April 2008
Volume 8, Issue 1

NED Newsletter

Nuclear Engineering Division Newsletter
Joe Miller – Editor 703-356-4149

Special Interest Articles:

Highlights of NED:

NED Chairman Message for the New Year

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A nuclear renaissance is in full bloom. This development is so essential for the environmentally sound future of the planet on which we live. The Nuclear Engineering Division of ASME has had a key role in this renaissance and is being proactive in helping to bring about the success of the revival of a strong and vibrant nuclear industry world wide.

Reflecting back in time, the Three Mile Island accident brought a halt to the nuclear industry expansion in the USA, and virtually throughout the world, a fait accompli which was virtually sealed when the Chernobyl accident occurred seven years later.

But the ASME and its Nuclear Engineering Division never gave up on the benefits of and the world need for nuclear power. Many of the ASME Presidents testified to Congress on how essential it was to have nuclear power as a main contributor to the future electric generation in the USA and the world. The NED continued to function, and maintained a vision of the future with its Advanced Reactors Committee.

During this dreary period of the late 1980s and early 1990s, NED kept functioning. In 1991 the NED held the first International Conference on Nuclear Engineering (ICONE), in Tokyo in full partnership with the Japanese Society of Mechanical Engineers. ICONE 2 was held in San Francisco two years later.

Next month we will hold the 16th ICONE in Orlando Florida, at the Disney Contemporary Resort (May 11 to 15) with over 500 papers being presented. Not only is this a joint effort of ASME and JSME, but it also includes the Chinese Nuclear Society. The ICONE 17 meeting, in Belgium in July 2009 will also involve ERUATOM as a partner.
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Editor's Message

The purpose of this newsletter is to keep the NED membership informed on new developments and important activities in the nuclear industry. These are very exciting times for the nuclear power industry. The current trend in the world is to build, build and build nuclear power plants. The world has been engaged in this nuclear expansion for the last 10 years and now the USA is in the process of trying to catch up. This edition of the NED newsletter emphasizes nuclear power plant licensing and information about our technical meeting, ICONE16. Included in this newsletter are stories on the new nuclear licensing process (page 2) and on Exelon new plant activities. Figure 1 (page 10) presents the new licensing applications. As you can see, the AP1000 designs applications are leading the way in the US. From 2007 to 2010, the Nuclear Regulatory Commission (NRC) expects to receive 22 applications for 33 units. This is summarized in Table 1 (page 11). Figure 1 and Table 1 provide just a glimmer of the exciting events that will take place in the next 10 years. I hope you find this edition of the newsletter informative and insightful. If you have any questions or comments, email me at jsmeda@cox.net. Joe Miller

Men working on a reactor head

Exelon Nuclear Designates Victoria County, Texas, Site For Combined Construction & Operating License

FROM: Thomas S. O'Neill, Vice President, New Plant Development

On December 18, 2007, we announced that Exelon Nuclear has selected Victoria County as its site in southeast Texas for a federal license application that would allow construction and operation of a new nuclear plant should the company decide to build one. Exelon Nuclear expects to submit the Combined Construction & Operating License application (COL) to the federal Nuclear Regulatory Commission in September 2008.

In June, Exelon announced that both Victoria County and Matagorda County were being considered as possible sites for the license application. After conducting in-depth field investigations and research at both locations as part of the company's site selection process, Victoria County was identified as the site best suited to satisfy NRC requirements as well as other federal and state laws and regulations.

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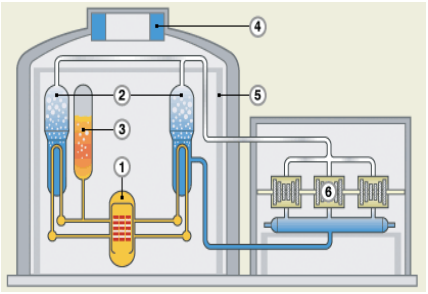

WESTINGHOUSE AP1000

1 - Reactor
2 - Steam Generators
3 - Pressurizer
4 - Passive Cooling Water Tank
5 - Steel Containment
6 - Turbine

What is Combined Operational Licensing Application (COL) ?

Excerpts from a speech by Peter B. Lyons, USNRC, at the **15th Pacific Basin Nuclear Conference, Sydney, Australia, October 15-20, 2006.**

“The viability of nuclear power is inextricably linked to its effective regulation. There is no way, presently and in the foreseeable future, to maintain and to advance the use of nuclear power in free societies without a strong, predictable, and credible regulator. At the NRC, we enhance our strengths, which include reactor safety oversight, predictability, and credibility, through technically sound regulation and by enabling public participation. In these areas, it is essential that regulatory infrastructures be strong, sound, and safety-focused, with state-of-the-art technology in every important safety aspect. As regulators, we must listen to, respect, and analyze different views from public and private stakeholders, while making and enforcing independent decisions.”

“As we look forward in the United States, we also see the possibility of new nuclear plants being built, despite a 25-year pause in new plant license applications and 10 years since our last new plant startup. We understand that nuclear power is now a global enterprise, and that we all have an abiding interest in seeing that the use of nuclear power is accomplished with a focus, first and foremost, on safety. While nuclear power can be an economic source of energy for many nations, economic considerations can never be allowed to overtake safety as our primary concern.”

“A combined license authorizes both construction and conditional operation of a nuclear power reactor. To simplify our review process, a combined license application may incorporate by reference either a certified plant design or an approved early site permit or both. After the plant is built, the Commission must find that all necessary inspections, tests, and analyses have been performed and associated acceptance criteria have been met before granting authorization to operate.”

“To accommodate this extraordinary increase in regulatory review workload, the NRC staff is planning to implement a design-centered approach to facilitate parallel review of multiple standardized combined license applications.

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NED Governance

Over the last few years the Nuclear Engineering Division of ASME (NED/ASME) has undergone tremendous changes and improvements. Aside from co-hosting the International Conference on Nuclear Engineering (ICONE), the International Conference on Environmental Remediation and Radiactive Waste Management (ICEM), the NED:

- Was restructured,
- Created a complement of technical committees,
- Began offering technical seminars,
- Became partners with the Chinese Nuclear Society (CNS), in addition to the Japan Society of Mechanical Engineers (JSME), in the organization of ICONE,
- Is planning on having its first ICONE in Europe for the first time in 6 years, and
- Has remained the premier nuclear engineering conference internationally.

All the above were made possible by the hard work of numerous people who have devoted countless hours to the refurbishment and continued success of the NED. However, our past chair, Richard (Dick) Schultz was instrumental in expediting these activities which are intended to make the division better able to make a productive contribution to both the ASME and to the future of nuclear energy.

To give you a good picture of how the NED is presently structured, let's start with a thumbnail description of the new organization. The ASME Nuclear Engineering Division (NED) structure is based on the following three committees:

1. Executive Committee
2. Committee of Past Chairs
3. Committee of Technical Chairs

The three committees listed above are the Governing Committees of the NED. In summary, the Executive Committee (EC, with eight voting members) has the ultimate responsibility for the direction of the NED. The Committee of Past Chairs (CPC) is a resource and a consultant organization that supports the NED's endeavors. The Committee of Technical Chairs (CTC) is an organization designed to coordinate the overall direction of the NED's technical committees and to provide assistance to the NED. A short description of each of the committees is given in the following paragraphs.

Executive Committee: The voting members of the EC consist of the following:

- Director of Communications
- Assistant Treasurer:
- Program Chair:
- Secretary/Treasurer:
- Honors & Awards Chair
- Vice Chair
- Chair
- Past Chair

The above Members, with the exception of the Director of Communications are listed in the order of seniority where the Assistant Treasurer is the least senior incoming member. Each EC member spends one year in each of the positions, where the year goes from July 1 to June 30. The most senior member is the Past Chair. Therefore, an EC Member will spend 7 years on the committee.

An incoming member of the EC will be selected by vote by the sitting members of the EC.
In addition to the voting members, there are four additional members of the EC:

- ASME Representative
- European Liaison
- Japan Society of Mechanical Engineers (JSME) Liaison
- Chinese Nuclear Society (CNS) Liaison

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NED Provides Much Needed Financial Support

The NED Executive committee recently approved two significant financial donations. One of these was a $5,000 donation to the ASME Foundation's Endowed Scholarship for the Virginia Tech Mechanical Engineering Department, in memory of the tragedy that occurred at that campus in the Spring of 2007.

The NED has also contributed $25,000 seed money to the first Early Careers Conference, to be held in conjunction with ICONE 16 at Orlando, Florida. This first-of-a-kind nuclear conference within ASME is aimed at young professionals who have been in the workforce less than 5 years. The conference will be held at the Disney Contemporary Resort, starting on Saturday, May 10, and overlapping into the Monday and Tuesday of the ICONE 16 Conference.

Sample of Papers in Track 1 of ICONE 16

Jason Sinkhorn and William Mendez, "DEVELOPMENT OF FULL SCALE REACTOR COOLANT PUMP THRUST BEARING TEST SYSTEM AND QUALIFICATION PROCESS FOR RETROFIT THRUST BEARING OIL SEAL WITH COMMERCIAL GRADE COMPONENTS" ICONE16-48956

ABSTRACT

A fleet of reactor coolant pump thrust bearings were experiencing loss of oil inventory through a face rubbing mechanical oil seal. In a span of six months, Westinghouse developed a replacement seal which retrofit into the existing bearing, erected a full scale bearing test system, operated the prototype seal through various operating conditions utilizing Six Sigma Design of Experiments methodology, qualified the seal for sustained use in an operating reactor plant and supported the installation of the retrofit seals. The retrofit seal replaced a problematic face rubbing seal with a controlled leakage design utilizing a floating ring - a pressure reducing bushing free to translate in the X-Y plane. The prototype seal system was optimized through use of the Design of Experiments. Design optimization was aimed at reducing oil aeration to levels lower than those present with the original equipment, which when achieved, provided improved heat transfer from the bearing. The test system was constructed around a production thrust bearing, identical to those installed in the plant, which was modified to facilitate collection of a variety of process variables. In all, the system was capable of simultaneously sampling and storing data from 56 separate channels; while recording digital video from eight sources, from cameras both inside and outside of the bearing. All in-service operating parameters were duplicated by the test system, including: computer controlled variable vertical thrust load from zero to 90 tons, computer controlled variable radial thrust load and acceleration from standstill to operating speed in 16 seconds. Safe shutdown operating variables were monitored automatically by the system, in the event of a faulted condition the system automatically detected the fault and initiated a safe shutdown automatically. To date, all installed seal systems have performed as designed; allowing essentially no leakage at this location from the bearing reservoir. The test system continues to be used on development projects focused on improving other aspects of the bearing's performance.

Brian Pedherney, et. al., "ACR-1000® PLANT LAYOUT", ICONE16-48919

ABSTRACT

Atomic Energy of Canada Limited (AECL) has established a successful, internationally recognized line of CANDU® reactors that use heavy water moderator and pressure tubes; in particular the medium-sized CANDU-6 reactor. AECL has consistently adopted an evolutionary approach to the enhancement of CANDU nuclear power plant designs over the last 30 years. This approach has been extended further in the development of the ACR-1000®.

The ACR-1000 design has evolved from AECL's in-depth knowledge of CANDU structures, systems, components and materials, as well as the experience and feedback received from builders, owners and operators of CANDU plants. While retaining the proven strengths and features of CANDU reactors, the ACR design incorporates innovations and state-of-the-art technologies where appropriate.

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International Conference on Nuclear Engineering ICONE 16

May 11-15, 2008
Orlando, Florida

The **International Conference on Nuclear Engineering (ICONE)** is the premier global conference for addressing the needs of the nuclear industry. Speakers and participants at ICONE are the leaders and experts from the nuclear industry. The conference has 505 final papers and the corresponding presentations, 74 oral presentations, 6 keynote speeches plus 46 invited plenary presentations. Topics covered at ICONE16 include:

- Plant Operations, Maintenance, Installations And Life Cycle
- Component Reliability and Materials Issues
- Structural Integrity
- Instrumentation & Controls (I&C)
- Advanced Applications of Nuclear Technology
- Next Generation Systems
- Safety and Security
- Codes, Standards, Licensing And Regulatory Issues
- Fuel Cycle and High Level Waste Management
- Low Level Waste Management and Decommissioning
- Thermal Hydraulics
- Computational Fluid Dynamics (CFD), Neutronics Methods and Coupled Codes
- Near Term Deployment - Plant Designs, Licensing, Construction, Workforce and Public Acceptance
- Non-Power Applications Of Nuclear Technology

In addition to hundreds of technical presentations, ICONE will host a **Nuclear Industry Forum**. The Forum will address key technical challenges and business issues facing the nuclear industry, through panel discussions with leaders from utilities, vendors and government. Go to **http://www.asmeconferences.org/ICONE16/** for more information.

Early Career Technical Seminar at ICONE16

The Early Career Technical Seminar is being held for early career engineers interested in the field of nuclear energy. The goal of the seminar is to provide early career engineers with an opportunity to gain technical, soft-skill and professional development knowledge in one forum while increasing their awareness of industry issues, constraints and future trends. The seminar will also provide the opportunity to network with industry leaders, and to see and interact with suppliers/vendors in the exhibits area. Register at **http://www.asmeconferences.org/ICONE16/EarlyCareerSeminar.cfm** .

Topics that are to be covered:

- Who Designed This Thing? — How to Incorporate Operations and Maintenance Considerations into Design
- How Will the New Plants Be Built?
- Plant Outage Planning and Implementation
- ASME Codes
- Industry Events
- The Licensing and Regulatory Process

International Conference on Nuclear Engineering ICONE 17

July 12 to 16, 2009
Brussels, Belgium

Sheraton Hotel

http://www.starwoodhotels.com/sheraton/property/overview/index.html?propertyID=488

The **International Conference on Nuclear Engineering (ICONE)** is the premier global conference for addressing the needs of the nuclear industry. Speakers and participants at ICONE are the leaders and experts from the nuclear industry. Topics covered at ICONE17 will be similar in content as presented in INCONE16.

Honors and Awards

The **Nuclear Engineering Division** of ASME sponsors several important awards. Information about each award is given at **http://www.asme.org/Governance/Honors/SocietyAwards/** for ASME awards and at **http://divisions.asme.org/ned/awards/index.html** for NED awards. Some of these awards are presented below.

ASME Society Awards:

- **James N. Landis Medal** is presented for outstanding personal performance related to designing, constructing, or managing the operation of major steam-powered electric stations using nuclear or fossil fuels.
- **Bernard F. Langer Nuclear Codes & Standards Award** Recognition of an individual(s) who has contributed through the development and promotion of ASME Nuclear Codes and Standards or the ASME Nuclear Certification Program.
- **Prime Movers Committee Award** recognizes outstanding contributions to the literature of thermal electric station practice or equipment which are available through public presentation and publication.
- **George Westinghouse Medals** was established to recognize eminent achievement or distinguished service in the power field of mechanical engineering.

NED Division Awards:

- **Distinguished Service Award** Recipient has provided major and significant contributions to the goals and pursuits of the ASME Nuclear Engineering Division
- **M. Sacid (Sarge) Ozker Award** The award is bestowed for distinguished service and eminent achievement in the commercialization of nuclear power/ energy with particular emphasis in the field of radioactive waste management.
- **Service Recognition Award** Outstanding service to the ASME Nuclear Engineering Division for efforts on:
  (1) the executive, administrator, technical committees;
  (2) liaison work; or
  (3) other significant efforts.

If you have a deserving individual in mind for any of these awards, please contact ASME or NED.

CONTACTS

Have questions? Contact Customer Service at:
E-mail: **infocentral@asme.org**
Phone: 1-800-843-2763
or 1-973-882-1170

NED Chairman Message for the New Year (cont)

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These efforts and partnerships, to keep the ASME nuclear technical community active and vibrant, have been and will be essential to the future of nuclear power in the USA and the world. Consider the impact of the ASME, with its 110,000 members. When ASME speaks, Congress listens. And when ASME speaks about nuclear power, the ASME reputation as a premier engineering society involved with development of codes and standards to keep the public protected and safe causes people in general and government officials in particular to take notice.

With the above background, stressing the importance of the Nuclear Engineering Division within ASME, we in the division have an important responsibility to make this nuclear renaissance work, and work fast. If you haven't yet planned on attending ICONE 16 in May, review your professional schedule and consider a change in plans. Not only does the meeting include keynote talks by top leaders in the USA, Japan, China, and Europe, but there are special panel sessions, such as the one dealing with how to bring about public acceptance of the importance and benefit of nuclear power to our future, and not an issue of which we should be afraid.

Looking forward to seeing you at ICONE 16 in May, and please continue your good work in the engineering profession, with your eye on the bright and challenging nuclear power future.

Exelon Nuclear Designates Victoria County, Texas, Site For Combined Construction & Operating License Application (cont.)

Continued from Page 2

"We are delighted that Exelon Nuclear has selected Victoria County as the site for the license application," Victoria Mayor Will Armstrong said. "We're impressed with Exelon's excellent safety record and expertise in the arena of nuclear generated electricity. Furthermore, Exelon - with its long history of being a good corporate citizen - would be a great company to do business with in Victoria County and the State of Texas."

The Victoria County site, which will be identified in the license application, is an 11,500-acre tract about 20 miles south of Victoria in Victoria County. If built, the facility at the site will use a man-made freshwater lake for cooling.

A combined construction and operating license is required for construction of a new nuclear energy plant, but the application does not imply that Exelon has made a commitment to build a plant.

Among the various conditions that must be resolved to Exelon's satisfaction before any formal decision to build is made are a solution to used fuel disposal, broad public acceptance of a new nuclear plant and assurances that a new plant using new technology can be financially successful.

The leaders and people of Victoria made us feel at home in their community from our very first visit. We are both impressed and humbled by the generous welcome and the very broad expressions of support we have received. The reception in Matagorda County was the same. I cannot stress enough how important this is to our overall business model - that we become a partner with the communities where we wish to do business. We know the deep responsibility we have in such a partnership.

Editor's Note: Exelon Nuclear is headquartered in Warrenville, Ill., and is a business unit of Exelon Corporation. It operates the largest nuclear fleet in the nation and the third largest fleet in the world. Exelon's ten stations – with 17 reactors – represent approximately 20 percent of the U.S. nuclear industry's power capacity.
Source: http://www.exeloncorp.com/ourcompanies/powergen/nuclear/

What is Combined Operational Licensing Application (COL) ? (cont.)

Continued from Page 2

This approach is directly dependent upon the industry's commitment to standardize COL applications for a specific reactor design. I believe this approach to licensing is crucial to completing timely reviews for multiple applications. It is based on the principle of "one issue, one review, one position" for multiple COL applications, and it is intended to optimize the NRC's review effort and the resources needed. The benefits of a design-centered licensing review will be achieved only to the extent that the reactor vendor and the utilities standardize the pertinent sections of the applications."

"I believe that sound regulation, including sufficient independence of nuclear oversight and public openness, will play an essential role in the success of any expansion of nuclear power. All of us have a common and most important goal to ensure safety, a goal that I am further confident our countries will continue to work toward together. In conclusion, I thank you for the great honor of speaking today on the interest of the NRC in continuing international nuclear safety information exchanges."

Sample of Papers in Track 1 of ICONE 16 (cont.)

Continued from Page 4

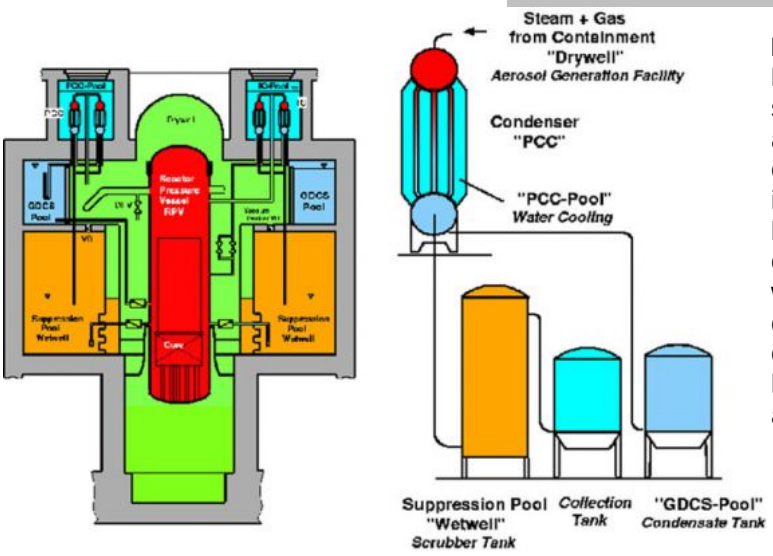
Part of this innovation is to develop an efficient and optimized plant layout that includes diverse features and requirements from many engineering disciplines. The ACR-1000 plant layout satisfies safety requirements and regulations and includes input from construction, operations and maintenance feedback from existing stations/utilities, while maintaining the process functional configuration for the overall layout of the plant, building and systems. This paper discusses a number of key aspects in developing the ACR-1000 plant layout design using representative sketches and 3D CADDS illustrations.

Ali Koc¸ et. al., "OPTIMIZING PROJECT PRIORITIZATION UNDER BUDGET UNCERTAINTY" ICONE16-48108

ABSTRACT
We consider a problem commonly faced in the nuclear power industry, involving annual selection of plant capital investments under the constraints of a limited and uncertain budget. When the budget is assumed known, a typical approach to such problems is built on a multi-dimensional knapsack model. This model takes as input the available budget in each year, the stream of liabilities induced by selecting each project, and the profit, i.e., net present value (NPV), of each project. The goal is to select the portfolio of projects with the highest total NPV, while observing the budget constraint for each year, as well as any additional constraints. We show that a portfolio selected in this manner can fail to hedge against uncertainties in the budget. While the budget may be known at the beginning of the planning period, external events can cause this to change as time unfolds, and hence the funds that will actually be allocated over time are typically uncertain. So, we propose a model that forms an optimal priority list of projects, incorporating multiple budget scenarios. The model is applied to example projects from the South Texas Project Nuclear Operating Company (STPNOC).

Important Links

To register for ICONE16 go to http://www.asmeconferences.org/icone16/
Go to NED Web Site - http://www.divisions.asme.org/ned/
To pick up the latest ASME News - http://www.asmenews.org/latebrk/latebrk.html
New Nuclear Plants - http://www.nrc.gov/reactors/new-reactor-licensing.html
Other Important Links at http://divisions.asme.org/ned/links/index.html



ESBWR (Economic Simplified, Boiling Water Reactor) (General Electric): The ESBWR15 is a new simplified BWR design promoted by General Electric and some allied firms. The ESBWR constitutes an evolution and merging of several earlier designs including the ABWR that are now less actively pursued by GE and other vendors beyond the exceptional case of Bellefonte in Alabama. The intent of the new design, which includes new passive safety features, is to cut construction and operating costs significantly from earlier ABWR designs. GE and others are investing heavily in the ESBWR though the design might not be available for deployment for several years.

NED Governance (cont.)

Continued from Page 3

The ASME Representative is a permanent member of the EC and is appointed by ASME. The JSME, European, and CNS Liaison Member positions are also permanent although the JSME Liaison and CNS Liaison are appointed by JSME and CNS respectively and the European Liaison representative is renewed yearly by the EC.

Committee of Past Chairs: The Committee of Past Chairs (CPC) consists of the former Chairs of the NED and the past Directors of Communications. The CPC is a resource for the NED to: (a) obtain high-ranking speakers, leaders, industry leaders, etc for plenary sessions or other technical sessions that are a part of NED conferences, (b) obtain advice and consultation, (c) support journals and other documents that are important to the NED, (d) interact with government agencies or individuals as well as to provide information on government policies that affect NED policies, (e) serve as a technical source for NED position papers, and (f) serve in functions beneficial to the NED EC as needed, etc.

Committee of Technical Chairs: The Committee of Technical Chairs (CTC) consists of the Lead Track Leaders for the tracks that make up the International Conference on Nuclear Engineering (ICONE). The Chair of the CTC is the ICONE Technical Chair and thus changes each year.

The Lead Track Leader for each track is also the Chair of a Technical Committee having the same name as the ICONE track and having responsibilities that support not only its ICONE track but also efforts important to the technical community in the track's area of responsibility. The Lead Track Leaders have a 2 year term and the Lead Track Leader is selected by vote of the members of their Technical Committee. The CTC consists of the following positions:

No	Topic	NED Technical Committee
1	Plant Operations, Installation, & Life Cycle	Lead track leader of technical track or tracks focused on plant operations, installation, and life cycle topics
2	Components Reliability & Materials Issues	Lead track leader of technical track or tracks focused on component reliability and materials issues.
3	Structural Integrity	Lead track leader of technical track or tracks focused on structural integrity

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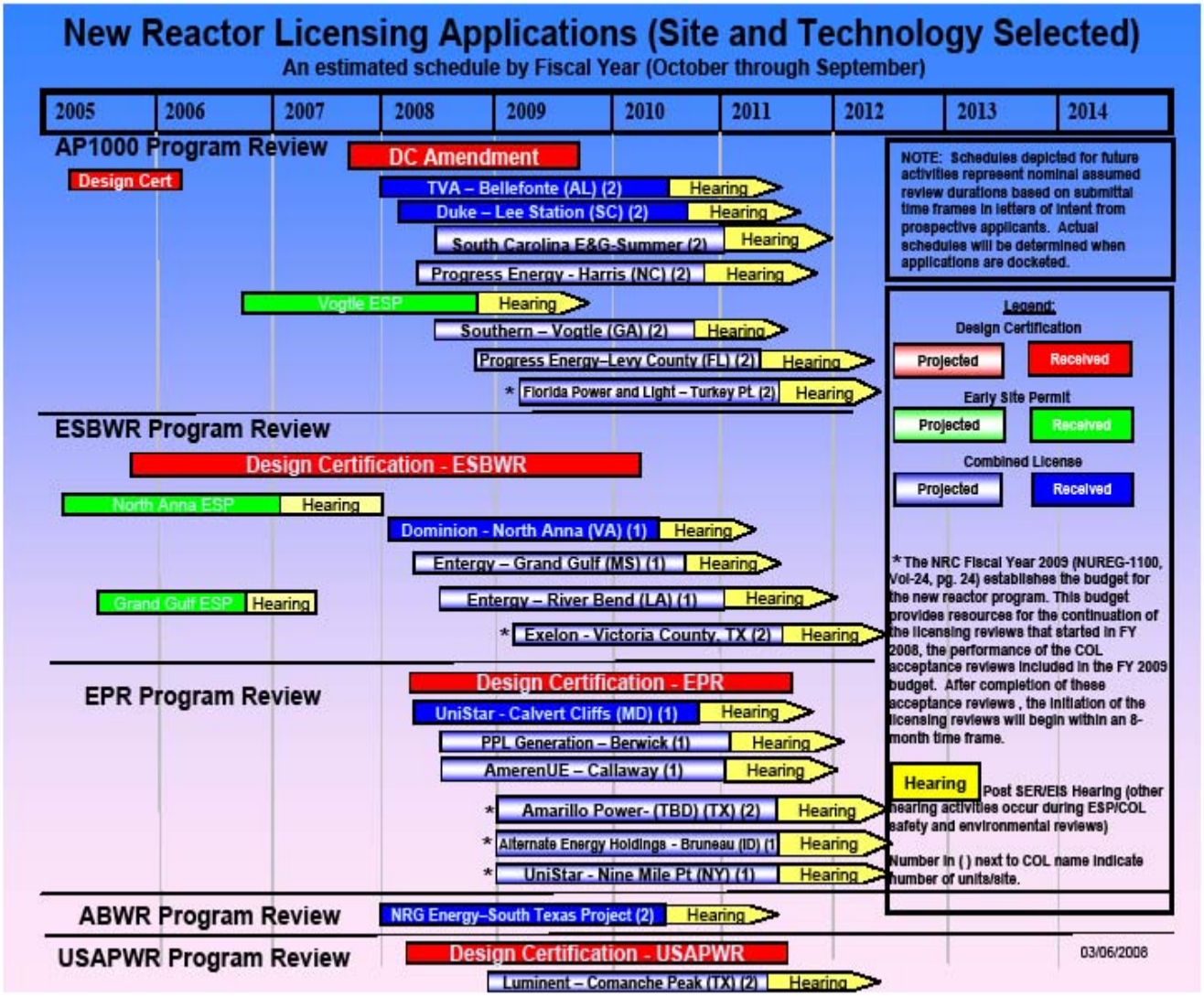


Figure 1 New Reactor Licensing Applications

(From NRC web site for new reactors at http://www.nrc.gov/reactors/new-licensing/new-licensing-files/new-rx-licensing-app-legend.pdf)

Expected New Nuclear Power Plant Applications Updated March 19, 2008					
Company *	**Design**	**Date Accepted**	**Site Under Consideration**	**State**	**Existing Op. Plant**
Calendar Year (CY) 2007 Applications					
Duke (52-018/019)	AP1000	2/25/08	William Lee Nuclear Station (2 units)	SC	N
NuStart Energy (52-014/015)	AP1000	1/18/08	Bellefonte (2 units)	AL	N
Dominion (52-017)	ESBWR	1/29/08	North Anna (1 unit)	VA	Y
NRG Energy (52-012/013)	ABWR	11/29/07	South Texas Project (2 units)	TX	Y
2007 TOTAL NUMBER OF APPLICATIONS = 4 TOTAL NUMBER OF UNITS = 7					
Calendar Year (CY) 2008 Applications					
Progress Energy (738)	AP1000		Harris (2 units)	NC	Y
Progress Energy (756)	AP1000		Levy County (2 units)	FL	N
South Carolina Electric & Gas (743)	AP1000		Summer (2 units)	SC	Y
Southern Nuclear Operating Co. (755)	AP1000		Vogtle (2 units)	GA	Y
Entergy (745)	ESBWR		River Bend (1 unit)	LA	Y
NuStart Energy (744)	ESBWR		Grand Gulf (1 unit)	MS	Y
Exelon (761)	ESBWR		Victoria County (2 units)	TX	N
UNISTAR (52-016)	EPR	1/25/08	Calvert Cliffs (1 unit)	MD	Y
PPL Generation (763)	EPR		Berwick (1 unit)	PA	Y
AmerenUE (750)	EPR		Callaway (1 unit)	MO	Y
UNISTAR (759)	EPR		Nine Mile Point (1 unit)	NY	Y
Luminant Power (754)	USAPWR		Comanche Peak (2 units)	TX	Y
Detroit Edison (757)	TBD		Fermi (1 unit)	MI	Y
Amarillo Power (752)	EPR		Vicinity of Amarillo (2 units)	TX	UNK
Alternate Energy Holdings (765)	EPR		Bruneau (1 unit)	ID	N
2008 TOTAL NUMBER OF APPLICATIONS = 15 TOTAL NUMBER OF UNITS = 22					
Calendar Year (CY) 2009 Applications					
Florida Power and Light (763)	AP1000		Turkey Point (2 units)	FL	Y
2009 TOTAL NUMBER OF APPLICATIONS = 2 TOTAL NUMBER OF UNITS = 3					
Calendar Year (CY) 2010 Applications					
Transition Power	TBD		Utah	UT	N
Unannounced	TBD		TBD	TBD	D
2010 TOTAL NUMBER OF APPLICATIONS = 2 TOTAL NUMBER OF UNITS = 2					
2007 – 2010 Total Number of Applications = 22 Total Number of Units = 33					

*Project Numbers/Docket Numbers
Yellow – Acceptance Review Ongoing Blue – Accepted/Docketed

1

TABLE 1 Expected New Power Plant Applications (Update March 8, 2008)

(From NRC web site for new reactors at http://www.nrc.gov/reactors/new-licensing/new-licensing-files/expected-new-rx-applications.pdf)

NED Governance (cont.)

Continued from Page 9

4	Nuclear Engineering Advances	Lead track leader of technical track or tracks focused on advances in the nuclear engineering discipline
5	Next Generation Systems	Lead track leader of technical track or tracks focused on next generation or advanced reactor systems
6	Safety & Security	Lead track leader of technical track or tracks focused on nuclear system safety and security
7	Codes, Standards, Licensing, & Regulatory	Lead track leader of technical track or tracks focused on nuclear related codes, standards, licensing, and regulatory related issues
8	Fuel Cycle and High Level Waste Management	Lead track leader of technical track or tracks focused on fuel cycle and high level waste management
9	Low Level Waste Management & Decommissioning	Lead track leader of technical track or tracks focused on low level waste management and decommissioning
10	Thermal-Hydraulics	Lead track leader of technical track or tracks focused on thermal-hydraulic or thermal-fluid related issues, R&D, and phenomena
11	CFD, Neutronics Methods, and Coupled Codes	Lead track leader of technical track or tracks focused on issues, R&D and phenomena related to computational fluid dynamics (CFD), neutronic methods, and coupled software codes
12	Near Term Deployment and Promotion of Nuclear Energy	Lead track leader of technical track or tracks focused on the near term deployment of nuclear-related systems and the promotion of nuclear energy
14	Student	Lead track leader of technical track or tracks focused on the promotion of nuclear engineering or nuclear engineering-related student studies, work and research

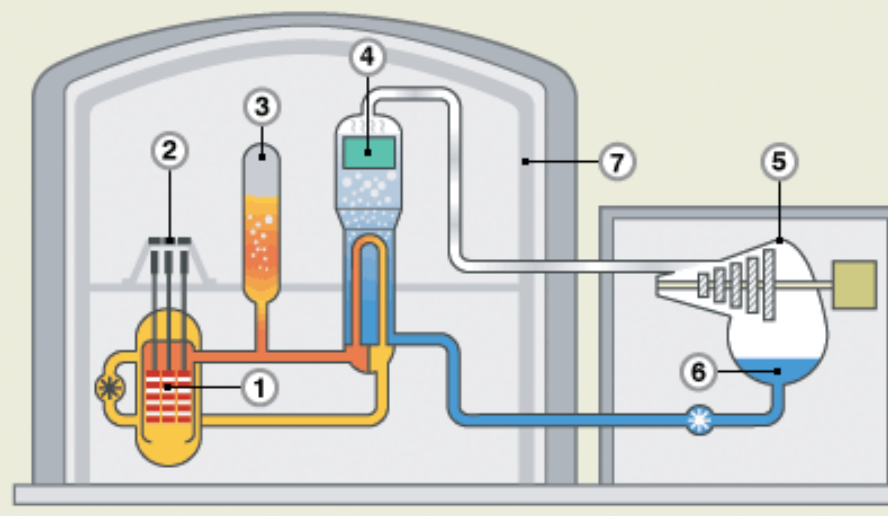
The technical committees that support each track are made up of the Associate Track Leaders as well as other members who possess expertise in the technical committee subject area.

The primary objectives of the Chair for each Technical Committee are to organize and direct the functioning of the Technical Committee in their subject area such that: (a) their Technical Committee meets at least once every year, (b) the Technical Committee creates activities that support the tracks the committee is responsible for in ICONE and the other meetings sponsored by NED EC, and (c) the Technical Committee promotes and organizes seminars in the committee's areas of expertise.

Summary:
The EC members who hold each of the positions described above will soon be listed on the web site. Please consult the web site at **http://divisions.asme.org/ned/index.html** for official information about the NED and the various activities that will be held during the year.

As always, the NED stands ready to provide the nuclear engineering community with the best in international conferences and information to keep the nuclear engineering professional current and well informed.

We encourage you to attend the upcoming ICONE16 in Orlando Florida and the 2009 ICONE17 in Brussels, Belgium.



AREVA EPR

1. Reactor core
2. Control rod drive mechanism
3. Pressurizer
4. Steam generator
5. Generator turbine
6. Cooling water
7. Containment shell

Reactor type: Pressurized Water Reactor (PWR)
Generation capacity: 1,600 MW
Design life: 60 years
Construction time: approximately 42 months
Manufacturer: Europe-based Areva/Framatome ANP

About Our Organization…

The ASME Nuclear Engineering Division focuses on the design, analysis, development, testing, operation and maintenance of reactor systems and components, nuclear fusion, heat transport, nuclear fuels technology and radioactive waste.