

NUCLEAR TECHNOLOGY EDUCATION CONSORTIUM

N31 MANAGEMENT OF THE DECOMMISSIONING PROCESS

Summary

It is absolutely necessary for clear and concise business cases to be made, for approval by the appropriate sanctioning authority, before nuclear decommissioning and radioactive waste management programmes of work are allowed to proceed. This module therefore sets out the framework for the production of such cogent cases including programme formulation, developing the programme with plans, making the most appropriate use of available funds and other resources, and arrangements for monitoring and controlling the work

On completion, students should be able to:

- Expound business objectives, uses and sources of funds, the flow of funds, accounting terminology and key financial issues
- Carry out project financial and economic appraisals including capital investments
- Understand the importance of hazard reduction, project prioritisation, and Tolerability of Risk (ALARP) arguments
- Be fully conversant with modern planning processes including Work Breakdown Structures, Organisational Breakdown Structures, Responsibility Assignment, Activity Schedules, Cost Controls, Work Sequence Diagrams and Critical Path Analysis
- Understand and apply “Earned Value” reporting techniques

Syllabus

- Nuclear site licence, regulatory and site infrastructure costs
- Programme formulation and importance of waste routes
- The difference between the financial case and the wider economic, regulatory, resource, etc, issues
- Hazard reduction (including hazard and risk)
- Project prioritisation
- The planning framework (definitive list of liabilities, the liabilities estimate, liabilities reduction, optioneering and strategy development, the business case, concept/scheme/detailed design, project initiation and “Gateway” Reviews
- Uses and sources of funds in the context of nuclear decommissioning
- The balance sheet, profit and loss account, and cash generation statement
- Financial and management accounting (including key accountancy concepts)
- Financial appraisal (payback, average annual rate of return, discounted cash flow – Net Present Value and Internal Rate of Return)
- Programme and Project Planning, Work Breakdown Structures and Earned Value Reporting

The module is underpinned with Case Studies and Worked Examples.