



Australian Government

Australian Radiation Protection and Nuclear Safety Agency

ARPANSA

Protecting people and the environment
from the harmful effects of radiation

REGULATORY SERVICES



Inspection Manual
July 2015

This Manual supersedes the following documents:

1. REG-MAN-280 Inspection strategy v6
2. REG-INS-SOP-280A Inspection procedure v8
3. REG-INS-SUP-280C Guide for lead inspectors v4
4. REG-INS-SUP-280E Requirements & Competencies for inspectors v5
5. REG-INS-SUP-280F Radiation safety for inspectors v2
6. REG-INS-WI-280A Publication of inspection reports v1
7. REG-LA-SUP-242D Guide for Regulatory Officers: Site Visits v1

NOTE: This Manual refers to templates that are for internal use only

Contents

1. Inspection Strategy	4
1.1 Inspection Frequency	5
1.2 Functional inspection areas	5
2. Inspection Procedure	6
2.1 Preparation	6
Purpose & Scope	6
Inspection Team.....	6
Document Review	6
Timetable	7
Notification	7
Logistics	8
2.2 Conducting the Inspection	8
Entrance Meeting.....	8
Information gathering.....	8
Exit Meeting	9
2.3 Reporting Inspection Outcomes	9
Inspection Report.....	9
Memo & Transmittal Letter	10
Review and Approval	10
Issue Report	10
Record Keeping	10
2.4 Review & Follow-up	11
Publish Report.....	11
Revise Risk Ranking.....	11
Post-Inspection Survey.....	11
Feedback & Lessons Learned	11
Augmented Inspection.....	12
Site Visits.....	12
3. Review of Inspection Program	13
4. Guidance for Lead Inspectors	14
5. Requirements & Competencies for Inspectors	16
6. Inspector Health & Safety	19

1. Inspection Strategy

The fundamental objective of inspection is to assess the safety performance of the licence holder and provide reasonable assurance to the public that activities involving radiation facilities and sources do not pose a threat to human health or the environment.

ARPANSA's inspection program is designed to:

- Identify activities prohibited under the Act that are being undertaken without an appropriate licence or exemption from a licence.
- Assess and verify licence holder compliance with the *Australian Radiation Protection and Nuclear Safety Act 1998*, Australian Radiation Protection and Nuclear Safety Regulations 1999 (the Regulations) and licence conditions.
- Appropriately respond to non-compliance, performance deficiencies, abnormal occurrences, incidents and accidents.

Inspectors must:

- Acquire and maintain appropriate competency
- Conduct inspections in accordance with the Act and Regulations
- Undertake investigations as necessary under direction from the CEO or Chief Inspector

All inspections are planned. A baseline inspection schedule defines the minimum level of inspections to evaluate licence holder performance over the baseline period. There may be an occasional need to perform a reactive inspection; in such cases, however, some amount of planning is still warranted and communication with the licence holder is required.

Generally, inspections are planned on the basis of licence holder risk ranking and undertaken in accordance with approved procedures. In most cases the risk ranking determines the frequency of inspection and this forms the basis of the inspection schedule (see Table 1). However, the Chief Inspector may on a case by case basis, or on the basis of targeted inspection theme, realign the frequency and priority of the inspection schedule. By aligning inspection frequency with the risk ranking, inspection resources are allocated proportionate to risk. Planning for inspections should take into account previous inspection history.

ARPANSA's inspection program is implemented in accordance with the [Regulatory Delivery Model](#).

1.1 Inspection Frequency

ARPANSA aims to align the frequency of inspection with the licence holder’s risk ranking.

Table 1 provides recommended baseline inspection frequencies for sources and facilities, but these may be modified to take account of other important factors such as compliance history of the licence holder.

Source Risk Ranking*	Facility Risk Ranking*	Inspection Frequency
Negligible		5 years
Low	Negligible	4 – 5 years
Med	Low	3 - 4 years
High - Very High	Med	1 – 2 years
	High	Annual
	Very High	Quarterly

TABLE 1: Inspection Frequency

*For information on determination of licence holder risk ranking, see REG-COM-MAN-270 Compliance & Enforcement Manual

1.2 Functional inspection areas

Each inspection will focus on one or more of the following eight functional areas:

1	Performance Reporting Verification
2	Configuration Control
3	Inspection, Testing and Maintenance
4	Training
5	Event Protection
6	Security
7	Radiation Protection
8	Emergency Preparedness

The cross-cutting aspects of human performance, safety culture, performance improvement apply to all areas.

Performance Objectives and Criteria (PO&Cs) for each area are defined.

For source inspections, there is a single set of PO&Cs.

2. Inspection Procedure

2.1 Preparation

Purpose & Scope

The purpose and scope of every inspection must be defined. For baseline inspections, this will be one or more of the eight functional inspection areas and associated PO&Cs.

Augmented inspections will generally focus on a particular area where there is evidence of possible non-compliance or performance deficiency.

Inspection Team

Most inspections involve two or more inspectors.

Members of the inspection team are selected based on the purpose and scope of the inspection and on the relevant experience and expertise required. Security clearance should be considered, as necessary.

Where appropriate, consider the need to obtain expert advice or technical assistance from other branches or jurisdictions. Decide whether officers from another branch or agency (e.g. Comcare, ASNO) should be involved.

Where the inspection involves a security enhanced source, the lead inspector should liaise with Security & Community Safety (SCS) to determine whether the licence holder has in place any approved security plans, or whether there are any specific security considerations. If so, a member of SCS should be involved in the inspection or conduct an adjunct inspection and provide a separate report on the licence holder's compliance against the requirements of RPS11.

Where the inspection involves sources used for medical purposes, liaise with Medical Radiation Services Branch to involve officers from that branch in the inspection or to seek advice.

Where ARPANSA is the licence holder, a regulatory officer from a State or Territory regulatory authority should accompany ARPANSA inspectors to fulfil the CEO's obligation under subsection 15(2) of the Act to take all reasonable steps to avoid any conflict of interest. This should be discussed with the Manager, Licensing & Compliance who will contact an appropriate regulator to request assistance.

Where appropriate, discuss the intended inspection with Regulatory Officers with previous experience in dealing with the licence holder.

Document Review

Review as appropriate the following documents to identify issues relevant to the inspection:

- Performance Objectives and Criteria (PO&Cs) for the area(s) being inspected
- Regulatory Assessment Principles, Guidelines, nuclear safety or radiation protection guidelines or standards
- Regulatory assessment reports
- Licence holder's policies/plans/procedures/Source Inventory Workbook or other documentation

- Any correspondence between ARPANSA and the licence holder
- Previous inspection reports and recommendations
- International Best Practice
- Previous inspection file notes
- Licence holder's quarterly and/or annual compliance reports
- Any reports of accidents or incidents, including abnormal occurrences or near misses.
- Recent regulation 51 applications

Timetable

Draft an inspection plan with sufficient flexibility to allow for unforeseen events or pursuit of leads that emerge during the inspection.

Inspections should be performed during the licence holder's normal working hours, unless special circumstances dictate otherwise.

If performing an inspection outside working hours, the consent of the licence holder or occupier of the premises should be obtained.

Notification

Email an Inspection Notification (REG-INS-FORM-280B) to the licence holder/nominee and licence holder contact person at least two weeks prior to the inspection. This is the official correspondence regarding the inspection scope, duration, and timing of entrance meeting.

Prior notification must be given to avoid disruption of the licence holder's operations, and to ensure that appropriate personnel are available.

In case of a reactive¹ inspection, an authorisation letter must be signed by the Chief Inspector or delegate and provided to the licence holder as soon as possible.

The notification process usually includes informal contact such as phone calls or emails to request documents before the inspection and/or identify any documents to be produced at the inspection (such as internal audit reports, logbooks). Inspectors should identify persons or groups required for interview, any plant and equipment to be available, and any demonstration that may be required. A Workplace Hazard Identification Checklist (REG-INS-FORM-280C) should, where possible, be emailed to the licence holder for completion prior to the inspection. Alternatively, the appraisal of the likely hazards that may be encountered during an inspection may be discussed over the phone with the relevant contact person and the information recorded on the form.

The [Regulatory Guide: What to expect during an ARPANSA Inspection \(REG-INS-SUP-280B\)](#) may be provided to the licence holder, as appropriate.

¹ A reactive inspection is an augmented inspection that may be undertaken in response to circumstances such as an incident, accident or non-compliance.

Logistics

(See also Section 4: Guidance for Lead Inspectors)

Identify any equipment required, for example cameras, radiation monitors, recording devices.

Determine the inspection timetable and travel arrangements and co-ordinate with any team members outside of Regulatory Services.

Prepare relevant checklists as required.

2.2 Conducting the Inspection

Entrance Meeting

Conduct an initial meeting with the licence holder or licence holder's representatives for introductions and to:

- Confirm inspection purposes, scope, and timetable. In case of a reactive inspection, the inspection authorisation letter is shown to the licence holder
- Reiterate inspection criteria
- Determine the approximate timing for the exit meeting
- Review relevant site safety and emergency procedures for the inspection team (review hazard notification form if necessary)
- Explain the role of inspectors

In some cases, an introduction to ARPANSA and its regulatory functions may be warranted.

Use Record of Meeting (REG-INS-FORM-280D) to record attendees.

Information gathering

As outlined in the general powers of inspectors (section 67 of the Act), inspectors can gather information by searching, inspecting, examining, questioning, taking measurements of, conducting tests, taking photographs, video recordings, audio recordings or making sketches, and taking extracts and copies.

Problem Development Statements (PDS) should be prepared during the course of the inspection and used as discussion points. These will ultimately form the basis of the inspection findings in addition to any identified non-compliance. Good practices should also be noted. The Inspection Team should review the facts relating to the scope of the inspection to ensure information is adequately documented. Draw preliminary conclusions and recommendations. All statements should be clear and substantiated. Agreement amongst team members is important.

Note 1: If, during the inspection or analysis of an inspection, an issue is identified which has an immediate and significant impact on radiation or nuclear safety, it must be dealt with urgently and in advance of the formal inspection reporting process. The Chief Inspector must be notified immediately.

Note 2: If, during the inspection or analysis of an inspection, a security issue is identified, it should be referred to the Security & Community Safety Section.

Note 3: If, during the inspection or analysis of an inspection, a safety culture or human factors issue is identified, it should be referred to the Safety Analysis Section.

There are two kinds of inspection findings: potential non-compliance and performance deficiencies. Neither involves the inspector's prescription for solving the problem, the responsibility for which belongs with the licence holder.

For multi-day inspections, it may be useful for inspectors to conduct a review at the end of each day and a planning meeting each morning.

Exit Meeting

Hold an exit meeting with licence holder representatives to outline observations and preliminary findings. The purpose of the exit meeting is to reach agreement on the facts.

Inform licence holder representatives that the inspection report will be made available for their review. Explain that the inspection team may identify performance deficiencies and it is expected that the licence holder will address such deficiencies in a timely fashion.

Potential non-compliance, such as the suspected failure to comply with the requirements of a licence condition, is more significant. Although the inspection team may describe a finding as a potential non-compliance, only the CEO of ARPANSA can decide whether or not it is a breach. Explain that should any potential non-compliance be identified, the licence holder will have an opportunity to make a written response. Remind the licence holder of their obligation under Regulation 45 to investigate and rectify any potential breach as soon as reasonably practicable.

Remind licence holder representatives that the inspection report will be published on the ARPANSA website, so they must respond within the specified comment period to express any concerns about content, noting that changes will only be considered on the basis of omission, error of fact, security or commercial sensitivity.

Complete Record of Meeting (REG-INS-FORM-280D) to record attendees.

Note: The exit meeting does not have to be done immediately after the inspection, especially if there are documents to review or complex issues to resolve. It may be held several days later or by phone if necessary.

2.3 Reporting Inspection Outcomes

Inspection Report

Use Inspection Report Template (REG-INS-FORM-280M) to complete the report.

Where there is no non-compliance, the report should be completed within 10 working days.

Note: This period includes agreeing the accuracy of the inspection report with the licence holder.

Where a potential non-compliance has been identified the report should be completed as soon as reasonably practicable after the inspection. This should be within 10 working days where possible, or as otherwise agreed with the Section Manager or Chief Inspector, after factoring in the requirement for legal review. Consider any information sharing that may be relevant under a MOU with another agency such as Comcare or ASNO.

The report should focus on the inspection scope. Any additional matters identified during the inspection should be noted and addressed separately. Ensure any potential non-compliance² or performance deficiencies are substantiated.

The body of the report should not contain the names of any licence holder representatives; they should be referred to by position title e.g. CEO, RSO, Nominee, WHS Manager. A legend of names and positions may be included in an addendum that will be removed prior to publication.

The report should not identify any locations or equipment which are security or commercially sensitive. In most cases this will be obvious, such as source or fuel stores, equipment used for covert operations, security surveillance or where the licence holder has given good reason why this information should not be made public.

The accuracy of the report should be agreed with the licence holder prior to it being finalised; any sensitive issues regarding publication of the report should also be discussed.

Memo & Transmittal Letter

Prepare a transmittal letter to the licence holder to accompany the inspection report. This letter need not repeat information in the report.

Where there is **no non-compliance**, prepare Transmittal letter template (REG-INS-FORM-280J) for signature of the Chief Inspector (or delegate). Legal review is not required.

Where a **potential non-compliance** has been identified, prepare a memo to the Chief Inspector, via the Section Manager and General Counsel, using Memo re inspection report (REG-INS-FORM-280K) summarising the inspection findings and making recommendations as required (*Refer to Compliance & Enforcement Manual*) and prepare Transmittal letter template (REG-INS-FORM-280F).

Review and Approval

The report is signed by the lead inspector and the Chief Inspector (or delegate). The Section Manager should review the report before it is sent to the Chief Inspector.

Where there has been independent oversight of the inspection, this should be indicated and (where possible) the report signed by the state or territory officer involved.

Where there is a potential breach the memo and letter must be reviewed and recommended by General Counsel before the report is sent to the Chief Inspector.

Issue Report

The LAO scans the original documents, saves them in TRIM, updates LAD, then sends the report to the licence holder and emails a copy to the licence holder contact person.

Record Keeping

All documents associated with preparation, performance, reporting and follow-up of the inspection must be saved in TRIM. The original copy of notes taken at the time of inspection should be scanned and saved. Any photos and/or electronic recordings should also be saved. Any material obtained in-confidence should be marked accordingly and the file upgraded as necessary.

² Use only the term 'non-compliance'. Whether a non-compliance constitutes a breach will be determined after further consideration and after the licence holder has been given the opportunity to respond.

Note: The inspection report must be saved in TRIM using the 'Inspection Report' record type.

Required information must be entered into the LAD, including date of inspection, inspection report record number, and any inspection findings to be used for future evaluation of the inspection program.

Once the final letter has gone to the licence holder the inspection file (where one has been opened) may be closed and completion of any actions followed up through review of quarterly reports and noted in the licence file.

2.4 Review & Follow-up

Publish Report

After the inspection report is sent to the licence holder it is in most cases³ published on the ARPANSA website.

If the licence holder requests sensitive content be withheld from publication, the content may be removed in consultation with the Chief Inspector/Section Manager and if required, General Counsel.

Licence holder response to the inspection report, follow-up correspondence or a file note may also be published noting that satisfactory action has been taken or to show that the findings of the report have been challenged. This will be at the discretion of the Chief Inspector in consultation with the Section Manager. This information may be included as a footnote to the published inspection report.

The webmaster removes the addendum (containing personal details) from the report, adjusts the properties so the author appears as 'ARPANSA' and arranges for this public version to be posted on the web.

Revise Risk Ranking

The licence holder's risk ranking should be reviewed and revised as necessary and LAD updated accordingly.

Post-Inspection Survey

Feedback is welcomed. When the LAO emails the inspection report to the licence holder, a copy is also sent to the Office of the CEO (OCEO) for a *Post-Inspection Survey* (using Survey Monkey) to be organised.

NOTE: Email addresses should be included in the addendum for those to receive the survey.

Feedback & Lessons Learned

Feedback from the online survey is analysed on a regular basis by the OCEO and outcomes reported to the Chief Inspector.

Outcomes from inspections and licence holder feedback are discussed at section meetings and evaluated during the annual review (see Chapter 3) to share lessons learned and contribute to continuous improvement.

³ Content may be redacted or the entire report withheld for security reasons.

Augmented Inspection

The ongoing assessment of licence holder performance may suggest the need for additional inspections beyond the baseline. In such cases, targeted inspections of a defined scope will be planned, scheduled, and communicated to the licence holder.

Site Visits

Site visits supplement the inspection program but they are NOT inspections. They are regular, frequent and informal visits to the premises of a licence holder for the purpose of familiarisation with a facility or source, associated processes or procedures, and personnel. The increased use of site visits obviates the need for unannounced inspections.

Information gathered during a site visit is recorded using the Site Visit Report Template (REG-LA-FORM-242B). This is an internal document that is not provided to the licence holder and is not published.

Information about site visits must be recorded in LAD.

3. Review of Inspection Program

The inspection program is reviewed annually to ensure it continues to be efficient and effective, consistent with the Australian Government's Regulator Performance Framework which lists as one of the measures of good regulatory performance under KPI 3: *"Regulators' preferred approach to regulatory risk is regularly reassessed..."*

At the end of each financial year, the Manager, Licensing and Compliance undertakes a review of inspections conducted in the previous 12 months and prepares a summary report which analyses data and outcomes from the inspection program. This report is used to review and, if necessary, amend the baseline inspection program for the following 12 months.

The following parameters are examined, as a minimum, in the annual review:

- Non-compliances
- Performance deficiencies
- Good practices
- Changes in risk ranking
- Feedback from post-inspection surveys

Feedback from licence holders in the post-inspection surveys should be noted and actioned as necessary. Any trends should be noted, such as particular patterns of non-compliance or performance deficiencies.

A report on the outcomes of the review is to be prepared and published.

4. Guidance for Lead Inspectors

At Least Two Weeks before the inspection

- Obtain signature of Chief Inspector (or delegate) on notification letter, giving in-principle agreement to the inspection, inspection scope and team composition. The majority of inspections will be conducted in accordance with the baseline inspection schedule.
- Review the licence files, and the most recent inspection results and discuss with other Regulatory Officers as necessary
- Arrange inspection dates with licence holder by email and/or phone
- Plan the inspection agenda and timelines
- Send formal notification letter signed by Chief Inspector (or delegate)
 - Include a copy of the Workplace Hazards Checklist (as required) - allow time for completion and return in advance of the inspection
 - When checklist is returned, assess safety equipment needed and obtain as appropriate
 - Where a specific hazard has been identified, call the licence holder representative to discuss as necessary
- Enter details of inspection in LAD and the ISAAC register
- Have movement requisition approved by an authorised person, as required
- Discuss with team members how the inspection will be conducted. Identify any potential difficulties and discuss how these will be managed
- Assign tasks to team members
- Where an inspection involves nuclear material, inspectors should be aware of their obligations under section 82 of the [Nuclear Non-Proliferation \(Safeguards\) Act 1987](#) and consider whether an ANSO Inspector should be invited to attend.

Days before the inspection, assemble the following:

- ARPANSA inspector identity card
- Personal dosimetry (eg. TLD) and radiation monitoring equipment as required
- PO&Cs for the area in scope
- Safety equipment if required (eg. safety boots, goggles)
- Digital camera or video (ensure the battery is charged)
- Relevant Standards and Codes of Practice
- Relevant documents from licence file, inspection file and/or last inspection file (as required)
- Relevant checklists as required

- Copy of latest licence and source inventory
- Copy of the ARPANS Act and Regulations
- Inspectors record book
- Directions and maps to site and licence holder contact details

Entrance meeting

- Introduce team and show ARPANSA inspector cards
- Clarify any questions
- Ensure the licence holder has a copy of the PO&Cs

Scope of inspection

- The scope of an inspection will involve one or more pre-selected areas.
- A significant part of the inspection will involve discussions with relevant staff and/or contractors, and a review of relevant documentation including standard operating procedures (SOPs), training records and dosimetry records.
- The cross-cutting areas of human performance, safety culture and performance improvement are included in the scope.
- There will also usually be a physical inspection of the plant and equipment which may involve inspectors taking photographs.
- Inspectors may also make independent radiation measurements.
- Time constraints or issues uncovered during inspection may necessitate prioritisation of matters covered on the day.

Exit Meeting

- Allow opportunity for the licence holder representatives to respond where there is disagreement with the inspection findings.
- Agree on any actions regarding provision of documents or other information.
- Ask for any feedback on the conduct of the inspection.
- In the case of any potential non-compliance, remind the licence holder about their obligations under Regulation 45.
- Thank attendees and close the exit meeting.

5. Requirements & Competencies for Inspectors

Requirements

To exercise powers and perform functions as an ARPANSA inspector, a person must:

- be appointed by the CEO under subsection 62(1) of the Act
- hold an identity card meeting the requirements of regulation 64 and schedule 4 of the Regulations

To be appointed as an ARPANSA inspector, a person should:

- have appropriate qualifications in science or engineering and/or experience in radiation protection and nuclear safety and security or related high hazard industry
- have completed or be actively seeking to complete the required components of the inspectors' training and skills development program
- possess or be actively acquiring a recognised certification in audit, investigation and/or enforcement eg. Certificate IV in Government (Statutory Compliance) or equivalent from a Registered Training Organisation
- possess an appropriate security clearance (at least Baseline level)

Competencies

Skills

Inspectors should possess or be actively acquiring the following skills, and periodically undertake refresher training in the use of these skills:

- Methods of audit and investigation, including use of file notes
- Report writing
- Radiation monitoring and measurement
- Principles of evidence gathering

Knowledge

Inspectors should possess or be actively acquiring the following:

- *Knowledge of the regulatory system:* High level knowledge of the level of responsibility of ARPANSA inspectors and the extent of their authority as set out in the Act.
- *Knowledge of safety and security:* High level knowledge of the applicable radiation protection and nuclear safety requirements, standards and codes of practice.
- *Knowledge of the licence:* High level knowledge of the nuclear installation, prescribed radiation facility, controlled apparatus or controlled material and specific knowledge of the licence holder's conduct or dealing. This includes expert knowledge of the content of the Act and Regulations, the licence and licence conditions.

- *Knowledge of the licence holders' systems:* Good knowledge of the licence holder's policies, procedures and practices for ensuring effective control, safety management, radiation protection, radioactive waste management, security and emergency response.
- *Knowledge of appropriate methods of information/evidence collection, labelling and storage.*
- *Knowledge of inspection criteria.*

Personal Conduct of Inspectors

Inspectors are required to perform all inspections in a conscientious and professional manner with an awareness of the licence holder's arrangements regarding:

- site, building or room entry
- security
- fire and emergency situations
- workplace health and safety, including manual handling
- hazardous substances, dangerous goods or biohazards
- ASNO safeguards, noting section 82 of the [Nuclear Non-Proliferation \(Safeguards\) Act 1987](#)

Training & Skills Development

The inspector training and skills development program is a set of training courses and workshops approved by the Chief Inspector, to provide an inspector or prospective inspector with the skills and competencies necessary to effectively exercise inspection powers and perform inspection functions under the Act.

Course	Approximate Duration	Provider
Certificate IV in Government (Statutory compliance) or equivalent	3 days (face to face) + post-course assignments	External
Legal Awareness	½ day	In-house
Report writing	½ day	In-house
Radiation monitoring instrumentation	½ day	In-house
WHS for Inspectors and familiarisation with the PACE technique (P reparation, A ccountability, C ommunication, E vacuation route)	1 day	External and In-house
Methods of collecting information and evidence	1-2 days	External
Security Awareness	½ day	In-house
Holistic Safety Awareness	½ day	In-house

TABLE 2 Inspector training requirements

Attendance at the nominated courses is mandatory unless an inspector can demonstrate alternative completion or equivalent experience. Previous training and experience of an individual will be taken into account to determine training requirements.

Refresher training

Inspectors should actively maintain the currency of their knowledge and skills pertinent to inspections and site visits and participate in a sufficient number of inspections per year to maintain proficiency.

Inspectors will be required to undertake relevant refresher training as determined by the Chief Inspector. This will generally be provided annually, in February.

6. Inspector Health & Safety

Each inspector must take steps to protect his/her own health and safety. The ARPANSA Radiation Safety Policy (OHS-RSM-POLICY), Radiation Safety Manual (ARPANSA-MAN-300) and Ionising Radiation Safety Procedures (found in the OHS section of ISAAC), provide radiation safety advice for general radiation protection situations.

Inspectors should be fully aware of the radiation protection and nuclear safety issues likely to be encountered during a particular inspection. In preparation for an inspection, the Workplace Hazard Identification Checklist should be reviewed to identify potential hazards that may be encountered onsite. If required, inspectors should obtain further advice from the licence holder's Radiation Safety Officer (RSO) or representative.

The regulatory and safety requirements will depend on the particular source or facility being inspected, but may include:

- wearing of personal dosimeters such as TLDs and EPDs (electronic personal dosimeters)
- wearing of safety equipment such as safety boots, safety goggles, PPE
- use of radiation monitoring equipment such as gamma, gamma-beta, neutron monitors
- use of suitable audible and visible warning signs
- need to ensure adequate security systems and protective barriers
- need for laboratory entry authorisation
- need for appropriate shielding
- design requirements of the exposure area
- general treatment of visitors and contractors as members of the public exposure group
- application of relevant national and international standards and codes of practice
- collection and review of operational documentation
- limitation of dose rates in occupied areas
- application of dose constraints to comply with the ALARA principle and relevant standards

NOTE: Workplace Identification Checklists should be saved 'alternatively within' TRIM container M2014/00435 for WHS purposes

The following safety measures should be implemented:

- Inspectors must ensure that a personal dosimeter (TLD) is worn at all times, positioned externally on the clothing somewhere appropriate between the waist and chest.
- The use of radiation monitoring equipment by inspectors should be determined by the lead inspector, including the need for EPDs. Radiation monitoring equipment is recommended if entering a high dose rate area or potentially contaminated area. Inspectors should refer to the Instrument Register for a list of available radiation monitoring equipment and/or consult the Instrumentation Officer or their supervisor for advice on appropriate equipment choice.
- If a radiation monitor is used during an inspection then the inspector must ensure that it is within calibration and that the calibration date and equipment details are recorded in the inspection note book.

- Inspectors should ensure they either carry an ARPANSA EPD if ambient external dose rates are expected to be significantly above background or confirm with the licence holder representative if one will be issued for use during the inspection. The EPD should be checked at frequent intervals during the inspection to monitor the dose recorded.
- Before entering any area, the inspector should establish normal ambient radiation levels and set appropriate alarm levels on the EPD.
- All radiation doses recorded by an inspector on an EPD should be noted in the inspection note book.
- If an EPD should alarm, the inspector should move to an area of lower radiation dose rate and assess the situation.
- If the inspector has to enter a clean area, then they should follow the local procedures described by the licence holder representative. Clean area procedures may include the inspector wearing a laboratory coat or apron, gloves, hair cap, shoe covers and using a hand and foot monitor.
- If there is a radiological incident, the inspector should follow the advice from the licence holder's RSO and comply with local procedures.

7. Glossary

Augmented Inspection means an inspection beyond the baseline.

Good practice means a program, practice, activity or arrangement that the inspector regards as superior to that generally observed elsewhere. A good practice goes beyond the fulfilment of current requirements or expectations; and is worthy of the attention of other licence holders as a model in the pursuit of excellence.

Inspection means the act of assessing licence holder performance to determine whether controlled material, controlled apparatus or a controlled facility is being used safely and in compliance with the Act, the Regulations and licence conditions. Inspections involve a visit to the licence holder's premises, review of documentation, observations of authorised activities, interaction with licence holder personnel, independent radiation measurements, and reporting of inspection findings.

Inspections are generally proactive, that is, scheduled and planned but may be reactive in response to regulatory events such as relevant changes, incidents, accidents or non-compliances.

Inspection Schedule means ARPANSA's program of inspections of licence holders and other controlled persons including Commonwealth contractors. The schedule is informed by the licence holder's compliance record and radiation and nuclear safety performance commensurate with the hazards and risks associated with the particular conducts and/or dealings authorised under the particular source or facility licence which is reflected in their risk ranking. The baseline inspection schedule defines the minimum number of inspections to evaluate licence holder performance over the baseline period.

Inspection Team means a group of inspectors involved in a particular inspection. In some cases, technical/scientific experts from ARPANSA or other agencies may be requested to provide advice or scientific services, or to participate as a member of the inspection team. Distinctions between inspectors and technical/scientific advisers who are not appointed as inspectors will be carefully maintained to ensure appropriate exercise of inspection powers.

Lead Inspector means the leader of an inspection team. In most cases, this will be the officer responsible for the assessment of a controlled person's licence application(s) or monitoring of the licence holder's compliance.

Opportunity for Improvement means a suggestion offered to a licence holder for consideration that may enhance safety or security, not directly related to non-compliance or a performance deficiency.

Performance Deficiency means a failure by a licence holder to meet a requirement or self-imposed standard when the cause was reasonably within the licence holder's ability to foresee and correct and therefore should have been prevented. It is distinct from a non-compliance with the Act, the Regulations or a licence condition. A performance deficiency may exist where, despite reasonably practicable steps taken by the licence holder, an isolated instance of non-conformance with low safety significance has occurred.

Potential Non-compliance means the situation that exists when facts indicate that requirements in the Act, the Regulations, or one or more licence conditions may not have been met.

Site Visit means a visit by a regulatory officer to the premises of an applicant or licence holder for the purpose of gathering information about a facility or source, associated processes or procedures, and/or personnel. The information gathered is often to inform a decision-making process; usually in relation to a licence application assessment, but could be associated with a regulation 51 request for approval to make a relevant change, a regulation 53 approval to dispose of a source or facility, or some other approval required under a licence condition. It may also be initiated by an applicant or licence holder seeking advice on a licensing or compliance matter. A site visit is NOT an inspection.

Technical/Scientific Advisor means a technical/scientific expert from ARPANSA or another agency requested to provide advice or scientific services or to participate in an inspection.