

The Nuclear Materials Management and Safeguards System (NMMSS)



**2015** Annual  
**Users**  
Training  
Meeting

**Accuracy**

**Accountability**

**Performance**



May 11-14, 2015

**Las Vegas, NV**

# Australian Nuclear Cooperation Agreements

Dr Vanessa Robertson, Australian Safeguards and Non-Proliferation Office



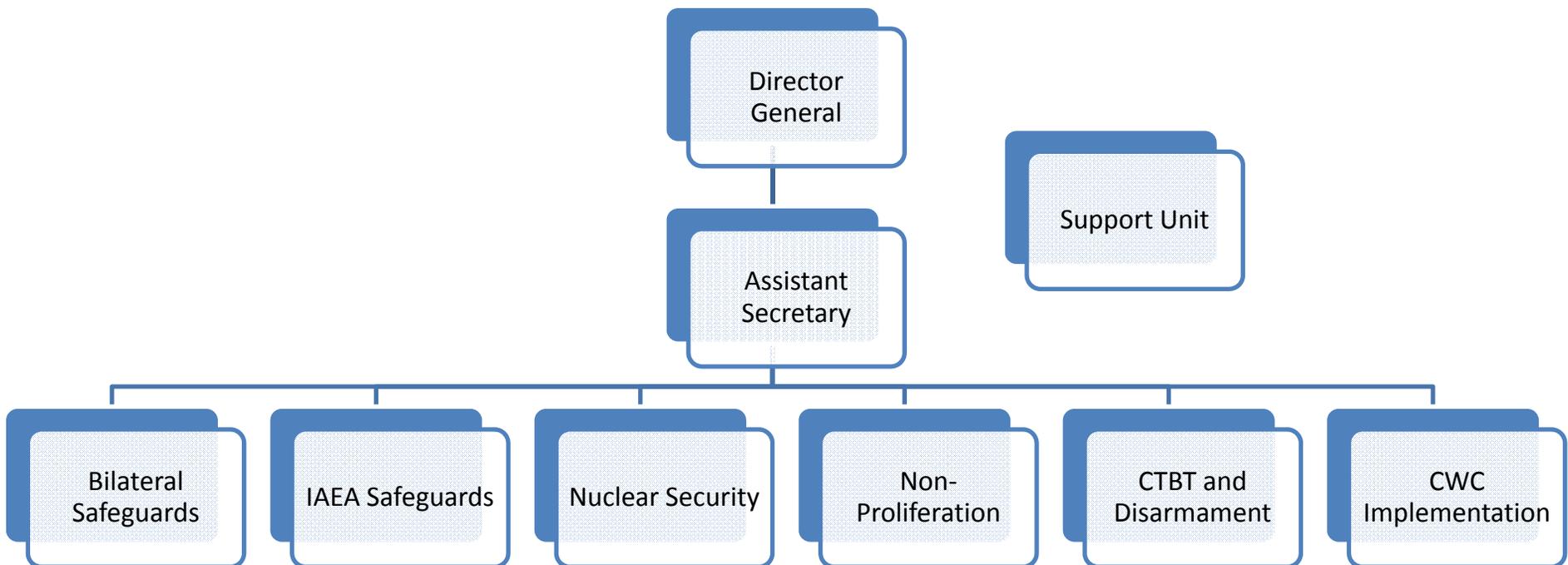
The Nuclear Materials Management and Safeguards System (NMMSS)



# 2015

 Annual  
**Users**  
Training  
Meeting

# The Australian Safeguards and Non-Proliferation Office



The Nuclear Materials Management and Safeguards System (NMMSS)

**2015** Annual  
**Users**  
Training  
Meeting

# Bilateral Safeguards Section



- 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

The Nuclear Materials Management and Safeguards System (NMMSS)

**NMMSS**

**2015** Annual  
**Users**  
Training  
Meeting

# Numbat



- A Numbat is an Australian native marsupial.



- Numbat is also Australia's equivalent of NMMSS.
- Numbat stands for ...

**NU**clear **M**aterial **B**alance **A**nd **T**racking.

The Nuclear Materials Management and Safeguards System (NMMSS)



**2015** Annual  
**Users**  
Training  
Meeting

## Evolution of Numbat



- February 1981 – series of small programs written in GW-BASIC on an HP250 Business Computer
- Early 1990's – translated into a database program called "VP-Info"
- Mid/late 1990's – migrated onto FoxPro platform
- Shortly after – migrated into Microsoft Access
- 2014/2015 – migrated into Sharepoint



The Nuclear Materials Management and Safeguards System (NMMSS)



**2015** Annual  
**Users**  
Training  
Meeting

# Numbat – New Functionality



- Wanted a system that:
  - was more stable given the requirement for simultaneous multiple users
  - integrated Australian obligated nuclear material and foreign obligated nuclear material accountancy
  - integrated Australia's domestic and international safeguards accountancy responsibilities

The Nuclear Materials Management and Safeguards System (NMMSS)



**2015** Annual  
**Users**  
Training  
Meeting

## Online Portal



- Ability for industry users to:
  - change contact and other information
  - submit paperwork required to export Australian yellow-cake
  - access real-time data regarding ASNO approvals and status of shipments (for example: approved, shipped, reconciled)
- Ability to send message to all industry users, or a select group of industry users, simultaneously

The Nuclear Materials Management and Safeguards System (NMMSS)



# 2015

Annual  
**Users**  
Training  
Meeting

## Current List of Australia's NCAs



Canada

China

Czech Republic

Euratom

Finland

France

Hungary

Japan

Mexico

New Zealand

Republic of Korea

Russia

Sweden

Switzerland

United Kingdom

United States

United States (cooperation on SILEX)

United States (supply to Taiwan)

*Argentina**Egypt**Philippines**United Arab Emirates*

The Nuclear Materials Management and Safeguards System (NMMSS)



**2015** Annual  
**Users**  
Training  
Meeting

## Recent Developments



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

The Nuclear Materials Management and Safeguards System (NMMSS)



**2015** Annual  
**Users**  
Training  
Meeting

## United Arab Emirates



- The Nuclear Cooperation Agreement between the United Arab Emirates and Australia came into force in April 2014.
- The associated Administrative Arrangement is currently under negotiation.
- Contracts can be signed at any time, but material cannot be transferred into the UAE until the Administrative Arrangement is in place.

The Nuclear Materials Management and Safeguards System (NMMSS)



**2015** Annual  
**Users**  
Training  
Meeting

# India



- The Nuclear Cooperation Agreement between Australia and India was signed in September 2014.
- The Agreement was tabled in Parliament and is currently under consideration by the Joint Standing Committee on Treaties.
- The associated Administrative Arrangement is currently under negotiation.

The Nuclear Materials Management and Safeguards System (NMMSS)



**2015** Annual  
**Users**  
Training  
Meeting

## Russia



- September 2014 – the Government announced that there would be no exports of Australian Uranium to Russia until further notice.

### **IMPORTANT – PLEASE READ AND ACTION**

If your company has contracts for conversion/enrichment/fuel fabrication/reprocessing in Russia (or is negotiating contracts) and you were planning on sending Australian Obligated Nuclear Material – please speak with ASNO as soon as possible.

The Nuclear Materials Management and Safeguards System (NMMSS)



2015 Annual  
**Users**  
Training  
Meeting

# Ukraine



- December 2014 – Prime Minister Abbott and President Poroshenko announced that we would investigate the possibility of selling Australian uranium to the Ukraine.
- Australian officials are working through Government processes to obtain a mandate to negotiate a nuclear cooperation agreement.

The Nuclear Materials Management and Safeguards System (NMMSS)



**2015** Annual  
**Users**  
Training  
Meeting

## Issues



NNSA



- Transit matching (including Different batch numbers)
- Inconsistent reporting of heels
- Balances in enrichment plants
  - Product, feed, tails throughput & inventory need to balance
- Varying requirements from NCAs
- Varying reporting formats
- Delays in reporting
- Uranium extracted from mineral ores & concentrates
  - How to track?



The Nuclear Materials Management and Safeguards System (NMMSS)



**2015** Annual  
**Users**  
Training  
Meeting

## Contact Information



- Vanessa Robertson
  - Director, Bilateral Safeguards Section
  - [Vanessa.Robertson@dfat.gov.au](mailto:Vanessa.Robertson@dfat.gov.au)
  - +61 2 6261 2219
- ASNO
  - <http://www.dfat.gov.au/asno>
  - [nac-asno@dfat.gov.au](mailto:nac-asno@dfat.gov.au)
  - Ph: +61 2 6261 1920
  - Fax: + 61 2 6261 1908

