[Form 2 (to be reported to Committee on Countermeasures for Contaminated Water Treatment and to be disclosed to public)

Technology Information	
Area	6 (Select the number from "Areas of Technologies Requested")
Title	Understanding the groundwater flow
Submitted by	EPRI

1. Overview of Technologies (features, specification, functions, owners, etc.)

Collection of data necessary to investigate groundwater flow: At the July 2013 TEPCO/EPRI Decommissioning Workshop, EPRI provided information on equipment that can be used to facilitate the collection of geologic conditions and groundwater samples (Presentation name: "*Fukushima Daiichi Site – Selection Criteria for Mitigation and Remedial Options," see Appendix 1*). Included in the techniques mentioned that could reduce man-hours and radiation exposures are:

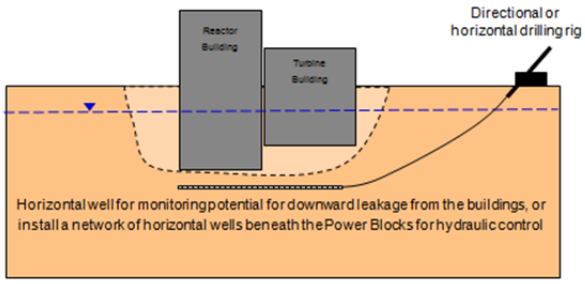
- Remotely monitored groundwater level and temperature measuring instruments
- Telemetry systems that can provide real-time monitoring
- Auto samplers that can collect multiple samples before operator attention is needed

EPRI Report # 1024829, *"Advanced Technology for Groundwater Protection"***,** 2012 provides more information on the techniques mentioned above. On request, EPRI can perform research to look for additional techniques to address these technology needs.

Analyze water quality: EPRI provided TEPCO with summary information on techniques and/or instruments that could shorten the time required to analyze samples for H-3 and Sr-90 during a conference call on September 3, 2013 and subsequently at a meeting in Tokyo on October 2, 2013. EPRI can research to find other techniques and/or provide additional details beyond what has already been provided. See Appendices 2, 3 and 4.

Dig observation holes: It is understood that one of the major motivations to reduce the number of workers needed to install observation (monitoring) wells is to reduce the time spent by workers in the elevated dose rates near to some of the Fukushima Daiichi buildings. One technology described at the July 2103 TEPCO/EPRI Decommissioning Workshop (Presentation name: "*Fukushima Daiichi Site – Selection Criteria for Mitigation and Remedial Options"*) to reduce time in the elevated dose rate areas is to install horizontal walls from locations further away from the buildings. Figure 1 below illustrates this technique.

Figure 1



EPRI can provide more information on this technique if requested by TEPCO

Summary of EPRI Reply to TEPCO on IRID Subject Area 6

As discussed above, EPRI has prepared a report that discusses techniques that could address some of the technology needs identified in IRID Subject Area #6. EPRI could provide detailed summaries of the relevant information in this report as well as information on additional technologies that can be gathered by performing additional research.

2. Notes (Please provide following information if possible.)

- Technology readiness level (including cases of application, not limited to nuclear industry, time line for application)

- Challenges

- Others (referential information on patent if any)