections QV, QR, and new sections on standardization of experience-based seismic equipment qualification and qualification of dynamic restraints are actively being considered.)

3. Proceed with Metrication of QME-1 (Rework on Section QR, cleanup on Section QV and new conversions in other areas are required. This target represents Main Committee approval of the changes that will be targeted for Addenda b.)
4. Work with Committee on Nuclear Air & Gas Treatment (CONAGT) to identify specific ways CONAGT documents might require reference material in QME-1.
5. Develop Research Proposal for Project on Use of PRA Methodology for QME-1 Components
6. SC-Qualification of Valve Assemblies Incorporation of Lessons Learned: submit proposed Guide for review comment and vote.

Committee on Cranes for Nuclear Facilities (CNF)

Chairman: *Stephen Parkhurst (Stone & Webster)*

Vice Chairman: *Brad Lytle (NASA)*

This Committee is responsible for the NUM-1 Standard, Rules for Construction of Cranes, Monorails, and Hoist, and for the NOG-1 Standard, Rules for Construction of Overhead and Gantry Cranes.

Although these standards were written for nuclear facilities, both documents can be used for crane and hoist applications at any facility where enhanced handling safety is required.

Specifically, NASA's Mr. Brad Lytle, also Vice Chairman of the CNF Committee, has utilized the enhanced safety design features of the ASME NOG-1 Standard for NASA's purchase of the Kennedy Space Center 325-Ton Vehicle Assembly Building (VAB) Crane. This 146' span double girder electric overhead traveling bridge crane, with a main hoist lift of 462'-6", incorporates redundant drives with dual motors, brakes and gear reducers, as well as a single-failure proof reeving system.

A new 1998 issue of the ASME NOG-1 Standard, and Addenda "a" to the ASME NUM-1 Standard are expected to be available in early 1999.

Scheduled meetings of the ASME Committee on Cranes for Nuclear Facilities (CNF) are as follows:

March 9, 10, 11 & 12, 1999 – Phoenix, AZ

June 8, 9, 10 & 11, 1999 – Clearwater, FL

October 19, 20, 21 & 22 – Orlando FL

Meetings are open to the public.

For further information, contact:
Jess Moon, Secretary, CNF Committee
Phone: (212) 591-8514
Fax: (212) 591-8501
E-mail: moonj@asme.org

The Committee on Nuclear Quality Assurance

Chairman: *Douglas A. Brown (Sargent & Lundy)*

Vice Chairman: *Frank C. Hood (Battelle Memorial Institute)*

The Committee on Nuclear Quality Assurance is responsible for developing, managing, and/or coordinating quality assurance (QA) related codes and standards applications for siting, design, construction, operation and decommissioning of Nuclear Facilities. ASME NQA-1 covers the Quality Assurance Requirements for Nuclear Facility Applications. This standard is included by reference in the ASME Boiler and Pressure Vessel (BPV) Code and other national standards such as ANS-3.2.

While the NQA-1 Standard can stand alone on its own merits as the definitive Quality Assurance standard, its use is promulgated principally through endorsement and adoption by others. Recognizing that the 1997 Edition of NQA-1 was a significant change in format and arrangement, most of the 1998 effort of the Committee has gone into engaging stakeholders and the major parties for endorsement. Roundtable discussions have been held on what has been added and strengthened since the last NRC endorsement (1983 with Addenda 1a) and what has been de-emphasized. The resulting list of differences is being used by the Committee as an input to planning for future addenda and will help those responsible for endorsement decide how to qualify endorsement. Another initiative underway is the incorporation into NQA-1 of specific QA requirements that some ASME nuclear codes and standards (NCS) (such as Sec. III) have over and above NQA-1 requirements, so that QA requirements for all NCS can be found in one standard. The target for completion of this task is Spring of 2000.

The 1997 Fall meeting in Las Vegas included a tour of the Yucca Mountain Facility which was developed in accordance with NQA-1 1989. The Committee members were afforded a first-hand opportunity to see some of the results of the application of NQA-1 to what is essentially a very large research and development project. Testimonials from tunnel workers on how their attitudes have changed about the value of imposing QA to this type of construction were particularly encouraging to the Committee members.

The NQA Committee continues to attract new participants with two more utility members and three non-traditional/non-nuclear users joining the committees. As life-extension, decommissioning, and waste disposal projects continue to be initiated, NQA-1 is providing requirements that reflect not only lessons learned from 30 years of nuclear power experience but also emergent technology issues such as software QA.

The next meeting of the NQA Committee will be in Arlington, Va. in April of 1999.

Meetings are open to the public.

For further information, contact:
Christian Sanna, Secretary, NQA Committee
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Joint ACI/ASME Committee On Concrete Components For Nuclear Service

NEW LEADERSHIP AND INTERNATIONAL ACTIVITY SPURS ACTION

The ASME Section III Division 2 Joint Committee met in Los Angeles on October 25, 1998, in conjunction with an ACI Convention. At the meeting, Barry Scott was named Chairman of the Joint Committee and Mike Hessheimer was appointed Vice Chairman.

South Korea and The Republic of China are currently building nuclear plants with concrete containments using the Section III, Division 2 rules. With this usage, there is a need for the Committee to make sure that the Code is responsive to the user's needs, as is kept technically current.

At the Los Angeles meeting, action was initiated on code cases and proposed Code changes resulting from requests from General Electric, Taiwan Power and Korea Electric Power Company, (the engineers and/or owners of the stations being constructed).

In order to be current and minimize the effort of the volunteer staff, there was extensive discussion on implementation of the Redesign Process for handling of Division 2 Code action. This process takes advantage of the electronic technology available today, minimizes travel costs and allows parallel review in order to expedite responses to requests. This process is more complicated for a joint committee because it involves efforts from two standards developing organizations. The Committee reached a general understanding of operations; however, procedures need to be developed and put in place.

With this increased activity, there is a need for people knowledgeable in concrete containment design and construction to join this ACI/ASME Joint Committee.

Meetings are open to the public.

For further information, contact:
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Risk-Informed Activities at the U.S. Nuclear Regulatory Commission

by Richard H. Wessman, Chief
Mechanical Engineering Branch, NRC

In 1994, the NRC's focus on probabilistic risk assessment (PRA) accelerated with the issuance of the proposed policy statement on the use of PRA methods and the proposed agency-wide implementation plan to coordinate staff activities. Since that time, NRC has continued to interact internally and externally on risk informed initiatives. In mid-1998, the Commission discussed stakeholder concerns about the NRC and its regulatory programs and potential short- and long-term actions to address those concerns. One of seven specific areas of concern was the transition to a risk-informed, performance-based regulatory framework. In response to this specific concern the NRC has conducted numerous workshops and meetings with stakeholders to promote broader use of risk informed methods and is increasing its emphasis on risk-informed, performance-based activities.

In August, the NRC established an agreement with industry on formulation of an industry PRA steering committee (led by NEI) to interface with the NRC steering committee regarding risk-informed initiatives. The NRC also recently established a Risk Informed Licensing Panel composed of senior managers involved in licensing reviews. The purpose of this panel is to streamline the review of risk informed licensing actions by serving as a focal point for resolution of technical issues and for guidance on policy implementation to NRR staff. This panel will provide a forum for the staff, licensees, owners groups, or the public to receive management attention on risk-informed licensing issues and will monitor the staff actions on these activities. Risk informed licensing actions submitted to the NRC staff to date include technical specification allowed outage time extension requests and in service inspection and testing alternatives.

Risk-informed activities of interest to ASME include in service testing (IST), in service inspection (ISI), quality assurance (QA), and technical specifications (TSs). General guidance (RG 1.174 and associated SRP Chapter 19) dealing with risk informed decision making was issued in July 1998. Application specific guidance for IST (RG 1.175 and SRP Section 3.9.7), QA (RG 1.176), and TSs (RG 1.177 and SRP Chapter 16.1) were issued in August 1998. Application specific guidance (RG 1.178) on risk-informed in service inspection (RI-ISI) of piping was issued **for trial use** in October 1998. All of these documents are available on the NRC homepage at **http://www.nrc.gov/NRC/RG/01/index.html**

NRC and NEI are engaged in continuing discussions regarding plans and schedules for completing RI-ISI related activities. One of the challenges facing the industry is a process to allow voluntary adoption of RI-ISI programs without the need for specific NRC review and approval. NEI has proposed a streamlined approach for making RI-ISI generally available for industry implementation once the staff has approved the RI-ISI pilot plant submittals and the associated Westinghouse Owners Group (WOG) and EPRI topical reports. The relationship between recent ASME code cases involving ISI and industry topicals is being considered. In the near term, NRC is considering an approach to efficiently review plant-specific RI-ISI submittals as an alternative to the regulations pursuant to 10 CFR 50.55a(a)(3).

The staff recently completed its review of the Vermont Yankee RI-ISI pilot program and issued its safety evaluation report (SER) on November 11, 1998. The staff is currently reviewing the pilot plant submittals for Surry Unit 1 (12/98), Arkansas Nuclear One, Unit 1 and 2 (early 1999), and Browns Ferry Unit 2. The staff has been interacting with the pilot plant licensees to resolve open issues and is continuing to develop the SERs for these plants.

The staff has been interacting with the WOG to resolve open issues on the WOG RI-ISI methodology documented in WCAP-14572. The staff expects to issue its SER on the WOG methodology by the end of the 1998 and is reviewing the EPRI methodology for the RI-ISI programs. The staff has also been actively participating in ASME Code activities related to RI-ISI.

The NRC is also working on an information notice to inform licensees that if they do not have a pilot plant application currently under staff review, the staff will consider authorizing a delay of up to two years in the implementation of the next ten-year ISI program update for piping only in order for the licensee to develop and obtain approval for the RI-ISI program for piping.

The Comanche Peak RI-IST pilot plant review was completed and the SER was issued on August 14,1998. Arizona Public Service Company (APS), the licensee for Palo Verde, is considering whether it will continue as a risk-informed IST pilot plant. South Texas and San Onofre have expressed an interest in making RI-IST submittals.

The NRC continues interaction with ASME on risk-informed initiatives. Noteworthy is development of the PRA Standards document. A draft PRA Standard for internal events at full power (Phase 1) is currently being distributed by ASME for broad review and comment prior to consensus committee vote. [A Phase 2 PRA Standard will address external events and shutdown.] The NRC also continues its interaction with the O&M Committee on the development of risk-informed code cases for IST.

International Focus

International InterSociety Research Committee(IISRC)

The International Inter-Society Research Committee (IISRC) was established as an independent body outside of ASME in May 1997 based on a decision by BNCS in June 1996 and the ASME Council on Codes and Standards in March 1997. It is the objective of IISRC to encourage worldwide exchange of information on nuclear related research and development activity having been and being conducted in each country in order to save R&D cost through avoiding duplication of same R&D in different countries. The ISSRC intends to deal with information mainly on materials and structures oriented R&D to be applied to, establish, or revise codes and standards for nuclear power plants.

The IISRC membership encompasses from three regions of America, Europe and Asia and financially supported by groups of parties belonging to the three regions. ASME Research has agreed to take a role of office to manage activities of IISRC. At present, an annual fee to support IISRC is shared by ASME and TENPES (Thermal and Nuclear Power engineering Society of Japan).

The Chair of IISRC is rotated among three regions, each with a term of two years. Dr. Ron Simard was appointed the first chairman of IISRC for a term from May 1997 and April 1999. Dr. Yasuhide Asada has been nominated to the Vice Chair.

Members of IISRC are from the US, UK and Japan mainly with a guest participation from Canada, France and other countries An effort is continuing to expand countries. An effort is continuing to increase the number of countries sending members to IISRC.

At the June 1997 meeting, it was agreed that IISRC will meet twice a year, in May and December during ASME Boiler Code Week or other major events such as ICONE Conferences for the convenience of the participants. Thus far, four meetings have been held. The first was in June 1997 in Washington, DC followed by December 1997 in Reno, Nevada, May 1998 in San Diego, California and December, 1998 in Dallas Texas in conjunction with ASME Code Week Meetings. In 1999, IISRC will be invited to meet in Tokyo in conjunction with ICONE-7 Conference scheduled in April 1999.

Presentations have been made summarizing research and development items related to materials and structures for nuclear application being conducted in the US, UK and Japan. Orientation and needs of research have been presented for future code updates. These presentations pointed out that it is important to verify and update the computer code "PRODICAL" which is able to predict probabilistic frequency of welding defects. Discussions will be continued on collection of actual field/laboratory data to input PRODICAL as well as to verify the code. A proposal will be presented in future meetings on kinds, amount and quality of necessary data. Based on the proposal, IISRC will discuss necessary information to respond the proposal.

In order to attain the IISRC objectives, it is important to increase number of countries dispatching members to IIRC. Previously, the IIRC Chair and Vice-Chair sent letters of invitation to Mr. Guy Baylac of France and Professor Karl Kussmaul of Germany. A similar effort will be made to expand participation to countries that have a potential interest in IIRC activity.

The Impact of Japanese Data on BPV Section III Division 1 Rules For Seismic Design of Piping

By Dr. Yasuhide Asada
University of Tokyo
Member-at-Large, BNCS

Background

Japan is a country that experiences many earthquakes. Because of the many unknown factors associated with an earthquake, the seismic design of nuclear power plant structures and components has extensive conservatism included in the design. In 1996, the Japanese utilities started a project to develop elastic-plastic seismic design criteria for nuclear power plant piping in an attempt to understand the response of piping to seismic loading and through that reduce this conservatism. The results from the experiments appear to support the revision to the seismic design rules for piping that were made in the 1995 Edition of the ASME Section III Division 1 Code.

The Experimental Plan

Previous studies have shown that ratchet/fatigue is a major failure mode that must be considered in the seismic design of piping constructed with ductile materials. To test this hypothesis, the Japanese project identified four major study areas for testing and analysis. These are:

1. Material Identification Tests
2. Quasi-static Cyclic Displacement Control Tests of a Pipe/Component
3. Dynamic Vibration Tests of Pipe/Component, and
4. Elastic-Plastic Detailed Finite Element Analyses to predict local stress-strain behavior in pipes and components subjected to cyclic/vibration loading.

The Experiment

In the material identification tests, fatigue and ratchet/fatigue data have been accumulated on typical pipe/component materials at room temperature and 300o C, viz., carbon steel (equivalent to SA-533) and 304 stainless steel. The information collected from the cyclic tension tests developed by Coffin was used to establish the Coffin-Asada criterion for ratchet/fatigue.

In the quasi-static cyclic tests, the pipe/components consisted of 4" diameter schedule 40, straight pipe, curved pipe (pipe bend), and pipe tees of carbon and stainless steel. The tests were done at room temperature and 300o C. The pipes were subjected to internal pressure and quasi-static, displacement controlled, loading cycles until failure occurred. Failure was defined as a through-wall crack. The applied displacement was equivalent to 12.5Sm based on a pseudo-elastic evaluation.

The dynamic vibration tests were done using a shaker table with specimens of the same size, geometry and materials to those specimens used in the quasi-static tests. The tests were done at room temperature and 300o C, and the shaking acceleration was adjusted to generate almost the same displacement for the dynamic specimens as for those specimens tested in the quasi-static tests. This made the comparison between tests 2 and 3 fairly simple.

The elastic-plastic detailed finite element analyses were made in an attempt to predict the stress-strain behavior in the pipe/component tests. These analyses were refined, based on the data obtained from these tests so that the test observations could be extrapolated to cover the other conditions not covered by the present tests.

Observations

All the pipe/component specimens tested in experimental areas 2 and 3 failed by a local crack, at the highest strain location due to ratchet-fatigue. Comparison of static and dynamic pipe/component test results from study areas 2 and 3 showed the crack occurred at the same location for both sets of tests. Also for both sets of tests, the crack occurred at the point of highest strain and had almost the same value, distribution, time history of strain, and cyclic life.

In the curved pipe test, a gross information was observed which was the result of ratcheting. The evaluation of local strain behavior for the pipe/component cyclic tests, using the detailed elastic-plastic finite element analyses, was fairly close.

Cyclic life prediction was made based on the strains measured in the tests and computations by finite-element analyses. It was shown that the ratchet-fatigue criterion gave a reasonable prediction of cyclic life as measured in both the static and dynamic pipe/component tests.

Future contribution

The Japanese utility project seemed to show that the alternating component of the inertia force on the piping systems under seismic conditions should be considered as displacement controlled and not load controlled. The revision to the stress limits of the 1995 Edition of Section III rules for seismic design of piping which allows a limit of 4.5 Sm on primary stress, is sufficient to prevent failure of piping due to seismic loading. The Japanese experiments seem to indicate that the 1995 revision should be extended to include secondary stress as well.

The people involved in the Japanese project are actively participating in the ASME Special Working Group on Seismic Rules SWG-SR. Details of the data from the Japanese project were presented in December 1998 at the meeting of the SWG-SR. It is expected that the work of this committee will contribute to establishing a set of rules for the seismic design of piping that will provide an appropriate level of conservatism with a sound experimental basis.

News From Canada

by Richard Barnes (ANRIC Enterprises)
BNCS ex-officio member

The suite of standards produced by the Canadian Standards Association

that support the CANDU nuclear program in Canada, approximately 60 in number, is about to undergo some significant changes particularly in the standards associated with the pressure boundary. Just over a year ago the Statute that governs the nuclear activities in Canada was rewritten to clearly define the role of the Atomic Energy Control Board (AECB) in today's new environment. The original Act was passed in the early post second world war period. With the developments in the use of radioactive substances, the major success of the development of nuclear power to produce electricity, and the changing role of the provincial regulatory authorities and their relationship to the federal authorities, the existing statute needed to be refocused to reflect this new environment.

The new Act clarifies the unique role of the Regulatory Authority in the control of nuclear activities in Canada and will lead to change in name that more clearly emphasizes the safety role of regulation of the nuclear activities. While this Act has passed through the Canadian Parliament, it has not yet been proclaimed as law because the Act needs to be accompanied by Regulations which will have many of the administrative requirements, including some of the technical limits that the AECB uses to control these activities.

Limiting this discussion to the pressure boundary aspects of nuclear power plants will illustrate some of the major activity that has to be done before these regulations are ready to be proclaimed along with the new statute. The CSA Standards associated with the pressure boundary effectively adopt most of the technical requirements of the ASME Boiler and Pressure Vessel Code, Section III, Division 1. They also include the administrative requirements that are uniquely Canadian and therefore effectively implement the ASME technical requirements with the Canadian Administrative approach.

The Regulatory Authority would like to directly reference CSA Standards but with the presence of the administrative requirements in the body of the standards, they are unable to do that. The correct place for the administrative requirements is in the regulations. Further, the original administrative requirements were heavily dependent on the provincial jurisdictions playing a unique role that gave certain responsibilities directly to the provincial bodies. In fact, many of these administrative requirements originated from the provincial requirements that also exist for non-nuclear pressure boundary. Finally, the new Act clearly places direct responsibility at the Federal level and therefore, the role of the provincial bodies is subject to federal responsibility. This must be reflected in the administrative requirements for effective regulation.

This resulted in the need to rewrite CSA Standards to exclude provincial administrative requirements and to include those that the federal body believe is relevant to this new situation in the new regulations. The definition of what is administrative and what is technical is now a point of discussion and the first cut at the rewrite has begun.. There is significant pressure to get this rewrite done quickly because the Regulatory body wants the new act to be proclaimed so that it can proceed with the update of its regulation of the nuclear industry in Canada. As this activity progresses, I will keep you informed.

Code Case N-622, "Alternate Requirements for Ultrasonic Examination of RPV and Piping Welds, Section XI, Division 1

Section XI Appendix VIII, "Performance Demonstration for Ultrasonic Examination Systems" has set many precedents beginning with its publication in the 1989 Edition. It accomplished a transition from traditional Code prescriptive methodology for performing ultrasonic examination to a "show me" process where the User's Ultrasonic Examination System (procedure, equipment and personnel) are authorized for use if it meets prescribed performance demonstration criteria. The transition shifted Code NDE Ultrasonic examination performance from construction-oriented performance to levels needed for detection and evaluating material for service induced aging mechanisms. The Nuclear Power Generation Industry actually initiated Appendix VIII implementation prior to its publication in 1989 through the Performance Demonstration Initiative (PDI). This unprecedented action was a significant help to Section XI by providing a field trial for the Performance Demonstration process. Appendix VIII has received global attention and has been adopted by European and Japanese Industries. The proposed Code Case adds a new precedent setting dimension because it was developed by a joint effort with USNRC and achieved approval to NRC Department levels prior to ASME Codes and Standards approval. The BPVC Subcommittee on Nuclear In service Inspection (SC XI) passed the action on a fast track with no negatives based on a recommendation from the SC XI Working Group on Procedure Qualification and Volumetric Examination.

The proposed SC XI action, approved by the BPV Main Committee, is an Appendix VIII enabling Code Case that resolves issues created by a USNRC draft Code of Federal Regulations (CFR) rule making on "Industry Codes and Standards" (Volume 62, Federal Register, Number 232, dated December 3, 1997). The draft CFR, literally interpreted, would have invalidated Utility Industry Ultrasonic qualifications conducted in accordance with Appendix VIII at costs exceeding $10,000,000.00. The Nuclear Industry and the Code reacted swiftly with comments to the draft CFR. The NRC response was likewise prompt and a cooperative effort was initiated to resolve the issues. A SC XI Task Group was formed which included representatives of the committee, the industry (PDI Group), and the USNRC. The Task Group met several times early in 1998 to resolve CFT and other Utility Industry Appendix VIII implementation issues that have became showstopper issues with CFR endorsement of Appendix VIII as published in 1989. The Task Group is to be commended for reconciling many contentions technical issues and NRC Staff concerns while still reducing industry burden. The Case will be published in Nuclear Cases, Supplement 4.

An Interview with Richard W. Barnes

Richard W. Barnes is an engineering consultant for ANRIC Enterprises in Etobicoke, Ontario Canada. He was selected from over 1000 participants in the ASME nuclear codes and standards activity as the 1998 Dedicated Service Award winner, in recognition of his outstanding leadership, contributions and enthusiastic participation. We asked Richard some questions about his "Code" experience:

NCS COMMUNICATOR: What are some of your most rewarding experiences in ASME committee activities?

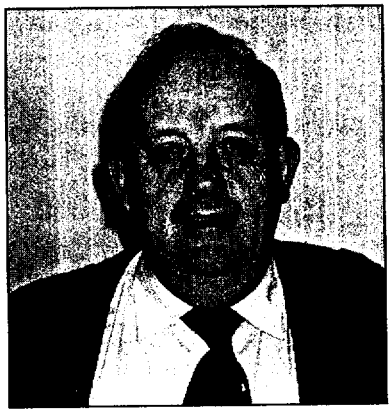
Barnes: My most rewarding experience is the interaction with my peers on the committees and the members of the ASME staff with whom I interact. I find the friendship real and caring and the interaction on the technical issues intellectually stimulating and rewarding.

NCS COMMUNICATOR: You were supported for many years in committee activity by Ontario Hydro. Other than the obvious economic consequences, what changes came about as a result of your change of employment?

Barnes: That is an interesting question because the change I experienced was extensive. The first change was the freedom to participate in activities that would not have been acceptable to the organization, and rightfully so, I might add. These areas would be seen as not directly relevant to the work I would be doing at Ontario Hydro. However, I found that this ability to choose opened up doors for me and in fact, I seemed to be asked to be involved more directly in senior committees of the Society. I was asked to run for the Chair of QME, and that led to membership on the Board on Nuclear Codes and Standards and later I was offered membership on the Main Committee of the Boiler and Pressure Vessel Committee. I have truly valued these experiences, and I can only hope that my contribution comes close to what I have personally received from participating with the fine people on these committees.

NCS COMMUNICATOR: What motivated you to start participating on ASME committees?

Barnes: My background was originally in the process and safety analysis side of the industry, followed by an active role in the initial development of the spent fuel management program for Ontario Hydro. I applied for a position to act as a liaison between Ontario Hydro and the provincial jurisdiction that attracted me since it would use skills I had developed in negotiating with people on technical issues. This automatically placed me in the environment of the ASME Boiler and Pressure Vessel Code, and since I was the supervisor one of my associates suggested that our group become directly involved in the Code activity. I had met Marc Bressler at a course on NCA-4000 and I spoke with him about participation. He encouraged me to come to a code week and the rest is history. I remember very clearly walking with Marc from the Summit Hotel, as it was known then, having breakfast on third avenue in New York city and then walking to the former United Engineering Center.



NCS COMMUNICATOR: What benefits result from your US/Canadian liaison activity?

Barnes: I believe that I have made people on both sides of the border more aware of the approaches and rationale associated with the development of nuclear power in the other country.

NCS COMMUNICATOR: What did the ASME Dedicated Service Award mean to you?

Barnes: The obvious answer, of course, is the honor of being chosen from so many people who are as worthy of receiving this award as I am, and probably many who are more so. After the initial shock of being chosen as the recipient and the thought seeped further into the subconscious mind, I have to admit I have a very deep feeling of gratitude for being chosen. What made it very real for me was the content of the letters from Don Landers, Roger Reedy and Chuck Pieper who were prepared to sponsor my nomination and of course the very kind words and the encouragement I received from the Vice President, Jim Perry who made the choice. These are people for whom I have a very high regard on several levels and their support is impossible to ignore. As I said before, the appreciation has grown with time and I am truly grateful.

NCS COMMUNICATOR: What do you consider to be your most significant accomplishment as a volunteer and what does ASME Code work mean to you personally and professionally?

Barnes: I find this a hard question to answer because I do not think in those terms. I believe I am a contributor and that I sometimes have insights that have a different slant from the normal thought process. I am very willing to share these thoughts even if they are unpopular, and I find that they do eventually have an impact on the direction that an activity is taking. What I value most about ASME is that in the main it offers the opportunity for technical people from all aspects of the industry from any country to come together and share their technical insights and have them openly and honestly examined. When I chaired meetings, I tried to maintain this approach and even enhance it. As a committee member, I fight for this openness to be maintained. I do not know if others perceive this about me but that is what I am usually trying to achieve and I believe that is my most successful contribution to the work of the ASME Codes and Standards activity. This open approach to all technical considerations that characterizes the ASME Code activity is very fulfilling to me personally and professionally.

The Redesigned Codes and Standards Process

In an effort to assist in the understanding of the new process, the following are offered:

Frequently asked questions These are questions relating to the redesign of the codes and standards development process that have been presented to the Redesign Team. While the responses are not perfect, the Redesign Team believes they represent the intent for redesign. Please feel free to ask additional questions or suggest better responses to these
questions.

Process Sequence Tables are provided which show the sequence of events of the process along with a description, key elements and recommended practices associated with each step.

Supporting Tools for Redesign A table listing these tools is provided.

Frequently asked questions

About Changing the Committee Organization

Question: *How will the existing organizational structure be affected by the Codes and Standards Redesign effort?*

Response: It is anticipated that each C&S Committee will want to adjust their organizational structure in order to meet the requirements of the redesigned C&S development process. However, a predetermined or predefined organizational structure will not be forced on any committee. Rather, lessons learned from the five implementation pilot efforts presently underway will be documented and presented as "guidance" on how organizational structure needs can be met. Issues such as technical resources, project definition and management, staff involvement and consensus group requirements will need to be addressed.

Question: *How will the redesigned process impact volunteers?*

Response: It is anticipated that any adjustments a committee might choose to make to its organization will simply redistribute its existing volunteers. Roles of individuals within each committee may change based on structure needs; however, this will be determined by the committee in its own assessment of structural needs. The objective is to use volunteers more effectively and provide opportunity for more volunteers to be involved.

Question: *Is it the intent of the redesigned process that organizational structure changes be made?*

Response: No. The intent is to satisfy the requirements of the redesigned process, not to change organizational structure.

About Human Nature

Question: Committee members have to give priority to needs of their employers and their families, "... unfortunately, our daytime jobs interfere with our committee activities." This will not change with the draft procedure. *Does the new process address slowness of committee actions that are delayed by volunteers not giving actions a high enough priority?*

Response: Not directly. The elimination of non-value-adding steps will allow committee members to accomplish more with the same effort. The use of electronic communications and the use of teleconferences to supplement face-to-face meetings will also help.

Question: Each of us has had to "pay our dues" to become a committee member whether it be subordinate group or higher level committee. One of the benefits of this process is that we develop first hand, intimate knowledge of the skill and expertise of our fellow committee members. None of us are experts in all areas of the Standard. In areas where we do not have depth of expertise, we listen to the pro and con arguments of the members with depth of expertise. We weigh their arguments based on our individual knowledge, experience, and judgment of the participants' expertise, and we cast our votes. *Won't greater reliance on electronic communication, along with a corresponding reduction of committee meetings, negatively impact the technical quality of the codes and standards?*

Response: If we don't do this right, the technical quality of the codes and standards could be affected. We must not let that happen. Complex issues cannot be resolved via electronic communication. Simple issues can be resolved by electronic means. We should resolve the simple issues using electronic communications, and save the complex ones for the face-to-face meetings. The new process does not address the frequency or length of meetings. Implementation of electronic communications is expected to enable those committees to either accomplish more with the same meeting effort, or accomplish the same with fewer or shorter meetings.

Question: The social aspects of the current committee structure and meeting process are, in themselves, a reward for committee members. To make and win a hard won point in meeting discussion among our peers, to know that we have garnered their respect — this is a reward, perhaps the most meaningful reward, for the volunteer hours we spend. A significant value of meetings is their synergistic effect. Often, a point of discussion brought up by one member will trigger a previously unconsidered concern or contribution by another member. *Won't the use of electronic communications take all of this away?*

Response: Not if balanced with the proper use of face-to-face meetings. Under the old system, all the items, administrative, routine technical, and significant technical ones were processed in meetings. The new process will allow the administrative and routine technical items to be processed electronically. This should leave more time at meetings to deal with the complex and technically challenging items. This approach should speed the overall processing of all items while making meetings more stimulating.

Question: *Won't the proposed process makes us faceless entities — requiring correspondence by fax, e-mail and by telephone with other faceless entities?*

Response: No. The new process does not eliminate face-to-face meetings. It provides an electronic means to handle administrative and routine technical items and speed the voting process for all items. Face to face interaction should be enhanced at meetings because their technical content will be more in depth. As part of the new process, the use of electronic communication and teleconferences are encouraged where the committee sees an

advantage to do so. Comment: Meetings are a catalyst for action. Two to three weeks before the meeting, a flurry of activity is initiated on member action items. This again reflects the nature of the volunteer structure — none of us want to be embarrassed in front of our peers with a "no report." The same driver works for teleconference meetings as well. Working between meetings is a possible work method also.

Question: One of the key behavior changes for some of us will be to provide comments early in the process for consideration by the project team. *How will committee members learn about the importance of submitting comments early in the process?*

Response: We are developing a manual which explains the process in a great deal of detail. We intend to develop a program in which every volunteer is trained to the extent needed for them to participate effectively in the standards development process.

About Electronic Communication

Question: *Does ASME's use of electronic media mean that all ASME volunteers will have to purchase computers and subscribe to internet services?*

Response: No. Transition to using electronic media for almost all of the standards work will happen someday, but we have offered no predictions as to when that might occur. The committees will work in both electronic and paper media until the committees decide to switch to all electronic. We expect committees will remain in the dual paper and electronic mode until all active members are capable of handling the necessary electronic communication. Note that computers with electronic mail and internet access are available at many public libraries.

Question: The policy does not go far enough and would be more useful if it was a little farther "outside the box." By that I mean all Committee correspondence should be on the bulletin board, including drafts of new standards, meeting notices, as well as revisions and ballot results. Shortly, the Internet use will be as standard (no pun intended) as the use of the telephone. Everyone must become used to it. A transition is necessary, but ASME as the governing entity must set a date by which all work is done via this forum. The cost of obtaining Internet access (if not Company provided) is nominal and should be in the best interest of any professional who wishes to remain active in his particular field. *Shouldn't ASME require the use of electronic communications as soon as possible in order to improve the efficiency of its operations?*

Response: No. We need to provide for meeting notices, agendas, minutes, and correspondence via the internet along with proposed revisions and voting results. The internet will rapidly become an integral part of communication for all of us. Because the internet is coming so hard and so fast, it is not necessary to set a date. It will happen. There are two problems with setting a date (now):

1. We don't know what date to set, and
2. It will irritate some valuable contributors who don't (yet) want to venture into electronic communications.

Question: Business, government, association and academia interests have electronic equipment available. A retired professional, for example, does not otherwise need a computer, and dropping paper communication would eliminate such a person from participating in a committee. *Won't dropping paper communication as an option for routine standards committee business discriminate against people with certain interests?*

Response: The policy on electronic communication was specifically designed to accommodate committee participants in this situation. ASME cannot remain a healthy organization without input from the more experienced committee members. Committees should maintain paper communication until all active members are "connected." In some cases, there may be some peer pressure on one or two members to join the electronic revolution so the committee can reduce its cycle times.

Question: Electronic posting will enable publication of revisions when they are approved. This could result in monthly, or even weekly, changes to some of our codes and standards. The number of changes will be impossible for users of the documents to track or responsibly implement. *How will the publication be controlled in the electronic environment?*

Response: The responsible committees will control the publication of revisions to their documents. The committees may choose to make some revisions available right away based on assigned priorities, and hold others for later publication in a regular revision cycle. Other committees may choose to simply stay with publishing on a regular cycle.

About Roles and Responsibilities

Question: The selection and role of the Project Technical Manager must be carefully defined and perhaps circumscribed. The Project Technical Manager's authority appears to increase the personal legal vulnerability. If so, many organizations may not be willing to have their employees assume the PTM position; thereby diminishing the pool of qualified (or willing) managers. *Won't the new process place greater responsibility and legal vulnerability on the Project Technical Manager and other team members?*

Response: No. To a great extent, establishing the title of Project Technical Manager merely formalizes the role played by assigned Task Team Leaders, self appointed "Champions," responsible individuals, etc. who are typically evident as leaders on timely, successful committee actions. In almost all cases, one or more individuals are assigned to develop a proposed action and then relied on to guide and defend the action, at least through several reviews, comment and ballot cycles. The Project Technical Manager has not been assigned greater technical responsibility or authority to these teams. He or she will be responsible for the action identified, have accountability for timely progress and see it through to consensus approval. The consensus committee still retains full responsibility for technical acceptability of the action. The supervisory board still retains full oversight responsibility for ensuring the integrity of the process. All comments must be dispositioned, and the appeal process remains in place for those who feel their concerns have not been adequately resolved.

Note: Regarding the stated concern about potential legal vulnerability, it should be noted that ASME has a long-standing Constitution provision for indemnification of an individual serving ASME "provided that such person acted in good faith for a purpose which is reasonably believed to be in the best interest of the Society". In addition, federal legislation entitled the Volunteer Protection Act of 1997 was enacted, providing immunity from suits for volunteer activities under certain specified circumstances.

The Redesigned Codes and Standards Process

PROCESS STEP	DESCRIPTION /KEY ELEMENTS	RECOMMENDED PRACTICES
Submitting a Request	**Requestor submits completed template for initiation of a new action**	
Project Adminisrative Manager Assigned	**Committee Chair and staff assign responsibility for the item**	
Project Technical Manager Assigned	**Tracking number assigned and provided to requestor. Requestor asked to participate in development of the item; item assigned to appropriate committee**	
Project Team Assigned	**Project Technical Manager, committee officer, and staff determine technically cognizant individuals to develop proposal and establish priority and complexity of item.** Project Team develops and manages approval of action. Team is responsible for processing action through all review and approval steps	Team may be appointed by Standards Committee or any supporting group such as a Subcommittee or Working Group. Team may include members from one or more Supporting Groups and external experts
Draft Developed	**Project Team agrees on draft standards action**	All interested Committee elements should have an opportunity to participate in development of proposal, either in direct assistance or review capacity. Team should consult with other knowledgeable individuals while developing proposal prior to external review.
Draft Issued for Review & Comment	**Draft standards action made available for review and comment by interested parties** Team developed action is released for broad pre-vote review to: ■ Cognizant or affected supporting groups ■ Standards Committee ■ Cognizant Board ■ Interested external individuals or Entities	
Project Team Dispositions Comments	**Comments addressed by Project Team; substantive changes will require another review cycle**	Team should determine action is ready for external review **by consensus - no formal vote or ballot action is required.** Cognizant Group Chair may participate in decision for external review. Review may be bypassed for minor, non- controversial actions. Proposals with significant changes to resolve comments should have a follow up broad pre-vote review **of changes.**
Proposal Submitted for Consensus Vote	**Project Technical Manager determines proposal ready for consensus vote; staff issues draft standards action to standards committee for consensus vote; may also be submitted concurrently for public review.** Unresolved comments and team positions are documented and included in package for vote. Adverse comments from Committee, Board and public are reviewed by Project Team, changes and responses to comments are sent to Committee Members for opportunity to change vote	Significant actions may need review at standards committee meetings. Minor items should be processed independent of meetings. Actions for vote may also be sent to cognizant Supporting Groups for comment. **Public review** should be accomplished in parallel with Standards Committee vote
Standards Action Submitted to Board for Approval	**Consensus of standards committee recorded; supervisory boards and public review comments addressed; supervisory board determines standards committee action in compliance with procedures and policy.**	Board approval packages should include: ■ a record of the standards committee vote ■ documentation of and responses to unresolved disapproved standards committee votes, Board comments, and public review comments
Notification and Publication	**Staff informs requestor that request approved by standards committee; standards action published in addenda or new edition**	

SUPPORTING TOOLS FOR REDESIGN				
Task Initiation Template	Action numbering and posting	Advise to requester	Action Tracking	Scheduling and prioritizing
Bulletin Board	Standards Home Pages	Electronic posting of proposals for review	Electronic Voting	Guidelines Manual

HONORS AND AWARDS

ASME FELLOWS

Dr. Nils J. Diaz, Commissioner, USNRC, was awarded an ASME Fellow by ASME President Winfred Phillips and ASME Vice President Perry at the 5th NRC/ASME Symposium on Valve and Pump Testing in July, 1998. ASME Fellow awards were also presented to James A. Perry, Chairman BNCS and C. Wesley Rowley, Member-at-Large BNCS, received their ASME Fellow pins and certificates in a surprise ceremony during the Atlanta BNCS meeting in October, 1998. The following are the citations for these awards.

James A. Perry,

Vice President –Nuclear Codes and Standards

For outstanding contributions both as a lead in nuclear quality assurance and quality control for commercial nuclear power plants and as a leader in ASME Codes and Standards. Of particular importance was his twelve years as chairman of the ASME Nuclear Quality Assurance Committee during the time that QA policy was established. His contributions were recognized by his peers when they elected him as the only Honorary Members of the Nuclear Quality Assurance Committee. He has continued his contributions through his dedicated leadership of the ASME Board of Nuclear Codes and Standards where he is the Vice President and Chairman.

C. Wesley Rowley,

Member - at - Large -BNCS

For major contributions to the entire field of nuclear in service testing through his activities on the ASME Operations & Maintenance Committee and through his multiple interfaces with many utilities related to in service testing. Also, for his recent contributions to the field of risk-based in service testing, both with the O&M Committee and with various utilities having nuclear power plants where pilot studies have been carried out. This has led to a viable cost-effective probabilistically based option to the current deterministic in service testing.

Nils J. Diaz, Commissioner-USNRC

Dr. Diaz currently serves as Commissioner with the U.S. Regulatory Commission. Prior to his appointment, he was Professor of Nuclear Engineering Sciences at the University of Florida. From 1971 to 1996, Dr. Diaz consulted on nuclear engineering and energetics to private industry, the U.S. Government and several foreign governments. He has published more than seventy referred papers on such topics as reactor kinetics and safety, advanced reactor concepts, propulsion and nuclear fields. He has testified for both the U.S. House of Representatives and the U.S. Senate on space power, nuclear proliferation and on nuclear reactor safety.

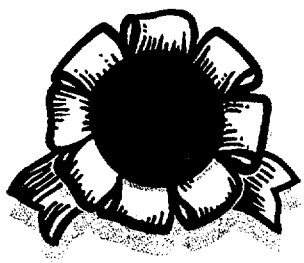
ASME President Winfred Phillips and ASME Vice President James Perry present Professor Diaz with an ASME Fellow award at the 5th NRC/ASME Valve & Pump Symposium

1999 Dedicated Service Award-Nuclear Codes and Standards:
THOMAS J. MAWSON

Tom Mawson has over 20 years of engineering and supervisory experience with Northeast Utilities, the majority of which has been in the design, analysis, fabrication and installation of mechanical systems, structures and components in the nuclear power industry. Tom has been actively involved in ASME codes and standards activities for 17 years. James Perry, ASME Vice President (NCS), selected Tom from over 1000 participants in the ASME nuclear codes and standards activity as the 1999 Dedicated Service Award winner:

"In recognition of unusual dedicated voluntary service to the Society as distinguished by outstanding performance, demonstrated effective leadership, prolonged and committed service, extreme devotion, untiring enthusiasm, unwavering faithfulness and enthusiastic participation in codes and standards committees and the Board on Nuclear Codes and Standards."

Presentation of the award was made at a special ceremony at Northeast Utilities' Millstone plant on March 4, 1999.



Nuclear Codes and Standards Meeting Calendar

KEY

BNCS	= Board on Nuclear Codes and Standards	XI	= Boiler and Pressure Vessel Subcommittee on Nuclear Inservice Inspection
CONAGT	= Committee on Nuclear Air and Gas Treatment Equipment	QME	= Committee on Qualification of Active Mechanical Equipment
O&M	= Committee on Operation and Maintenance of Nuclear Power Plants	NQA	= Committee on Nuclear Quality Assurance
III-1	= Boiler and Pressure Vessel Subcommittee on Nuclear Power	CNRM	= Committee on Nuclear Risk Management
III-2	= Joint ACI/ASME Committee On Concrete Components For Nuclear Service	V&P	= ASME/NRC Symposium on Valve and Pump Testing in Nuclear Power Plants
CNF	= Committee on Cranes for Nuclear Facilities	{ }	= Tentatively Scheduled: Date and/or hotel to be determined

COMMITTEE	1999	2000	2001
BNCS	June 10-11; Omni Severin Hotel, Indianapolis, IN {Oct. 6-7, San Francisco, CA}	Jan. 26-27; Grosvenor Hotel, Orlando, FL {June 8-9; Providence, RI (w/SAM)} {October 4-5; Portland, OR}	{Jan. 24-25; Atlanta, GA} {June 7-8; New Orleans, LA (w/SAM)} {October 3-4; San Diego, CA}
CONAGT	July 27-30; Holiday Inn, Brookline, MA	Feb. 15-18; Sheraton Hotel, Charleston, SC	
CRANES	Oct. 19-22; Buena Vista Suites, Lake Buena Vista, FL		
O&M	June 7-9; Holiday Inn, Alexandria, VA Sept. 20-22; Colorado Springs Marriott, Colorado Springs, CO Dec. 6-9; Hilton Clearwater Beach Resort, Clearwater Beach, FL	March 6-9; Mission Valley Hilton, San Diego, CA June 5-7; Holiday Inn, Alexandria, VA Sept. 18-20; Colorado Springs Marriott; Colorado Springs, CO	
III-1	May 17-21; Holiday Inn Four Seasons, Greensboro, NC Sept. 13-17; The Tradewinds, St. Petersburg, FL Dec. 13-17; Sheraton New Orleans Hotel, New Orleans, LA	Feb. 28-Mar. 3; Adams Mark, Daytona Beach, FL May 15-19; The Royal York Hotel, Toronto, Ontario Sept. 11-15; The Omni Hotel, Los Angeles, CA Dec. 11-15; Opryland Hotel, Nashville, TN	Feb. 12-16; San Francisco Hilton & Towers, San Francisco, CA May 15-19; Westin William Penn, Pittsburgh, PA Sept. 10-14; New York City Dec. 10-14; Boca Raton Hotel, Boca Raton, FL
XI	May 17-20; Holiday Inn Four Seasons, Greensboro, NC August 30-Sept. 2; San Diego Mission Valley Hilton, San Diego, CA Dec. 13-16; Sheraton New Orleans Hotel, New Orleans, LA	Feb. 28-Mar. 2; Adams Mark, Daytona Beach, FL May 15-18; The Royal York Hotel, Toronto, Ontario {August 7-10; Portland, OR}	Feb. 16-20; San Francisco Hilton & Towers, San Francisco, CA {August 6-9; Vancouver, BC, Canada} Dec. 10-14; Boca Raton Hotel, Boca Raton, FL
QME	Sept. 14; The Tradewinds, St. Petersburg, FL	Feb. 29; Adams Mark, Daytona Beach, FL Sept. 12; The Omni Hotel, Los Angeles, CA	Feb. 13; San Francisco Hilton & Towers, San Francisco, CA Sept. 11; New York City
NQA	April 26-28; Hilton Crystal City, Arlington, VA {October 24-26, San Antonio, TX}		
V&P		July 17-20; Hyatt Regency, Washington, DC	

ASME STAFF CONTACTS:NC&S

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Jess Moon	phone: (212) 591-8514	fax: (212) 591-8501	e-mail: moonj@asme.org	O&M, CNF
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Attachment 7

NRC Meeting on Standards

The Health Physics Society is secretariat to two Accredited Standards Committees (ASCs) N13 and N43. The two ASCs along with the HPS Standards Committee (HPSSC) consitute the HPS standards organization.

The primary scope of the respective organizations are:

- The HPPSC (Jack Fix, current chair) is concerned with integration among the respective HPS ASCs and with HPS organizational representation to other standards organizations. The HPSSC is charged with prioritizing and publishing HPS Standards.

- N13 ASC (Jerre Forbes, current chair; Joe Ring, incoming chair) is concerned with radiation protection of workers and the public related to the use, testing, and measurement of radiation.

  Six Technical Sections:

Section	Current Section Manager	Incoming Section Manager
Contamination Limits (CON):	Tracy Ikenberry	
Environmental (ENV):	Joe Stencel	Tom Gesell
External Dosimetry (EXT):	Sharon Schumacher	Bob Devine
Internal Dosimetry (INT	Gary Kramer	Jim Neton
Instrumentation (INS)	Henry Kahnhauser	
Medical Health Physics (MED):	Peter Roberson	Norm McElroy

- N43 ASC (John Taschner, current chair) is concerned with radiation protection aspects of radiation producing equipment used in industrial and non-medical research and development activities (excluding nuclear reactors).

Current working groups for the N13 and N43 ASCs are shown in Attachments A and B, respectively.

Attachment A. N13 Working Groups, Joe Ring, Incoming Chair

Standard[a]	Working Group Chairperson	Section	Title
N13.1-1999	John Glissmeyer	ENV	Guide to Sampling Airborne Radioactive Materials in Stacks and Ducts
N13.2	Joe DiCicco	INT	Guide for Administrative Practices in Radiation Monitoring
N13.3	Bill Casson	EXT	Dosimetry for Criticality Accidents
N13.5	To be named	INS	Performance Specifications for Direct Reading and Indirect Reading Pocket Dosimeters for X- and Gamma-Radiation
N13.6	Matt Lyon	EXT	Practice for Occupational Radiation Exposure Records Systems
N13.7	Craig Yoder	EXT	Criteria for Film Dosimeter Performance
N13.11-1993	Steve Sims	EXT	Criteria for Testing Personnel Dosimetry Performance (revision)
N13.14-1994	Bill Inkret	INT	Internal Dosimetry Programs for Tritium Exposure-Minimum Requirements
N13.22-1995	Allen Brodsky	INT	Bioassay Programs for Uranium
N13.27	Jim Bogard	INS	Performance Specifications for Pocket-Sized Alarming Dosimeters/Ratemeters
N13.28	To be named	MED	Guide for Hospital Emergency Departments on Handling Radiation Accident Patients
N13.30-1996	Matt Lardy	INT	Performance Criteria for Radiobioassay
N13.32-1995	Ron Stafford	EXT	Performance Testing of Extremity Dosimeters
N13.37	Gladys Klemic	ENV	Performance Testing and Procedural Specifications for Thermoluminescent Dosimeters
N13.41-1997	Carol Berger	EXT	Criteria for Performing Multiple Dosimetry
N13.42 - 1997	Michael Williams	INT	Internal Dosimetry for Mixed Fission and Activation Products
N13.52	Erik Kearsley	EXT	Performance Specifications for Personnel Neutron Dosimeters
N13.45-1998	Dick Vetter	MED	Design and Performance Specification for Low Level Radiation Waste Incinerators
P/N 13.9	J. Stewart Bland	ENV	A Guide to Environmental Surveillance Around Nuclear Facilities
P/N13.12	Bill Kennedy	CON	Surface and Volume Radioactivity Standards for Unconditional Clearance
P/N13.25	Guthrie Miller	INT	Internal Dosimetry Techniques for Plutonium
P/N13.29	Marko Moscovitch	ENV	Criteria for Testing Environmental Dosimeter Performance
P/N13.31	Tom Buhl	CON	Guide for Assessing Radiation Doses from Plutonium and Americium in Soils

Attachment A. Cont'd

Standard[a]	Working Group Chairperson	Section	Title
P/N13.33	Kjell Johansen	INS	Guide to Preparation of Environmental Radiation Surveillance and Monitoring Reports
P/N13.34	Phillip Jenkins	INS	Performance Specification for the Measurement of Radon in Indoor Air
P/N13.35	Tim Lynch	INT	Standard for the Bottle Manikin Absorption (BOMAB) Phantom
P/N13.36	Paula Trinoskey	ENV	Core Training in Radiation Protection for Workers
P/N13.38	Lee McAtee	INS	How to Select and Use Neutron Radiation Instrumentation for Individual Dose Determinations
P/N13.39	Don Bihl	INT	Standard for Internal Dosimetry Programs
P/N13.40	Peter Olsen	INT	Standard for Thorax Phantoms used in Performing Radiological Measurements of Internally Deposited Radionuclides
P/N13.43	Dave Hickman	INT	Anthropomorphic Structures used in Performing Radiological Measurements of Internally Deposited Radionuclides
P/N13.44	Michael Mallet	INT	Thyroid Phantom used in Occupational Monitoring
P/N13.46	Dave Hintenlang	ENV	Guide for Radon/Radon Decay Product Testing in Real Estate Transactions for Residential Dwellings
P/N13.47	To be named	ENV	Environmental Pathway Modeling
P/N13.48	Les Aldrich	EXT	Radiation Protection Terminology
P/N13.49	Eric Abelquist	EXT	Performance and Documentation of Ionizing Radiation Surveys
P/N13.50	James Hylko	CON	Characterization of Radioactive Waste
P/N13.53	Jean-Claude Dehmel	ENV	Guide for Control and Release of Technically Enhanced Naturally Occurring Radioactive Materials (TENORM)
P/N13.59	Eric Abelquist	ENV	Characterization of Land Areas and Structures in Support of Decommissioning
P/N13.XX	To be named	(c)	(Proposed) Radon Mitigation
P/N13.54	Marilyn Stovall	MED	(Proposed) Fetal Radiation Dose Calculations
P/N13.55	To be named	EXT	How to Estimate the Overall Accuracy in Occupational Dose Determinations
P/N13.56	To be named	INS	Procedures and Instrumentation for Characterizing Airborne Radioactivity in the Workplace
P/N13.57	To be named	MED	Performance Specifications for Clinical Xenon-133 Traps
P/N13.58	John Bliss	MED	Methods for Evaluating Radiation Protection Requirements for Handling Radioactive Material
P/N13.60	SY Chen	CON	Standards for Late-Phase Protection Actions Post-Nuclear Incident
P/N13.61	A. R. McFarland	ENV	Sampling and Monitoring Airborne Radioactive Substances from the Ambient Atmosphere
P/N13.62	Paula Trinoskey	ENV	Training and Qualifications of Health and Safety Technicians

Notes: (a) PINS form submitted for standards noted as P/N13.XX. PlanCo-XXX standards receive N13.XX number upon final approval.
(b) Working group chair to be named.
(c) Section not assigned yet.

Attachment B. N43 Working Groups, John Taschner Chair

Standard[a]	Working Group Chairperson	Title
N43.1	James Liu Scott Walker	Radiological Safety in the Design and Operation of Particle Accelerators
N43.2	Jeffrey Leavey	X-Ray Diffraction and Fluorescence Analysis Equipment
N43.3	Tony LaMastra David Lee	General Radiation Safety Standard for Installations Uning Non-medical X-ray and Sealed Gamma-Ray Sources
N43.4	Gordon Lodde	Classification of Radioactive Self-Luminous Light Soruces
N43.5	Dieter Markert	Radiological Safety for the Design of Radiographic and Fluoroscopic Insustrial X-ray Equipment
N43.6-1997	Jack Dukes	Sealed Radioactive Soruces Classification
N43.7	Vincent Foerst	Safe Design and Use of Self-contained, Dry Storage Gamma Irradiators (Category I)
N43.8	Jack Dukes	Classifcation of Industrial Ionizing Radiation Gauging Devices
N43 9	John Munro	Radiological Safety for the Design and Construction of Apparatus fo Gamma Radiography
N43.10	Eric Beers Vincent Foerst	Safe Design and Use of Panasonic Wet Source Storage Gamma Irradiators (Category IV)
P/N43.11	Bill Hoak Bill Morris	Safe Operation Design for Industrial X-ray Radiographic Equipment
P/N43.12	Vincent Foerst	Safe Design and Use of Panasonic Dry Source Storage Gamma Irradiators (Category II).
P/N43.14	(a)	Manual of Good Safety Practice for Industrial Gamma Radiography
P/N43.15	James Myron	Safe Design and Use of Self Contained, Wet Source Storage Gamma Irradiators (Category III)
P/N43.16	Tony LaMastra	Radiation Safety in the Use of Radionuclide Sources to Test Scrap Metal Radioactive Material Monitoring Systems

a. Chair to be named.