



# Foreign Obligations Notification Process

*Santiago Aguilar*

Nuclear Regulatory Commission

*May 20 – 22, San Antonio, TX*

## **Agreements for Peaceful Nuclear Cooperation**

- Current agreements with the IAEA, 21 countries, and Taiwan.
- The agreements are reciprocal in nature.
- The U.S. may be asked to track nuclear materials imported, produced, exported and report inventories.
- The agreements allow for obligations to be placed on major nuclear equipment.

## **Major nuclear equipment (Pt. 110, App A)**

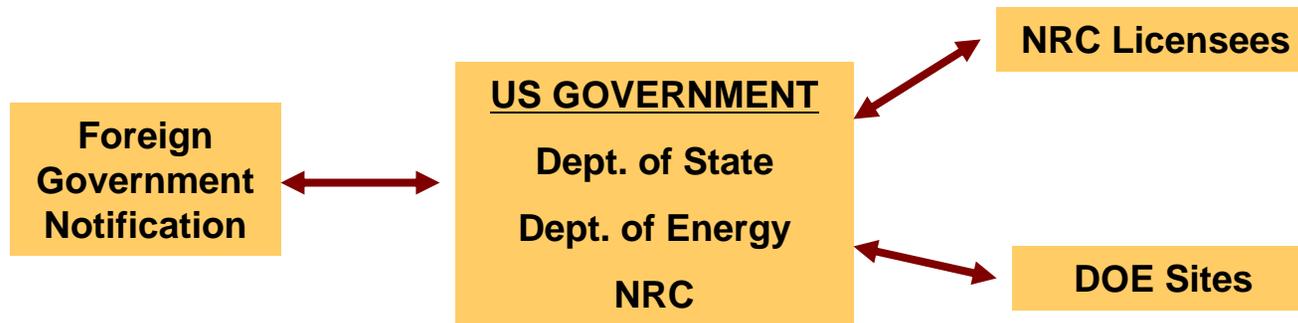
- Reactor pressure vessel heads.
- Online reactor fuel charging and discharging machines.
- Complete reactor control rod systems.
- Reactor primary coolant pumps.

# Agreements for Peaceful Nuclear Cooperation

- Argentina
- Australia
- Bangladesh
- Brazil
- Canada
- China
- Colombia
- Egypt
- EURATOM
- IAEA
- Indonesia
- Japan
- Kazakhstan
- Korea, Rep. of
- Morocco
- Norway
- Peru
- South Africa
- Switzerland
- Taiwan
- Thailand
- Turkey
- Ukraine

*May 20 – 22, San Antonio, TX*

# Foreign Obligation Notification Process

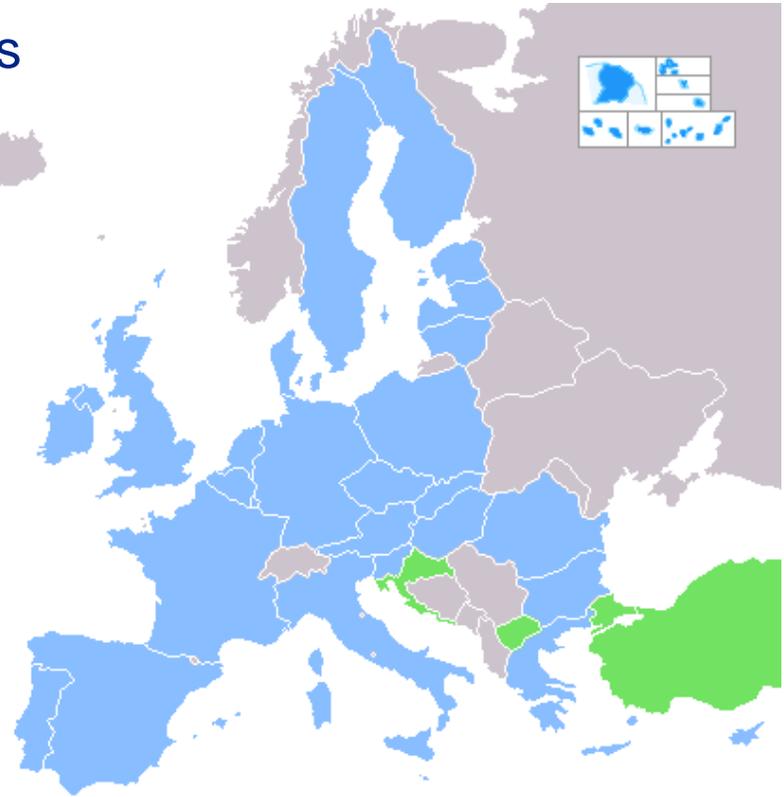


# Leading Agencies

Foreign Country	Agreement for Peaceful Nuclear Cooperation	Implementing US Government Agency
EURATOM		Dept. of State/Dept. of Energy
AUSTRALIA		Dept. of Energy/Nuclear Reg. Comm.
JAPAN		Dept. of State
CANADA		Dept. of Energy

# EURATOM

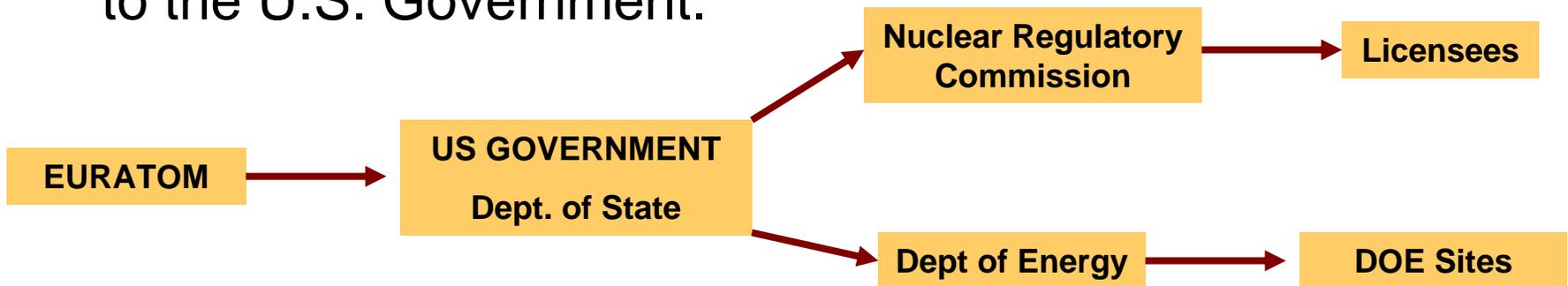
- Austria
- Belgium
- Bulgaria
- Cyprus
- Czech Rep.
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Ireland
- Italy
- Latvia
- Lithuania
- Luxembourg
- Malta
- Netherlands
- Poland
- Portugal
- Romania
- Slovakia
- Slovenia
- Spain
- Sweden
- U.K.



*May 20 – 22, San Antonio, TX*

# EURATOM Obligation Notification Process

- Annex I - EURATOM seeks assurances from the U.S. Government that nuclear material to be shipped will be subject to the terms and conditions of the bilateral agreement (peaceful use, tracked, and reported)
- Annex II – EURATOM sends confirmation of shipment to the U.S. Government.

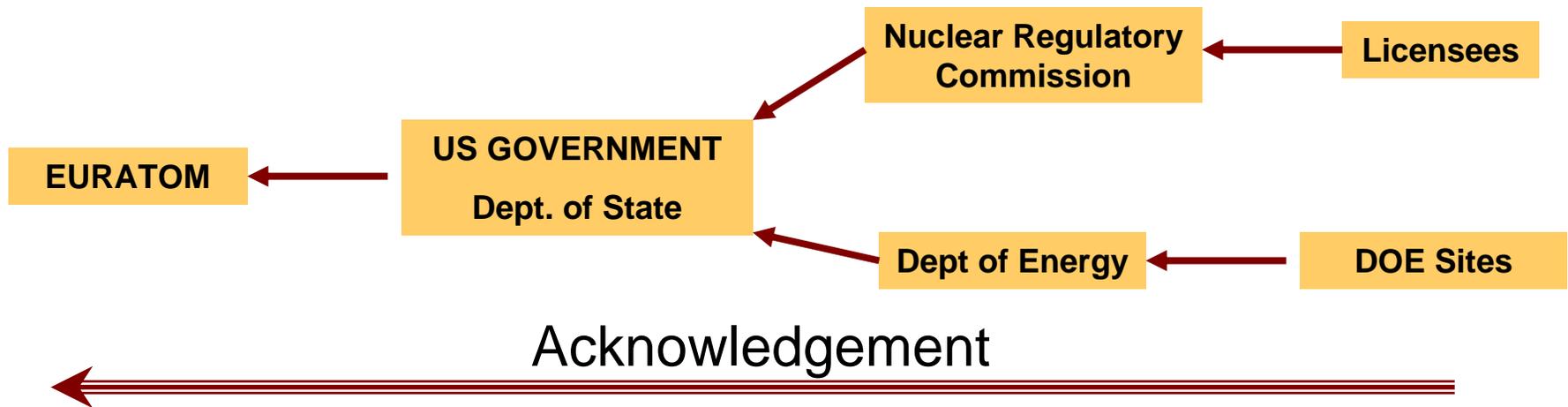


ANNEX I, Parts A & B and Annex II

*May 20 – 22, San Antonio, TX*

## EURATOM Obligation Notification Process

- Annex I - NRC Licensees or DOE sites provide assurances that they are licensed to possess the type and quantity to be imported; that they expect the shipment; and that they will track the obligated material subject to the agreement.



Acknowledgement

*May 20 – 22, San Antonio, TX*

## Annex I – Prior Notification of Intended Transfer of Nuclear Material from the Community to the U.S. (Examples)

1	U.S. Reference	Not known
2	ESA Contract	AAA/BBB 1234
3	Shipper	XYZ, Country
4	Receiver	Your Site
5	Facility of receipt	Your Site
6	Expected date of shipment	June 23, 2008
7	Material category	LEU
8	Mass (provisional)	Ca. 1,500,000 g U
9	Physical form	1 cylinder
10	Chemical form	UF6
11	Owners name	Country account
12	End user name (if known)	U.S. reactors
13	Intended use	Fuel fabrication
14	Third-party obligation	ABC Country

*May 20 – 22, San Antonio, TX*

## Annex II – Confirmation of Shipment of Nuclear Material from the Community to the U.S. (Examples)

1	U.S. Reference	Not known
2	ESA Contract	AAA/BBB 1234
3	Shipper	XYZ, Country
4	Receiver	Your Site
5	Facility of receipt	Your Site
6	Date of shipment	June 23, 2008
7	Batch number	XYZ123456
8	Material category	LEU
9	Mass	Ca. 1,521,268 g U
10	Physical form	1 cylinder
11	Chemical form	UF6
12	Owners name	ABC Country account
13	End user name (if known)	U.S. reactors
14	Third-party obligation	1,320.862 g U ABC Country

*May 20 – 22, San Antonio, TX*

# Australian Obligation Notification Process

- YC-1234 Prior Notice, where Australia seeks assurances from the U.S. Government that nuclear material to be shipped will be subject to the terms and conditions of the bilateral agreement.
- NRC Licensees provide assurances that they are licensed to possess the type and quantity to be imported; that they expect the shipment; and that they will track the obligated material subject to the agreement.
- YC-1234 Confirmation of Shipment, where Australia sends confirmation of shipment to the U.S. Government.



## Why is this process important?

- Inventories of Obligated Nuclear Material
- Reports required under several Agreements
- There is no unified way to assemble data.

# Sample of annual report

	Natural U (KG)	LEU Element (G)	LEU Isotope (G)	HEU Isotope (G)	PU (G)	Depleted U (KG)	Thorium (KG)	Heavy Water (KG)
<b>Beginning inventory</b>								
Direct imports								
Indirect imports								
Nuclear Production								
<b>Increase subtotal</b>								
Direct Exports								
Retransfers								
Nuclear Loss								
<b>Decrease subtotal</b>								
<b>Ending inventory</b>								

*May 20 – 22, San Antonio, TX*

# Contact information

- Nuclear Regulatory Commission

a) Main contact email:

[Foreign.Obligations@nrc.gov](mailto:Foreign.Obligations@nrc.gov)

b) Santiago Aguilar

[santiago.aguilar@nrc.gov](mailto:santiago.aguilar@nrc.gov)

301-492-3569

- Department of Energy

Stephanie Mirabello

[stephanie.mirabello@nnsa.doe.gov](mailto:stephanie.mirabello@nnsa.doe.gov)

202-586-5956

# Questions?



*May 20 – 22, San Antonio, TX*