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

April 28, 2003

MEMORANDUM TO: Chairman Diaz
Commissioner Dicus
Commissioner McGaffigan
Commissioner Merrifeld

FROM: Janice Dunn Lee, Director
Office of International Programs

SUBJECT: TRILATERAL MEETING WITH MEXICO AND CANADA

PURPOSE:

To advise the Commission on the status of the upcoming Trilateral with the CNSNS (Mexican National Nuclear Commission for Safety and Safeguards) and the CNSC (Canadian Nuclear Safety Commission).

BACKGROUND:

The Second Annual Trilateral with Mexico and Canada will take place on May 1 and 2 in Puerto Vallarta, Mexico. The Commission was informed of the tentative scheduling of this meeting in a JDL Gram sent on January 16, 2003. The current agenda for the meeting has been negotiated among the participating agencies and addresses the following topics:

- Control and Security of Sealed Sources
- Trans-boundary Shipments
- Joint Convention on the Safety of Spent Fuel Management and the Safety of Radioactive Waste Management
- Developments in Security Requirements for Facilities and Transportation
- Convention on Physical Protection of Nuclear Materials
- Conclusions of the International Conference on Security of Radioactive Sources
- Incident Response Plan
- Off-Shore Drilling Inspection Experience

Staff presentations do not raise policy issues and are attached for information. Comments and questions should be directed to Ted Sherr (x7260) or Karen Henderson (x0202)

CONTACT: Cindy Rosales-Bush, OIP
415-1168

MEETING PARTICIPANTS:

The NRC Participants:

- NMSS: Margaret Federline, John Hickey, and Ted Sherr
- NSIR: Garrett Smith
- Region IV: William Maier
- OIP: Karen Henderson

Also, Mr. Arthur Tate of Texas will be attending the meeting. (Canadian and Mexican participants at the Trilateral Meeting will not include representatives from their state/ provincial governments.)

The Mexican Participants:

- Jose Luis Delgado, the Director of Nuclear Reactor and Materials Regulation
- Mr. Victor Manuel Gonzalez, Director of Nuclear Security

Mexico will also have a representative of the Mexican national police. We have not been provided with the names and titles of the other participants and the name of the individual representing their National Police.

The Canadian Participants:

- Tom Viglasky, Director-General, Directorate of Nuclear Substance Regulation (DNSR)
- Ramzi Jammal, Director, Class II Facilities and Dosimetry Services Licensing, DNSR
- Pierre Dubé, Director, Security and Emergency Responses Division, Directorate of Assessment and Analysis
- Don Howard, Project Officer, Wastes and Geosciences Division, Directorate of Nuclear Cycle and Facilities Regulation
- Mr. John O-Dacre, Security Advisor, Security and Emergency Response Division
- Mr. Mick Lord, Nuclear Non-Proliferation Officer, Office of International Affairs

Attachments:
1. Presentation on "Control and Security of Sealed Sources"
2. Presentation on NRC's "Incident Response Plan"
3. Presentation on "Convention on the Physical Protection of Nuclear Materials"
4. Presentation on " Security of Transboundary Shipments"
5. Presentation on " Export Control of Sealed Sources"
6. Joint Convention on the Safety of Spent Fuel Management and the Safety of Radioactive Waste Management

cc: OEDO SECY
OPA NMSS
NSIR STP

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JDL r/f C. Rosales-Bush E. Doroshuk K. Henderson

DOCUMENT NAME: J:\Trilaterals\US-CN-MX Trilat2003\memo04-23.wpd
ADAMS ACCESSION NUMBER:
☒ Publicly Available ☐ Non-Publicly Available ☐ Sensitive ☒ Non-Sensitive

OFFICE	OIP	OIP	OIP	OIP
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DATE	4/21/03	4/23/03	04/23/03	04/25/03

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CONTROL AND SECURITY OF SEALED SOURCES IN THE U. S. A.

John Hickey
U S Nuclear Regulatory Commission
Washington, DC
301-415-7231

Trilateral Meeting

NSC Canada/CNSNS Mexico/NRC USA

May 2003

SOURCE SECURITY MEASURES FOLLOWING 9/11/01

- U.S. has established 5 government-wide threat levels (green, blue, yellow, orange, red)
- NRC continues to issue advisories on source security, based on threat levels
- Advisories are Official Use Only/Need to Know, not released to the public

SOURCE SECURITY MEASURES FOLLOWING 9/11/01

- Security measures address
  - Physical security and access control
  - Vehicle and package inspection
  - Personnel background checks
  - Coordination with law enforcement authorities
  - Notification of incidents and suspicious activity
  - Transportation security and advance notifications
  - Improved contingency planning

SECURITY MEASURES: BORDER IMPLICATIONS

•NRC security requirements generally apply to U.S. parties only.

•However, foreign organizations are indirectly impacted in many cases, due to requirements placed on U.S. parties For example, notification and tracking requirements

RDD THREAT: SOURCES OF CONCERN

•BASES

•HIGH POTENTIAL FOR SIGNIFICANT CONTAMINATION OF A LARGE AREA,
or

•HIGH DIRECT RADIATION LEVELS

•KEY FACTORS: AVAILABILITY, HALF-LIFE, DISPERSIBILITY, RADIOTOXICITY

FACILITIES OF CONCERN: RDD VULNERABILITY

•LARGE IRRADIATORS
•MANUFACTURERS/PROCESSORS
•RESEARCH FACILITIES
•SELF-CONTAINED IRRADIATORS
•MEDICAL TELETHERAPY
•WELL LOGGING
•INDUSTRIAL RADIOGRAPHY
•RADIO-THERMOLECTRIC GENERATORS (RTGs)

LONGER TERM ACTIONS

- DEVELOP GENERIC UPGRADES TO SECURITY REQUIREMENTS (RULEMAKING)
- ESTABLISH EXPORT/IMPORT REQUIREMENTS
- COOPERATE WITH INTERNATIONAL AGENCIES TO IMPROVE SOURCE SECURITY (eg IAEA Code of Conduct)
- DEVELOP SOURCE TRACKING SYSTEM
- DEVELOP SOURCE DISPOSAL/END-OF LIFE SOLUTIONS
- ADDITIONAL STUDIES ON VULNERABILITIES AND RDD MODELING
- DEVELOP LOWER-RISK, ALTERNATIVE TECHNOLOGIES

PATH FORWARD

- CONTINUE TO ISSUE SECURITY ADVISORIES BASED ON THREAT LEVEL
- ISSUE ADDITIONAL SECURITY REQUIREMENTS, USING RISK-INFORMED APPROACH
- PURSUE LONG-TERM SECURITY MEASURES
- CONTINUE INTERNATIONAL COOPERATION

NOTIFICATION OF EVENTS NEAR BORDERS

- FOLLOW-UP TO 2/5/02 TRILATERIAL MEETING
- TRILATERAL AGREEMENT HAS BEEN REACHED TO NOTIFY NEIGHBORING COUNTRY OF EVENTS NEAR BORDERS NOTIFICATIONS ARE ALREADY BEING MADE
- U S PROCEDURE DRAFTED AND REVIEWED BY CANADA AND MEXICO
- PROCEDURE WILL BE FINALIZED AND INCORPORATED INTO NRC PROCEDURES

EVENT NOTIFICATION PROCEDURE

- Applies to events involving lost, stolen, missing, or abandoned radioactive sources.
- Applies to events within 50 miles of the border
- Contacts established for all 3 countries
- Notifications provided by fax and telephone

SECURITY OF TRANSBOUNDARY SHIPMENTS

John Hickey
U. S Nuclear Regulatory Commission
Washington, DC
301-415-7231

Trilateral Meeting
NSC Canada/CNSNS Mexico/NRC USA
May 2003

TRANSBOUNDARY SHIPMENTS

- Initial emphasis is on Spent Fuel and Highway Route Controlled Quantities (Risk-informed)
- Lower quantities also being evaluated
- Security advisories and orders have been issued, based on threat level

U.S. Nuclear Regulatory Commission Incident Response Plan

Garrett A. Smith
Office of Nuclear Security and Incident Response
U S Nuclear Regulatory Commission

April 2003

Emergency Responsibilities

Licensee -

- Mitigate the accident and its consequences
- Properly classify and notify off-site officials the event
- Prepare and communicate Protective Action Recommendations (PARs) to State and local officials

Emergency Responsibilities

State / Local Officials-

- Activate resources
- Evaluate the licensee's Protective Action Recommendation(s)
- Implement appropriate protective actions for public safety

Emergency Responsibilities

Members of Public -

Heed warnings /orders to take timely and appropriate action to minimize radiation exposure and adverse health effects

NRC's Responsibilities

- Assess plant conditions
- Evaluate Protective Action Recommendations
- Support off-site officials
- Keep other agencies informed
- Keep news media informed

NRC's Response Organization

← HQ Operations Officer (HOO)

Executive Team →

← HQ and Regional Assessment Teams

Site Team →

Coordination With Other Agencies

- Department of Homeland Security • Department of Defense
- Federal Aviation Administration • Department of Energy
- Environmental Protection Agency • Department of Justice
- Federal Emergency Management Agency • States • Locals

Classification of Emergencies

- Notification of Unusual Event
  - An event that could deteriorate
- Alert
  - Loss of a vital system or barrier
- Site Area Emergency
  - Loss of a vital safety function
- General Emergency
  - Severe core damage accident

Response Decisions and Modes

Monitoring Mode
Regional Office normally leads response

Standby Mode
Headquarters assumes lead for response

Initial Activation mode
NRC Chairman assumes lead for response

Expanded Activation Mode
Chairman delegates authorities to Site Team

Full Federal Activation Mode
Overall Lead Federal Agency (LFA) depends upon type of event Terrorism LFA is FBI

Operations Center Staffing

- HQ Operations Officers
- HQ Emergency Response Officers

Executive Team •

• Assessment Teams

Operations Center Staffing

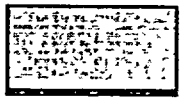
HQ Operations Officers and Emergency Response Officers staff the HQ Operations Center 24/7 to receive and assess all incoming information, coordinate event-related communications, and facilitate a fast startup of the NRC incident response organization if conditions warrant

NRC Executive Team

- Directed by the Chairman or another Commissioner
- Assisted by the Executive Director for Operations
- Major Program Offices
  - Nuclear Security and Incident Response
  - Nuclear Reactor Regulation
  - Nuclear Materials Safety and Safeguards
  - Nuclear Regulatory Research

Assessment Teams

- Reactor Safety Team
- Fuel Cycle Safety Team
- Safeguards Team
- Protective Measures Team



Support and Communications Teams

- Status Officer Team
- Liaison Team
- News Center Team
- Operations Support Team

Actions in Response to 9/11/01

- Round-the-clock monitoring in Headquarters and four Regional offices
- Issued Threat Advisories to nuclear facilities
  - No facility-specific threat
  - Facilities at high security
  - Verification of status
- Orders and Compensatory Measures

Federal Radiological Emergency Response Plan (FRERP)

Multi-agency response plan for radiological emergencies, including facilities, materials and terrorism

Employs Lead Federal Agency (LFA) concept

May be activated concurrently with other Federal Plans and LFAs while supporting an Overall LFA.

Identification of LFA

Type of emergency	LFA
1 Nuclear Facility	
• Licensed by NRC or Agreement State	NRC
• Owned / Operated by DOD / DOE	DOD / DOE
• Not Licensed Owned or Operated by Federal Agency or Agreement State	EPA
2 Transportation of Materials	
• Materials Licensed by NRC or Agreement State	NRC
• Materials Shipped by or for DOD/DOE	DOD / DOE
• Materials Not Licensed or Owned by Federal Agency or Agreement State	EPA
3 Satellites Containing Radioactive Materials	NASA or DOD
4 Impact from Foreign or Unknown Source	EPA
5 Other Types of Emergencies	LFAs confer
6 *Sabotage & Terrorism*	FBI & LFA (above)

Federal Agency FRERP Functions

Offsite Radiological Monitoring & Assessment - DOE

Offsite Non-radiological Support - FEMA

International Coord & Notification - DOS

Law Enforcement Activities – DOJ/FBI

Terrorism & FRERP

FRERP is activated concurrent with other Federal Plans Two main counterterrorism plans:

- U.S. Government Interagency Domestic Terrorism Concept of Operations Plan
- Federal Response Plan – Terrorism Annex

NRC Functions – Consistent with FRERP while coordinating and supporting other agencies which have the Lead for counterterrorism

NRC RDD Capabilities

Multi-agency Incident Response

Radionuclide Analyses

Radiation Dose Models and Calculations

Materials Accountability and Control

FEDERAL RESPONSE PLAN
TERRORISM INCIDENT ANNEX

A CHILLING PRECURSOR TO SEPTEMBER 11, 2001

"AN ACT OF TERRORISM, PARTICULARLY AN ACT DIRECTED AGAINST A LARGE POPULATION CENTER WITHIN THE UNITED STATES INVOLVING WMD MAY PRODUCE CONSEQUENCES THAT WOULD OVERWHELM THE CAPABILITIES OF MANY LOCAL AND STATE GOVERNMENTS ALMOST IMMEDIATELY."

Federal Response Plan Terrorism Incident Annex

Establishes a command and control process for Federal response to acts or consequences of terrorism within the U S

FRP defines

- Crisis Management
- Consequence Management

- Expands guidance outlined in Presidential Decision Directives (PDD) 39 and 62
- Primary signatory agencies DOJ/FBI, FEMA, DOD, DOE, DHHS, EPA
- Applies to all Federal Departments and Agencies with response capabilities

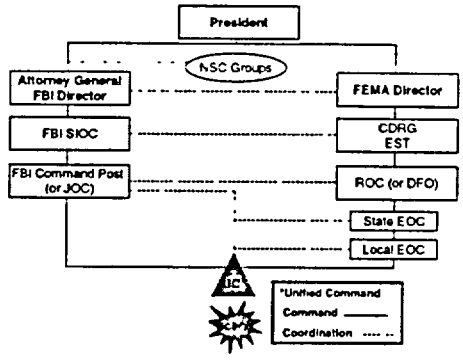
Federal Response Plan Terrorism Incident Annex

CRISIS MANAGEMENT Measures to identify, acquire, and plan the use of resources needed to anticipate, prevent, and/or resolve a threat of act of terrorism The Federal Government exercises primary authority to prevent, preempt, and terminate threats or acts of terrorism and to apprehend and prosecute the perpetrators State and local governments provide assistance as required Crisis Management is predominately a law enforcement response

CONSEQUENCE MANAGEMENT Measures to protect public health and safety, restore essential government services, and provide emergency relief to governments, businesses, and individuals affected by the consequences of terrorism State and local governments exercise primary authority to respond to the consequences of terrorism the Federal Government provides assistance as required Consequence management is generally a multifunction response coordinated by emergency management.

Coordination Relationships - Terrorist Incident

Full Federal Consequence Management Response



Changes On the Horizon

- National Response Plan (NRP)
- National Incident Management System (NIMS)
- Homeland Security Presidential Directive (HSPD) Management of Domestic Incidents

U.S. Nuclear Regulatory Commission
Incident Response Plan

Questions ?

Convention on the Physical Protection of Nuclear Material (CPPNM)

Theodore Sherr
Office of Nuclear Material Safety and Safeguards

CPPNM Revision Background

- In November 1999, IAEA Director General (DG) convened Informal Open-Ended Expert Group to consider need for revising CPPNM
- In May 2001 the Expert Group concluded its work with a recommendation that the DG convene an Open-Ended Drafting Group of Legal and Technical Experts to prepare a draft proposal for a "well-defined amendment" to the CPPNM

Status of CPPNM Revision

- The Drafting Group met six times between December 2001 and March 2003
- Group unsuccessful in producing amendment proposal ready to go to a Diplomatic Conference
- A set of possible amendments to the CPPNM were identified
  - Some enjoyed consensus and some contained bracketed text
- A final report to the DG accompanied the possible amendments and explained the status of each

CPPNM Revision - What's Next?

- The U.S. continues to support revision of the CPPNM to strengthen the physical protection obligations regarding
  - Protection of nuclear material used for peaceful purposes in domestic use, storage and transport
  - Protection from sabotage of nuclear material and nuclear facilities used for peaceful purposes
- Consultations among States Parties to identify what's needed to achieve a revised and strengthened CPPNM

CONCLUSIONS OF THE IAEA CONFERENCE ON SECURITY OF RADIOACTIVE SOURCES

Margaret Federline
U. S Nuclear Regulatory Commission
Washington, DC
301-415-7358

Trilateral Meeting
NSC Canada/CNSNS Mexico/NRC USA
May 2003

MAJOR FINDINGS MARCH 2003

- An international effort should be launched to secure high-risk sources.
- Effective national infrastructures for source control should be developed, following the IAEA Code of Conduct.
- IAEA should assist governments in establishing infrastructures.

ADDITIONAL CONFERENCE FINDINGS

- Recovering sources All nations should develop and implement strategies to recover high-risk sources
- Categorization IAEA should complete source categorization document
- Security measures IAEA should complete its source security guide
- Long-term control All nations should develop plans to manage sources throughout their life cycle including disposal
- Low-risk alternatives Alternatives technologies should be developed as substitutes for high-risk sources

ADDITIONAL CONFERENCE FINDINGS (cont'd)

- Detection Continue to develop methods to detect and interdict illicit trafficking
- Detection Continue research to develop detection technologies
- Illicit trafficking database Continue development of the IAEA illicit trafficking database
- Cooperation Increase cooperation among nations in securing high-risk sources

ADDITIONAL CONFERENCE FINDINGS (cont'd)

- Emergency response Improve response capabilities taking into account RDD scenarios
- Emergency response Improve international cooperation and arrangements for assistance in emergencies
- Communication/Outreach Conduct proactive outreach to educate the public and media regarding radiological threats

SOURCES OF CONCERN: RDDs

Am-241 0 37 TBq (10 Ci)
Cf-252 0 37 TBq (10 Ci)
Cm-244 0 37 TBq (10 Ci)
Co-60 0 74 TBq (20 Ci)
Cs-137 2 22 TBq (60 Ci)
Ir-192 0 72 TBq (20 Ci)
Po-210 0 74 TBq (20 Ci)
Pu-236, Pu-238, Pu-239 0 37 TBq (10 Ci)
Sr-90 3 7 TBq (100 Ci)

SECURITY OF TRANSBOUNDARY SHIPMENTS

John Hickey
U. S. Nuclear Regulatory Commission
Washington, DC
301-415-7231

Trilateral Meeting
NSC Canada/CNSNS Mexico/NRC USA
May 2003

TRANSBOUNDARY SHIPMENTS

- Initial emphasis is on Spent Fuel and Highway Route Controlled Quantities (Risk-informed)
- Lower quantities also being evaluated
- Security advisories and orders have been issued, based on threat level

TRANSPORATION SECURITY

- Advance notification and tracking of shipments
- Physical security
- Personnel background checks
- Coordination with States and law enforcement agencies
- Potential postponement of shipments

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TRANSPORTATION SECURITY

- Current security requirements generally apply to U.S. parties only.
- However, foreign organizations are indirectly impacted in many cases, due to requirements placed on U.S. parties. For example, notification requirements.
- Future requirements are likely to include additional import/export controls.

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SECURITY OF TRANSBOUNDARY SHIPMENTS

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U. S. Nuclear Regulatory Commission
Washington, DC
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Trilateral Meeting
NSC Canada/CNSNS Mexico/NRC USA
May 2003

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U.S. Export Control of Sealed Sources

Dr. Karen Henderson
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Washington, D.C.
301.415.0202

Trilateral Meeting
NSC Canada/CNSNS Mexico/NRC USA

May 2003

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Overview

- NRC Export Licensing Requirements for Byproduct Material
- Responding to Post-September 11, 2001 Concerns: Completed Actions to Enhance Export Controls
- Other NRC Actions

NRC Export Licensing Requirements for Byproduct Material

- Most Byproduct Material under General License

  -- NRC responsible for domestic control only

  -- Foreign governments responsible for sovereign controls

  -- Specific licenses for multiple shipments over long period of time

Responding to Post-September 11, 2001 Concerns

- Consider changes to Part 110 general license provisions
- Support international efforts to improve regulatory infrastructure in countries using radioactive materials
- Support U.S. Customs Service and law enforcement agencies to strengthen databases of transactions exported under NRC general license

Other NRC Actions

- NRC issued domestic safeguards advisory for materials licensees (4/18/03)
- Consult with stakeholders on possible export/import Compensatory Measures or Advisory
- Issue export/import requirements as part of broader NRC domestic rulemaking action for risk-significant nuclear material

Canada/Mexico/USNRC
Trilateral Meeting

Joint Convention on the Safety of Spent Fuel Management and the Safety of Radioactive Waste Management

Margaret Federline, Deputy Director
Office of Nuclear Material Safety and Safeguards

May 1-2, 2003

Ratification Status of the Joint Convention on Spent Fuel and Radioactive Waste Management

- In force as of June 18, 2001
  - The USA obtained Senate approval for ratification on April 2, 2003
  - The President signed the Joint Convention on April 9, 2003
  - The instruments of ratification were deposited formally with the IAEA on April 11, 2003
  - The USA sent a delegation to the April 7-11, 2003 Organizational Meeting

Significance of the Joint Convention on Spent Fuel and Radioactive Waste Management

- The Joint Convention is important to the U S , because the U S would have an enhanced opportunity to participate in activities that should strengthen the worldwide safety culture.
- The Joint Convention complements other international conventions and will serve to enhance international cooperation in this important area
- The Joint Convention is non controversial and has broad support from cognizant U S Federal agencies

Scope of the Joint Convention on Spent Fuel and Radioactive Waste Management

- The scope of the Convention includes national measures taken in the fields of
  - safety requirements for civilian spent fuel management,
  - civilian radioactive waste management,
  - disused sealed sources,
  - operational radiation protection,
  - decommissioning,
  - emergency preparedness, and
  - transboundary movement

Specifics of the Joint Convention on Spent Fuel and Radioactive Waste Management

- The USDOE has the lead in preparing and coordinating our National Report
- NORM is not within the scope of the National Report, but can be included by Contracting Parties voluntarily
- Because defense and military sectors are excluded from its scope, it will not impact military operations.

U.S. Strategy for the Joint Convention on Spent Fuel and Radioactive Waste Management

- Objectives and approaches of the U.S with respect to the Joint Convention include:
  - Encourage harmonization of the level of safety in world-wide management of waste safety
  - Ensure that IAEA activities and guidance adhere to the scope established by the Joint Convention
  - Increase public access and provide Member States adequate opportunity to influence documents prior to meetings

Requirements of the Joint Convention on Spent Fuel and Radioactive Waste Management

- National Report
  - The USA has been preparing its National Report in anticipation of participating as a full Contracting Party in the November 2003 Review Meeting
  - Although the USA had not ratified the convention before April 2003, we are still collecting information to prepare the National Report in order to participate as a full Contracting Party in the November 2003 Review Meeting
- USA interest in reviewing other Member States' National Reports
  - Contracting Parties receiving support from the USA
  - Contracting Parties with safety issues e g , lost sources, legacy sites

United States of America

National Report

Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management

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