



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

December 22, 1999

MEMORANDUM TO: Melanie A. Galloway, Acting Chief
Special Projects Branch
Division of Fuel Cycle Safety
and Safeguards, NMSS

THRU: *Charles Cox*
Charles Cox, Acting Chief
Enrichment Section
Special Projects Branch
Division of Fuel Cycle Safety
and Safeguards, NMSS

FROM: Andrew Persinko, Sr. Nuclear Engineer
Enrichment Branch
Special Projects Branch
Division of Fuel Cycle Safety
and Safeguards, NMSS *APersinko*

SUBJECT: SUMMARY OF MEETING: U. S.-RUSSIAN SPECIAL JOINT
WORKING GROUP ON REGULATORY MATTERS IN
PLUTONIUM MANAGEMENT AND DISPOSITION
(DECEMBER 1-3, 1999)

As the Nuclear Regulatory Commission (NRC) representative on the U.S.-Russian Special Joint Working Group on Regulatory Matters in Plutonium Management and Disposition (working group), I participated in the Group's initial meeting in Moscow on December 1-3, 1999. The working group was created by, and reports to, the U.S.-Russian Joint Steering Committee on Plutonium Management and Disposition to ensure that regulatory and licensing perspectives and requirements are taken fully into account in the work of the Steering Committee's other Joint Technical Working groups. The working group is a consultative body under the Joint Steering Committee and has no independent decision-making authority. The working group is co-chaired by J. David Nulton of the Department of Energy (DOE) and Dr. Andrey Kislov of the R.F. Gasatomnadzor (GAN). The meeting agenda and the Record of the Meeting are provided as Attachments 1 and 2, respectively.

At the meeting, the working group developed and approved the working procedures of the group. The working procedures are provided as Attachment 3. The working group also reviewed the jointly developed level 1 roadmap and associated level 1 schedule for the Russian plutonium disposition program to ensure that regulatory and licensing requirements and provisions have been fully considered in the documents. The roadmap is a block diagram showing interrelationships and sequences of activities that need to be accomplished in order for the Russian Federation to fabricate and irradiate mixed oxide (MOX) fuel.

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The working group concluded that the current documentation does not adequately reflect licensing and regulatory requirements and it would be desirable to have these shown in greater detail in the level 1 roadmap and schedule. However, the working group was informed that regulatory and licensing requirements would be reflected in greater detail in the level 2 roadmap and schedule that are currently being prepared. Therefore, the working group concluded that making significant changes to the current level 1 roadmap and schedule would be premature at this time and that the added detail of level 2 would provide the basis for revising the level 1 documentation at a later date. The working group's comments and recommendations are contained in greater depth in a separate report (Attachment 4) that will also be submitted to the Co-Chairs of the Joint Steering Committee.

It was also agreed that the working group should review the drafts of the level 2 roadmaps/schedules before they are finalized and presented to the Joint Steering Committee next summer. To coincide with the availability of the level 2 roadmaps/schedules, the working group will schedule a meeting in the April 2000 timeframe.

- Attachments:
1. Meeting Agenda
 2. Record of the Meeting
 3. Working Procedures
 4. Working Group Report

AGENDA

**U.S. /Russian Special Joint Working Group
On Regulatory Matters**

**Marriott Grand Hotel
Moscow**

1-3 December 1999

**Wednesday
1 December 1999**

9:30 am Introductions

 Discussions of Initial Activities

 Potential Long Term Scope of Working Group

 Review of Working Procedures

12:30 pm Lunch

1:30 pm Use of Experts

 Presentation of Roadmap for Russian Disposition Program

 Discussion of Regulatory and Licensing Assumptions/Implications for Roadmap

5:00 pm Adjourn

**Thursday
2 December 1999**

9:30 am Presentation of Schedule for Russian Disposition Program

 Discussion of Regulatory and Licensing Assumptions/Implications for Roadmap

 Discussion of Report of Roadmap/Schedule Reviews

12:30 pm Lunch

1:30 pm Discussion of Future Working Group Activities

 Scope/Schedule for Future Meetings

 Begin Preparation of Record of Meeting

5:00 pm Adjourn

**Friday
3 December 1999**

9:30am Finalize Record of Meeting

**RECORD OF MEETING OF
THE U.S.-RUSSIAN SPECIAL JOINT WORKING GROUP
ON REGULATORY MATTERS IN PLUTONIUM MANAGEMENT AND DISPOSITION**

**Moscow
3 December 1999**

The initial meeting of the U.S.-Russian Joint Working Group on Regulatory Matters on Plutonium Management and Disposition ["Joint Working Group"] was held in Moscow on 1-3 December 1999. The meeting was co-chaired by Mr. David Nulton of the U.S. Department of Energy (DOE) and Dr. Andrey Kislov of the Russian Federation Gosatomnadzor ["the Working Group Co-Chairs"]. The meeting was attended by U.S. and Russian members of the working group as well as U.S. and Russian technical experts.

The working group took the opportunity of this initial meeting to prepare and adopt a set of working procedures and administrative arrangements relating to the activities of the group. These are contained in a separate document, which will be submitted to the Joint Steering Committee's Co-Chairs for review and approval.

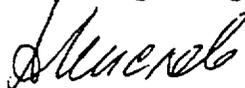
The primary purpose of this meeting was to review the jointly developed roadmap and schedule for the Russian disposition program to ensure that regulatory and licensing requirements and perspectives have been fully reflected in the documents. In this context, the working group discussed the Russian regulatory and licensing processes in broad terms to inform the working group members. In its review of the level 1 roadmap and schedules, the working group members concluded that the current documentation does not adequately reflect licensing and regulatory requirements and it would be desirable to have these shown in greater detail in the level 1 roadmap and schedule. However, the working group was informed that regulatory and licensing requirements would be reflected in greater detail in the level 2 roadmap and schedule that are currently being prepared. Therefore the working group concluded that making significant changes to the current level 1 roadmap and schedule would be premature at this time, and that the added detail of level 2 would provide the basis for revision to the level 1 documentation at a later date. The working group's comments and recommendations are contained in greater depth in a separate report that will also be submitted to the Co-Chairs of the Joint Steering Committee.

It was agreed that the Working Group should review drafts of the level 2 roadmaps/schedules for the five technology areas before they are finalized and presented to the Joint Steering Committee next summer. Accordingly the working group will schedule a meeting in the April 2000 timeframe when the draft level 2 documents become available.

Additionally, The Russian Co-Chair expressed his view that the Working Group should review the list of regulatory documents that has been developed to support the Russian plutonium disposition program. A formal recommendation will be made to the Joint Steering Committee Co-Chairs that this list of regulations be considered by the working group in an upcoming meeting.



J. David Nulton
Acting Deputy Director
Office of Fissile Materials Disposition
U.S. DOE
Working Group Co-Chair



Dr. Andrey Kislov
Head
Department of the Nuclear Fuel Cycle
R.F. Gosatomnadzor
Working Group Co-Chair

**WORKING PROCEDURES
AND ADMINISTRATIVE UNDERSTANDINGS
RELATING TO THE
U.S.-RUSSIAN SPECIAL JOINT WORKING GROUP
ON REGULATORY MATTERS
IN PLUTONIUM MANAGEMENT AND DISPOSITION**

**Moscow
3 December 1999**

The U.S.-Russian Joint Steering Committee on Plutonium Management and Disposition ["Joint Steering Committee"] formally approved the establishment of the U.S.-Russian Special Joint Working Group on Regulatory Matters in Plutonium Management and Disposition ["Working Group"] under the Agreement Between the Government of the United States of America and the Government of the Russian Federation on Scientific and Technical Cooperation in the Management of Plutonium That Has Been Withdrawn from Nuclear Military Programs, 24 July 1998 ["July 1998 Agreement"].

The Steering Committee also approved the recommendation of the Steering Committee Co-Chairs – Dr. Ernest J. Moniz, Under Secretary, U.S. Department of Energy (DOE), and Dr. Valentin B. Ivanov, First Deputy Minister, Ministry of the Russian Federation for Atomic Energy (MINATOM) – that the new working group will be co-chaired by Mr. David Nulton of DOE and Dr. Andrey Kislov of the Russian Federation Gosatomnadzor ["the Working Group Co-Chairs"].

The initial meeting of the Working Group was held in Moscow on December 1999. This document summarizes the consensus of the Working Group Co-Chairs on working procedures and administrative understandings relating to the activities of the group, which were considered at this meeting. These agreed points will be submitted to the Joint Steering Committee's Co-Chairs for review and approval.

1. General Provisions Relating to the Joint Working Group

1.1 Nature of the Joint Working Group

The Working Group was established by the Joint Steering Committee in order to ensure that regulatory and licensing perspectives and requirements are taken fully into account in the work of the Steering Committee's other Joint Technical Working Groups.

The Working Group is a consultative body under the Joint Steering Committee, and has no independent decision-making authority. The Working Group Co-Chairs act on behalf of the Co-Chairs of the Joint Steering Committee in all matters relating to the Working Group.

1.2 Working Group Meetings

It is anticipated that the full Working Group will meet approximately four times annually. The specific dates and location of each meeting will be agreed to by the Working Group Co-Chairs.

1.3 Experts and Observers

The Working Group Co-Chairs may agree to engage individual technical and regulatory experts from the United States and Russian Federation who are not members of the Working Group to assist in the review of plans and documents as requested by the Joint Steering Committee and other joint technical working groups. Additionally, the Co-Chairs may agree to invite members and participants of other joint technical working groups of the Joint Steering Committee and individuals from other agencies and entities in the United States and the Russian Federation to participate in all or parts of meetings of the Working Group as observers.

1.4 Meeting Records

Protocols, records, and reports of Working Group meetings will be prepared in English and in Russian, and will contain only unclassified information. Normally, all protocols and reports will be publicly available.

1.5 Financial and Administrative Support for Meetings

DOE will provide financial and administrative support for the meetings and related activities of the Working Group. Subject to the approval of the Steering Committee or its Co-Chairs, the following arrangements have been agreed.

- **Meetings of the Working Group.** DOE agrees to provide funding for Working Group meetings and the participation in these meetings of Working Group members and mutually invited experts and observers. This funding will be available only for the costs of travel to and from Working Group meetings, for lodging and other expenses while at Working Group meetings, and for agreed meeting-by-meeting administrative costs (e.g., secretarial, translating, report duplication services, equipment rental, and the like) during the time of Working Group meetings. DOE funds will not be available to pay salaries or for travel or other costs that are not directly connected in time and immediate purpose to Working Group meetings. Travel and subsistence costs will be at rates mutually agreed by the Working Group Co-Chairs. Costs will only be reimbursed for travel and subsistence approved in advance by the U.S. Co-Chair.
- **Mechanisms for Financial and Administrative Support.** DOE in its sole discretion will determine the mechanisms, terms, and conditions for the provision of DOE financial and administrative support for meetings of the Working Group and any subgroups. DOE may, in its discretion, employ a contracting agent of its choice for these purposes.

2. Working Procedures

2.1 Initial Activities

The functions of the Working Group and its initial activities are outlined in the Protocol of the U.S.-Russian Joint Steering Committee's meeting in Washington on 18-19 October 1999, and are as follows:

- "Analysis of the roadmap and schedule from the regulatory viewpoint in order to guarantee that regulatory and licensing requirements and provisions have been fully considered.

- Analysis and preparation of comments on the results of detailed (level two) roadmap and schedule as these are developed in the coming months.”

Additional work plans may be jointly developed by the Working Group Co-Chairs for approval by the Joint Steering Committee or its Co-Chairs.

2.2 Relationship to Other Working Groups of the Joint Steering Committee

In its role as an expert advisory and review panel, the Working Group will be responsive to requests from the Joint Steering Committee and its other Joint Technical Working Groups to provide technical advice on the licensing and regulatory considerations that may pertain to their particular work. The Working Group Co-Chairs will strive to ensure that all technical reviews by the group will occur in consultation and conjunction with those groups to the extent feasible.

2.3 Resolution of Issues and Disputes

The Working Group Co-Chairs will be exclusively responsible within the Working Group for the resolution of any issues or disputes that may arise. In the event that the Working Group Co-Chairs are unable to resolve an issue or dispute, the issue or dispute will be resolved in accordance with the provisions of section 2.5 of the April 1999 Management Protocol.

2.4 Applicability of the July 1998 Agreement

All activities undertaken at the initiative of or in support of the Working Group will be governed by the provisions of the July 1998 Agreement, without exception.

2.5 Revision of the Working Procedures and Administrative Arrangements

As necessary to accommodate new developments, the Working Group Co-Chairs may jointly revise the working procedures and administrative arrangements for the Working Group in the future, subject to agreement and approval by the Joint Steering Committee or its Co-Chairs.



J. David Nulton
Acting Deputy Director
Office of Fissile Materials Disposition
U.S. DOE
Working Group Co-Chair



Dr. Andrey Kislov
Head
Department of the Nuclear Fuel Cycle
R.F. Gosatomnadzor
Working Group Co-Chair

Approved

Approved

Ernest J. Moniz
Under Secretary
DOE
U.S. Co-Chair
U.S.-Russian Joint Steering Committee

Valentin B. Ivanov
First Deputy Minister
MINATOM
Russian Co-Chair
U.S.-Russian Joint Steering Committee

**Report of the
U.S. -Russian Special Joint Working Group on
Regulatory Matters in Plutonium Management and Disposition
on the Roadmap and Schedule of Scientific
and Technical Cooperation
and Joint Work**

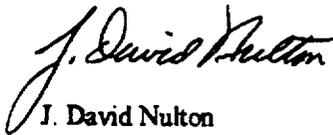
At its October 1999 meeting, the U.S.-Russian Joint Steering Committee on Plutonium Management and Disposition recommended that the Special Joint Working Group on Regulatory Matters ["the working group"] analyze the "roadmap" and schedule of scientific and technical cooperation and joint work under the Agreement Between the Government of the United States of America and the Government of the Russian Federation on Scientific and Technical Cooperation in the Management of Plutonium That Has Been Withdrawn from Nuclear Military Programs, dated 24 July 1998, in order to guarantee that regulatory and licensing requirements and provisions have been fully considered.

In its review of the level 1 roadmap and schedules, the working group members concluded that the current documentation does not adequately reflect licensing and regulatory requirements and it would be desirable to have these shown in greater detail in the level 1 roadmap and schedule. However, the working group was informed that regulatory and licensing requirements would be reflected in greater detail in the level 2 roadmap and schedule that are currently being prepared. Therefore the working group concluded that making significant changes to the current level 1 roadmap and schedule would be premature at this time, and that the added detail of level 2 would provide the basis for revision to the level 1 documentation at a later date.

Specific comments and recommendations that were not sufficiently resolved during the discussions are listed below for future consideration.

- The working group discussed the general steps and schedule required to prepare regulatory documents in Russia. Depending upon the type of document, up to three years is required for preparation, reviews, approvals, and publication. The working group recommends that this timeline be taken into account to ensure consistency between the program and regulatory process.
- Lines on the level 1 roadmap and schedule that identify the need for regulatory and licensing activities for specific program elements appear to be incomplete.
- Points should be specified on the level 1 roadmap and schedule where the different program areas (shown in boxes) require regulatory activities to be completed before further work can proceed. In particular, license application submittals and approvals should be specified since these activities have the potential to delay work if not completed on time.

- Future work on the roadmaps and schedules should include additional detail on the packaging and storage of the spent fuel and waste.
- Concerns were raised that the sequence of design, analyses, site selection, contractor selection, and safety reviews were inconsistent among the different program areas shown in the roadmap and schedule. The sequence of these program activities should be made consistent in future revisions to the roadmap and schedule.
- The schedule is very optimistic (for example, with regard to siting) due to the extensive studies needed to satisfy regulatory and permitting requirements. It was noted that the requirements might be different if a facility is located in a new site or existing site.



J. David Nulton
Acting Deputy Director
Office of Fissile Materials Disposition
U.S. DOE
Working Group Co-Chair



Dr. A. Kislov
Head
Department of the Nuclear Fuel Cycle
R.F. Gosatomnadzor
Working Group Co-Chair

Attendees List
Meeting of the US-Russian Special Joint Working Group on
Regulatory Matters of Plutonium Management and Disposition

1-3 December 1999

Russian Federation Attendees

Andrey Kislov, Co-Chair	GAN
Eugen Chvankin, Member	Bochvar Institute
Inna Kaliberda, Member	SEC NRS
Mikhail Mikhaylov, Member	GAN
Vadim Lobanov	GAN
Sergey Konkov	GAN
Mikhail Miroshnichenko	GAN
Liudmila Petrova	MINATOM

U.S. Attendees

David Nulton, Co-Chair	U.S. DOE
Linda Lehman, Member	Consultant to U.S. DOE
Andrew Persinko, Member	U.S. NRC
Arthur Atkins	SAIC
John Baker	U.S. DOE
Carlton Stoiber	Consultant to U.S. DOE

Interpreters

Elena Gornaya

Valentina Sukhacheva

M. A. Galloway, FSPB

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