



Australian Government

Radiation Health and Safety Advisory Council

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Dear Dr Larsson

Nuclear and radiological emergency preparedness – informing the Australian public

The Radiation Health and Safety Advisory Council (**Council**) has considered the role the Australian Radiation Protection and Nuclear Safety Agency (**ARPANSA**) should play in providing information in advance to the Australian community on nuclear and radiological emergencies.

IAEA Recommendations

Council notes the progress made in this area internationally with the International Atomic Energy Agency's (**IAEA**) draft Safety Guide publication *DS475 - Arrangements for Public Communication in Preparedness and Response for a Nuclear or Radiological Emergency*¹ (**IAEA Guide**). The aim of the best practice international IAEA Guide is "to ensure that due attention is paid to public communication in the preparedness for and response to a nuclear or radiological emergency and to support the decisions made on protective actions. It intends to give guidance on how to communicate technical aspects to the public in order to mitigate loss of life and other physical and mental health consequences. The implementation of protective actions and public trust is contingent on effective public communication"².

The IAEA Guide provides that the key objectives of public communication in respect of nuclear or radiological emergencies should be to:

- (a) *Protect the public;*
- (b) *Inform the public, both at the preparedness stage and during the response, about the nature of hazards, protective actions and other response actions to increase compliance with these actions;*
- (c) *Build and maintain public trust in the emergency response by being transparent, timely and clear;*
- (d) *Address public concerns regarding potential health effects;*

¹ IAEA's draft *DS475 - Arrangements for Public Communication in Preparedness and Response for a Nuclear or Radiological Emergency* at <https://www-ns.iaea.org/downloads/standards/drafts/ds475.pdf>

² Op cit., <https://www-ns.iaea.org/downloads/standards/drafts/ds475.pdf> at 1.19.



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- (e) Prevent panic and help ensure that actions taken do more good than harm;
- (f) Minimize rumours and respond to misinformation;
- (g) Enable interested parties to make informed decisions.³

Council believes these actions are equally applicable to prepare Australian citizens (both within and outside Australia) for unforeseen emergencies.

Council agrees with the IAEA Guide that “transparency in communication should be based on openness and accountability and should be part of a process of long term communication activities contributing to building public trust. Having public trust will strengthen the likelihood that the public will comply with protective actions in case of a nuclear or radiological emergency”⁴.

ARPANSA’s emergency preparedness & response to a nuclear or radiological event in Australia

Radiological emergency planning for Australia deals with a range of low-probability events, such as an accidental release from the research reactor at Lucas Heights in New South Wales, an accidental radioactive release from a visiting nuclear-powered warship⁵, widespread contamination arising from the re-entry of radioactive space debris, accidental release from a transport of radioactive material accident, or an emergency arising from an uncontrolled radioactive source or from the malevolent use of radioactive material. The radiation protection framework for the protection of the public and the environment from a radiological or nuclear emergency in Australia is provided in ARPANSA Radiation Series 7 (**RPS7**), *Recommendations for Intervention in Emergency Situations Involving Radiation Exposure*. RPS7 is based on current international guidance and recommendations.

The *Domestic Health Response Plan for Chemical, Biological, Radiological or Nuclear Incidents of National Consequence (Health CBRNINC 2014)* provides an agreed framework and mechanism for the effective national coordination, response and recovery arrangements.⁶ Regarding public information, the Health CBRNINC Plan states:

The Australian Government and the governments of the states and territories will coordinate the release of public information on the CBRNINC. Public information will aim to reduce the potential for mixed messages and to ensure a common, national message to the general public. The common message will aim to ensure the public receives consistent information about the responsibilities of all agencies involved and the nature of the response. Public information about Health measures will be coordinated through the CMO (Chief Medical Officer) via the NIR (National Incident Room).

As Council is aware, ARPANSA has clear roles and responsibilities in the preparedness and in response to an actual or threatened nuclear or radiological emergency, including provision of support, advice and assistance to Governments and key stakeholders, both within Australia and internationally⁷. We understand that ARPANSA is well-prepared in the event of a radiological or nuclear emergency with specialised operational capabilities, crisis

³ Op cit., <https://www-ns.iaea.org/downloads/standards/drafts/ds475.pdf> at 2.1.

⁴ Op cit., <https://www-ns.iaea.org/downloads/standards/drafts/ds475.pdf> at 2.3.

⁵ See ARPANSA website: *Nuclear powered warships visit planning* at: <https://www.arpansa.gov.au/research/radiation-emergency-preparedness-and-response/visits-by-nuclear-powered-warships>

⁶ *Domestic Health Response Plan for Chemical, Biological, Radiological or Nuclear Incidents of National Consequence* at <http://www.health.gov.au/internet/main/publishing.nsf/Content/ohp-health-cbrninc-plan.htm>

⁷ See ARPANSA website: *Early notification and assistance conventions* at: <https://www.arpansa.gov.au/research/radiation-emergency-preparedness-and-response/early-notification-and-assistance-conventions>



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coordination arrangements, a national framework and plans in place; and resources ready to assist and advise Ministers, State, Federal, international Governments and the public on radiation protection. Council encourages ARPANSA to continue to strengthen Australian and international networks⁸ and raise awareness of ARPANSA's strong emergency preparedness and response capabilities.

Informing the Australia public

We understand that ARPANSA has a strategy and plans⁹ in place, including with other Agencies, to enable clear communication in the event of an actual nuclear or radiological emergency. Council notes, however, that there is currently a gap in informing in advance on the preparedness of the Australian community in relation to 'what to do' in the low-probability occurrence of a nuclear or radiological event. This is in respect of nuclear or radiological emergencies that may occur in Australia, or impact or affect Australians travelling or working overseas. During such emergencies, Australians are likely to seek advice from trusted Australian authorities.

Crises are by nature uncertain and often chaotic situations that may have no warning. Studies suggest that in the event of a radiological or nuclear emergency a lack of preparedness of the public would lead to a high degree of confusion and uncertainty in their responses.¹⁰ Council therefore believes that the Australian public should have accessible information on radiation safety in relation to nuclear or radiological emergencies from a trusted Australian government source such as ARPANSA, or other appropriate government agencies. Many other countries and organisations disseminate such information in advance to build trust with their citizens in an open, transparent dialogue¹¹.

Use of social media now challenges timeliness in provision of quality, accessible information and guidance. In circumstances where emergencies occur with little or no warning, effective timeliness requires that information is prepared ahead of time and disseminated in advance.

Council considers there is a role for ARPANSA to play in providing preparedness information to the public - it is for the CEO of ARPANSA to "provide advice on radiation protection, nuclear safety and related issues"¹² and ARPANSA embraces this engagement with the community through its Vision, Purpose and Strategic Objectives in its current *Corporate Plan 2017-2021*¹³.

⁸ See ARPANSA website: *WHO Radiation Emergency Medical Preparedness and Assistance Network* at: <https://www.arpansa.gov.au/research/radiation-emergency-preparedness-and-response/radiation-emergency-medical-preparedness-and-assistance>; and ARPANSA website: *Australasian Radioanalytical Laboratory Network* at <https://www.arpansa.gov.au/research-and-expertise/radiation-emergency-preparedness-and-response/arln>

⁹ ARPANSA at <https://www.arpansa.gov.au/research/radiation-emergency-preparedness-and-response>; and *Domestic Health Response Plan for Chemical, Biological, Radiological or Nuclear Incidents of National Consequence* at <http://www.health.gov.au/internet/main/publishing.nsf/Content/ohp-health-cbrninc-plan.htm>

¹⁰ Becker, S.M., (2004) Emergency communication and information issues in terrorist events involving radioactive materials. *Biosecurity and Bioterrorism: Biodefense strategy, Practice, and Science*. 2(3), 195-207;

Lasker, R.D. (2004) *Redefining Readiness: Terrorism Planning Through the Eyes of the Public*. New York, NY: The New York Academy of Medicine;

Taylor et al, *The public and a radiological or nuclear emergency event: threat, perception, preparedness and anticipated response*.

Findings from a preliminary study on Sydney, Australia Volume 26, Issue 1, 2011 at: <https://ajem.infoservices.com.au/items/AJEM-26-01-07>

¹¹ For example see the *Centre for Disease Control and Prevention's (CDC) Radiation Emergencies* factual information to the public at <https://emergency.cdc.gov/radiation/>

¹² Section 15 of Australian Radiation Protection and Nuclear Safety Act (ARPANS Act).

¹³ ARPANSA Corporate Plan 2017-2021 at <https://www.arpansa.gov.au/about-us/corporate-publications/corporate-plan/corporate-plan-2017-21>