Technical Knowledge Transfer for the Restart of the Tokai No.2 Nuclear Power Plant

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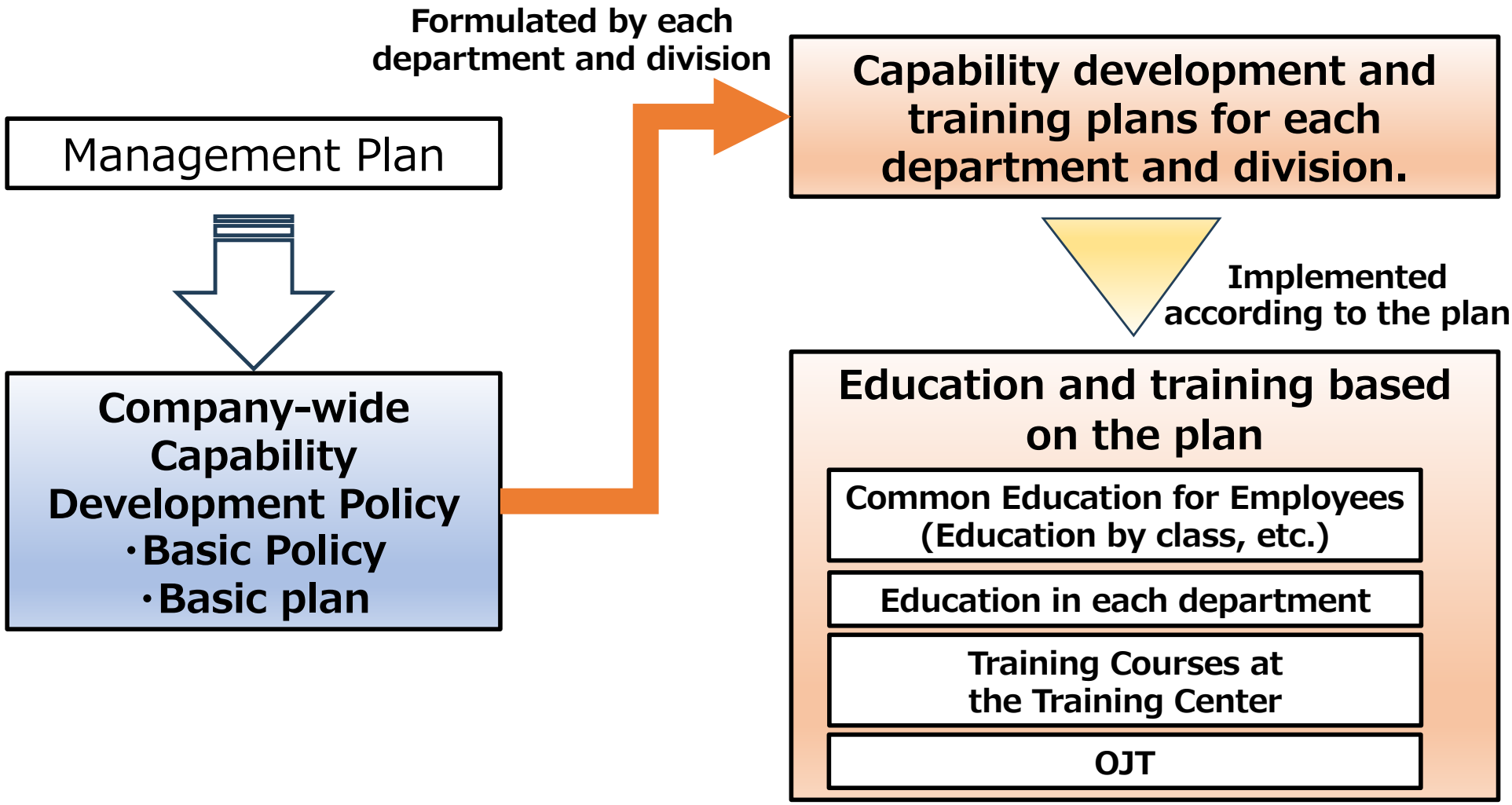
Contents

1. Company-wide Technical Knowledge Transfer and Human Resource Development

- Each department and division formulates a plan in response to the capability development policy and provides education for its members.



2. Efforts to Restart the Tokai No.2 Power Plant

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- In addition to company-wide training plans, efforts towards restarting operations are underway in the power generation, maintenance and safety management (radiation, reactor core and fuel) departments at Tokai No.2 Power Plant.

Formulated at the power plant based on the issues

[Recognition of challenges]

- The long-term shutdown of the plant has resulted in a decrease in the number of experienced operators and training is necessary to make up for the lack of experience among operators without an operational background.
- Acquiring knowledge and skills related to newly installed or modified equipment under new regulatory standards.

[Basic policy]

1. Acquisition of the necessary knowledge and skills for the restart
2. Compensation for the lack of experience due to the long-term shutdown
3. Acquisition of knowledge and skills related to new or modified equipment
4. Acquisition of technical confidence for restart

Main efforts that received the basic policy

- **(1) Training using a full-scope simulator**
- **(2) Technical knowledge transfer from veteran employees**
- **(3) Participation in training courses at the training center**
- **(4) Gaining experience at operational plants**

(1) Training using a Full-Scope Simulator (FSS)

- The Training Center replicates the main control room of the Tokai No. 2 Power Plant.
- Use a full-scope simulator for troubleshooting training to acquire the necessary knowledge and skills for restarting operations.
- Maintain operational skills during extended plant shutdowns.
- Support inexperienced younger operators in mastering control operations.

During the equipment operation test (10% closed test of the main steam isolation valve), a malfunction occurred, so the reactor was urgently shut down (SCRAM).

- To compensate for the lack of experience caused by the plant's long-term shutdown, we are implementing various forms of technical knowledge transfer between veteran and younger employees.

a. Classroom lectures and on-site study sessions, etc.

- Veteran employees directly provide guidance on equipment maintenance points that should be known as a person in charge (construction supervisor, etc.), past trouble events and countermeasures, and the history of modification through desks and site patrols, in order to improve and maintain the basic skills of younger employees.

b. Establishment of a consultation desk for veteran staff who have left the line

- To provide an opportunity to pass on skills beyond job titles, we have posted the careers and experiences of experienced veteran employees who have left the line of responsibility on the in-house portal site and established a consultation desk for these employees.
- We have built a system that allows veteran staff who do not usually have contact with young staff to feel free to ask questions and consultations without hesitation.

Portal site

(3) Participation in Training Courses at the Training Center

- Various knowledge and skills necessary for reoperation are acquired through training courses (approximately 100) at the Training Center. These courses cover new and remodeled equipment.

category		Educational course name (example)
Operator Education		• New driver • East Ⅱ operation (family training, etc.) • Operator radiation protection, etc.
Warranty education	machine	• Turbine warranty inspection • Non-destructive testing • Piping design, etc
	electricity	• Motor warranty inspection • Electric valve drive device warranty inspection • Electrical system design, etc.
	Measurement and Control	• Practical training on using sequencers • Measurement and Control System Design (BWR) • Turbine Control System (BWR), etc
Nuclear Energy, Radiation, and Environmental Education		• Fuel management • Reactor core management • Radiation manager training, etc

(4) Gaining Experience at Operational Plants

- To compensate for the lack of experience among operators without prior driving experience, personnel are being dispatched to nuclear power plants operated by other utilities that have resumed operations.
- This provides an opportunity for them to gain confidence through hands-on experience. For example, they can observe the atmosphere at operating plants (e.g., Onagawa Nuclear Power Station, Shimane Nuclear Power Station) and perform actual equipment operations.

3. Conclusion

- The Japan Atomic Power Company is implementing company-wide capability development and training programs to ensure technical knowledge transfer.

- At Tokai No. 2 Power Plant, following a shutdown period of over 10 years, efforts are underway to acquire the necessary knowledge and skills, address the lack of experience among junior staff, and ensure the competence of personnel in preparation for restarting operations.

- The company will continue striving to operate its plants with safety as the top priority and to remain a trusted, community-rooted enterprise.