

## **LATEST DEVELOPMENT IN PROJECT SITE RADWASTE TREATMENT FACILITY (SRTF) SANMEN**

***Kim Mennicken, Peter Lohmann***

(Westinghouse Electric Germany GmbH)

Westinghouse Electric Germany GmbH (WEG) was successful in being awarded a contract as to the planning, delivery, installation and commissioning of radwaste treatment systems for the AP1000 units at Sanmen site, PR China. Operational low and intermediate level radioactive waste will be processed in the Site Radwaste Treatment Facility (SRTF). This paper explains the latest developments of the project, especially the experience with customer-hired Chinese planning partners, installation companies and Customer operating personnel.

Planning phase – cooperation with the Shanghai Nuclear Engineering, Research and Design Institute (SNERDI)

At the beginning of the planning phase, integration of the Chinese planning and design partner SNERDI was of utmost importance. SNERDI was responsible for the design of the radwaste treatment building layout, all conventional building equipment, media supply, piping layout and cable layout. WEGs responsibility was the conceptual design of the radwaste plant, including concept design for the building layout and detail design of the waste treatment systems. This division of responsibility required consistent and precise interface management from both sides, SNERDI and WEG. This paper shows how an Interface Control Manual (ICM) was used during project execution.

Another aspect is data and file management and reporting, which was challenging due to the different standards, approaches and procedures of the parties involved.

The technical meetings and workshops in China with SNERDI were very positive and productive. The WEG core team and system specialists, together with the SNERDI project team, could establish a good basis for the entire technical project execution.

Manufacturing Phase – Factory acceptance in Germany

Particular challenges were the performance of acceptance tests of the systems. Many boundary conditions, defined by the construction site in China, could only be imitated or simulated, e.g. docking operations were simulated with fork lifts, piping was imitated with hoses, mobile containers were used to replace tanks and etc. to allow tests under nearly realistic conditions.

Installation Phase – Integration of WEG On-site personnel

The equipment was installed by customer-hired installation companies, according to WEG installation procedures. Few Westinghouse personnel were invited in irregular intervals by the customer to provide supervision services within the installation phase. Site Observation Notes were used to document the situation and to offer approaches for solutions, if necessary.

Commissioning and Provisional Acceptance Certificate (PAC)

The commissioning of all equipment and a full system test is planned for starting in October 2014. Westinghouse engineers and technicians are already providing training sessions and courses to Customers designated operation personnel. The PAC is planned for end-2015.