Resilient Implementation of Safeguards - Australian Experience

S. Bayer, K.A. Robertson, L. Evans
Australian Safeguards and Non-Proliferation Office

Abstract

Like many countries, Australia faced multiple challenges in upholding its safeguards obligations under the impacts of the COVID pandemic. The Australian Safeguards and Non-Proliferation Office (ASNO) as the regulatory authority responsible for Australia's State System for Accountancy and Control implemented special arrangements to achieve the collection of inventory data from licensees and worked with government agencies to ensure IAEA inspections could take place in a COVID-safe environment. The achievement of domestic regulatory and international safeguards obligations required ASNO to show organisational resilience. To obtain a measure of ASNO's organisational resilience, ASNO used a self-assessment tool to undertake a "HealthCheck" to evaluate resilience attributes and identify opportunities to improve resilience capability. These indicators are grouped under three overarching resilience attributes, namely: leadership and culture, networks and partnerships, and change readiness. This paper will outline the findings of the HealthCheck and outline key conclusions regarding organisational resilience in the face of major disruptions in the context of conducting essential safeguards activities.

Introduction

The COVID–19 pandemic has universally disrupted lives, businesses and the work of international organisations. The implementation of IAEA safeguards is no exception. In March 2020, IAEA Director General Rafael Grossi famously vowed that safeguarding nuclear material ‘will not stop for a single minute’ during the pandemic. To respond to this challenge, member states variously implemented business continuity plans and made novel adjustments to their procedures. The response to the pandemic provided a “stress test” of organisational resilience to major disruptive events.

The Australian Safeguards and Non-Proliferation Office

The Australian Safeguards and Non-Proliferation Office (ASNO) is Australia’s national authority for the implementation of IAEA safeguards, nuclear security, the Comprehensive Nuclear-Test-Ban Treaty and the Chemical Weapons Convention. ASNO is a small office of less than 20 staff but with significant experience.

ASNO’s IAEA Safeguards Section (three staff) is responsible for Australia’s compliance with Australia’s Comprehensive Safeguards Agreement and Additional Protocol, managing the Australia Safeguards Support Program, and Australia’s support for regional safeguards outreach programs including the Asia-Pacific Safeguards Network. The section also contributes to ASNO’s administration of its system of licenses for Australian entities that hold nuclear material and associated items.

ASNO staff are Australian public servants employed within the Department of Foreign Affairs and Trade. In the early days of the pandemic, staff within the Australian Public Service were temporarily re-deployed to address urgent Australian Government priorities and needs [1]. The net impact of this re-deployment for ASNO was the temporary reduction of one staff member for a few months.

Key Safeguards Challenges and Organisational Responses

The main challenges associated with implementing safeguards during the pandemic centered on restrictions on travel (including entry into Australia) and barriers to accessing places of work (including to where nuclear material was stored) during lockdowns. Both these factors affected IAEA inspections, national inspections, and activities of licensees.

While ASNO had up to date Business Continuity Plans in place, these were quickly made redundant by the rapid progress of the pandemic. Specific plans and measures were rapidly put in place to mitigate risks to staff while ensuring critical tasks could be done. Some of these measures are elaborated below, including those specific to the implementation of IAEA safeguards.

A/B Teams: Initially, ASNO's workforce was divided into two groups, where each team would rotate working in and out of the office. This was done to ensure that the entire loss of a team (having to quarantine) would not totally jeopardise the ability to fulfil essential obligations. The Australian Nuclear Science and Technology Organisation (ANSTO) similarly created separate teams and isolated its nuclear precinct (operation of the OPAL reactor and production of radiopharmaceuticals) from the rest of the campus. ASNO's split team program was quickly replaced by a fully remote program with only 1-2 staff attending the office on any day.

Working remotely. For some time, there was need for most, if not all, of the team to work remotely from home. While this was available pre-pandemic, IT system capabilities were rapidly ramped-up to accommodate the entire Department working remotely. Here technology was a key enabler for continued work during the pandemic.

Ramp-up frequency of internal communication. Weekly face-to-face meetings were now done in shorter but more frequent virtual format, to ensure everyone remained up to date with fast moving developments so that no one was left behind.

Staff welfare. Management took extra effort to look after the mental health of staff. Small but tangible measures (such as remote morning tea events) to maintain connectivity (albeit remotely) were important to support and maintain staff morale. The Department created a specific intranet portal with helpful instructions and resources to support working from home and mental health.

Prioritize and plan ahead. The pandemic invoked rigorous prioritization of tasks and standard reporting cycles (such as Physical Inventory Takings) were initiated early to get ahead of rolling lockdowns in various jurisdictions.

Be flexible and understanding. Standard reporting cycles were modified to allow early reporting of nuclear material inventories, especially where lockdowns meant that inventories were not likely to change.

IAEA Inspections

ASNO worked with the IAEA and Australian Federal and relevant State agencies to overcome the challenges of COVID–related travel restrictions to host IAEA inspections at ANSTO on four separate occasions since Australia implemented the ban on international travel in March 2020. On each occasion, the IAEA inspectors undertook two weeks' quarantine before carrying out their inspections. Additional health and safety measures were applied during the inspections. Here the forbearance of the IAEA and the flexibility in the application of COVID-related restrictions helped the IAEA to meet its inspection goals while meeting Australian state and national health requirements. The IAEA also used these trips to conduct complementary access at other licensees in New South Wales and South Australia [2].

Locations Outside Facilities (LOFs)

All ASNO licensees holding nuclear material (about 100) are required to conduct an annual physical inventory taking (PIT). ASNO adjusted procedures for the physical inventory taking at LOFs (largely comprising radiographers, universities, laboratories, and state regulators) to allow flexibility for COVID-impacted industries who could not readily conduct inventory-taking in the standard timeframe. This was very effective in 2020, with all licensees being able to conduct a PIT and report to ASNO in a timely manner such that ASNO could report to the IAEA within the prescribed timeframe. In 2021, COVID-related lockdowns were invoked at short notice at times that coincided with the PIT time-window for Australian LOFs. While most licensees could satisfactorily complete their PITs, two did not do so. It is anticipated that these PITs will be completed on the cessation of the lockdown period.

Organisational Resilience HealthCheck

Having fulfilled its safeguards obligations in 2020, in early 2021 ASNO used a HealthCheck tool available from the Australia's Department of Home Affairs [3] to evaluate resilience attributes and identify opportunities to improve ASNO's resilience capability. The HealthCheck asks the user to score 64 attributes between 1 (LOW) and 4 (HIGH) using 13 resilience indicators, grouped under three overarching resilience attributes, to provide an overall assessment of organisational resilience. The three overarching resilience attributes are:

- Leadership and culture;
- Networks and partnerships; and
- Change readiness

HealthCheck: Results and lessons

In a self-assessment, ASNO polled 50% of its staff (of varying levels of seniority) to complete the tool. The individual results were averaged to form the spider/radar chart (Figure 1) below.

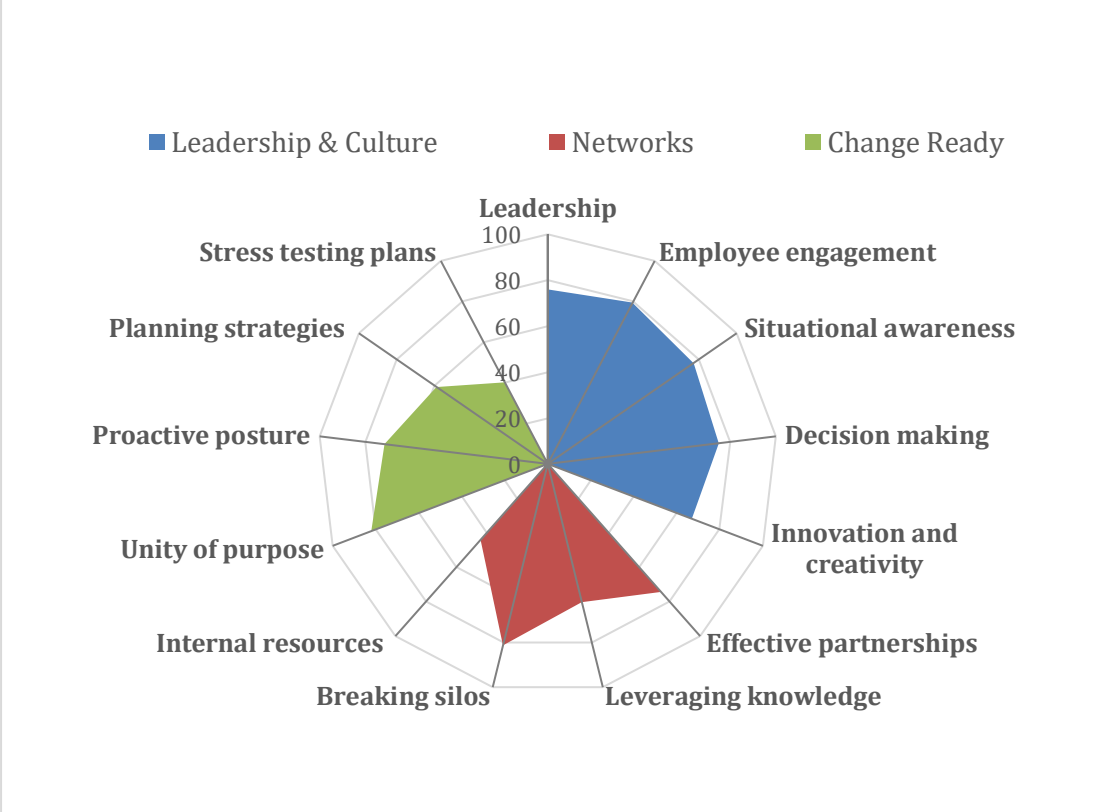

Figure 1. ASNO's HealthCheck Spider Chart

Leadership and culture
This was ASNO's highest scoring resilience attribute, derived from the clear and supportive engagement by management. The ramping up of group meetings while working remotely was effective in lifting employee engagement and situational awareness. While innovation and creativity were important to work with and around the various COVID-related restrictions, those surveyed felt that opportunities to be innovative and creative were somewhat curtailed.

Networks and Partnerships
Scoring under this attribute was mixed. ASNO worked well between internal sections, with other agencies and with its licensees but had a relatively immature and incomplete collection of written procedures that would allow untrained or inexperienced staff to readily replace experienced staff.

Change readiness
With the majority of ASNO's work linked to clear prescribed international reporting and verification obligations, ASNO was able to maintain a distinct unity of purpose and was proactive in supporting licensees to navigate their challenges to meet reporting requirements. Identified weaknesses included having little to no staff redundancy, insufficiently developed procedures and not having conducted formal stress-testing.

Conclusion

ASNO has been ultimately resilient to the disruptions caused by COVID and, for the most part, has facilitated licensees to fulfil their requirements, and in turn fulfil Australia's safeguards obligations. ASNO's resilience is supported by having closely connected, nimble and experienced staff with a focus on people, with technology (remote working) and human factors (staff welfare and engagement by management) each vital to business continuity. Areas for improvement have been identified by using an organisational resilience HealthCheck tool which identified procedures and planning as areas requiring attention.

References

[1] Australian Public Service Commissioner Annual Report 2019–20

[2] Australian Safeguards and Non-Proliferation Office, Annual Report 2019–20 and Annual Report 2020-21

[3] https://www.organisationalresilience.gov.au/