Australian Government
Australian Radiation Protection and Nuclear Safety Agency

INSPECTION REPORT

Licence Holder: Bureau of Meteorology	**Licence Number: S0005**
Location inspected: Darwin	**Date of inspection: 10 July 2012**
	Report No: R12/06732

This is the record of an inspection conducted under Part 7 of the *Australian Radiation Protection and Nuclear Safety Act 1998* (the Act). The purpose of the inspection was to assess compliance with the Act, the Australian Radiation Protection and Nuclear Safety Regulations 1999 (the Regulations) and licence conditions attached to Source Licence S0005 issued to Bureau of Meteorology (BOM). In particular, to assess compliance of the Lidar (light detection and ranging) facility run by BOM in Darwin. The laser in the Lidar is the only controlled source held by BOM in Darwin.

The inspection consisted of discussions with BOM representatives, review of training records and other radiation safety related documentation and a physical inspection of the Lidar facility. The following observations, conclusions and recommendations are based on an analysis of information and evidence obtained during the inspection.

Observations:

- The source inventory was found to be up-to-date and accurate.
- Laser safety training was discussed. The RSO delegate has attended a four day laser safety course and the three Lidar operators have completed an online laser safety course given by the US counterpart. Training records were seen. A laser safety course tailored specifically to the Lidar environment will be held in-house by the RSO Delegate within the next few months.
- A copy of the laser safety procedure 'Operation and maintenance procedure for the Darwin Raman Lidar' was viewed and will be provided electronically.
- The Lidar is located in a locked container located on a secure site. The three operators have key access.
- The entrance doors to the container are interlocked with the power supply of the laser.
- Two operators always work together during alignment of the Lidar.
- Appropriate laser safety eyeware was available for normal use and for alignment.
- The door to the container has appropriate signage. It was noted that one of the warning signs displayed a trefoil indicating that radioactive material is kept in the container. This is not appropriate and it is recommended that the sign be removed as no radioactive material is kept in the container.

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Conclusion: At the time of inspection, there was no evidence of non-compliance.

Recommendations: The following improvement to enhance best practice were discussed with licence holder representatives during the inspection:
It is recommended that the signage containing a trefoil be removed from the container entrance as no radioactive material is kept on site.

Good Practices: The following good radiation safety practice was identified during the inspection:
Significant efforts had been made to enclose the laser beams in the Lidar facility completely during operation. This greatly reduces the risk for exposure.