

# FY2020 Business Report



(1) Organization Name: Japan Nuclear Safety Institute (JANSI)

(2) Number of Members: 129 members (As of end of March 2021)

(3) Employee Size: 204 employees (As of end of March 2021)

(4) Internal Organization

(Approved by the “Annual General Assembly” and the “47<sup>th</sup> Extraordinary Board of Directors Meeting” held in June 2020)

○ 3 Division/1 Office/8 Department Structure

○ Directors and Auditors (Chairman, 10 Directors, 2 Auditors)

○ Executive Officers

(3 Managing Executive Officers, 8 Executive Officers)



# 1-1. FY2020 Activity Status (Main Actions: 1/5)<sup>3</sup>

Ten-Year Strategy Main Actions	FY2020 Activity Status (Items with “●” are related to Highly Focused Activity)
<b>(1) Effective and efficient implementation of peer reviews (PR)</b>	<ul style="list-style-type: none"> <li>● Ensure to implement power plant PR, effective and efficient implementation of PR (Ikata, Tokai Daini)</li> <li>● Collaboration with WANO-TC (Equivalency meetings held with WANO-LO, WANO assessors dispatched for pre-observations)</li> </ul>
<b>(2) Strengthen the support for the operators to resolve shared important issues</b>	<ul style="list-style-type: none"> <li>● Held PPRM (Plant Performance Review Meeting) 2 times</li> <li>● Support for resolving important issues identified in PR               <ul style="list-style-type: none"> <li>① Operations fundamental for shift-operators in accident response simulator training (A small number of witnesses for team performance improvement training (2 times), training video observation (2 times), for benchmarks, conducted a trial by live streaming on the Web (2 times).)</li> <li>② Mitigation of fire risk (Held “FP Review Meeting” (5 times), “FP Seminar”)</li> <li>③ Support for performance improvement (support for improving on-site observation skill, Focused Self-Assessment support, etc.)</li> <li>④ Comprehensive support for SAT: (Please refer to the Main Action (14))</li> </ul> </li> <li>○ Support for issues related to the basics of maintenance (Established “MA Review Meeting,” held (2 times))</li> <li>○ Continued regular contact and visit by Senior Representatives (SR)</li> <li>○ Widely inform the activity of Technical Contact Points (TCP)</li> <li>○ Updated Excellence Guideline (Ex-GL) (8GL)</li> </ul>
<b>(3) Provide support for autonomous safety activity programs</b>	<ul style="list-style-type: none"> <li>● Support for constructing/operating new fundamental programs of operators               <ul style="list-style-type: none"> <li>① CAP: Held “QMS Review Meeting” (3 times)</li> <li>② CM: Held “CM-WG” (3 times)</li> <li>③ Common Voluntary PI: Full-scale operation will start in FY2020, Held a “Common Voluntary PI Review Working Group” (1 time)</li> <li>④ RM: (Please refer to the Main Action (9))</li> </ul> </li> <li>● Support for improving power plant risk sensitivity (Design and develop education and training to increase the risk sensitivity of power plant staff.)</li> </ul>

# (Reference) Achieved peer reviews

## Peer Reviews

➤ **21** peer reviews have conducted since establishment of JANSI in 2012

Over the last 3 years		
FY2018	FY2019	FY2020
Ikata KK 5 through 7 Sendai Tsuruga	KK 1 through 4 Shika Ohi Hamaoka	Ikata Tokai Daini

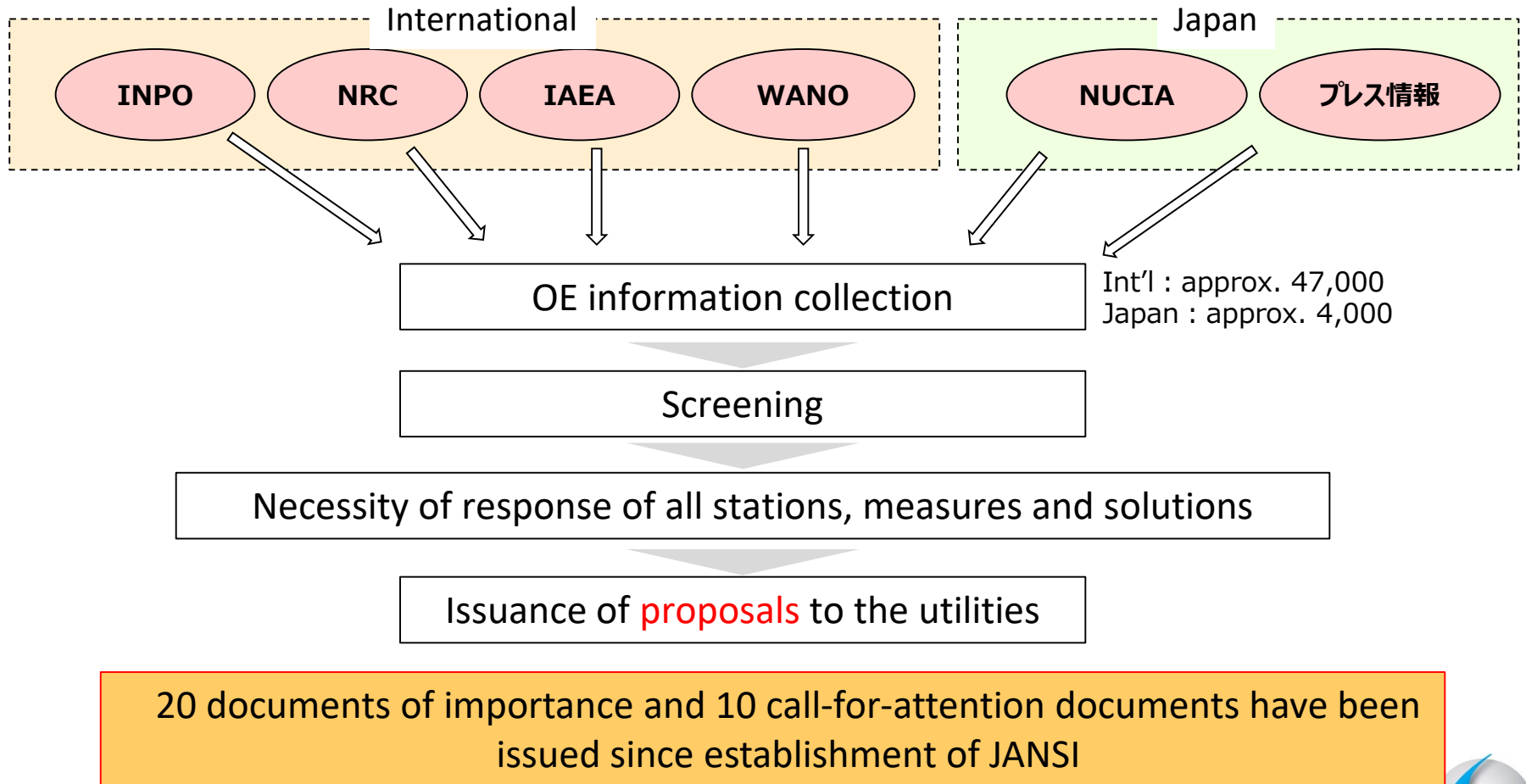


# 1-1. FY2020 Activity Status (Main Actions : 2/5)

Ten-Year Strategy Main Actions	FY2020 Activity Status (Items with “●” are related to Highly Focused Activity)
<b>(4) Provide support for restarting plants</b>	○Provide support such as exchanging opinions with preceding plants in cooperation with WANO (reviews of restart action plans, etc.)
<b>(5) Provide support for reprocessing and other facilities</b>	●Support for reprocessing facilities ▪Created an overall activity plan (self-check confirmation items, etc.),conducted self-check, ▪ individual support activities at each department
<b>(6) Strengthen daily monitoring of plant performance</b>	● Feasibility Study for Performance Monitoring (PM) construction ▪“Tasks” (4 times), “WG” (3 times) held ▪Summarized FS Phase 1 and started Phase 2 ○Utilization of WANO-PI/ Common Voluntary PI data (Implemented quarterly reports as planned)
<b>(7) Upgrade OE tasks and actively provide information</b>	●Collect/analyze OE information internally/externally and release documents to operators according to the significance (Issued information notices (3 cases)) ●Study for improvement/upgrade of OE tasks (Strengthening of OE information sharing, Strengthening the utilization of OE information)
<b>(8) Upgrade safety culture diagnosis method</b>	○Conduct safety culture diagnosis (conducted in 4 places, follow-up in 3 places) ○Support for reinforcement/ improvement of safety culture conducted by operators ▪The creation of self-assessment teaching materials, training using the same teaching materials was conducted (3 places) ▪Lectures requested by members were conducted (4 places) ▪The Safety Caravan was conducted (2 places) ▪The Safety Culture seminar was conducted (2 times) ○Review and improvement of safety culture diagnosis method (10Traits based) ○Safety culture assessment and PR information sharing/cooperation strengthening (Ikata PR, Tokai Daini PR)

# (Reference) Leveraging OE information

- JANSI collects and analyzes domestic and int'l OE with proposing utilities to take action
- Domestic OE information is included in open database (NUCIA) and all stations are required to respond as needed



# 1-1. FY2020 Activity Status (Main Actions : 3/5) 7

Ten-Year Strategy Main Actions	FY2020 Activity Status
<b>(9) Summarize safety improvement tasks and enrich RM support</b>	<ul style="list-style-type: none"> <li>○RM system development support :               <ul style="list-style-type: none"> <li>▪ “RM Practical Review Meeting” held (4 times)</li> <li>▪ Held “Risk-informed Decision Making (RIDM)/RM Basic Education Teaching Material Briefing Session” (5 times)</li> </ul> </li> <li>○Trial of RM review :               <ul style="list-style-type: none"> <li>▪ Preparation of review manual, etc. in preparation for implementation in FY2021</li> </ul> </li> <li>○Activities pertaining to development of safety measures evaluation method :               <ul style="list-style-type: none"> <li>▪ For the review of Severe Accident (SA) measures, Shimane No.2 was evaluated, completed preparation of summary report</li> <li>▪ For the review of Defense in Depth Level 1-3 (design basis event) measures, the evaluation of Ohi No.3 and No.4, and Hamaoka No.4 was completed.</li> <li>▪ For the review of measures against external events, Takahama No. 3 was evaluated.</li> </ul> </li> <li>○Development of foundation for evaluation of safety improvement measures :               <ul style="list-style-type: none"> <li>▪ Investigate the latest knowledge of safety improvement measures in Japan and overseas, evaluate the presented new issues, follow-up and Safety Expert Meetings, provide information to the operator through seminars (8 times), register the evaluation results of domestic plants in the database (DB).</li> <li>▪ Completed the basic concept study on the basic concept of the Defense in Depth data site.</li> <li>▪ Held a “Misak Review Meeting” and an opinion exchange meeting with Czech Electric Power (2 times)</li> </ul> </li> <li>JSAR Guideline development :               <ul style="list-style-type: none"> <li>▪ Completed the BWR version of JSAR guidelines</li> </ul> </li> </ul>
<b>(10) Strengthen oversight function including corporate offices</b>	<ul style="list-style-type: none"> <li>○Support for improving the effectiveness of oversight of the operator (Please refer to Main Actions (8) and (9))</li> <li>○Participation in WANO CPR (It was postponed to FY2021)</li> </ul>

# 1-1. FY2020 Activity Status (Main Actions : 4/5)

Ten-Year Strategy Main Actions	FY2020 Activity Status
<b>(11) Foster operators' awareness as owner of self-regulation by having discussion among executives</b>	<ul style="list-style-type: none"> <li>○ Training leadership for self-regulation                             <ul style="list-style-type: none"> <li>▪ Held the Board Meeting (5 times)</li> <li>▪ Visit to new CEO/CNO by President &amp; CEO (3 times)</li> </ul> </li> <li>○ Direct dialogue between JANSI executives and stations (conducted in the joint assessment)</li> <li>○ Communication with working-level station staffs by various contents                             <ul style="list-style-type: none"> <li>▪ Issued "JANSI ACTIVITIES" (6 times)</li> </ul> </li> </ul>
<b>(12) Continuously improve and conduct Integrated Assessment for nuclear stations</b>	<ul style="list-style-type: none"> <li>○ Implementation of Power Plant Integrated Assessment (Including plant commendation)</li> <li>○ Consideration of handling of PI of the plant under construction (full-scale operation starts in FY2021)</li> <li>○ Maintenance of past PI data (Expanded and maintained tools for efficiently evaluating and analyzing various PI data)</li> </ul>
<b>(13) Leadership trainings for emergency preparedness and disaster drills</b>	<p>[Leadership training]</p> <p>Held CEO training (Meeting at the venue), CNO training (Online), Senior Management training (Hybrid), Plant Superintendents training (Online), Chief Reactor Engineers training (Online), Shift Supervisors training (Online).</p> <p>[Support for nuclear emergency training]</p> <ul style="list-style-type: none"> <li>○ Activities based on the Nuclear Emergency Training Review Committee                             <ul style="list-style-type: none"> <li>▪ The emergency training presentation was canceled due to the influence of COVID-19 (as an alternative, the presentation was held through the Web)</li> <li>▪ Held "Emergency Training Review Committee" (2 times)</li> <li>▪ Seminars and lectures related to emergency response were held</li> </ul> </li> <li>○ Nuclear Emergency Training Assistance Visit                             <ul style="list-style-type: none"> <li>▪ Assistance visit has been postponed to FY2021 based on the intention of JNFL.</li> </ul> </li> </ul>
<b>(14) Educate operators about systematic approach to training (SAT)</b>	<ul style="list-style-type: none"> <li>○ Activities for education on SAT                             <ul style="list-style-type: none"> <li>▪ The design of SAT practical training was reviewed for online training, and started for each plant together with the power plant caravan (6 operators and 9 offices)</li> </ul> </li> </ul>

# 1-1. FY2020 Activity Status (Main Actions : 5/5)

Ten-Year Strategy Main Actions	FY2020 Activity Status
<b>(15) Incorporate Fukushima Daiichi lessons learned</b>	[Prevention of Fukushima accident from fading] <ul style="list-style-type: none"> <li>▪ Lending the video reviewing the 1st floor accident, in the Plant Superintendents training used the “maintaining conscience of the 1st floor accident” video, exchanged of opinions</li> </ul> [Confirmation of Incorporating the lessons from the Fukushima Accident] ▪ A reviewer was selected and training was conducted
<b>(16) Operator support in emergency, e.g. issue of significant event notice</b>	○Operator support in emergency <ul style="list-style-type: none"> <li>▪ "JANSI Power Plant Emergency Response Guidelines" was revised</li> <li>▪ Participated in the nuclear emergency training of the operator together with WANO-TC, and reconfirmed the role of JANSI regarding the operator support.</li> </ul>
<b>(17) Secure medium/long-term human resources and development of human resource development program</b>	[Programs for securing mid/long term personnel] <ul style="list-style-type: none"> <li>○Securing medium- to long-term personnel (Steady human resources request through "Staffing Planning Meeting," Reconstruction of performance evaluation system, Hiring of new graduates)</li> </ul> [Human resources development programs] <ul style="list-style-type: none"> <li>○Maintenance and improvement of staff competence (Implemented competence evaluation in FY2020, Conducted basic business training 2 times)</li> <li>○Promotion of knowledge management (KM) (Enrichment of information held by retirees, training textbooks, news from CKO. New installation of Knowledge sharing window.)</li> </ul>
<b>(18) Raise awareness as self-regulatory organization by the executives</b>	<ul style="list-style-type: none"> <li>○Dialogue activities with top management (Small-group dialogue 10 times, message from the President &amp; CEO 10 times)</li> <li>○Employee awareness survey (Questionnaire survey was conducted, aggregation, evaluation, explanation within JANSI.)</li> </ul>
<b>(19) Strengthen collaboration with NRA</b>	<ul style="list-style-type: none"> <li>○Gathering information on the conclusion of a memorandum of understanding (MOU) between JANSI, WANO and NRA</li> <li>▪ At the JANSI Annual Conference 2021, NRA committee members participated</li> </ul>
<b>(20) Build peer relationships with WANO, INPO and other international organizations</b>	<ul style="list-style-type: none"> <li>○WANO related (World Governing Board Meeting (3 times), Tokyo Center Board Meeting (3 times)etc. participation)</li> <li>○INPO related (Exchanged opinions with INPO executives (3 times), participated in the INPO-CEO conference)</li> </ul>

# 1-2. FY2020 Activity Status (Technology Basis)

Technology Basis	FY2020 Activity Status
<b>(A) Support through autonomous guideline development</b>	<ul style="list-style-type: none"> <li>○Development of Vessel Internals Inspection &amp; Evaluation Guidelines (Review Meetings held 3 times)</li> <li>○Development of EQ Management Guidelines (Review Meetings held 2 times)</li> <li>○Development of guideline for Quality Improvement of Analysis work (Review Meetings held 1 time)</li> </ul>
<b>(B) Development of maintenance technology basis</b>	<ul style="list-style-type: none"> <li>○Expansion of data for maintenance technology basis and promoting activity of basis meeting bodies                             <ul style="list-style-type: none"> <li>▪Improved the maintenance information library</li> <li>▪Maintain and expand the database</li> <li>▪Enhancement of on-site engineer network activities</li> <li>▪Maintenance of deterioration mechanism rearranging table</li> <li>▪Promotion of understanding of basis activities</li> </ul> </li> </ul>
<b>(C) Organizational effectiveness support (QMS)</b>	<ul style="list-style-type: none"> <li>○Support through QMS committee (Committee held 3 times)</li> <li>○Support through Internal Audit Committee (Committee held 2 times)</li> <li>○Training for improvement of quality assurance activities (QA new manager training, auditor training)</li> <li>○Support for revision of JEAC4111 (Played a leading role in the work to submit to the "Nuclear Standards Committee" )</li> </ul>
<b>(D) Organizational effectiveness support (Human Performance)</b>	<ul style="list-style-type: none"> <li>○Training for improvement of human performance (4 times)</li> <li>○Continuous study of training for HF specialist education (Examined through the "QMS committee")</li> <li>○ Create safety awareness materials (posters) (3 times)</li> <li>○Provide results of HF analysis to PR personnel as reference information (5 times)</li> </ul>
<b>(E) Organizational effectiveness support (Root Cause Analysis)</b>	<ul style="list-style-type: none"> <li>○RCA training (2 times : held as HPI training)</li> <li>○RCA case studies (1 time : held included in HPI training)</li> <li>○RCA lecture (1 time : Held included in HPI training)</li> </ul>
<b>(F) Manufacturer support</b>	<ul style="list-style-type: none"> <li>○Ensure to conduct manufacturer PR (1 place)</li> </ul>
<b>(G) Operation Supervisors Certification tasks</b>	<ul style="list-style-type: none"> <li>○Operation Supervisors Certification (4 times)</li> <li>○Support for the operator experience training (Short-time : could not be implemented, Long-term : dispatch from FY2019 has been maintained)</li> <li>○Enrich certifications (Prepared the KSA catalog of BWR TSC personnel)</li> </ul>
<b>(H) Maintenance Skill Certification tasks</b>	<ul style="list-style-type: none"> <li>○Granting certification and issuing certificates as per operators' request</li> <li>○Consideration of transferring tasks to other organizations (Explained the business content and selected candidates)</li> </ul>

# 1-3. FY2020 Activity Status (Codes/Standards) 12

Technology Basis	FY2020 Activity Status
<b>(I) Develop and enhance codes and standards, (Nuclear Safety, Nuclear Facility, Waste Management and Decommissioning Codes &amp; Standards</b>	<ul style="list-style-type: none"><li>○ Further speed-up of codes and standards development and promote its utilization</li><li>○ Continuous revision of mid/long-term plan of codes and standards</li><li>○ Cooperation in transferring support services to the FEPC</li></ul>

## 2. FY2020 Activity Status related to the basis of organizational management

- (1) Promotion of business continuity activities corresponding to COVID-19 pandemic
- (2) Implementation of self-assessment
- (3) Implementation of internal audit

## 3. Holding of the meetings related to the Articles of Incorporation

- (1) General Assembly (6/18)
- (2) Board of Directors (5/21, 6/21, 11/12, 1/14, 3/18)
- (3) Associate Special Member Representative Meeting (11/27)
- (4) Domestic Advisory Committee Meeting (10/13, 3/16)
- (5) International Advisory Committee Meeting (3/19)

