【Report】
Reflecting on Self-Assessments and an Introduction of Initiatives aimed at Improvement Efforts

Keep the Fukushima Nuclear Accident firmly in mind; We should be safety today than we were yesterday, and safer tomorrow than today. We will become a nuclear operator with the world's highest level of safety.

January 29, 2019

Tokyo Electric Power Company Holdings, Inc.

Self-Assessment Results (Reported at the 15th Nuclear Reform Monitoring Committee meeting on October 5, 2018)

Key Issue	Expectations/Requirements	TF Assessment	Initiatives	Party Responsible	Self-assessment by department spearheading initiative
1. Strengthening Governance	Governance in the Nuclear Power Division must the stronger	Ⅳ Rooted and possibly effective	1-1. Creation and permeation of Management Model	Nuclear Safety Management Dept. GM	Ⅳ
			1-2. Nuclear Safety Advisory Board action	Nuclear Reform Special TF Deputy Secretary-General	Ⅳ
			1-3. Creation and promotion of decommissioning promotion strategy	D&D Promotion Office GM	Ⅴ
2. Improving human resource training	In-house technological capabilities must be enhanced	Ⅳ Rooted and possibly effective	2-1. Revision of educational and training programs based upon SAT	Nuclear Human Capital Development Center Director	Ⅳ
		Ⅱ Not rooted	2-2. Strengthening engineering prowess	Nuclear Asset Management Dept. GM	Ⅳ : SE cultivation Ⅱ : CM, EC establishment
3. Improving communication	The opinions of society must be heard, risks and information must be proactively disclosed and dialogue engaged in continuously, and a relationship of trust must be built	Ⅳ Rooted and possibly effective	3-1. Creation of effective communication mechanisms	Corporate Communications Office GM/Decommissioning Communications Center Director	Ⅴ : Entire company Ⅱ : FDEC
			3-2. Communication training	Corporate Communications Office GM/Decommissioning Communications Center Director	Ⅴ
			3-3. Strengthening of process for making decisions about external announcements	Corporate Communications Office GM/Decommissioning Communications Center Director	Ⅳ
			3-4. Ensuring that viewing problems from the society's viewpoint permeates the organization	SC Office ⇒ Corporate Communications Office GM	Ⅴ
			3-5. Risk communicator training	SC Office ⇒ Corporate Communications Office GM	Ⅴ
			3-6. Third-party assessments of communication	SC Office ⇒ Corporate Communications Office GM	Ⅴ
4. Cultivating nuclear safety culture	Management must embody the concept of prioritizing safety, every individual must constantly think about safety, and all parties must continually pursue higher levels of safety	Ⅳ Rooted and possibly effective	4-1. Activities to cultivate nuclear safety culture internally	Nuclear Safety Management Dept. GM	Ⅳ
			4-2. Activities to cultivate nuclear safety culture within contracting companies	Nuclear Safety Management Dept. GM	Ⅳ
5. Strengthening internal oversight functions		Ⅳ Rooted and possibly effective	5-1. Making it easier to explain recommendations	Nuclear Safety Oversight Office Director	Ⅳ
			5-2. Oversight officer education training	Nuclear Safety Oversight Office Director	Ⅳ

Gap between Self-Assessment Results and Actual Conditions

Since the self-assessment there have been troubles stemming from a lack of "technological capability" and "communication."

【Troubles stemming from a lack of technological capability】

- HQ: Insufficient preventative actions for nonconformances
- 1F: Unit 3 Fuel Handling Machine nonconformances
- KK: Service tunnel cable fire (cause)

【 Troubles stemming from a lack of communication】

- 1F: Insufficient explanation of treated water analysis results
- HQ: Inappropriate expressions used for Instagram hashtags
- KK: Service tunnel cable fire (Insufficient information conveyed) etc.

<u>Since committee expectations are not being met, the gap between actual conditions and expectations will be examined here</u>

Strengthening human resource training (technical prowess) (1/2)　Reassessment

- Committee expectation:　**Company employees should possess sufficient technical skill**

Ⅱ．Not rooted

- Reassessment Results

A lack of technical prowess, as mentioned below, has continued to caused equipment and task nonconformances. In addition to individual handling, which was assessed prior, troubles will be prevented from happening by reviewing the current quality level of equipment and work processes, and proposing/implementing countermeasures that rectify any gaps that exist between current conditions and how the situation should be.

【Nuclear Power & Plant Siting Division】

① The ability to ascertain the true cause and take steps on one's own to improve processes that permit mistakes

（Example: : Insufficient preventative actions for nonconformances)

① The technical skill to present necessary and sufficient design requirements and inspect/review the design achievements of vendors

（Example: Service tunnel cable fire resulting from deterioration of cable sheathing)

【Fukushima Daiichi D&D Engineering Company】

③ Technical ability to procure appropriately (Example: Unit 3 Fuel Handling Machine nonconformances)

② Technical ability to examine equipment and work process quality management level and identify risk in accordance with importance level (Example: Same as above)

Strengthening human resource training (technical prowess) (2/2) Action Plan

Added/Enhanced Actions

	Actions	Category
①	**Promotion of safety/quality improvements KAIZEN activities** Identify work processes noted in safety regulations and work manuals, etc. that are currently conducted/managed by people and employ information technology to make improvements.	New
②	**Education/Training Program Construction** Bestow the ability to identify the attributes of equipment/facilities and related operating experience, without omission, when determining design requirements, and construct education/training programs for identified processes	Strengthened
③	**Procurement Improvement Benchmarking** Incorporate the results of benchmarking into manuals as work processes ✓ Procurement methods (JAXA) ✓ Methods for contracting overseas corporations (BCG)	New
④	**Examine gaps with equipment/work quality** Identify gaps between current quality levels and expected conditions, and propose countermeasures ✓ Quality level of the manufacturing, installation and maintenance of equipment currently in operation ✓ Each work process, such as planning/design, inspection, and operation/maintenance	New

Communication Improvements （1/2） Reassessment

- Committee Expectation: **Trust should be built by listening to the opinions of society, and proactively disclosing risks/information and promoting dialogue**

- Reassessment Results

Ⅱ． Not rooted

Individual countermeasures have been proposed and implemented for the troubles that have occurred to date, however operational mistakes and inconsistencies are still not being prevented. The root causes of this have been identified as “a lack of professionalism” and “a lack of awareness about conveying information that is easily understood.

① Data is presented but not in a way that makes it easily understood.
(Example: Insufficient explanations of Fukushima Daiichi treated water analysis results)

① Inappropriate expressions used with pictures posted on SNS
(Example: Inappropriate expressions used for Instagram hashtags)

① Failure to send facsimiles in the event of a trouble, which is stipulated as one of the means of notification.
(Example: Insufficient communication of information during KK cable fire)

② Failure to share information with government administration officials
(Example: Same as above)

To what extent the Nuclear Power Division can identify what information originating from within the Division should be disclosed, and to what extent the Corporate Communications Department can convey that information quickly and in an easily understood manner, are vital when it comes to information disclosure awareness.

Communication Improvements （2/2）

- Additional/Enhanced Actions （Coordination between HQ Corporate Communications and each department)

  - Improving awareness about professionalism and disclosing information that is easily understood

Action		Category
Awareness improvements in department where information originates (Nuclear Power Division)	・Group discussions that utilize the results from internal information disclosure awareness-related questionnaires and past cases of incompetent information dissemination	Strengthened
Awareness improvements in corporate communications departments	・Measure the effect of corporate communications training, such as communications training led by third-parties, etc., and deliberate creating opportunities to actually utilize acquired skills	Strengthened
Common	・Periodically hold information disclosure training that utilizes instances when the Nuclear Power Division and the Corporate Communications Department worked as one.	New

  - Strengthen oversight using Risk Communicators (RC)

Action		Category
Strengthen oversight using risk communicators	・Develop RC training that focuses on strengthening oversight functions ・Strengthen risk reductions by revising methods for sharing information with RC and managing issues.	Strengthened

Future initiatives aimed at improvement

- The following shall be focuses on during this year in order to prevent the recurrence of accidents/troubles
  - Making sure everyone knows basic operations
  - Make sure that information is shared between departments and the hierarchy
  - Quickly respond to signs of accidents/trouble

- Ascertain the true cause of serious work accidents※ that continue to occur, and propose/implement necessary countermeasures.

※ A worker fractured both shin bones at Fukushima Daiichi on December 14, and another worker severed three fingers on his right hand at Kashiwazaki-Kariwa on January 22.

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