

Japan Nuclear Safety Institute (JANSI)

Prepared for Japan Atomic Energy Commission

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JANSI Chairman

William Edward Webster Jr.



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1. Background of the establishment of JANSI

The nuclear industry in Japan established JANSI as a self-regulatory organization based on the determination of the industry “to prevent another TEPCO Fukushima Daiichi accident,” modeled on U.S. Institute of Nuclear Power Operations or INPO. JANSI is expected to support and advance efforts for voluntary and continuous pursuit of Excellence from a civilian third-party organization’s perspective. (Nov 2012)



2. Mission and Vision

[Mission]

Pursue the World's Highest Level of Safety in the Japan's Nuclear Power Industry

～ *Untiring Pursuit of Highest Standards of Excellence* ～

[Vision]

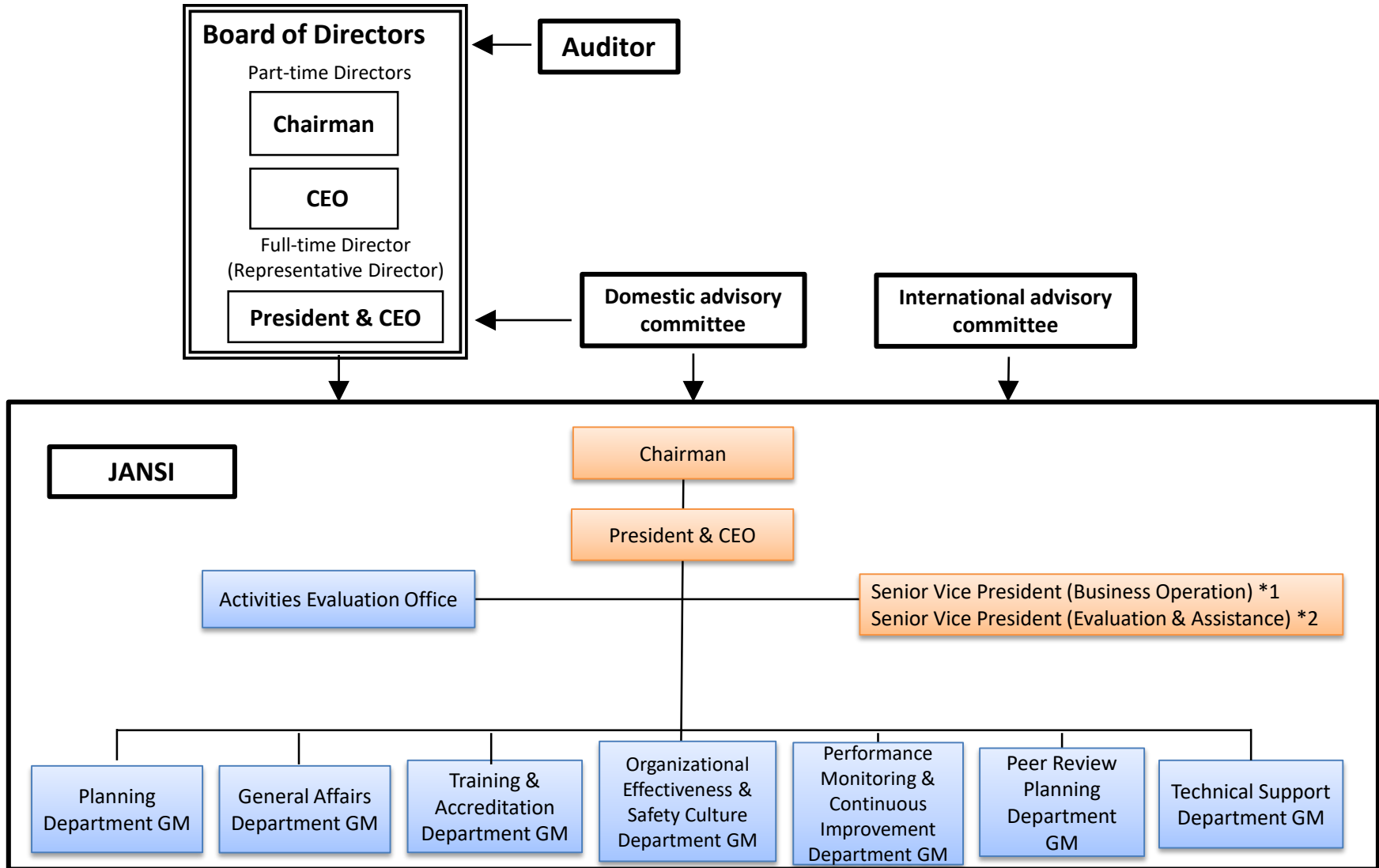
○ **Vision for the industry**: The industry achieves the highest levels of safety through continuous improvement.

○ **Vision for JANSI**: JANSI facilitates initiatives for safety improvement serving as the self-regulatory organization to the nuclear industry.



3. Structure/Organization

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3. Structure/Organization

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Director/Auditor	Name (titles omitted)	Affiliation
Director, Chairman	William Edward Webster Jr.	
Representative Director, President & CEO	Hiromi Yamazaki	
Director	Kazuhiro Ikebe	President and CEO, Kyushu Electric Power Co., Inc.
Director	Tomoaki Kobayakawa	Representative Executive Officer and President Tokyo Electric Power Company Holdings, Inc.
Director	Natsuhiko Takimoto	Representative Director, President & Senior Managing Executive Officer, The Chugoku Electric Power Co., Inc.
Director	Keisuke Nagai	Director and President, Shikoku Electric Power Co., Inc.
Director	Kingo Hayashi	President and Director, Chubu Electric Power Co., Inc.
Director	Kojiro Higuchi	Representative Director & President, Tohoku Electric Power Co., Inc.
Director	Yutaka Fujii	President and Director, Hokkaido Electric Power Co., Inc.
Director	Naohiro Masuda	Executive President and CEO, Japan Nuclear Fuel Limited
Director	Koji Matsuda	Representative Director & President, Hokuriku Electric Power Company
Director	Mamoru Muramatsu	President, The Japan Atomic Power Company
Director	Nozomu Mori	Director, Representative Executive Officer, President The Kansai Electric Power Co., Inc.
Director	Toshifumi Watanabe	Representative Director President and Chief Executive Officer Electric Power Development Co., Ltd.
Auditor	Tadashi Kume	Vice President and Executive Officer, CEO of Nuclear Energy Business Unit Hitachi, Ltd.
Auditor	Hajime Yamazaki	President & Representative Director, Global Nuclear Fuel-Japan Co., Ltd



3. Structure/Organization

【Domestic Advisory Committee】

Name (titles omitted)	Affiliation
Shinichi Inoue	President of Japan Aircraft Pilot Association
Ryoichi Oriki	Senior Advisor, Fujitsu Limited (Former Chief of Staff of Japan Self-Defense Force)
Keiichi Nakagawa	Specially Appointed Professor, Radiation Oncology Graduate School of Medicine, The University of Tokyo
Naomi Hirose	Chair, Japan Energy Association Chair, Japan National Committee, World Energy Council
Akira Yamaguchi	Director, Nuclear Safety Research Association (Ex-Professor, The Graduate School of Engineering, The University of Tokyo)
Masahide Wakakura	Executive Director, NPO Japan Safety Competency Center

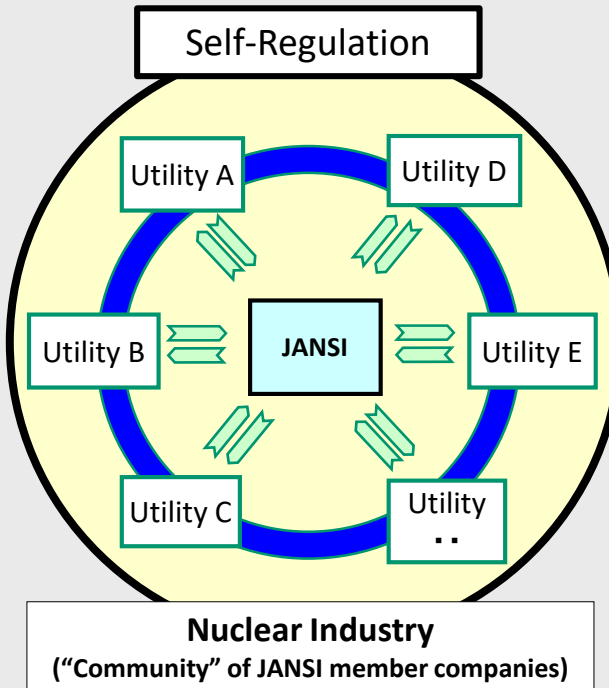
【International Advisory Committee】

Name (titles omitted)	Affiliation
Jacques Regaldo	Vice President of EDF (Ex-Chairman of WANO)
Victor M. KcCree	Consultant (Ex-Executive Operation Manager of US-NRC)
Jose Antonio Gago Badenas	President of ANAV (Asociacion Nuclear Asco-Vandellos)
Jefferey B. Archie	Consultant (Ex-Sr.VP&CNO of SCE&E)



4. Desired end state of the nuclear industry self-regulation

Roles and responsibilities



A member of the Industry, but maintains independence

[JANSI member companies (JNOs)]

- As a main actor of self-regulation, operators fulfill their responsibilities as a member of community and continue to make united efforts to improve safety
- Individual and collective responsibility for safety of nuclear facilities
- Give authority and support to a self-regulatory organization to implement the mission

[JANSI(self-regulatory organization)]

- Roles and responsibilities to assist self-regulation activities effectively and efficiently
 - Evaluate and monitor self-regulatory activities (Watchdog)
 - Stimulate activities (Catalyst)
 - Promote activities by showing the path forward (Facilitator)
 - Be firm anchorage (Accountable Agent)
- Technical capacity that underpins the authority of self-regulation
- Appropriate relationship with the regulator



5. Five Principles for successful operation of JANSI

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- Effective and efficient implementation of self-regulation for the industry -

1. CEO engagement

Chief Executive Officers of JNO are actively engaged in the operation of JANSI, providing governance and oversight. (all JNO CEOs have been the Board members since June 2018)

2. Nuclear safety focus

The primary focus is on nuclear safety. There is a clear mission, focused on achieving standards of excellence in operations.

3. Support from industry

The industry fully participates in JANSI activities and provides support in talent and resource.

4. Accountability

Member companies are accountable for the safety of their station and to JANSI for the collective safety of the industry.

5. Independence

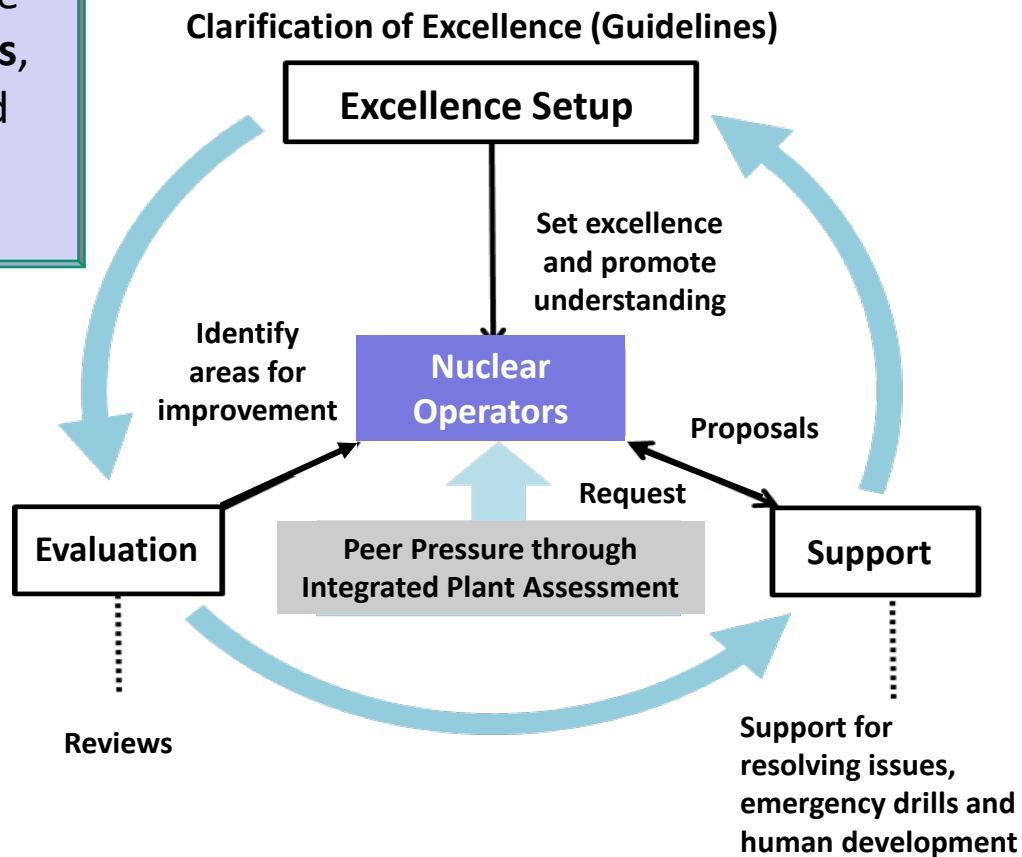
JANSI depends on the entire industry but remain independent from a specific operator or operator's group



6. Cycle of JANSI activities

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JANSI defines the latest standards of excellence and apply it in the cycle of **setting up excellence standards**, **evaluating** to these standards and **supporting** the operators in an effective and timely manner



Integrated Plant Assessment: The result shown in 5 different ratings is shared in the CEO Session for exertion of peer pressure



7. Initiatives for strengthening JNO leaders' commitment

- JANSI top executives have direct communication with JNO CEOs to provide the areas for improvement and encourage improvement.

[Peer Reviews]

- Informs directly JNO CEOs of peer review results (incl. areas for improvement)
(Common issues are shared in the CEO session (a JANSI-hosted discussion session exclusively for CEOs) as well)

[Safety Culture]

- Informs JNO CEOs with the safety culture diagnosis results

[Power Plant Integrated Assessment]

- Present the results (5-grade evaluation) at the CEO session
(Peer pressure) “Award and penalty” (incentive driven by honor and shame)

[Proposals for safety improvement measures]

- Present the status of safety improvement proposals to JNO CEOs

[CEO session, CEO training, One-to-one session]

- Exchange opinions among JNO CEOs for the realization of effective self-regulation



8. Key activities (Part 1)

○ Peer Review

➤ Conducted **25 times** since the founding of JANSI in 2012

<The Role of JANSI Peer Review>

- Evaluate all activities that affect the safety of the operators
- Communicate to the JNO leaders about the performance status



<Desired End States>

- Based on the premise that there is a feeling of trust between the power plant (interview content, reports, and other information will not be disclosed)
- Conduct “quality peer reviews” that will lead to improvements in power plants
- Continuous involvement through “evaluation and support”
- Ensure “independence”
- Seek “highest excellence” for JANSI itself too



Pursue the World's Highest Level of Safety and Reliability

PRs in FY2021

- Onagawa NPS
- Ohi NPS
- Takahama NPS
- Genkai NPS

Team Meeting

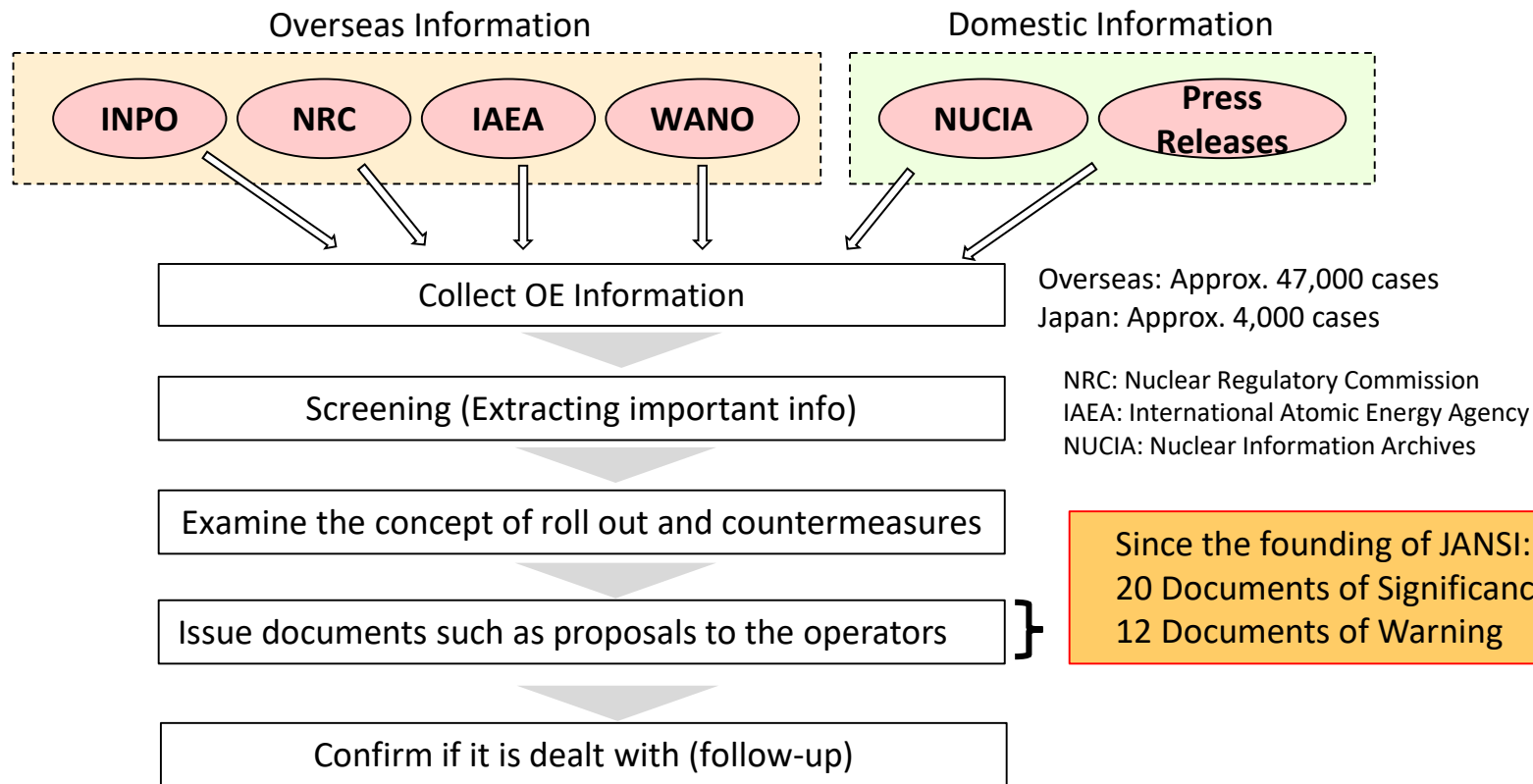


8. Key activities (Part 2)

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○ Utilization of Operating Experience Information (OE)

- Analyze domestic and overseas OE information and propose countermeasures as necessary
- Register Japanese OE information in the public database (NUCIA), and require all stations to take action uniformly as needed.



8. Key activities (Part 3)

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○ Safety Culture Diagnosis

- On-site diagnosis: Being **conducted on a 3-4 year cycle** for NPS, manufacturers, and fuel fabricators based on questionnaire results every 3 years (to hear real voices from the field and understand potential problems)
Interview target expanded to head office from FY2020
- Safety Culture questionnaire: **Fixed-point observation every 3 years**

[On-site diagnosis]

On-site diagnostics are designed to observe and analyze the target company from multiple perspectives in terms of organizational culture, and to provide a diagnosis from an independent and objective standpoint as to how this relates to the maintenance and improvement of performance, including safety.

The purpose is to provide an opportunity for the company itself to better recognize its own state in relation to safety, and to enhance its learning ability as an organization striving for safety excellence.

	On-site diagnosis in FY2021
NPS and JNFL	Higashidori, Ohi, Shika, Onagwa and Fukushima Daiichi
Plant vendors Fuel fabricators	Toshiba

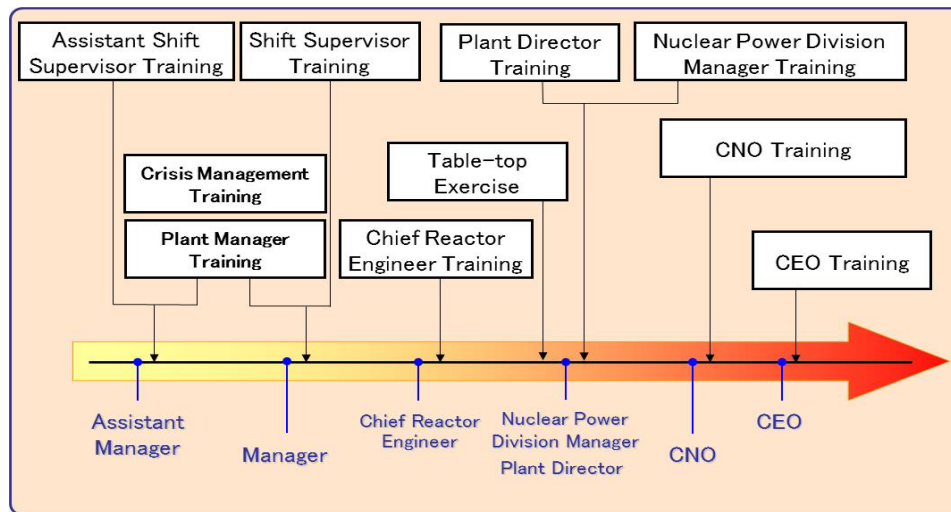


8. Key activities (Part 4)

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○ Leadership Training

- Focus on awareness of nuclear safety as top priority and non-technical skills such as leadership and communication
- Provide 10 training courses according to the management level such as Shift Supervisors, Plant Directors, CNO (Chief Nuclear Officer), and CEO.



Cooperation
↔

External organizations
Fire Station
Self Defense Force
Aviation company
Railway company

- Lectures
- Training facilities
- Know-how of curriculum development



Crisis Management Training



Online training

Trained personnel (ppl)
FY2021
610



9. Appraisal of JANSI activities and challenges

9-1. Current evaluation of activities and challenges

- The quality of each activity including peer reviews, safety culture diagnoses, and leadership training, has steadily improved, and effective proposals have been made to JNOs. These activities have contributed to the improvement of the voluntary and continuous safety improvement system of JNO and **to the fostering of a mindset of JNO that strives for safety improvement under the leadership of the CEO**. JANSI will continue to work with JNOs to further spread this mindset at the front line workers.



9. Appraisal of JANSI activities and challenges

9-2. Future direction in conduct of JANSI activities

- Further enhance the current activities and continue to **support the development of a JNO's mindset of continuous improvement led by the leadership of the CEO.**
- Introduce a system to monitor and evaluate plant operations between peer reviews in order to make more effective proposals. (Constant monitoring and evaluation between PRs will enable us to identify deterioration in operational activities at the symptomatic stage and make proposals.)



Chairman's insights:

- Formal governance structure that is strongly supported by operator CEOs
- Ten-year strategic plan guides all JANSI activities
- Effective advisory structure with both domestic and international perspectives
- Technically competent staff
- Rapidly gaining proficiency in the essential activities of a self-regulatory body
- Well understood and supported by senior utility leadership, less well understood by personnel down in the organizations at the stations.
- Increased industry self-awareness and self-correction capability.

