



COMPLIANCE CODE FOR CLASS T1 PERMITS

Compliance Code History

Version	Date of Effect	Description
1	30/09/2016	<i>Compliance Code</i> first issue
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3		
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Purpose

The purpose of this *Compliance Code* is to establish a standard set of requirements for the systems of Nuclear Material Control, *Nuclear Security* and for Nuclear Material Transport Plans for all Class T1 Permits to Transport Nuclear Material issued under section 16 of *the Act*. It also sets out forms for the submission of applications, notifications and reports.

Where individual criteria or requirements of the *Compliance Code* cannot be met, *ASNO* may accept alternate compensatory measures if they provide an equivalent level of *nuclear security*. Such alternate measures shall be explicitly addressed in the Nuclear Material Transport Plan and must be approved by the *Director General*.

Scope

This *Compliance Code* applies to Permits identified under paragraph 3 of the Permit as a Class T1 permit. The requirements of the *Compliance Code* apply to all *nuclear material* in the possession of the Permit Holder except *nuclear material* which is declared under section 11 of *the Act* as exempt from the application of Part II of *the Act*. The documents listed in Appendix B to this *Compliance Code* relate to the requirements contained in the *Compliance Code*.

Objective

The objectives of the systems for Nuclear Material Control and *Nuclear Security* are to:

- protect against unauthorised removal (theft) of *nuclear material* ;
- locate and recover missing *nuclear material*;
- protect *nuclear material* against sabotage;
- mitigate or minimize the radiological consequence of sabotage; and
- maintain control of *nuclear material*.

For the purpose of this *Compliance Code*, *nuclear security* will be taken to apply to *nuclear material* but not to other radioactive materials.

In situations where the Permit Holder must also comply with security requirements imposed by the CEO of the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) for radiologically hazardous materials, *ASNO* will cooperate with ARPANSA on the appropriate *nuclear security* measures that the Permit Holder needs to apply in order to harmonise regulatory requirements.



1. Risk Assessment

The Permit Holder shall:

- 1.1. determine the categorisation of *nuclear material* to be transported in accordance with Table 1 of *NSS-13*;
- 1.2. identify any scenario in which the sabotage of *nuclear material* could directly or indirectly result in *unacceptable radiological consequences*; and
- 1.3. assess the physical damage and radiological consequences that could result from the successful sabotage of each potential sabotage target.
- 1.4. conduct and document a risk assessment that takes into account the *Category* of *nuclear material*, the consequences of sabotage and identifies specific security threats to *nuclear material* relevant to the Permit Holder;
 - 1.4.1. in the case of transporting spent nuclear fuel, conduct or commission an updated *threat assessment* for each transport.

Guide: It is preferable that risk assessments are done according to AS/NZS ISO 31000:2009 or an applicable industry standard.

2. Nuclear Material Transport Plan (The Plan)

2.1. Transport Governance

The Permit Holder shall maintain a system for *nuclear material* control and *nuclear security* in its possession that addresses the conditions in the Permit and the current *Compliance Code* including appendices, or any other instruction authorised in writing by the *Director General*.

The system for the control and security of *nuclear material* shall at all times be described in documented *Plans* and arrangements. The Permit Holder shall:

- 2.1.1. appoint responsibilities for the activities involving *nuclear material* and clearly define the scope of each responsibility;
- 2.1.2. produce or adopt a *Plan* covering the transport and any storage incidental to transport, addressing the risks identified in section 1, including scalable *nuclear security* measures and procedures capable of being implemented rapidly in response to identified elevated threats. The scalable threat model shall be linked to the Australian Security Intelligence Organisation (ASIO) National Security Threat Assessment (NSTA) levels as described in Appendix A or the Maritime Security Threat Level Scale (MARSEC) as applicable.

The Plan may be an exclusive *Plan* or incorporated into plans compiled for other purposes;



- 2.1.3. in the following cases obtain *Director General's* approval of this *Plan* prior to the commencement of transport:
- a) within Australia, *Category II nuclear material*, spent nuclear fuel and other *nuclear material* for which *unacceptable radiological consequences* may result from sabotage; or
 - b) for all international imports, exports and transits/trans-shipments exceeding the exemption limits prescribed in section 4A of the *Nuclear Non-Proliferation (Safeguards) Regulations 1987*;
- 2.1.4. implement all measures specified in *The Plan*;
- 2.1.5. review *The Plan* at least once during the term of this Permit, or at the request of the *Director General*, or as required to respond to changes in circumstances, whichever is the sooner and:
- a) inform the *Director General* of the detail and outcome of these reviews; and
 - b) as required, make application for proposed changes to *The Plan*, or advise that no changes were assessed as necessary; and
- 2.1.6. restrict access to information about *The Plan* or auxiliary security information to persons with a need to know and disseminated to those who do. *The Plan* shall be labelled (header and footer) with protective markings commensurate with its sensitivity (e.g. "Sensitive - Security").

2.2. Control Measures

The Permit Holder Shall:

- 2.2.1. detect any *loss of control* of *nuclear material* listed on the *manifest*;
- 2.2.2. maintain organisational arrangements enabling the Permit Holder to determine the precise location of any material on the Permit Holder's *manifest* or in storage incidental to transport, in less than 2 hours;
- 2.2.3. keep an up-to-date *manifest* of *nuclear material*;
- 2.2.4. ensure that each *package* of *nuclear material* is individually labelled as on the Permit Holder's *manifest*, with unique identification markings in a way that enables timely matching for verification; and
- 2.2.5. keep up-to-date records of transfers of *nuclear material* and retain records of holdings and transfers for a period of 5 years.

Holdings: Nuclear material held in storage incidental to transport during the timeframe that the transporter was held responsible for the consignment (chain of custody).



2.3. Route

The Permit Holder shall transport the *nuclear material* only along approved transport route(s):

- 2.3.1. specified in the Application for Permit to Transport Nuclear Material; or
- 2.3.2. nominated by the consignor, and approved by the *Director General* (Application form ASO113); or
- 2.3.3. for transporting *Category II nuclear material*, the Permit Holder shall include an alternate route of transport for approval by the *Director General*.

2.4. Pre-Transport Arrangements

Prior to transport, the Permit Holder shall:

- 2.4.1. facilitate the implementation of Australia's requirements to provide and receive assurances regarding the protection of *nuclear material* as prescribed in Article 4 of *The Convention*;
- 2.4.2. confirm that all *nuclear material packages* are in an acceptable condition for transportation and assuring that seals remain intact, recording the results of these inspections;
- 2.4.3. provide instructions to *carriers* to deliver the consignment only to the intended destination (Approved Location, consignee or authority at the port of discharge specified by the consignor) and to observe all procedures and directions given by the Permit Holder prior to, and during, the transfer; and
- 2.4.4. ensure that communication systems are operating effectively.

2.5. Arrangements during Transport – General

The Permit Holder shall:

- 2.5.1. put in place timely and effective arrangements to prevent theft, loss or unauthorised handling during transportation consistent with the provisions of *The Convention* and section 6 of *NSS-13* relevant to the Permit Holder for the applicable *Category of nuclear material*; and
- 2.5.2. have procedures to detect the interruption of the transport or deviation from the set route.

2.6. Additional Arrangements Specific to Surface Transport

The Permit Holder shall:

- 2.6.1. for single vehicle transport, have procedures to detect the interruption of the transport or deviation from the set route. To this end, state-of-health or situational awareness reporting shall be established commensurate to the *Category of nuclear material in conveyance*, scaled to a maximum of 2 hourly intervals;



- 2.6.2. for multiple vehicles, adopt a (loose) convoy for multiple vehicles transporting nuclear material or a support vehicle for single vehicle conveyance, where drivers maintain visual contact between vehicles;
- 2.6.3. provide adequate security and situational awareness during brief stationary periods (e.g. rest stops).
- 2.6.4. establish methods for effective communication compensating for limited coverage of reception and ensure:
 - a) communication equipment is in good operational condition with ongoing capability to communicate with the consignor, *carrier*, local police, emergency services and security staff;
 - b) vehicles are fitted with appropriate equipment to enable two-way communication between vehicles at all times; and
 - c) communication redundancy in case of equipment failure.

2.7. Additional Arrangements Specific to Maritime Transport

The Permit Holder shall:

- 2.7.1. transport *nuclear material* only in vessel(s) approved by the *Director General*;
- 2.7.2. in addition to stipulations under the International Maritime Organisation's International Ship and Port Facility Security Code and the *Maritime Transport and Offshore Facilities Security Act 2003* that requires Port Security Plans, Maritime Security Plans, the Ship Security Plan and the International Maritime Dangerous Goods Code for Class 7 – Radioactive material, the Permit Holder shall include *nuclear material* specific arrangements as set out in section 6 of *NSS-13* for the transport of *nuclear material* on an approved vessel;
- 2.7.3. seek approval from the *Director General* in advance of shipment, if the vessel does not have or is not required to have a Ship Security Plan; and
- 2.7.4. meet specific requirements of the *Director General* in areas of high-risk piracy¹.

2.8. Storage Incidental to Transport

- 2.8.1. The Permit Holder shall obtain prior approval from the *Director General* for the use of locations for the storage of *nuclear material* incidental to transport. (i.e. "Approved Locations")
- 2.8.2. *Nuclear Security* of *nuclear material* in storage incidental to transport should be at a level appropriate for the *Category* of the *nuclear material* and provide a level of protection consistent with that required in paragraphs 4.13-49 of *NSS-13* as relevant. Storage time should be minimised.
- 2.8.3. *The Plan* shall describe the *nuclear security* arrangements for storage incidental to transport, including diagrams and specifications of all the security

¹ For the Gulf of Aden this means the area defined as the High Risk Area by the United Kingdom Marine Trade Operations. For other areas this means the Listed Areas as published by the Joint War Committee.



infrastructure that identifies the layout of security boundaries and the position of any security equipment including cameras, detection devices and access control features.

- 2.8.4. When it is not possible, for any reason, to unload or deliver the *nuclear material* at the intended destination or to hold them at Approved Storage Locations, the *nuclear material* shall be delivered to a location that maximally matches the criteria set out in section 2.8.2 and the Permit Holder shall consult with the *Director General* regarding storage arrangements and security measures.

2.9. Emergency Procedures

- 2.9.1. The Permit Holder shall implement procedures:
- a) to re-establish lost communication with the transport;
 - b) to maintain adequate *nuclear security* in the event of delayed flight, delayed shipping, an accident or vehicle breakdown during transport;
 - c) to defer to an alternate route for *security* or safety reasons, in the event of an unforeseen incident or circumstances; and
 - d) to provide for a timely and effective response in the event that theft, loss or unauthorised handling of *nuclear material* occurs during transport.
- 2.9.2. *Carriers* shall be regularly trained in the above-mentioned procedures; and
- 2.9.3. The *Director General* shall be informed of any escalated incident for above-mentioned procedures.

3. Reports, Notifications and Requests for Approvals

- 3.1. The Permit Holder or *Designated Individual* shall report to, notify or apply to the *Director General* as appropriate for each activity or item listed in section 4.
- 3.2. Each such report, notification or application shall be made by completing the specified forms listed in section 4 or using other formats as approved by ASNO.
- 3.3. The reports, notifications or applications shall be delivered to the *Director General* in accordance with the reporting requirements specified on the respective form.



4. ASNO Forms

Forms are reviewed or amended from time to time. Current forms can be downloaded from the ASNO website at: www.dfat.gov.au/asno

4.1. Approval forms

APPLICATION FORMS TO CONDUCT CERTAIN ACTIONS: ¹	TIMEFRAME LIMITS FOR APPLICATIONS, NOTICE OR REPORTING: ²	FORM TO USE:
Application to Transfer Material (Import, Export or Domestic Transfer)	7 day notice	ASO106
Application to Create a New Approved Location ³	7 day notice	ASO112
Application to Approve a New (or Variation to a Current) Transport Plan	20 day notice for new route 10 day notice for modified Plans	ASO113
Change to the Accountancy or Security Plan		ASO134
Application to Subcontract Functions Subject to Permit Restrictions and Conditions	14 day notice	ASO135

4.2. Notification forms

NOTIFICATION IS REQUIRED FOR: ¹	TIMEFRAME LIMITS FOR APPLICATIONS, NOTICE OR REPORTING: ²	FORM TO USE:
Notification of an Incident	Report incidents by phone within 2 hrs. of detection. Submit form within 4 hrs.	ASO201
Notification of Designation of an Individual		ASO214
Notification of Change to Permit Holder's Particulars	Within 10 days of effect of change	ASO231

4.3. Report Forms

REQUIRED REPORTS: ¹	TIMEFRAME LIMITS FOR APPLICATIONS, NOTICE OR REPORTING: ²	FORM TO USE:
Report on Incident Investigation	Within 30 days of initial report	ASO303

¹ Each report, notification or application should be made by the *Permit Holder's Representative* or by a *Designated Individual* as notified under ASO214, responsible for compliance with that application requirement.

² Refer to related form for detailed timeframe requirements. All days refer to consecutive business days.

³ Interim storage location incidental to transport.



APPENDIX A

1. Scalable Threat Model

- 1.1. The purpose of the scalable threat model is to establish a system of transport protection measures for a wide range of security threats and their associated risks to the production and subsequent handling of nuclear material. The scalable model's categories prescribe levels of transport protection measures that shall be implemented for each of the different levels of threat and resultant risks.
- 1.2. *The Plan* should include a scalable system of interim measures that collectively address changes in threat levels and their associated risks. These measures shall be capable of being implemented rapidly in response to an elevated threat, and for the system to remain cost effective, it is desirable that the interim measures be readily discontinued.
- 1.3. Five security threat levels, identified below for the transport of *nuclear material*, are based on the Australian Security Intelligence Organisation (ASIO) National Security Threat Assessment (NSTA) levels. The *Director General* will notify the Permit Holder of the security threat level that applies at any given time after having received advice from ASIO and/or law enforcement authorities.
- 1.4. The Permit Holder is required to provide sufficient *nuclear security* measures to defend against the specified level of threat, which are specified in table 1 below.
- 1.5. **Table 1: Threat Levels**

National Threat Alert Levels	Description
Not Expected	There is no indication of any <i>security</i> threat to transport activities; This level is the <u>baseline nuclear material transport threat level</u>
Possible	There is no specific security threat targeted towards the transport of <i>nuclear material</i> (limited intent or capability)
Probable	There are concerns of a heightened threat and transport of <i>nuclear material</i> activities should exercise a high degree of caution
Expected	There are <i>security</i> concerns of a threat with intention and capability planned against the transport of <i>nuclear material</i>
Certain	A specific security threat is certain or underway



APPENDIX B

Table 1: Documents Related to Managing Compliance with Conditions in this Permit.

Last updated: 16 September 2016

Document short name	Document full name or description	Date of entry into force or start of application
The Act	the Nuclear Non-Proliferation (Safeguards) Act 1987	17 March 1987
The Regulations	the Nuclear Non-Proliferation (Safeguards) Regulations 1987	1987
Maritime Transport Act	the Maritime Transport and Offshore Facilities Security Act 2003	12 December 2003
NSS -13	Nuclear Security Recommendations on Physical Protection of Nuclear Material and Nuclear Facilities (INFCIRC/225/Rev.5)	2011
The Convention (CPPNM)	Convention on the Physical Protection of Nuclear Material, as amended on 8 July 2005. INFCIRC/274/Rev.1/Mod.1	8 May 2016
INFCIRC/217	Protocol Additional to the Agreement Between Australia and the International Atomic Energy Agency for the Application of Safeguards in Connection with the Treaty on the Non-Proliferation of Nuclear Weapons (INFCIRC/217)	10 July 1974
AS/NZS ISO 31000:2009	Risk management - Principles and guidelines	2009
ISPS Code	the International Maritime Organisation's International Ship and Port Facility Security Code (Annex to Chapter XI-2 of the SOLAS Convention SOLAS/CONF.5/34)	1974
IMDG Code	the International Maritime Dangerous Goods Code	Current Edition