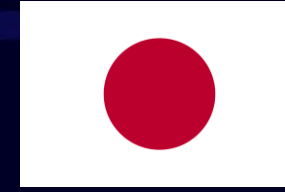


Paris Session 2022



Actions for internalization of maintenance skills and knowledge to transfer them to the next generations

SC B3
PS2 / Q.3

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Question and our contribution

Question PS2.3

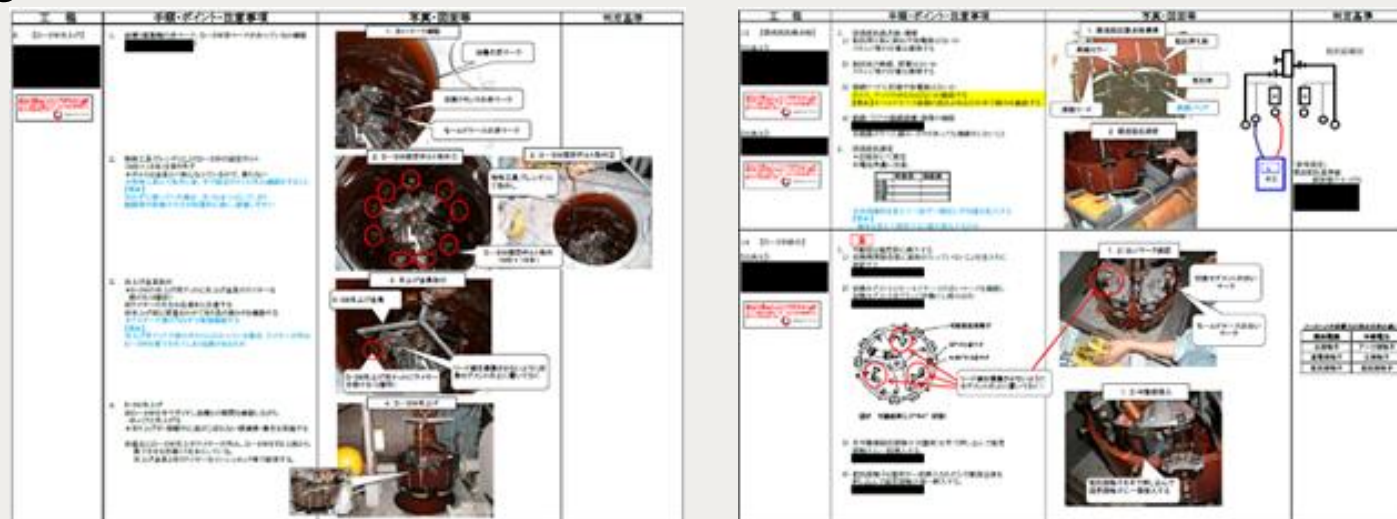
- With the retirement of experienced utility engineers around the world, there is a significant knowledge drain on utilities and the industry. What processes or development programs can help companies transfer knowledge to the new work force. Are there any examples that you would like to share?

Answer

- We would like to share examples of Chubu Electric Power Grid's actions: Internalization of maintenance skills to keep the quality of maintenance of aging equipment high and to transfer maintenance skills and knowledge to younger engineers.

Action 1: Create maintenance work manuals

- We have been creating manuals for equipment maintenance work that has been carried out by the technicians of manufacturers or maintenance companies.
- This enables users to retain the know-how required for equipment maintenance.
- The use of manuals facilitates the transfer of technical skills and knowledge to younger engineers.



Group Discussion Meeting Fig.1 example of maintenance work manuals (Diverter switch inspection)

Action 2: Create education and training facilities with a collection of decommissioned equipment

- Decommissioned equipment is collected and used as education and training facilities in vacant spaces in substations and elsewhere.
- These facilities are disconnected from the power lines and allow practical skills training at any time, safely and practically.



- Training equipment: CB, LS, LR, etc.
- Training menu:
 - Overhaul of the operating mechanism
 - Operating characteristics test
 - Electrical characteristics test (current-carrying capacity, insulation resistance, etc.)
 - Parts replacement, etc.

Fig.2 Education and training facilities

- They help young engineers to understand the inner workings of older equipment.

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Action 3: In-house maintenance skills competition, technical certification system

- In-house maintenance skills competitions are held using the education and training facilities described in Action 2.
- In addition, an internal technical certification system has been set up and engineers are given tasks according to their level.
- In this way, we are trying to improve the skills of young engineers and promote their motivation.



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Fig.3 In-house maintenance skills competition

Conclusion

- We are taking various actions to bring equipment maintenance skills and knowledge in-house.
- Through these actions, we are keeping up the quality of maintenance for older equipment and passing on the skills to younger engineers.
- These actions are not limited to simply passing on skills to younger engineers, but will further improve our maintenance skills and are expected to make a significant contribution to improving the reliability of the electricity supply.

Thank you for your attention !!