

Interim Sludge Store Optioneering Study

Project Overview

The Client was under pressure from a Regulator to empty a storage pond of the radioactive sludge contained within it. There was some doubt as to whether the storage and treatment facility under development for this sludge would be complete in order to support the intended date of sludge retrievals. Investigation into viable options for an interim store was therefore deemed necessary as part of a mitigation plan for this scenario. This investigation was subject to the constraint that it needed to be available in time for the start of the retrieval programme.

Scope of Work

This was an Interim Sludge Store Optioneering and Decision making study, for a Client, to identify the options to provide an interim sludge store.

DBD Deliverables

Full optioneering study, utilising proprietary DBD software, was undertaken in order to develop and select the most suitable option for providing interim storage of the mobilised sludge. A team was established comprising both DBD and Client personnel with the appropriate skills, qualifications and DBD's in-depth experience of the issues involved in sludge storage, retrieval and sludge handling in order to identify a range of options for solving the problem. The options, including Regulator proposed options, were developed to cover a range of storage capacities from a relatively small portion of the pond's inventory up to the total volume as a contingency to an uncertain delay in the provision of the sludge receipt facility.

The Results

From a very large number of initial suggestions, 10 options were identified which could offer a viable means of interim storage. Programmes were developed and underpinned for each of these options, demonstrating that it would be unlikely that any of these interim stores could be built within the required timescale. As a result it was decided that no further development work was to be carried out on any of the options at that time. DBD recommended that the study findings be retained by the Client for possible use in the future should a change in the sludge retrieval or receipt store construction programmes result in a widening of the gap between the dates for each.

Client Benefits

- ✎ This study was able to support the Client in avoiding further investment in the development of an interim store that would have ultimately proven unsuitable on programme grounds.
- ✎ In the event of a change in their expected programme of work, information is available to allow a further assessment of the potential for an interim store to be built.