#### **Derestricted 7 June 2023**

(This document has been derestricted at the meeting of the Board on 7 June 2023)



### **Board of Governors**

GOV/INF/2023/10

Date: 31 May 2023

Original: English

#### For official use only

Item 7(f) of the provisional agenda GOV/2023/21

# Naval nuclear propulsion: Australia

Report by the Director General

### A. Introduction

1. This report of the Director General is on Agency safeguards in relation to Australia's naval nuclear propulsion programme and provides an update since the Director General's previous report of September 2022.

## B. Background

- 2. On 15 September 2021, Australia, the United Kingdom and the United States (hereafter referred to as "the parties") informed the Director General about their decision to initiate a trilateral effort of 18 months to "identify the optimal pathway to support Australia's acquisition of a conventionally-armed, nuclear-powered submarine for the Royal Australian Navy" in the context of AUKUS.<sup>2</sup>
- 3. On 16 September 2021, the Director General informed the Board of Governors that the Agency, in line with its statutory non-proliferation mandate, would engage with the three parties involved and consider any implications in the context of the application of Agency safeguards. The Director General recalled that under a Comprehensive Safeguards Agreement (CSA), a State undertook to accept Agency safeguards on all nuclear material in all peaceful nuclear activities within its territory, under its jurisdiction or carried out under its control anywhere. He also noted the provision in the CSA regarding the non-application of safeguards to nuclear material to be used by States in a non-proscribed military

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<sup>&</sup>lt;sup>1</sup> GOV/INF/2022/20.

<sup>&</sup>lt;sup>2</sup> INFCIRC/963, Note Verbale.

activity. The Director General reiterated that the Agency would work with the interested parties on that complex, technical matter guided by its non-proliferation mission which would be observed, in accordance with both the Agency's statutory mandate and the CSA.<sup>3</sup>

- 4. Article 14 of Australia's CSA,<sup>4</sup> concluded with the Agency in connection with the Treaty on the Non-Proliferation of Nuclear Weapons (NPT), provides that if Australia intends to exercise its discretion to use nuclear material<sup>5</sup> which is required to be safeguarded under the CSA in a nuclear activity which does not require the application of safeguards under the CSA, the procedures provided in paragraphs (a) (c) of Article 14 shall apply. Australia informed the Agency, inter alia, that, with respect to its naval nuclear propulsion programme, it considers all relevant provisions of its CSA, including Article 14, and of its Additional Protocol<sup>6</sup> (AP) to apply, as well as additional verification measures, which may include enhanced transparency and access.
- 5. In November 2021, the Agency reminded Australia, the United Kingdom and the United States of their reporting obligations under their respective safeguards agreements and APs that could be of relevance to safeguards implementation in the context of Australia's naval nuclear propulsion programme.
- 6. Specifically, the Agency reminded Australia that, in accordance with modified Code 3.1 of the Subsidiary Arrangements (General Part) to the CSA, it was required to provide early design information for any new facility as soon as it had decided to construct or authorize construction of such a facility, including in connection with its plans to acquire nuclear-powered submarines. Australia was also required, under its AP, to provide to the Agency information on its general plans for the succeeding tenyear period relevant to the development of the nuclear fuel cycle (NFC), including NFC-related research and development activities, once these had been approved. In November 2021, the Agency also sent separate letters to the United Kingdom and the United States reminding them of their reporting obligations under their respective Voluntary Offer safeguards Agreements (VOAs) and APs that could be of relevance to safeguards implementation in the context of Australia's naval nuclear propulsion programme.
- 7. In January 2022, Australia informed the Agency that it had yet to take a decision "to either construct or authorise construction of any nuclear facility in connection with the acquisition of nuclear-powered submarines". Australia reiterated that it remained "fully committed to meeting its obligations and commitments", including those related to reporting, under the NPT, CSA and associated Subsidiary Arrangements, and the AP. In May 2022, in its updated declarations under the AP Australia further informed the Agency that, as of March 2022 no activities to be reported under the AP had either been conducted or were planned; no decision had been taken to construct or otherwise acquire any facility in connection with its naval nuclear propulsion programme; and that it did not intend to undertake enrichment of nuclear material or reprocessing of nuclear fuel in support of its naval nuclear propulsion programme.
- 8. In January 2022, the United States informed the Agency that it was "mindful" of its commitment to maintain and strengthen the nuclear non-proliferation regime and of its obligations under the NPT, VOA, and AP, and that it would "ensure appropriate transparency". In February 2022, the United Kingdom informed the Agency that it had noted the reporting requirements set out in the VOA and AP,

<sup>5</sup> "Nuclear material" means any source or any special fissionable material as defined in Article XX of the Statute (...). See Article 99.O. of INFCIRC/217.

<sup>&</sup>lt;sup>3</sup> GOV/OR.1602, paras 42—44.

<sup>&</sup>lt;sup>4</sup> INFCIRC/217.

<sup>&</sup>lt;sup>6</sup> INFCIRC/217/Add.1.

stated that it "fully intends to fulfil these requirements and report to the IAEA as necessary" and that it was "fully committed to maintaining the strength of the global nuclear non-proliferation regime".

9. From September 2021 to March 2023, eleven technical meetings were held between the Agency and the parties to discuss the possible implications of Australia's naval nuclear propulsion programme on the implementation of Agency safeguards. Since September 2021, the developments on this matter have been reported by the Director General to the Board of Governors through his introductory statements to its regular meetings and in GOV/INF/2022/20.

### C. Developments

- 10. On 13 March 2023, Australia, the United Kingdom and the United States announced that, in order to deliver conventionally armed, nuclear-powered submarines to Australia, they intended to pursue a phased approach, moving through each phase based on mutual commitments from each nation. The first phase would begin in 2023 and the last phase would begin in the "early 2040s" with the delivery to the Royal Australian Navy of the first conventionally-armed, nuclear-powered submarine built in Australia. This plan is "designed to support Australia's development of the infrastructure, technical capabilities, industry and human capital necessary to produce, maintain, operate, and steward a sovereign fleet of conventionally-armed, nuclear-powered submarines". In the announcement, the parties indicated that they "continue to consult with the [IAEA] to develop a non-proliferation approach that sets the strongest precedent for the acquisition of a nuclear-powered submarine capability".
- 11. The Director General received on 10 March 2023 separate communications related to this announcement from the Hon Anthony Albanese MP, the Prime Minister of Australia, the Hon Penny Wong, Minister for Foreign Affairs of Australia, as well as from the United Kingdom and the United States. The Director General was advised in the communication from the Minister for Foreign Affairs of Australia's intention to "commence negotiations with the IAEA of an arrangement pursuant to Article 14 of Australia's CSA".
- 12. On 14 March 2023, the Director General issued a statement in relation to the above-mentioned announcement (see Annex), <sup>10</sup> in which he indicated, inter alia, that:
  - The parties have safeguards obligations which need to be implemented in accordance with their respective safeguards agreements and APs with the Agency. Article 14 of Australia's CSA allows Australia to use nuclear material which is required to be safeguarded under the CSA in a nuclear activity, such as nuclear propulsion for submarines, provided that Australia makes an arrangement with the Agency in this regard.
  - The required arrangement under Article 14 of Australia's CSA must be in strict conformity with the existing legal framework. Importantly, once that arrangement is finalized, it will be transmitted to the Board of Governors for appropriate action.

<sup>&</sup>lt;sup>7</sup> The phased approach would involve: training and capacity building; acquisition of complete, conventionally-armed, nuclear-powered submarines; and the acquisition of complete, welded power units for conventionally-armed, nuclear-powered submarines to be built in Australia.

<sup>8</sup> https://www.gov.uk/government/publications/joint-leaders-statement-on-aukus-13-march-2023/joint-leaders-statement-on-aukus-13-march-2023.

<sup>9</sup> INFCIRC/1079.

<sup>&</sup>lt;sup>10</sup> Available on GOVATOM, posted on 15 March 2023.

- Under their VOAs, the United Kingdom and the United States need to report to the Agency international transfers of nuclear material to NNWSs and under their APs they need to report the export of equipment specified in the APs.
- The legal obligations of the parties and the non-proliferation aspects are paramount. The Agency will continue to have its verification and non-proliferation mandate as its core guiding principle. It will exercise it in an impartial, objective and technical manner.

The Director General will ensure a technically and legally sound process that will be solely guided by the Agency's statutory mandate and the safeguards agreements and APs of the parties.

- 13. On 14 March 2023, in separate letters addressed to the Prime Minister and to the Minister for Foreign Affairs of Australia, the Director General indicated, inter alia, that the Agency "will ensure a transparent process that will be solely guided by the Agency's statutory mandate and the CSA and the AP between Australia and the Agency".
- 14. On 10 March 2023, in accordance with modified Code 3.1 of the Subsidiary Arrangements (General Part) to the CSA, Australia submitted to the Agency preliminary design information for the planned new facilities related to its naval nuclear propulsion programme and indicated its readiness for the Agency to perform a design information verification (DIV). Australia also extended an offer to the Agency for a transparency visit to a naval base in Australia that will be used for the maintenance of nuclear-powered submarines.
- 15. In May 2023, the Agency conducted activities in Australia related to Australia's naval nuclear propulsion programme, including a technical visit to the above-mentioned naval base and a DIV at the declared location planned to be used for Australia's future submarine construction. The Agency and Australia held initial discussions on technical elements of an arrangement related to Article 14 of Australia's CSA, and on ways to facilitate possible verification and monitoring activities, including voluntary transparency measures, in relation to Australia's naval nuclear propulsion programme. The Agency also held meetings with high level Australian officials during which Australia reiterated its commitment to fulfilling its international nuclear non-proliferation commitments.
- 16. In accordance with the provisions of Australia's CSA and AP, the Agency will develop an appropriate safeguards approach which will take into account the nuclear material and activities related to Australia's naval nuclear propulsion programme. The Agency will protect related classified information, as required in Australia's CSA and AP and in line with the Agency's regime for the protection of classified safeguards information. The Agency's aim is to ensure that the arrangement and the safeguards approach to be developed and used in relation to Australia's naval nuclear propulsion programme will enable the Agency to attain the technical safeguards objectives established for Australia.<sup>11</sup>
- 17. In May 2023, Australia submitted to the Agency the annual update to its declaration under the AP and provided additional relevant details under Article 2.a.(x) of the AP on its future plans related to the naval nuclear propulsion programme.

<sup>&</sup>lt;sup>11</sup> GOV/2014/41, Section C.4 and C.4.1.

### **D.** Summary

- 18. Since September 2021, the Agency has had a series of technical consultations with the parties and discussed the possible implications of the naval nuclear propulsion programme on the implementation of Agency safeguards for Australia under its CSA and AP.
- 19. Since the announcement of the parties on 13 March 2023, Australia has submitted to the Agency the required declarations under its CSA, Subsidiary Arrangements (General Part) and AP. The Agency was able to conduct in-field verification activities in Australia as well as a transparency visit. The Agency will conduct further verification activities in Australia as and when necessary.
- 20. The Agency and Australia held initial discussions on technical aspects of an arrangement related to Article 14 of Australia's CSA, and on ways to facilitate possible verification and monitoring activities, including voluntary transparency measures, in relation to Australia's naval nuclear propulsion programme. Detailed technical discussions, including on the legal aspects, will be required in order to develop the required arrangement. Once the arrangement is finalized, the Director General will transmit it to the Board of Governors for appropriate action.
- 21. The Director General will continue to report as appropriate.

#### Annex

#### DG Statement in relation to AUKUS announcement

#### 14 March 2023

- 1. An announcement has been made by Australia, the United Kingdom and the United States (the AUKUS Parties) on Australia's acquisition of conventionally armed, nuclear-powered submarines. I also received separate communications on this matter from the Prime Minister of Australia, the Hon Anthony Albanese MP, and the Foreign Minister, the Hon Penny Wong, as well as from the United Kingdom and the United States.
- 2. According to the announcement, the AUKUS Parties have agreed on three stages for the implementation of the AUKUS project during the next three decades which include: training and capacity building; acquisition of complete, conventionally armed, nuclear-powered submarines; and the acquisition of complete, welded power units for submarines to be built in Australia.
- 3. The AUKUS Parties have safeguards obligations which need to be implemented in accordance with their respective safeguards agreements and additional protocols with the Agency. Australia as a non-nuclear-weapon State (NNWS) party to the Treaty on the Non-Proliferation of Nuclear Weapons (NPT) concluded with the Agency a Comprehensive Safeguards Agreement (CSA) in connection with the NPT and an additional protocol thereto (AP). Under the CSA, the Agency has the right and obligation to apply safeguards to all nuclear material in all peaceful nuclear activities within the territory of Australia, under its jurisdiction or carried out under its control anywhere, for the exclusive purpose of verifying that such material is not diverted to nuclear weapons or other nuclear explosive devices. Article 14 of Australia's CSA allows Australia to use nuclear material which is required to be safeguarded under the CSA in a nuclear activity, such as nuclear propulsion for submarines, provided that Australia makes an arrangement with the Agency in this regard.
- 4. The United Kingdom and the United States are nuclear-weapons States party to the NPT and have each concluded with the Agency a voluntary offer safeguards agreement (VOA) and an AP thereto. Under their VOA they need to report to the Agency international transfers of nuclear material to NNWSs and under the AP the exports of equipment specified in the AP.
- 5. The legal obligations of the Parties and the non-proliferation aspects are paramount. The Agency will continue to have its verification and non-proliferation mandate as its core guiding principle. It will exercise it in an impartial, objective and technical manner.
- 6. In a letter addressed to me, Foreign Minister Wong has formally requested the Agency to commence negotiations on an arrangement required under Article 14 of Australia's CSA. In accordance with the applicable norms (modified Code 3.1 of its Subsidiary Arrangements), Australia has also provided to the Agency preliminary design information related to this project.
- 7. This process involves serious legal and complex technical matters. The required arrangement under Article 14 of the CSA and the development of the necessary safeguards approach must be in strict conformity with the existing legal framework. Importantly, once that the arrangement is finalized, it will be transmitted to the Board of Governors of the IAEA for appropriate action.
- 8. In their communications, the AUKUS Parties reaffirmed their previously stated commitment that maintaining the integrity of the nuclear non-proliferation regime and Agency safeguards remains a core objective in relation to AUKUS. They also committed to maintaining the strength of the global nuclear non-proliferation regime and to fulfilling the non-proliferation and safeguards obligations under their respective agreements with the Agency. I also note Australia's previous declaration to the Agency that

it does not intend to pursue uranium enrichment or reprocessing in relation to AUKUS and that it has no plans to undertake nuclear fuel fabrication as part of this effort.

- 9. The Agency's role in this process is foreseen in the existing legal framework and falls strictly within its statutory competences. The Agency will conduct the work on this matter in an independent, impartial, and professional manner. I will ensure a transparent process that will be solely guided by the Agency's statutory mandate and the safeguards agreements and additional protocols of the AUKUS Parties. An effective arrangement under Article 14 of Australia's CSA to enable the Agency to meet its technical safeguards objectives for Australia under the CSA and AP will be necessary. Ultimately, the Agency must ensure that no proliferation risks will emanate from this project.
- 10. I will keep the Board of Governors and Member States of the IAEA informed of our future work as the discussions with the AUKUS Parties continue following Australia's notification of its intention to commence negotiations with the Agency on an arrangement under Article 14. As part of this process, I will also submit a report on this matter to the next regular session of the Board of Governors, to take place in Vienna in June 2023.