



Security Council

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Note by the President of the Security Council

At its 7488th meeting, held on 20 July 2015 in connection with the item entitled “Non-proliferation”, the Security Council adopted resolution [2231 \(2015\)](#).

In paragraph 4 of the resolution, the Security Council requested the Director General of the International Atomic Energy Agency to provide regular updates to the Council on the implementation by the Islamic Republic of Iran of its commitments under the Joint Comprehensive Plan of Action and to report at any time any issue of concern directly affecting the fulfilment of those commitments.

Accordingly, the President herewith circulates the report of the Director General dated 6 July 2021 (see annex).



Annex

**Letter dated 6 July 2021 from the Director General of the
International Atomic Energy Agency addressed to the President of
the Security Council**

I have the honour to enclose herewith a document submitted to the Board of Governors of the International Atomic Energy Agency (see enclosure).

I should be grateful if you would bring the present letter and the document to the attention of all members of the Security Council.

(Signed) Rafael Mariano **Grossi**

Enclosure

[Original: Arabic, Chinese, English, French,
Russian and Spanish]

**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) on activities related to fuel manufacturing for the Tehran Research Reactor (TRR) using indigenously-produced uranium enriched up to 20% U-235. It provides an update on developments since the Director General's previous reports.¹

A. Activities related to production of uranium metal for TRR fuel

2. As previously reported,² on 16 December 2020, Iran informed the Agency that it would start research and development (R&D) activities on the production of uranium metal using natural uranium at the Fuel Plate Fabrication Plant (FPFP) at Esfahan, before moving to produce uranium metal enriched up to 20% U-235 for fuel for the TRR.³ Iran also informed the Agency that uranium metal would be produced at the second stage of a three-stage process and that installation of the equipment at FPFP needed for the first stage of the process was expected to be completed in 4–5 months.⁴ The three-stage process involved the conversion of: UF₆ to UF₄; UF₄ to uranium metal; and uranium metal to uranium silicide (U₃Si₂).

3. As also previously reported,⁵ on 2 February 2021, the Agency verified that Iran had started the production of natural uranium metal in a laboratory experiment at FPFP using natural UF₄ transferred from the Uranium Conversion Facility (UCF) at Esfahan and, on 8 February 2021, the Agency verified that 3.6 g of uranium metal had been produced from the aforementioned natural UF₄ in a laboratory experiment conducted at FPFP on 6 February 2021.

4. In a letter dated 23 June 2021, Iran informed the Agency that it intended to transfer UF₆ enriched up to 20% U-235 produced at the Pilot Fuel Enrichment Plant (PFEP) at Natanz to FPFP for the purpose of producing fuel assemblies⁶ for the TRR.

5. In a letter dated 28 June 2021, Iran informed the Agency about a four-step process, different from the one described in paragraph 2 above, by which it intended

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¹ GOV/2021/28 and GOV/INF/2021/32.

² GOV/INF/2021/3, para. 5.

³ JCPOA, 'Annex I – Nuclear-related measures', paras. 24 and 26.

⁴ GOV/INF/2021/3, para. 7.

⁵ GOV/INF/2021/11, para. 4.

⁶ A standard fuel assembly comprises 19 fuel plates and a control fuel assembly comprises 14 fuel plates.

to produce new TRR fuel, which included the use of uranium metal enriched up to 20% U-235. The four-step production process is as follows:

- (i) conversion of UF_6 enriched up to 20% U-235 to uranyl fluoride (UO_2F_2) and then conversion of UO_2F_2 to ammonium uranyl carbonate (AUC) at FPDF;
 - (ii) conversion of AUC to uranium dioxide powder (UO_2) enriched up to 20% U-235 at the R&D laboratory of UCF;
 - (iii) use of the UO_2 enriched up to 20% U-235 to produce UF_4 which is then used to produce uranium metal enriched up to 20% U-235 at the R&D laboratory at FPDF; and
 - (iv) production of uranium silicide, and one TRR fuel plate, at FPDF.
6. On 1 July 2021, the Agency verified that, as described in the first step of the four-step process, 1.1 kg of uranium in the form of AUC enriched up to 20% U-235, which had been produced from UO_2F_2 , had been transferred from FPDF to UCF for the production of UO_2 .
7. On 5 July 2021, the Agency verified that, as described in the second step of the four-step process, Iran had produced 0.84 kg of uranium in the form of UO_2 enriched up to 20% U-235 at the R&D laboratory at UCF.
8. On 6 July 2021, the Agency verified that an additional 0.46 kg of uranium in the form of AUC enriched up to 20% U-235 had been transferred from FPDF to UCF for the production of UO_2 .
9. On 6 July 2021, Iran informed the Agency that the UO_2 enriched up to 20% U-235 would be shipped to the R&D laboratory at FPDF, where it would be converted to UF_4 and then to uranium metal.

B. Other activities related to production of TRR fuel

10. On 6 July 2021, the Agency verified that Iran had produced 3.8 kg of uranium in the form of U_3O_8 enriched up to 20% U-235, using UO_2F_2 produced in the first step of the four-step process, for the manufacture of TRR aluminium-uranium fuel assemblies.⁷

⁷ JCPOA, 'Annex I – Nuclear-related measures', Section J.