

# NUCLEAR FUEL CYCLE SEMINAR

## LEARN FROM LEADING INDUSTRY EXPERTS

Explore the multifaceted world of the nuclear fuel cycle with the industry's foremost experts at NAC's 2024 Nuclear Fuel Cycle Seminar. Together with other industry professionals, you will learn about the current status of the nuclear generation industry and its competitive position in a world energy context, taking into account electricity market regulation and deregulation. You will be guided through the commercial and technical aspects of the front end and back end fuel cycle sectors, the economic and other forces driving nuclear fuel markets, and who the players are in this ever evolving business including their capacities, capabilities, markets and geographical presence. Also included is a session on Market Analysis, Market Dynamics and Influences on Contracting Strategies.

## JOIN KEY INDUSTRY COLLEAGUES

The seminar is an outstanding opportunity to get up to speed or enhance your existing knowledge base on all the nuances of the nuclear fuel cycle. The seminar is conducted in an open, informal environment with interactive discussions and live classroom sessions.

The program is designed to optimize the learning experience by creating high levels of engagement among industry peers and NAC's expert instructors.

## WHO SHOULD ATTEND?

Candidates for the seminar include but are not necessarily limited to professionals in any and all of:

- Nuclear Fuel Cycle Market, Commercial, Contract Administration at utilities and producers
- Investment/M&A
- Communications
- Business development
- Policy development
- Logistics
- Finance and Accounting
- Nuclear operators and engineers who interact with fuel cycle commercial activity
- Communications
- Traders/Brokers

*Continued*



## NAC NUCLEAR FUEL CYCLE SEMINAR

*A four-day in-person training experience for industry professionals seeking key insights on the inner workings of the nuclear fuel cycle*

November 5–8, 2024

**SEMINAR PRICE | \$3,150**

### CONTACT:

Dave Culp, Vice President, Consulting  
 +1 980-253-3591 | [dculp@nacintl.com](mailto:dculp@nacintl.com)

# SEMINAR AGENDA & OVERVIEW

## DAY 1 | 9:00AM TO 4:00PM

### **NUCLEAR POWER INDUSTRY OVERVIEW AND PROSPECTS:**

An overview of electricity demand and the part nuclear power plays in supply, as well as the political, economic and management issues and policies that will affect the future prospects for nuclear power growth, including the consequences of electricity market mechanisms and the potential impact of carbon taxes.

### **INTRODUCTION TO NUCLEAR POWER PLANTS AND THE NUCLEAR FUEL CYCLE:**

A review of the basic principles of nuclear power generation and an overview of common reactor types, their operation, the supply chain supporting construction and how utilities account for fuel cycle costs.

**URANIUM ENRICHMENT INDUSTRY:** A review of the different enrichment technologies and primary suppliers, economic optimization of enrichment, contract terms, secondary supplies and the key developments to monitor in the future.

## DAY 2 | 9:00AM TO 4:00PM

**URANIUM (U<sub>3</sub>O<sub>8</sub>) INDUSTRY:** A discussion of uranium mining and milling processes, followed by a detailed look at the market. Topics include market supply and demand, including the major suppliers and where their production facilities are located, contract terms and pricing provisions, the effects of U.S. and European trade restrictions, impact of secondary supplies and excess inventories, as well as spot price trends.

**U<sub>3</sub>O<sub>8</sub>-TO-UF<sub>6</sub> CONVERSION INDUSTRY:** A presentation of the conversion processes used today, the suppliers in this market sector, the status of the international conversion market and how buyers contract for conversion services.

**FUEL ASSEMBLY DESIGN, FABRICATION AND MARKET:** A presentation of the industrial manufacturing processes for nuclear fuel assemblies, including an overview of the key features of advanced fuel assembly designs. Additionally, an overview of fuel fabrication suppliers, their manufacturing facilities and capacities, as well as a description of the commercial and market trends in the fabrication sector.

## DAY 3 | 9:00AM TO 4:00PM

**ENRICHMENT ANALYSIS REPRISÉ:** Review of an exercise session from Day 1.

**NUCLEAR INDUSTRY INVESTMENT ANALYSIS:** In this special session, you will take part in an exercise to investigate the factors that can influence a nuclear project investment decision process.

### **MARKET ANALYSIS, MARKET DYNAMICS, AND INFLUENCES ON CONTRACTING STRATEGIES:**

This session will address front end market dynamics, how to analyze them and how this in turn can influence the contracting strategies of both buyers and sellers. It will provide insights into the factors affecting business decision making processes conducted by buyers and sellers in the nuclear industry.

### **SPENT FUEL REPROCESSING AND RECYCLE, PART I:**

Reprocessing and recycle will be described in the broader context of the spent fuel management alternatives of open and closed cycles. Information will be presented on the facilities and players serving the reprocessing industry, the market for these services and the related economics.

### **SPENT FUEL REPROCESSING AND RECYCLE, PART II:**

(Recycling of Reprocessed Uranium): Following on from reprocessing, the technical and economic aspects of reprocessed uranium recycle will be described, including the industrial infrastructure and future prospects, as well as the market impacts of this secondary source of supply.

### **SPENT FUEL REPROCESSING AND RECYCLE, PART III:**

(Plutonium and Mixed-Oxide Fuel (MOX)): Continuing the theme of reprocessing and recycle, this session will describe the technical and economic aspects of recycling plutonium in MOX fuel, as well as introducing the industrial players and facilities, addressing plutonium inventories and the future prospects for MOX recycle including its current and potential market impacts.

## DAY 4 | 8:30AM TO 12:30PM

### **STORAGE AND DISPOSAL OF SPENT FUEL AND RADIOACTIVE WASTE:**

A presentation and discussion of selected spent fuel and radioactive waste management programs and related technology.

**BACKEND STRATEGY WRAP-UP:** This session will present a summary of 'open' versus 'closed' cycles, including open discussion by participants.

### **NUCLEAR MATERIALS TRANSPORTATION AND PACKAGING:**

An overview of nuclear materials transportation in front-end and back-end sectors including regulatory oversight, transport package types and the challenges they overcome, as well as a review of the industrial infrastructure for delivering transport services.

*To register, please visit*  
<https://www.nacintl.com/seminars>