A Review on Integrated Management Procedure for NPP Decommissioning Project

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I. Introduction

◆ The management of a nuclear facility project throughout the life cycle of construction to decommissioning has proved to be a challenging task.
◆ It is about delivering a sustainable solution that can be safely, securely and reliably managed throughout its life cycle.
◆ To review a structured framework for the management of nuclear projects from their initiation to the end.

II. A Project Management Approach to NPP

- Project management is sometimes referred to as the process of ‘making sure everyone else is doing his or her job in a concerted manner’.
- This oversight and coordination role is referred to as project ‘integrated management’ [1].
- This section describes the main items that are to be managed for the nuclear project and the tools available as shown in Fig.1

- In basic, the precise activities and deliverables to be provided by the project are typically documented and controlled through the use of a plant breakdown structure (PBS) and a work breakdown structure (WBS).
- These are normally defined as ‘activity specifications’ or a ‘WBS dictionary’.
- The project schedule, budget and resource plans can become more improved.

Table 1. Sample Work Breakdown Structure(WBS) for NPP

<table>
<thead>
<tr>
<th>Index</th>
<th>Activity</th>
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| 1. Project management | Project development  
Project reporting  
Project control  
Project estimates |
| 2. Engineering | Mechanical  
Electrical  
I&C  
Civil  
Third party review |
| 3. Regulatory affair | Site preparation license  
Construction license  
Operation license  
Conventional approvals  
Progress reporting |
| 4. Construction | Site preparation  
Nuclear island  
Conventional island |
| 5. Commissioning | Civil  
Mechanical  
Electrical  
I&C  
Plant start-up tests |
| 6. Procurement | Long lead  
Construction material  
Contracts |

- WBS should include the functionality to be extended to lower levels as the project is defined in more detail. Table 1 provides a sample simplified WBS for NPP project.

III. Conclusion

- A key role of the owner is to ensure that all of the required resources are available to support these activities when they become needed.
- The licensee needs to begin developing the expertise to support dismantling activities.
- The concept of PBS, WBS and CBS can be used as inputs to the planning for new decommissioning project, and can help to understand or reduce risks or time.

Reference


Decommissioning Engineering Team.