

Topic 2: Security Incidents at TEPCO Kashiwazaki-Kariwa NPS

External Advisors (e-mail)

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Nuclear Regulation Authority Commission



1. NRA's Concerns

External Advisors,

NRA would greatly appreciate it if you could provide some advice or thoughts on the NRA's concerns below on the recent Physical Protection Case, described from the next slide.

NRA's concerns are:

- Although the NRA's policy ensures transparency with disclosing information publicly, the most of information has not been disclosed for the recent Physical Protection incidents at TEPCO's Kashiwazaki-Kariwa (KK) NPS. How do you think on this dilemma between transparency and security?
- Due to the nature of handling security information, security fields are likely to be isolated with a small number of experts, that results in, somehow, the situation upper managements are not fully shared information and cannot oversight security field well. How do you see regulators cope with this situation? Also, to what extent do top regulators interact with their staffs on security issues with a top level commitment and leadership?

2. Partial Loss of Physical Protection Equipment Function



Overview

- Some of physical protection equipment had been defective, and no effective alternative measures had been taken since Mar 2020
- The defective status, in which intrusion to the site could not be detected, continued over 30 days at some point in the past
- It turned out that security guards on the site had been aware of ineffectiveness of the alternative measures

2. Partial Loss of Physical Protection Equipment Function



Incident

- Since March 2020, as some of physical protection equipment at KK NPS were defective and effective alternative measures were not taken, intrusions could not be detected at several points in the NPS.
- Although TEPCO recognized that it should recover the physical protection equipment immediately, it took a long time to do so. In addition, although TEPCO's security guards recognized ineffectiveness of the alternative measures, they failed to take action to improve them. As a result, the situation in which intrusions could not be detected continued for more than 30 days at several points.
- Furthermore, it was revealed that physical protection functions at the NPS had also been partially lost since January 2018 until March 2020, which had not been fixed for a long period of time.
- As described above, at KK NPS, the organizational management competency declined, the effectiveness of security measures has not been adequately ensured for a long time, and severe incidents in terms of physical protection could occur.
- At present, the physical protection equipment and functions at these points have been recovered. Also, intrusions from these points have not been confirmed. By an instruction of NRA, TEPCO has applied effective alternative measures, in which are taken immediately in case physical protection functions are lost.



2. Partial Loss of Physical Protection Equipment Function

Regulatory Responses

Based on the facts confirmed by regulatory inspections at KK NPS and TEPCO's response to a granted opportunity for explanation, a regulatory decision has been made that Significance* and Severity** Levels of the incident of, partial loss of physical protection function are "Red" and "SL I" respectively, which indicates that a serious impact on security could have been made. Since the significance level has become "Red", Classification of the NPS for inspection*** is changed to "Category 4", which determines supplemental inspections to be implemented by the NRA. Subsequently, the NRA has ordered TEPCO to prohibit the movement of nuclear materials at KK NPS, as the necessary measure for physical protection of nuclear materials, until the classification is changed to Category 1. TEPCO will confirm and evaluate the incident and is required by the NRA to submit a report on the incident by 23 Sept 2021.

**Significance Level* is classified using one of four colors (red, yellow, white, green) in accordance with an extent of degradation of security at nuclear facilities. "Red" indicates the most serious of four colors and a large impact on performance for physical protection of nuclear materials.

***Severity Level* is classified as either SL I, SL II, SL III, or SL IV depending upon the severity of violation. "SL I" indicates the most severe of four levels and that a severe impact or potential impact on physical protection could have been made.

***Classification of the NPS for inspection is classified as either Category 1, Category 2, Category 3, Category 4, or Category 5 depending on the *significance level*. "Category 4" indicates the second most serious of five categories and that supplemental inspections shall be implemented to target both operator security activities and quality management system, for which performance deficiency has been identified.

2. Partial Loss of Physical Protection Equipment Function

Timeline

- 27 Jan. 2021: TEPCO reported to the Secretariat of the NRA that there was a loss of physical protection equipment function and alternative measures were taken. The Secretariat of the NRA confirmed an effectiveness of the alternative measures and instructed TEPCO to check and report whether there was any other loss of physical protection equipment.
- 15 Feb. 2021: TEPCO reported to the Secretariat of the NRA that there were other loss of functions at several physical protection equipment and that TEPCO took alternative measures with the prospect of recovery of the equipment.
- 17 Feb. 2021: The Secretariat of the NRA reported to the Chairman and Commissioners of the NRA the situation and that the effectiveness of alternative measures could not be confirmed.
- 18 Feb. 2021: The Extraordinary NRA Commission meeting was held and the overview of the incident was reported.
- 21, 24 – 26, Feb. 2021: Nuclear security inspections were conducted at KK NPS.
- 1 Mar. 2021: The result of the inspections was reported at the Extraordinary NRA Commission meeting.
- 3, 4 Mar. 2021: Nuclear security inspections were conducted at KK NPS.
- 4 Mar. 2021: The evaluation plan was discussed at the Extraordinary NRA Commission meeting.

2. Partial Loss of Physical Protection Equipment Function



Timeline (cont.)

- 9 Mar. 2021: The NRA held a preliminary meeting for SERP (Significance and Enforcement Review Panel) and the Significance and Severity Levels of the incident were evaluated (a provisional evaluation draft).
- 16 Mar. 2021: The provisional evaluation draft was discussed at the NRA Commission meeting.
- 18 Mar. 2021: The provisional evaluation was confirmed since TEPCO submitted a letter to the NRA to declare no objection to the evaluation.
- 23 Mar. 2021: The NRA Commission meeting was held and made a decision of notifying TEPCO that the classification of the NPS for inspection was changed from Category 2 to Category 4, as well as of requiring to submit the report on plans for corrective action of physical protection by 23 Sept 2021.
- 31 Mar. 2021: TEPCO was granted an opportunity for explanation against forthcoming NRA order of prohibiting movements of nuclear materials at KK NPS until the classification of the NPS for inspection has become Category 1.
- 7 April. 2021: The NRA order was confirmed since TEPCO submitted a letter to the NRA to declare no objection to the forthcoming NRA order.
- 14 Apr. 2021: The NRA issued the order to prohibit movements of nuclear materials at KK NPS until the classification of the NPS for inspection has become Category 1.
- 20 May 2021: The NRA agreed to carry out supplemental inspections.
- As of 14 July: The supplemental inspections are underway.



3. Unauthorized Access to Main Control Room

The incident was reported at the same NPS prior to the incident described above.

- At KK NPS on the morning of 20 Sept 2020, main control room worker A removed the ID card of main control room worker B without permission from his locker which was left unlocked.
- When A attempted to gain entry by giving the name of B, contracted security personnel and TEPCO security guard C felt that something was out of place, but granted entry.
- As decided by C, A's identification data was recorded on B's ID card.
- A used B's ID card to pass through the surrounding protected zone and the protected zone to gain entry to the main control room.

The Significance and Severity Levels of the incident of unauthorized access to main control room was evaluated as "White*" and "SL III**" respectively, which indicates that a impact or potential impact on security was limited. Classification of the NPS for inspection was changed to Category 2, which indicates operator security activities have degraded slightly.

*"White" indicates, the second least serious of four colors and no significant impact on performance for physical protection of nuclear materials.

**"SL III" indicates, the second least severe of four levels and that it has or may have had a certain impact on physical protection of nuclear materials.



3. Unauthorized Access to Main Control Room

How the Incident was Discovered

- On the morning of next day, 21 Sept 2020, when main control room worker B attempted to gain entry, an error occurred when authenticating his identity.
- TEPCO security guard C, who was present the previous day when main control room worker A's identification data was recorded on B's ID card, questioned B thereby discovering that A had used B's ID card. The incident was immediately reported to the NRA on the same day.
- On 9 Feb 2021, it was conveyed to the NRA that TEPCO does not have an opinion to state in regards to the significance assessment "White".
- On the same day, the NRA made the "White" significance assessment official, and a notice to change classification of the NPS for inspection from category 1 to category 2 was issued by NRA.
- In response to this, TEPCO presented a plan to the NRA to engage in activities to make improvements in conjunction with root cause analysis of this incident, and reported on the results of the implementation of this plan by 10 Mar 2021.
- Supplemental inspections has been implemented and continued by the NRA.