

**Panel Session 12 – Featured Site Sellafield – Accomplishments and Challenges from Past Practices and for Current and Future Missions with a Comparison to US DOE Sites.**

**Co-Chairs:** Angie Jones, *AMEC Earth & Environmental*  
Ron Gorham, *NDA*  
John Mathieson, *NDA*

**Panel Reporter:** Angie Jones

Panelists included:

- Ian Hudson, *NDA, Head of Programme, Sellafield*
- Todd Wright, *NDA, Managing Director, Sellafield Ltd.*
- Mike Johnson, *NDA, Director of Waste and Encapsulation, Sellafield Ltd.*
- Russ Mellor, *NDA, Director of Decommissioning, Sellafield Ltd.*
- Graham Fairhall, *NNL Chief Science and Technology Officer.*
- Dave Moody, *US DOE Manager SRS*
- Yvette Collazo, *US DOE- EM, Director Technology Innovation & Development*
- John Mathieson, *NDA, Head of Overseas Relations*
- Steve Schneider, *US DOE- EM Director of Waste Processing, (OTI&D)*
- Graham Jonsson, *NDA, National Programme Delivery Manager, Waste*
- Mike Howard, *US DOE –EM, Director for Procurement Planning, Office of Acquisition and Contract Management*
- Ron Gorham, *NDA, Head of Supply Chain Optimisation*

The Sellafield site in northwest England is the focus of a special panel session. The session will review past accomplishments and challenges, and look toward the future of the site. Participants from United States (US) sites also joined the discussion for the second portion of the sessions. The diversity of the Sellafield site portfolio and the challenges that the teams face cannot be overestimated. This session will consist of a two part panel. The first part of the panel focused on the Sellafield site with the Nuclear Decommissioning Authority (NDA) describing its expectations from the Sellafield competition and the award of the contract to Nuclear Management Partners (NMP). Sellafield will then explain how they have gone about delivering the NDA requirements, the situation they found, the changes they are making and the challenges going forward including technical, organizational and cultural. National Nuclear Laboratory (NNL) will explain their role in close support of Sellafield operations.

The second part of the panel then introduce DOE representatives to discuss the similarities and differences between sites; also expanding on difference in the contract arrangements and contactor responsibilities on the sites. The panelist described the EM/NDA Collaboration Agreement covering the achievements so far and the potential areas for future collaboration including broadening beyond technical topics. The panelist explained how they have worked through this agreement to share management and technical challenges and how they were overcome by working together and building from lessons learned.

Sellafield is the custodian of some of the United Kingdom (UK) most hazardous nuclear wastes and legacy facilities. However by applying modern techniques and treatments, along with the

## WM2011 Conference Panel Report

capability and knowledge of both Sellafield Ltd and NMP, the team has safely deliver some excellent work, demonstrating real progress and value to the UK taxpayer. Under the ownership of NMP, Sellafield Ltd is safely delivering nuclear decommissioning, waste management and commercial operations.

The cleanup of the Sellafield site is one of the most important and demanding managerial, technical and environmental challenges for the UK. Sellafield is a UK government owned site under control of the NDA, who selected NMP to mänge Sellafield Ltd's diverse mission of decommissioning, nuclear fuel manufacturing and spent nuclear fuel recycling, because of its world-leading expertise and track record in all of these functions.

NMP brings together the world's leading nuclear industry experts, URS, AMEC and Areva, with its focus on making Sellafield safer, cleaner, more productive and a better neighbor. **Safer** – establish and sustain world class safety culture. **Cleaner** – maximize the reduction of risk to the public and the environment through accelerated high hazard reduction. **More productive** – apply best in class project management and workforce development from around the world to boost productivity and accelerate the achievement of milestones. **Better neighbor** – minimize the impact of accelerated clean-up and organizational change on our workers and host communities through planning, pursuit of new site activities and support of regeneration activities.

Today the highest priority for the site is accelerating high-hazard and risk reduction of the legacy facilities on what is the largest and most complex nuclear cleanup site in the world, with 170 major nuclear facilities and 2200 other buildings, housing activities that cover the entire nuclear fuel cycle. It is home to some of the most innovative and complex nuclear decommissioning projects in the world.

Sellafield was originally established in the 1940's as a Royal Ordnance factory, producing explosives for World War II. After the war the site was identified by the British government as the ideal location to develop a nuclear capability. By the early 1950's this development culminated in the world's first civil nuclear program. Over the next five decades facilities were constructed to manage the waste from the growing number of commercial reactors being built across the UK, including reprocessing facilities. These facilities were designed and built over very short timescales, to meet increasing demands and with limited thought to emptying and decommissioning. As a consequence some of the greatest decommissioning challenges facing Sellafield currently include:

- Degraded legacy facilities with nuclear inventories dating back to the 1940's.
- Diverse and highly constrained decommissioning activities due to close proximity of nuclear facilities and radiological conditions.
- The need to upgrade and improve aged facilities prior to decommissioning to allow
- Removal of radiological inventory.
- Lack of current plans, drawings, or records.
- Much of the work is unique and has not been done before.

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