COMMERCIAL SPENT NUCLEAR FUEL MANAGEMENT IN THE UNITED STATES

February 28 – March 1, 2018
EUCI Office Building Conference Center
Denver, CO
OVERVIEW

As spent fuel pool systems continue to exponentially exceed intended design capacities and the move toward long-term storage remains indeterminable, dry cask canisters have emerged as the next step for nuclear power plant fuel management. This course will provide the necessary background information on compliance and licensing requirements in addition to plant safety for all plants considering making the move to dry cask storage, as well as those already approved for ISFSI sites. This introductory course will be helpful for new plant employees, project managers in fuel management, nuclear and reactor system engineers, equipment providers and consultants to nuclear plants, as well as risk managers, attorneys, and paralegals specializing in nuclear power and energy regulations.

LEARNING OUTCOMES

- Analyze the full makeup of a nuclear fuel assembly, equipment requirements, and leak testing
- Define the replacement requirements and location options on dry cask storage canisters
- Outline all NRC regulations as they relate to safety requirements, fuel management, and licensing
- Compare typical dry cask fuel storage design systems, processes, and safety
- Evaluate spent fuel pool systems compared to dry cask storage canisters in reference to cost, implementation processes, and monitoring requirements
- Assess the nuclear fuel transfer process from wet to dry storage in all plant types and storage containers
- Quantify the environmental impact and public health risks associated with spent fuel pools and dry cask storage
- Leverage the current technological advances in dry cask storage and the availability of dry storage on the market to limit up-front cost
- Discuss the future of long-term storage options for nuclear plants

WHO SHOULD ATTEND

This event is targeted towards the nuclear industry in need of an update on compliance requirements and an understanding of nuclear fuel storage from the following companies:

- Employees in nuclear power plants requiring an understanding of fuel management
- New professionals in the nuclear industry in need of a background on spent fuel pools and dry cask storage
- Equipment providers to the nuclear industry requiring an understanding of fuel systems
- Nuclear risk management professionals
- Reactor systems, environmental, and nuclear engineers
- Nuclear consultants focused on decommissioning and nuclear waste management
- Project managers leading a plant shift from wet to dry storage
- Attorneys specializing in nuclear power, radioactive fuel management, or energy regulations
AGENDA

WEDNESDAY, FEBRUARY 28, 2018

8:00 – 8:30 am  Registration and Continental Breakfast
8:30 am – 5:00 pm  Course Timing
12:00 – 1:00 pm  Group Luncheon

I.  Law and Policy
   i.  World War II and the Birth of Nuclear Power
   ii.  Early Nuclear Legislation, Government Activities, and Waste Management
   iii.  Later Nuclear Legislation, Government Re-structuring, and Repository Efforts
   iv.  DOE Standard Contract and Litigation
   v.  Current Status

II.  Regulatory Overview
   i.  Overview of NRC Organization and Spent Fuel Responsibilities
   ii.  10 CFR 72 Licenses and Certificates of Compliance
   iii.  10 CFR 71 Licenses and Certificates of Compliance
   iv.  Disposal – 10 CFR 60 And 63

III. 10 CFR 72 Storage License Implementation
   i.  Selection of Storage Technology and License Type
   ii.  ISFSI Project Planning and Implementation
   iii.  Cost
   iv.  NRC Interaction

THURSDAY, MARCH 1, 2018

8:00 – 8:30 am  Continental Breakfast
8:30 am – 12:00 pm  Course Timing

IV.  Summary of Spent Fuel Storage Systems Used at U.S. Nuclear Plants
   i.  Original Dry Storage Technology
   ii.  Technology Evolution to Meet User Needs
   iii.  Dry Storage Systems in Use and Spent Fuel Inventory
   iv.  Future Landscape

V.  Spent Fuel Transportation Regulation
   i.  10 CFR 71 and Radioactive Material Package Certification
   ii.  Spent Fuel Packaging Requirements
   iii.  Spent Fuel Shipping Experience
   iv.  Transportation Modes
   iv.  Domestic Commercial Spent Fuel Shipping Example

VI.  Spent Fuel Pool-to-Pad Operations
   i.  Advance Preparation for a Loading Campaign
   ii.  Implementation and Operations
   iii.  Cost
   iv.  Operating Experience
Brian Gutherman  
**President, Gutherman Technical Services, LLC**

Mr. Gutherman is a professional engineer with 35 years of experience focused on licensing, operating, maintaining, and modifying commercial nuclear facilities and spent fuel storage and transportation casks. He is a registered professional engineer, and has extensive experience in nuclear licensing (10 CFR Parts 50, 71, and 72) quality assurance, design modifications, and system engineering.

His career has included positions in engineering, quality assurance, and licensing with companies such as Stone and Webster Engineering Corporation, Florida Power Corporation, and Holtec International. Along the way, he has held a variety of engineering positions including project engineer, mechanical design and system engineering supervisor, and licensing manager accountable for the performance of permanent staff personnel as well as project-specific matrix organizations. He has been responsible for system reliability, plant performance, and projects of varying budgets up to and including a multi-million dollar condenser retubing project for a nuclear power station. He also supported the first-ever conversion of nuclear power plant technical specifications to the new, improved standard format. As part of the emergency response team at a Florida nuclear power plant, Mr. Gutherman served as a technical liaison with the print and broadcast media.

In his role as licensing manager for a spent fuel transportation and storage cask designer, Mr. Gutherman was responsible for facilitating NRC review and approval of three certificates of compliance for spent fuel storage and transportation cask designs as well as several amendments to those certificates. He participated on the Nuclear Energy Institute’s task force responsible for working with the NRC to develop the first standard improved technical specifications for spent fuel storage casks (NUREG-1745). He is recognized both within the nuclear industry and by the Nuclear Regulatory Commission as a knowledgeable leader in dry spent fuel storage and transportation cask licensing.

A 1982 graduate with high honors from Rutgers University with a B.S. degree in Mechanical Engineering, he is a long-time member of the American Nuclear Society and earned his Senior Reactor Operator certification in 1997. He holds, or has held professional engineering licenses in several states, including Florida, New York, Washington, and New Jersey.
REQUIREMENTS FOR SUCCESSFUL COMPLETION

Participants must sign in/out each day and be in attendance for the entirety of the course to be eligible for continuing education credit.

INSTRUCTIONAL METHODS

Power point presentations and classroom group discussions will be used in this course.

IACET CREDITS

EUCI has been accredited as an Authorized Provider by the International Association for Continuing Education and Training (IACET). In obtaining this accreditation, EUCI has demonstrated that it complies with the ANSI/IACET Standard which is recognized internationally as a standard of good practice. As a result of their Authorized Provider status, EUCI is authorized to offer IACET CEUs for its programs that qualify under the ANSI/IACET Standard.

EUCI is authorized by IACET to offer 1.1 CEUs for the course.

EVENT LOCATION

EUCI Conference Center
4601 DTC Blvd., B-100
Denver, CO 80237

PREFERRED HOTEL

Hyatt Place Denver Tech Center
8300 E. Crescent Parkway, Greenwood Village, CO 80111 (0.9 miles away)
Call Central Reservations at 888-492-8847 and ask for the EUCI rate of US $149 plus applicable tax (CODE: EUCI)
or visit Hyatt Place Denver Tech Center - EUCI

OTHER NEARBY HOTELS

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<th>Hotel</th>
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<td>Hyatt Regency Denver Tech Center</td>
<td>7800 E. Tufts Ave, Denver, CO 80237</td>
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<td>Hilton Garden Inn Denver Tech Center</td>
<td>7675 E. Union Ave, Denver, CO 80237</td>
<td>303-770-4200</td>
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<td>Denver Marriott Tech Center</td>
<td>4900 S. Syracuse St, Denver, CO 80237</td>
<td>303-779-1100</td>
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REGISTER 3, SEND THE 4TH FREE

Any organization wishing to send multiple attendees to this course may send 1 FREE for every 3 delegates registered. Please note that all registrations must be made at the same time to qualify.
COMMERCIAL SPENT NUCLEAR FUEL MANAGEMENT IN THE UNITED STATES COURSE
February 28 – March 1, 2018: US $1395
Early bird on or before February 9, 2018: US $1195

Substitutions & Cancellations
Your registration may be transferred to a member of your organization up to 24 hours in advance of the event. Cancellations must be received on or before January 26, 2018 in order to be refunded and will be subject to a US $195.00 processing fee per registrant. No refunds will be made after this date. Cancellations received after this date will create a credit of the tuition (less processing fee) good toward any other EUCI event. This credit will be good for six months from the cancellation date. In the event of non-attendance, all registration fees will be forfeited. In case of course cancellation, EUCI’s liability is limited to refund of the event registration fee only. For more information regarding administrative policies, such as complaints and refunds, please contact our offices at (201) 871-0474.