

# Case Study of Interview for HSA at Decommissioned NPPs in the US

Donghee Lee

Central Research Institute Korea Hydro and Nuclear Power Co. LTD, 1312-70 Yuseon-daero, Yuseong-gu,  
Deajeon, Korea  
donghee.lee@khnp.co.kr

## 1. Introduction

With regard to decommissioning and site reuse of nuclear power plant, the IAEA [1] identifies the site release from regulatory control as the final step in decommissioning.

Generally, the site release can be achieved provided the level of residual radioactivity at the site is demonstrated to meet the site release criteria. This demonstration is performed by implementing "Radiation Survey and Site Investigation (RSSI) process."

Historical Site Assessment (HSA) which is the first step of the RSSI assesses a history of the radiological contamination from the start of the site activity to the present time. By investigating documents produced during operation period and interviewing the persons concerned to collect undocumented information.

Therefore, this paper tries to study cases of interviews which have been performed the HSA at decommissioned NPPs in the US.

## 2. Purpose & type of interview

### 2.1 Purpose of interview

The purpose of the interviews or personnel questionnaires is to obtain "tacit knowledge". Tacit knowledge is undocumented, and consists of unique capabilities, skills and knowledge. Interviews with current or previous employees are conducted to collect first-hand information from the site or facility. Interviews cover general topics such as radioactive waste handling procedures. Results of early interviews are used to guide subsequent data collection activities.

### 2.2 Type of interview

Several different interviewing approaches may be used to gather information. These approaches should be tailored to best meet the site needs.

One common approach is a single interviewer and a single interviewee. A positive to this approach is that it is less intimidating to the interviewee and may be viewed as a more confidential approach to gathering information. A negative to this aspect is that the interviewer must continually split focus between asking questions and documenting responses.

Another approach is to have two interviewers and a single interviewee. This allows one interviewer to ask questions and a second to be the scribe. Although eliminating the potential concerns with recording interviews, the interviewee may view two interviewers with some concern, hence potentially resulting in less openness and potentially less information.

A third approach is group interviews with multiple interviewees at one time. In this case, it is essential that at least two interviewers gather the information. Information may be provided at a quick enough pace that one interviewer could not gather the data and provide the questions.

## 3. Overseas cases of interview

### 3.1 Connecticut Yankee [2,3]

Personnel interviews of CY were conducted with current and former employees and contractors involved in operations, maintenance and radiation protection activities at the site. In order to assure confidentiality for the interviewees, plant security

conducted the interviews. Also vendors and contractors were informally interviewed to verify, provide or clarify data used to develop the HSA document. Consequentially, 47 formal interviews, based initially on questionnaires filled out by employees regarding contamination issues, were conducted.

### 3.2 Maine Yankee [2,4,5]

Maine Yankee also interviewed terminating employees for any recollection of such events. Informal interviews occurred with all personnel. During their final exit from the site, security personnel asked if the individual was aware of any radiological or other spills which may have occurred on-site. Between August 2001 and December 2002, approximately 150 observations were noted based on the questionnaire program. These observations represented a combination of current and past employees, primarily from the operations and radiation protection departments.

### 3.3 Zion [2,6]

Two types of interview questionnaires were used in the conduct of the Zion HSA. The first type of questionnaire was designed for permanent site production personnel. The second type of interview questionnaire was used during the personnel exit process (permanent and contractor staff). Typically, individuals were provided the questionnaire as a part of the standard station exit process. These exit interviews/questionnaires were obtained more as a quality check on information obtained during permanent staffing interviews. During the conduct of the Zion HSA, over 300 personnel interviews occurred with current and previous Zion personnel both utility and long term contractor personnel.

## 4. Conclusion

This paper assesses interview cases which have been performed for the HSA at decommissioned NPPs in the US. In Connecticut Yankee, information about contaminated site and facilities was collected

through a total of 47 interviews. In Maine Yankee, informal interviews of all employees as well as about 150 formal interviews were performed. In Zion, over 300 separated by incumbents and retirees personnel interviews were performed.

According to permanent shutdown of Kori-1, the pre-work to decommission the plant is currently underway by Korea Hydro & Nuclear Power CO., LTD (KHNP).

The HSA as a part of decommissioning is essential to investigate a history of contamination. Furthermore, interviews with the persons concerned are need to confirm a history of undocumented contamination. Therefore, all these works will be carried out for the decommissioning of Kori-1 with reference to this study.

## REFERENCES

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