## Derestricted 15 September 2021

(This document has been derestricted at the meeting of the Board on 15 September 2021)



**GOV/INF/2021/40**Date: 17 August 2021

Original: English

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Verification and monitoring in the Islamic Republic of Iran in light of United Nations Security Council resolution 2231 (2015)

## Report by the Director General

1. This report of the Director General to the Board of Governors and, in parallel, to the United Nations Security Council (Security Council), is on the Islamic Republic of Iran's (Iran's) implementation of its nuclear-related commitments under the Joint Comprehensive Plan of Action (JCPOA) in relation to its enrichment-related activities. It provides an update on developments since the Director General's previous reports. <sup>1</sup>

## **Activities Related to Enrichment**

- 2. In a letter dated 2 August 2021, Iran informed the Agency that it intended to make "some modifications in operating pipe lines" at the Pilot Fuel Enrichment Plant (PFEP) at Natanz in order, inter alia, to have a "new operational mode" for the production of "HEU [high enriched uranium]".<sup>3</sup>
- 3. On 10 August 2021, the Agency examined the updated design information questionnaire (DIQ) for PFEP, which described this new mode for the production of UF<sub>6</sub> enriched up to 60% U-235 as

<sup>&</sup>lt;sup>1</sup> GOV/2021/28, GOV/INF/2021/32, GOV/INF/2021/36 and GOV/INF/2021/39.

 $<sup>^2</sup>$  This constitutes the fifth mode declared by Iran in the design information questionnaire (DIQ) for producing enriched UF<sub>6</sub> at PFEP (see GOV/INF/2021/22, para. 3, GOV/INF/2021/29, para. 3 and GOV/2021/28, para. 24). The first mode is only for producing UF<sub>6</sub> enriched up to 5% U-235 and the other four modes, including the new mode, are for producing UF<sub>6</sub> enriched up to 60% U-235.

<sup>&</sup>lt;sup>3</sup> JCPOA, 'Annex I – Nuclear-related measures', para. 28.

follows: feeding UF<sub>6</sub> enriched up to 5% U-235 into the two cascades of IR-4 and IR-6 centrifuges installed in research and development (R&D) production lines 4 and 6 to produce UF<sub>6</sub> enriched up to 60% U-235; and feeding the tails produced from these two cascades into the cascade of IR-5 and IR-6s centrifuges in R&D production line 1 to produce UF<sub>6</sub> enriched up to 5% U-235.

4. On 14 August 2021, the Agency conducted a design information verification (DIV) at PFEP, during which it verified that the modifications to the "operating pipe lines" referred to in Iran's letter of 2 August 2021 had been implemented and the new operational mode for the production of UF<sub>6</sub> enriched up to 60% U-235 had been configured. On 15 August 2021, the Agency verified that Iran had started feeding UF<sub>6</sub> enriched up to 5% U-235 into the production process. The Agency also verified that R&D production lines 4 and 6 contained two cascades comprising 153 IR-4 and 164 IR-6 centrifuges, respectively,<sup>4</sup> and that R&D production line 1 contained one cascade<sup>5</sup> comprising 29 IR-5 and 39 IR-6s centrifuges.

<sup>&</sup>lt;sup>4</sup> Previously, Iran had only been using one cascade, comprising 164 IR-6 centrifuges in R&D line 6, to produce UF<sub>6</sub> enriched up to 60% U-235 (GOV/2021/28, para. 24).

<sup>&</sup>lt;sup>5</sup> The two intermediate cascades referred to previously in GOV/2021/10, para. 33, are now working as one cascade.