



Accountability
Performance
Accuracy

The Nuclear Materials Management Safeguards System

NMMSS

2016

Annual Users Training Meeting

May 9-12, 2016 | New Orleans, LA

Australia: Nuclear Cooperation Agreements

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Bilateral Safeguards Section

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- Bilateral Safeguards Section is responsible for:
 - Development and implementation of bilateral nuclear cooperation agreements (“123 agreements” and associated administrative arrangements
 - Accounting of Australian Obligated Nuclear Material (AONM) overseas and Foreign Obligated Nuclear Material (FONM) in Australia



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Current list of Australia's Nuclear Cooperation Agreements (NCAs)

Canada

Czech Republic

Finland

Hungary

Japan

New Zealand

Russia

Switzerland

United Kingdom

United States (cooperation on SILEX)

China

Euratom

France

India

Mexico

Republic of Korea

Sweden

United Arab Emirates

United States

United States (supply to Taiwan)

Argentina (no Additional Protocol)

Philippines (no Additional Protocol)

Egypt (no Additional Protocol)

Ukraine (not in force)





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Recent Developments

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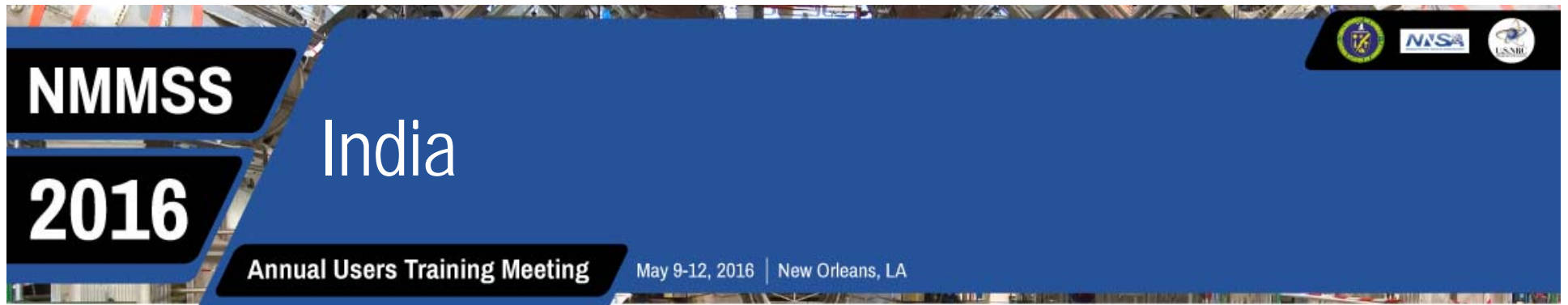


NASA



- Countries where there have been key developments include:
 - India
 - Russia
 - Ukraine
 - United Arab Emirates





- The Nuclear Cooperation Agreement between Australia and India entered into force in November 2015 and is now operational.
- The Administrative Arrangement was signed in November 2015.



- Processing on behalf of a third country with in Australia's network of bilateral nuclear cooperation agreements is permitted.
- Transfers of Australian Obligated Nuclear Material are not permitted to Russia for domestic use or stockpiling.

- The Nuclear Cooperation Agreement between Australia and Ukraine was signed on 31 March 2016 in Washington DC in the margins of the Nuclear Security Summit.
- Both countries now have to complete domestic procedures to bring the treaty into force.
 - In Australia this involves review by the Joint Standing Committee on Treaties.
- The Administrative Arrangement needs to be negotiated.

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Signing of the NCA with Ukraine

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United Arab Emirates

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- The Nuclear Cooperation Agreement between Australia and the United Arab Emirates is now operational.
- The Administrative Arrangement was signed in November 2015.



- Transit matching
 - Including different batch numbers
- Inconsistent reporting of heels
- Balances in enrichment plants
 - Product, feed, tails throughput & inventory need to balance
- Varying reporting formats
- Delays in reporting
- **Varying requirements in nuclear cooperation agreements**
 - Including reporting in different units



- For some of Australia's nuclear cooperation agreements, there is a restriction on what facilities can receive/use/store the material.
 - China – Delineated Chinese Nuclear Fuel Cycle Program (facility list)
 - India – limited to the list of facilities subject to the *Agreement between the Government of India and the International Atomic Energy Agency for the Application of Safeguards to Civilian Nuclear Facilities* (INFCIRC/754)
 - Japan – Japanese Nuclear Fuel Cycle Program (facility list)
 - Russia – Eligible Facilities List
 - Ukraine – facility list
 - There are other restrictions which will be covered on future slides.



- Retransfers for the purpose of conversion are permitted under all Australian nuclear cooperation agreements.
- In the case of China, uranium ore concentrates (UOC) can be shipped to a converter
 - The UOC can be shipped to a facility specified in the Delineated Chinese Nuclear Fuel Cycle Program; or
 - UOC can be substituted by an equivalent amount of UF_6 (Annex B of the Agreement between Australia and China on the Transfer of Nuclear Material).
 - Substituted material can then only be used in facilities specified in the Delineated Chinese Nuclear Fuel Cycle Program.



- Enrichment is not permitted in the United Arab Emirates
- Other countries can enrich up to, but not including 20%.
- Enrichment to 20% or above can occur only with prior written consent.

The banner features a blue background with a white text box on the left containing 'NMMSS' and '2016'. To the right, 'Fuel Fabrication' is written in large white letters. Below this, a black box contains 'Annual Users Training Meeting' in white. Further right, the dates and location 'May 9-12, 2016 | New Orleans, LA' are displayed. Logos for the Department of Energy, NASA, and USNRC are in the top right corner.

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Fuel Fabrication

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- Retransfers for the purpose of fuel fabrication are permitted under all Australian nuclear cooperation agreements.



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Use in a Reactor

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- Australian Obligated Nuclear Material can be used in civilian nuclear power and research reactors
 - Subject to facility lists as already specified

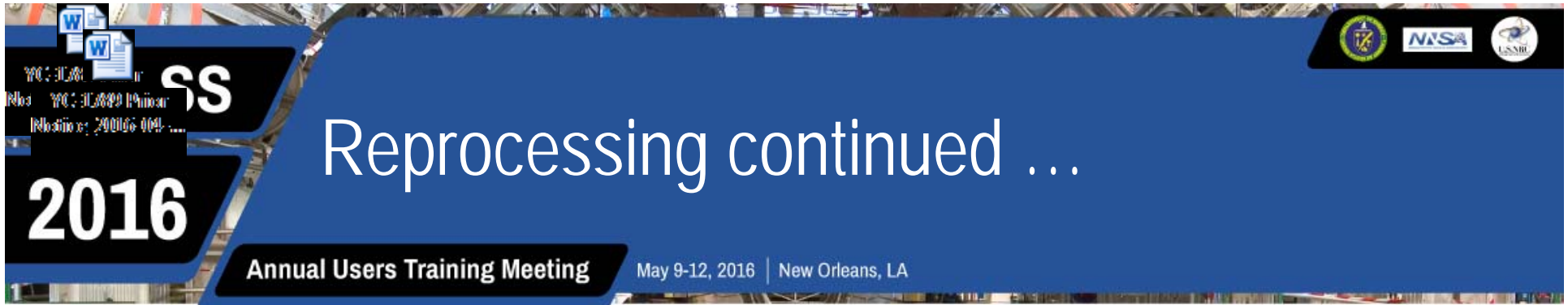


- Storage is only permitted in Russia if it is temporary storage of material for third party processing.
- Storage is permitted in all other countries.



- Reprocessing of Australian Obligated Nuclear Material is permitted in France, and the UK.
- Reprocessing is permitted in India in facilities described in the *Arrangements and Procedures Agreed between the Government of the United States of America and the Government of India pursuant to Article 6(iii) of their Agreement for Cooperation Concerning Peaceful Uses of Nuclear Energy*, done at Washington D.C. on 30 July 2010.





- Reprocessing is permitted in Japan in facilities listed in the Japanese Nuclear Fuel Cycle Program.
- Reprocessing is not permitted in the Republic of Korea or the United Arab Emirates
- Reprocessing in other countries is only permitted with Australia's prior written consent.



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Any Questions? Contact Information

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