

Introduction of JNES in Japan

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Introduction

The Japan Nuclear Energy Safety Organization (JNES), an incorporated administrative agency, was established on October 1, 2003, as a technical support organization to the nuclear regulatory authority, the Nuclear and Industrial Safety Agency (NISA), with the mission to ensure the safety of nuclear installations for energy use.

JNES's activities include inspection of nuclear installations, safety analysis and evaluation, emergency preparedness support, technical survey, tests and research for ensuring nuclear safety, and information analysis, evaluation and transmission. The studies on new approaches to ensuring nuclear safety on the basis of the latest technological knowledge are also within JNES's scope of responsibilities.

Outline of organization

Major Tasks

(1) Inspection of Nuclear Installations

- Pre-service inspection, periodical inspection, fuel inspection, periodical safety management examination and safety management inspection for welding
- Pre-service inspection, periodical facility inspection, inspection of waste disposal facilities, welding inspection, probation of waste disposal, probation of nuclear material transportation

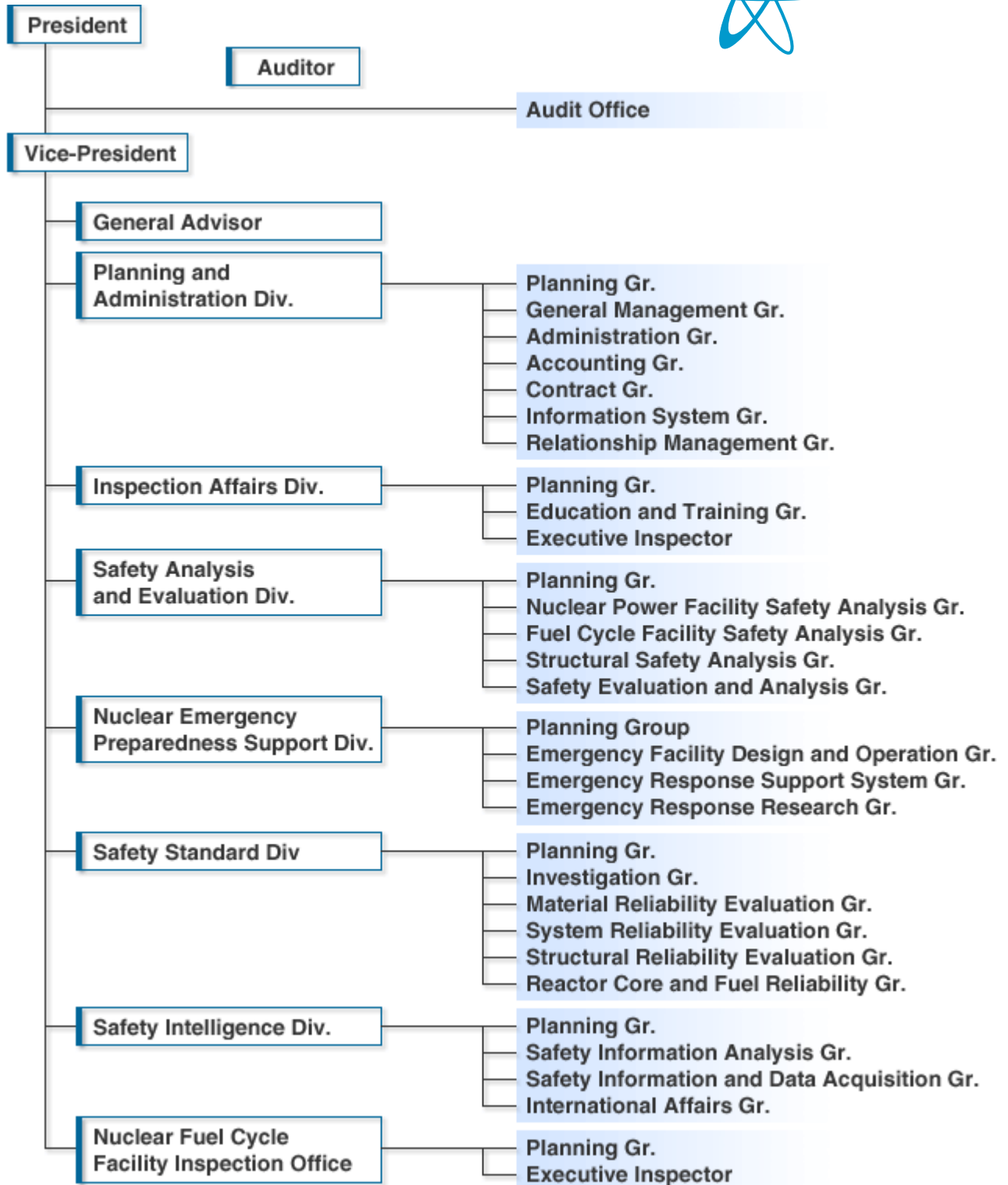
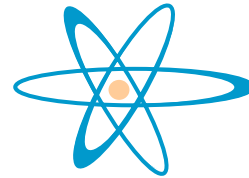
(2) Safety analysis and evaluation of nuclear installations

(3) Support for nuclear emergency prevention and response

(4) Survey, tests, and research for assuring nuclear safety

(5) Analysis, evaluation and transmission of nuclear safety related information

Organization Chart



The number of management and staff:

Board of Managers is composed of six senior managers; one President, three Vice-Presidents and two Auditors

The staff counts about 420 (as of March 1 2004)

Budget Scale: 12.2 billion yen (Funds granted from the government for FY2003)

Note: The budget for FY2003 is a half of a regular fiscal year since JNES was established in October of 2003, in the mid the FY.

Role and Mission

The role and mission of our Organization is, in brief, “to ensure the public safety against the potential hazard accompanying the use of nuclear energy through efforts of expert engineer groups”.

JNES, just established in October 2003, is to accomplish its role and mission as an organization which is the inheritor of the fruit of the human wisdom accumulated over the long history. In these days in Japan, the public has some anxiety about nuclear safety and strong interest in the safety ensuring measures has become common. In this context, JNES was established for improvement of nuclear safety regulatory system in securing the foundation for ensuring safety.

JNES, expert organization in nuclear safety, will faithfully accomplish its mission in order to meet the expectation of the public in cooperation with the nuclear safety authority, the Nuclear and Industrial Safety Agency, Ministry of Economy, Trade and Industry (NISA, /METI).

Major Tasks

Inspection Activities

Inspection activities are actions which objectively confirm the compliance of the licensees with the nuclear safety regulation. They play an essential role in ensuring the nuclear safety. JNES conducts nuclear installation inspections of various kinds, periodical review of safety management and probation. JNES is required to perform these inspections in fair and strict manners with flexibility.

In the framework of recurrence preventive measures against illicit acts discovered in August 2002 regarding the falsification of self-imposed inspection results at nuclear power plants, the Electric Utilities Industry Law has been amended to provide for self-imposed inspections by licensees as legal obligation and to introduce the periodical audit of the safety management system. The latter ensures the neutrality of the judgments on the results of now compulsory self- imposed inspection, on one hand, and forms a framework for improving the

self-imposed inspections, on the other. JNES is assigned to conduct these inspections and audits.

Along with the proper and reliable conduct of the inspections and audits which JNES took over from the Government or its designated agencies, JNES will also establish a reliable audit system for quality assurance and develop objective and reasonable audit criteria in order to effectively implement the recently introduced audit of the safety management system and to enhance its effectiveness. JNES expects that all the efforts described above contribute to enhancing the nuclear safety and to obtaining the public confidence.

Activities concerning Analysis and Evaluation of the Safety of Nuclear Installations

For the government's safety examination to grant licenses to nuclear installations, JNES conducts safety analyses evaluation of the adequacy of design to ensure the safety of the installations even with abnormal transients and accidental events. In doing this evaluation, it is necessary to verify, by independent analyses, the adequacy of nuclear licensees' safety analyses. The independent analyses are performed with different analysis codes (computer programs) than those used by the nuclear licensees.

In addition to the appropriate independent analyses performed for the safety examination conducted by the government, JNES continuously develops and maintains the analysis codes and evaluation methods required for the future independent analyses on the installations, which are expected to be soon subject to the safety examination.

Besides the safety examination for license granting, JNES independently evaluates the safety analyses such as periodical safety reviews, probabilistic safety assessments (PSA) and the accident management. Some of these analyses are performed by the licensees for the purpose of safety improvement; various events actually occurred in the real plants are analyzed and evaluated to verify the safety of the nuclear installations.

Supporting Activities for the Nuclear Disaster Preparedness

In case of accidents at nuclear installations, the government, local communities and nuclear licensees must respond promptly and properly in a concerted manner to minimize the effects of the accidents on the public and environment. For this purpose, it is important to conduct drills on a regular basis to confirm the emergency procedures to be used by the relevant parties in an emergency, and to prepare and properly maintain the installations and equipment necessary for an emergency situation.

JNES develops plans for nuclear emergency preparedness drills and performs the work such as coordination among the related organizations in cooperation with the Nuclear and

Industrial Safety Agency. JNES also prepares emergency response facilities (Off-Site Centers) in the vicinity of the recently established reactor facilities, maintains and manages them properly to get always available the Off-Site Center and the Emergency Response Support System (ERSS), and establishes a system for response against accidents. In addition, JNES performs the studies and researches on the nuclear emergency preparedness and provides the staff of associated organizations with training and education.

Study, Test and Research to Ensure the Nuclear Safety

Because reactor installations are highly complex system, the knowledge and information associated to ensuring their safety derive from wide scope ranging from design, operation to decommissioning. For this reason, it is necessary to regularly collect the latest knowledge and compile the data and information as the basis for the safety regulations for the purpose of proper implementation of nuclear safety regulations. In addition, for regulations based on scientific and rational judgment, it is indispensable to adequately organize the knowledge into standards or rules, to reflect them in the review of the regulatory system and to improve review criteria.

JNES conducts the studies, tests and researches necessary to achieve the above goal. These activities will be conducted with clear vision as to their outputs to be used for the standards or rules to be established.

To put it concretely, the activity scope covers both domestic and international standards and rules in such fields as reliability evaluation of facilities, aging countermeasures, seismic reliability of facilities, fuel characteristics, safety of nuclear fuel cycle facilities, safety of decommissioning, safety management of radioactive waste disposal, transportation of radioactive materials, human factors, accident management and publicly invited proposals of studies and researches.

In addition, for the conduct of tests and researches, an evaluation system by a third party is introduced to check for selection of the proper theme, development of an activity plan, control of the progress and objective evaluation of the results. When it becomes clear that accomplishment or useful application is difficult to expect from ongoing program, such program will be immediately reexamined and, if a decision is taken to terminate it, the program will be aborted promptly. Thus, JNES will always remain conscious of the administrative needs of the safety regulation.

Collection, arrangement and provision of information to ensure the safety

It is important to make effective use of information on failures or events occurred at

the similar facilities in order to ensure the safety of reactor facilities. It has been recently found effective for the prevention of more significant event to carefully gather and analyze the operational information on minor incidents that cannot be called failures or events. Therefore, it has become necessary to extract useful information to be applied to other facilities by accumulating and analyzing not only failures and events, but also operational information on minor incidents less significant than events at both the domestic and foreign reactor facilities.

JNES is planning to accumulate information on ensuring of safety through international network, to establish databases for ensuring of safety, to analyze the information, to study actions to be taken to ensure safety and to make useful proposals.

Finally, since it has become an important issue to increase the transparency in safety regulatory administration in order to restore the public confidence in ensuring nuclear safety, JNES will provide easy-to-understand information regarding the safety regulation.

Closing

Since activities in the nuclear safety area have become further specialized and gained international dimension, which reflects the latest technical progress, JNES, recognizing itself as a professional organization, is keenly aware of its extremely large and important role in this area. With its foremost concern being to assure the public safety, JNES will respect transparency and give plain explanations based on scientific and rational judgments. We feel that the public expects from nuclear experts to show the true picture of the nuclear technology, and believe that serious discussions and plain explanations by nuclear experts will surely gain the public confidence. Upon recognition of these facts, our staff will fulfill their jobs with all their strength to meet the public's expectations for ensuring nuclear safety.