

From: Gordon Fowler, *IP*
To: Barry Mendelsohn, Barry Zalzman, James Lieberman...
Date: Wed, Nov 8, 2000 4:16 PM
Subject: GAN ANNUAL MEETING

As you know, NRC meets with Alexander Gutsalov and his delegation in early December annually to discuss the assistance program with GAN of Russia. The meeting this year will be December 4-8. To help you prepare for this meeting, I have attached the action items from last year's Memorandum of Meeting. (I have provided the same document to GAN for their update and comment.) Please review those items in your areas and provide updates or comments as appropriate. I will combine the inputs into one document which will serve as the agenda for the meeting. Please call (415-2329) if you have any questions.

Please provide your inputs by Friday, November 17.

- Gordon

CC: Mark Satorius

A14

ACTION ITEMS FROM GAN MOM

I. LEGAL BASIS

A. Legislation

(formerly Priority 1.1, Legal Basis for Safety Regulation)

1. Continue to communicate on issues related to the development of a legal framework for nuclear regulation in Russia.
2. RF Gosatomnadzor specialists will provide information regarding the status of draft Russian laws under development and provide copies as appropriate.
 - a. At the request of RF Gosatomnadzor, NRC legal specialists will review draft laws provided by RF Gosatomnadzor and provide comments for consideration of RF Gosatomnadzor specialists in developing subsequent versions of draft Russian laws.
 - b. NRC legal specialists were requested to review the draft laws on responsibility and funding regulatory activities in the nuclear area and enforcement.
 - c. After the expected promulgation of legislation providing the legal basis for an enforcement policy, RF Gosatomnadzor and NRC will discuss the possibility of NRC assistance to RF Gosatomnadzor in establishing an enforcement policy.

II. REGULATORY ACTIVITIES

A. Licensing - Reactors

1. The areas of consideration include reactor projects, technical specifications, plant change and modifications process (10 CFR 50.59), how to apply new standards to currently operating plants (technical and environmental), maintenance and quality assurance and materials and plant equipment aging.
 - a. The NRC staff's contractor(s), one or more National Laboratories [for example, Brookhaven National Laboratory (BNL)], will participate in the development meeting.
 - b. Subsequently, NRC staff experts, accompanied by contractor representatives, will participate in consultation activities to be held in Russia. RF Gosatomnadzor, laboratory, architect/engineer and plant operator representatives may participate

in the activities; in addition, RF Gosatomnadzor representatives may play a more active role in the presentation of material to reflect current practices in Russia.

2. NRC will develop further consultation activities with RF Gosatomnadzor addressing how the Standard Review Plan (SRP) detailed review criteria can be considered by RF Gosatomnadzor to develop guidelines for licensing the operation/modernization of existing NPPs, where design information does not fully correspond to the level of design information addressed in the document "Requirements For Safety Justification Report for NPPs with VVER-Type Reactors."

3. In concert with RF Gosatomnadzor's interest, needs and planning, a two-week workshop may be held to discuss regulatory insights for updated control and measurement systems software development at or near RF Gosatomnadzor Headquarters in Moscow.

A. Planning meeting

B. Oversight

Reactor Inspections

(Formerly Priority 2: Inspection Program Activities)

1. Discussions of regulatory program changes in the areas of inspection, assessment, and enforcement processes in the U.S., based on a risk-informed and performance-based approach. This will also be considered in the development of an overall regulatory document encompassing a comprehensive program of inspections at Russian NPPs.

2. Inservice Inspection Observations (formerly Team 2.1-96 #2 [RF Gosatomnadzor in U.S.]). One RF Gosatomnadzor inspector and an interpreter will observe the onsite activities of a regionally conducted inservice inspection at a U.S. reactor plant.

3. Consultation on RF Gosatomnadzor Research Reactor Inspection Program (formerly Team 2.4-96 [NRC in Russia]). One NRR direct assistance specialist, two NRR research reactor inspection and licensing specialists, and an interpreter will visit Moscow for up to 2 weeks to consult on possible improvements to RF Gosatomnadzor inspection procedures/guides for Russian research reactors. RF Gosatomnadzor will send NRC examples of its current research reactor inspection procedures at least 3 months

and modernization of fuel cycle facilities. (Formerly Team 9.2-98) (in Russia)

II. Licensing

A. Workshop on criteria and procedures of safety evaluation in licensing dry nuclear spent fuel storage and relevant transportation. (Formerly Team 9.4-98) (in U.S.)

B. Workshop on licensing and regulation of activities related to MOX fuel fabrication. (Formerly Team 9.1-98) (in Russia)

III. Inspection Strategy and Practice

A. Workshop on decommissioning of fuel cycle facilities, including NRC inspection practices in the areas of radiation protection of nuclear installations, equipment decommissioning and management of radioactive wastes generated by fuel cycle facilities. (Formerly Team 9.3-98) (in U.S.; Russia ok)

B. Joint inspection on nuclear facility sites and oversight of their activities at all stages of plutonium disposition (in coordination with DOE).

C. Materials: Material Control, Protection and Accounting

The following activities requested by RF Gosatomnadzor will be supported by the NRC to the extent funding for these activities is made available by DOE:

I. Legal basis

A. Support to RF Gosatomnadzor in its development of Federal Regulations for MPC&A of radioactive substances (RS) and radioactive waste (RAW).

B. Support to RF Gosatomnadzor in its development of regulatory documents for organization and implementation of the oversight of MPC&A of RS and RAW, including:

1. NRC comments on draft RF Gosatomnadzor Provisions on the vulnerability assessment of physical protection systems;

2. NRC comments on draft RF Gosatomnadzor Provisions on use of instrumentation and control means to check existence of nuclear materials at nuclear installations.

Clarification, through discussions between RF Gosatomnadzor and NRC, of RF Gosatomnadzor's intent in items A and B above will be needed before support for the specific tasks can be requested from DOE.

C. NRC comments on the draft RF Gosatomnadzor Standard Instruction to review the results of inventory-taking of nuclear materials at fuel fabrication plants for VVER-type reactors;

II. Licensing

A. An MPC&A seminar be developed and conducted for Gosatomnadzor of Russia and facility representatives in St. Petersburg, Russia, to address in particular issues on inspections, report writing, assessment of the status of MPC&A in the licensing process. (approximately 20 Russian participants, 3-4 NRC participants, and 2 interpreters). It is intended that this workshop will assist in commencing the development and review of MPC&A facility plans at one or more Russian facilities in the near future.) (Formerly NRC-RF Gosatomnadzor Task 1-99)

B. A physical protection workshop be conducted addressing NRC's methodology and assessment techniques (formerly known as operational safeguards response evaluation (OSRE)) in Yekaterinburg (Russia). (Formerly NRC-RF Gosatomnadzor Task 2-99)

III. Inspection Strategy and Practice

A. Participation of NRC representatives in the accompaniment of Gosatomnadzor's inspectors in a physical protection inspection at the Tomsk University nuclear research reactor. (Formerly NRC-RF Gosatomnadzor Task 4-99)

B. Workshop be conducted by NRC on physical protection inspection practices, followed by a RF Gosatomnadzor accompaniment of a physical protection inspection at an NRC-licensed facility in coordination with DOE. (Formerly NRC-RF Gosatomnadzor Task 6-99)

III ANALYTICAL TECHNIQUES AND METHODS

A. Probabilistic Risk Assessment Studies

1. A workshop of Russian and U.S. participants is planned early in 2000 at BNL to finalize the Level 1 analysis and report, including fire, flood and seismic. NRC will provide the necessary technical experts to support this workshop and fund the attendance of up to 7 Russian experts.

2. NRC will provide comments to the Russians prior to the

workshop, on the completed portions of their PRA including fire, flood, and seismic.

3. RF Gosatomnadzor and NRC team members will develop a plan for preparing the remaining reports and summary documents, in conformance with the Implementing Agreement.

4. At the completion of the Level 1 PRA (including fire, flood and seismic) and publication of the appropriate reports, discussions will begin regarding the continuation of the PRA to Level 2 and Level 3.

B. Operational Data Feedback

Event Reporting and Analysis System for Research Reactors and Nuclear Fuel Cycle Facilities: Assist with the development of an automated event analysis and reporting system (AEARS) for use by research reactors and nuclear fuel cycle facilities.

C. Uses of Analytical Simulators (formerly Priority 5.1)

1. The following procurements will be made, assuming the availability of funds:

- a. The coaxial cable on the analytical simulator in Moscow should be replaced with a cabling that is compatible with the cabling for the Emergency Response Center (ERC).
- b. VVER-440 software for the simulator in Moscow.
- c. The Moscow simulator should have a memory upgrade to increase memory capability.

2. There are several maintenance items that need to be addressed for the analytical simulators when funds become available. These are listed below:

- a. The backup tape drive at the Moscow site is broken and will require replacement.
- b. There is an inoperative operator station monitor at the Novovoronezh site that needs to be replaced.
- c. There are two faulty Ethernet/IEEE 802.3 LAN transceivers at the Novovoronezh site that need to be replaced.
- d. The Kursk (RBMK) core model should be upgraded to reflect the new reactor core design at the Kursk NPP.
- e. The Safety Parameter Display screens and the Off Site Tracking screens should be added to the analytical simulators.

f. Spare parts should be purchased for the analytical simulators in Russia. It will be necessary for

RF Gosatomnadzor to supply a spare parts request for evaluation by NRC. Upon completion of the evaluation, the recommended parts should be purchased and supplied to RF Gosatomnadzor.

g. There will be a need in the future to consider software and hardware upgrades for all three analytical simulators in Russia. This should be considered as the need arises and funding becomes available.

IV **EMERGENCY RESPONSE AND CONTINGENCY PLANNING** (formerly Priority 3)

A. Completion Plan

A. The priorities for new tasks are:

1. Provide a fiber optic connection to the existing interagency cable in Moscow.
2. Provide data links between the analytical simulator and safety analysis work areas in the IAC.
3. Use the simulator for training emergency responders and evaluate the kinds of computer support that will best utilize the simulator during exercises and emergencies.

V **INFRASTRUCTURE**

A. Training:

1. In conjunction with the Moscow Institute of Engineering Physics (MIFI), develop a two-year graduate program at the Master of Science level to train recent graduates in nuclear safety. Major efforts include the development of new course materials and conducting a pilot class for 5 to 6 students. It is planned to start the pilot class in September 2000.

B. Communications (Internet):

(formerly Priority 10 - Organizational Strengthening)

1. Assist RF Gosatomnadzor in expanding its throughput capacity for the internet in order to have access to the full range of services as well as e-mail with appropriate security and to support a dual-language capability.

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ACTION ITEMS FROM GAN MOM

	<u>FY 2000 COSTS</u>
<u>OFF</u>	<u>DATES HOURS \$</u>

II. REGULATORY ACTIVITIES**C. Materials: Fissile Material Safety Licensing and Inspection**
(formerly Priority 9)

1. NRC will provide a list of NRC regulatory documents to NMSS NRR
TBD 20 0

RF Gosatomnadzor from which RF Gosatomnadzor could request specific documents. These include 10 CFR Part 70 and its proposed revision, and draft standard review plans (SRP) and Inspection Manuals for fuel cycle facilities in general and for MOX facilities in particular. The latter SRP is expected to be available as a draft in January 2000.

2. NRC accepted the following initiatives proposed by RF Gosatomnadzor, to the extent that resources are available and the activities, where necessary, can be coordinated with the other US Government agencies involved:

I. Legal basis

A. Support RF Gosatomnadzor development of safety NRR/NMSS TBD 80
100K

regulations for the following stages of plutonium disposition (in coordination with US DOE):

- | | |
|--|------|
| 1. plutonium conversion and MOX fuel fabrication; | NMSS |
| 2. MOX fuel management during its use at nuclear power plants; | NRR |
| 3. Management (storage, conditioning, final disposal) of spent MOX fuel. | NMSS |

B. Workshop on regulation of modification, reconstruction and modernization of fuel cycle facilities. (Formerly Team 9.2-98) (in Russia) NMSS TBD 40 65K

II. Licensing

A. Workshop on criteria and procedures of safety evaluation in licensing dry nuclear spent fuel storage and relevant transportation. (Formerly Team 9.4-98) (in U.S.) NMSS TBD 80 150K

B. Workshop on licensing and regulation of activities related to MOX fuel fabrication. (Formerly Team 9.1-98) (in Russia) NMSS NRR TBD 108 50K

III. Inspection Strategy and Practice

A. Workshop on decommissioning of fuel cycle facilities, NMSS TBD 60 100K
including NRC inspection practices in the areas of radiation

protection of nuclear installations, equipment decommissioning and management of radioactive wastes generated by fuel cycle facilities. (Formerly Team 9.3-98) (in U.S.; Russia ok)

B. Joint inspection on nuclear facility sites and oversight of their activities at all stages of plutonium disposition (in coordination with DOE).

NMSS TBD 40 50K

TOTAL

ALL 3262 1,645K

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