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Implementation of the NPT Safeguards Agreement and relevant provisions of Security Council resolutions 1737 (2006), 1747 (2007) and 1803 (2008) in the Islamic Republic of Iran

Report by the Director General

1. On 26 May 2008, the Director General reported to the Board of Governors on the implementation of the NPT Safeguards Agreement and relevant provisions of Security Council resolutions 1737 (2006), 1747 (2007), and 1803 (2008) in the Islamic Republic of Iran (Iran) (GOV/2008/15). This report covers relevant developments since that date.

A. Current Enrichment Related Activities

2. Since the Director General's previous report, Iran has continued to operate the original 3000-machine IR-1 unit¹ at the Fuel Enrichment Plant (FEP). In addition, installation work has continued on four other units. On 30 August 2008, five 164-machine (IR-1) cascades of Unit A26 were being fed with UF₆ and another cascade of that same unit was in vacuum without UF₆; installation of the remaining 12 cascades at that unit is continuing (GOV/2008/15, para. 2). All nuclear material at FEP, as well as all installed cascades, remain under Agency containment and surveillance. As of 30 August 2008, 5930 kg of UF₆ had been fed into the operating cascades since 12 December 2007, the date of the last physical inventory verification (PIV) carried out by the Agency at FEP. This brings the total amount of UF₆ fed into the cascades since the beginning of operations in February 2007 to 7600 kg. Based on Iran's daily operating records, as of 30 August 2008, Iran had produced approximately 480 kg of low enriched UF₆.

¹ There are two cascade halls planned at FEP: Production Hall A and Production Hall B. According to the design information submitted by Iran, the original 3000-machine unit is referred to as "Unit A24", one of the eight planned units for Production Hall A. The four other units of Hall A at which installation work is currently proceeding are Units A25, A26, A27 and A28.

3. At the Pilot Fuel Enrichment Plant (PFEP), between 16 May and 25 August 2008, Iran fed a total of approximately 30 kg of UF₆ into the 10-machine IR-2 cascade and the single IR-1, IR-2 and IR-3 centrifuges. Another 139 centrifuges in a 162-machine IR-1 cascade are in vacuum, but are not being fed with UF₆. All nuclear material at PFEP, as well as the cascade area, remains under Agency containment and surveillance.

4. The results of the environmental samples taken at FEP and PFEP to date², and the operating records for FEP³ since the Director General's last report, indicate that the plants have been operating as declared (i.e. less than 5.0% U-235 enrichment). Since March 2007, seventeen unannounced inspections have been conducted at FEP.

B. Reprocessing Activities

5. The Agency has continued to monitor the use and construction of hot cells at the Tehran Research Reactor (TRR), the Molybdenum, Iodine and Xenon Radioisotope Production (MIX) Facility and the Iran Nuclear Research Reactor (IR-40) through inspections and design information verification (DIV). There have been no indications of ongoing reprocessing related activities at those facilities. While Iran has stated that there have been no reprocessing related research and development (R&D) activities in Iran, the Agency can confirm this only with respect to these three facilities as the measures of the Additional Protocol are not available.

6. On 14 August 2008, Iran provided updated Design Information Questionnaires (DIQ) for the MIX Facility and the Jabr Ibn Hayan Multipurpose Laboratories (JHL), both located at the Tehran Nuclear Research Centre. The updated DIQ for the MIX Facility provided information on Iran's plans to fabricate low enriched uranium targets at JHL for the production of molybdenum for medical purposes through irradiation of the targets at TRR and their separation at the MIX Facility.

C. Heavy Water Reactor Related Projects

7. On 13 August 2008, the Agency conducted a PIV at the Fuel Manufacturing Plant (FMP), the results of which are still pending. No major changes in the construction status of FMP have been noted since the Agency's previous visit in May 2008 (GOV/2008/15, para. 8).

8. On 27 August 2008, the Agency carried out a DIV at the IR-40 and noted that construction of the facility was ongoing. Using satellite imagery, the Agency has continued to monitor the status of the Heavy Water Production Plant, which appears to be in operational condition.

² Results are available for samples taken up to 5 April 2008 for FEP and up to 20 April 2008 for PFEP. These results have shown particles of low enriched uranium (with up to 4.0% U-235), natural uranium and depleted uranium (down to 0.4% U-235 enrichment).

³ Which show enrichment levels at FEP of up to 4.9% U-235.

D. Other Implementation Issues

D.1. Uranium Conversion

9. As of 3 August 2008, approximately 28 tonnes of uranium in the form of UF₆ had been produced at the Uranium Conversion Facility (UCF) since 8 March 2008, the date of the last PIV carried out by the Agency at UCF. This brings the total amount of uranium in the form of UF₆ produced at UCF since March 2004 to 342 tonnes, all of which remains under Agency containment and surveillance. In the revised DIQ for JHL, referred to above in paragraph 6, Iran also indicated that conversion related R&D activities would be carried out at JHL (cf. GOV/2008/15, para. 9).

D.2. Design Information

10. As previously reported to the Board of Governors (GOV/2007/22, paras 12–14), on 30 March 2007, the Agency requested Iran to reconsider its decision to suspend the implementation of the modified text of its Subsidiary Arrangements General Part, Code 3.1. There has been no progress on this issue.

11. The Agency requested in December 2007, but has not yet received, preliminary design information for the nuclear power plant that is to be built in Darkhovin.

D.3. Other Matters

12. On 2 April 2008, the Agency requested Iran to provide, as a transparency measure, access to additional locations related, inter alia, to the manufacturing of centrifuges, R&D on uranium enrichment, and uranium mining and milling (GOV/2008/15, para. 13). Iran has not yet agreed to the Agency's request.

13. On 3 September 2008, the Agency conducted an inspection at the Bushehr Nuclear Power Plant. All of the fuel assemblies imported from the Russian Federation for use at the plant have remained under Agency seal.

E. Possible Military Dimensions

14. There remain a number of outstanding issues, identified in the Director General's last report to the Board (GOV/2008/15, para. 14), which give rise to concerns about possible military dimensions to Iran's nuclear programme. As indicated in the Director General's report, for the Agency to be able to address these concerns and provide assurances regarding the absence of undeclared nuclear material and activities in Iran, it is essential that Iran, inter alia, provide the information and access necessary to: resolve questions related to the alleged studies; provide more information on the circumstances of the acquisition of the uranium metal document; clarify procurement and R&D activities of military related institutes and companies that could be nuclear related; and clarify the production of nuclear equipment and components by companies belonging to defence industries.

15. As also indicated in GOV/2008/15 (paras 16–25), in a series of meetings in April and May 2008, the Agency held discussions with Iran on these matters, and sought additional clarifications relevant to the nature of Iran's nuclear programme. Iran provided written replies on 14 and 23 May 2008, the former of which included a 117-page presentation responding to the allegations concerning the green salt project, high explosives testing and the missile re-entry vehicle project. While Iran confirmed the veracity of some of the information referred to in the Annex to GOV/2008/15, Iran reiterated its

assertion that the allegations were based on “forged” documents and “fabricated” data, focusing on deficiencies in form and format, and reiterated that, although it had been shown electronic versions of the documentation, Iran had not received copies of the documentation to enable it to prove that they were forged and fabricated. Iran also expressed concern that the resolution of some of these issues would require Agency access to sensitive information related to its conventional military and missile related activities.⁴

16. After further assessment of Iran’s responses, the Agency, in a series of meetings held in Tehran on 7–8 and 18–20 August 2008, highlighted areas where additional information was necessary. While expressing regret that the Agency was not in a position to provide Iran with copies of the documentation concerning the alleged studies, the Agency emphasized that the documentation was sufficiently comprehensive and detailed⁵ that it needed to be taken seriously, particularly in light of the fact that, as acknowledged by Iran, some of the information contained in it was factually accurate. The Agency also recalled the earlier discussions with Iran, as a result of which the Agency had concluded that Iran might have additional information, in particular on high explosives testing and missile related activities, which could shed more light on the nature of the alleged studies. The Agency encouraged Iran, as a matter of transparency, to address the substance of the allegations with a view to dispelling the doubts which naturally arise, in light of all of the outstanding issues, about the exclusively peaceful nature of Iran’s nuclear programme. The Agency also expressed its willingness to discuss modalities that could enable Iran to demonstrate credibly that the activities referred to in the documentation are not nuclear related, as Iran asserts, while protecting sensitive information related to its conventional military activities.

17. To that end, over the course of the meetings, the Agency made a number of concrete proposals for addressing the alleged studies. The following are examples of those proposals.

- (a) In connection with the alleged studies in general, the Agency requested that Iran identify and clarify those elements of the documentation which it considered to be factually correct, and to specify those aspects considered by Iran to have been fabricated.
- (b) In connection with the alleged green salt project, the Agency requested access to the originals of the letters and contracts involving Kimia Maadan, which Iran has acknowledged exist, and copies of some of which Iran has provided to the Agency, with a view to resolving some inconsistencies identified by the Agency in the supporting document provided by Iran. The Agency has also requested access to individuals named in the documentation.
- (c) In connection with the alleged studies in high explosives testing, the Agency has asked Iran to provide additional information and documentation, and access to individuals, in support of its statements about the civil and conventional military applications of its work in the area of EBW detonators (GOV/2008/15, para. 20).
- (d) With reference to the document describing experimentation in connection with symmetrical initiation of a hemispherical high explosive charge suitable for an implosion type nuclear device, Iran has stated that there have been no such activities in Iran. Since the Director General’s previous report, the Agency has obtained information indicating that the experimentation described in this document may have involved the assistance of foreign

⁴ Iran reiterated these concerns in a letter to the Director General dated 5 September 2008.

⁵ As indicated in the Director General’s report (GOV/2008/15, para. 16), the documentation presented to Iran appears to have been derived from multiple sources over different periods of time, is detailed in content and appears to be generally consistent.

expertise. Iran has been informed of the details of this information and has been asked to clarify this matter.

- (e) Some important parameters reflected in the documentation relating to the re-design of the payload chamber for the Shahab-3 missile re-entry vehicle are the same as those reflected in the documentation referred to in paragraphs (c) and (d) above (e.g. dimensions). The Agency proposed discussions with Iranian experts on the contents of the engineering reports examining in detail modelling studies related to the effects of various physical parameters on the re-entry body from time of launch of the missile to payload detonation. The discussions would be aimed at ascertaining whether these studies were associated with nuclear related activities or, as Iran has asserted, related only to conventional military activities. In addition, the Agency requested access to three civilian workshops identified in the documentation.

18. The Agency believes that Iran could, as a matter of transparency, assist the Agency in its assessment of the alleged studies by providing it with access to documents, information and personnel to demonstrate, as Iran asserts, that these activities were not nuclear related. Unfortunately, Iran has not yet provided the requested information, or access to the requested documentation, locations or individuals.

19. As indicated in the Director General's report to the Board in February 2008 (GOV/2008/4, para. 19), Iran has said that it is unable to provide any additional clarification of the circumstances related to the acquisition of the uranium metal document, reiterating that the document in question had been received along with the P-1 documentation, and that it had not been requested by Iran.

20. The Agency is still awaiting responses to a number of procurement related questions which may shed light, inter alia, on the role of the military related entities and their staff in the procurement of items for Iran's nuclear programme and related technical activities in support of that programme. With regard to the production of nuclear related components by companies related to defence industries, Iran's response of 23 May 2008 did not provide any new information. Iran has thus far declined to address these issues as, in its opinion, such issues should be addressed as a routine safeguards matter, and only after the issue of the alleged studies has been resolved.

21. As indicated in the Director General's previous report, the Agency currently has no information — apart from the uranium metal document — on the actual design or manufacture by Iran of nuclear material components of a nuclear weapon or of certain other key components, such as initiators, or on related nuclear physics studies (GOV/2008/15, para. 24). Nor has the Agency detected the actual use of nuclear material in connection with the alleged studies. However, unless Iran undertakes as a measure of transparency, in accordance with its obligations under Security Council resolution 1803 (2008)⁶ and other related resolutions, to resolve substantively the outstanding issues, the Agency will not be in a position to progress in its verification of the absence of undeclared nuclear material and activities in Iran. Only through the expeditious resolution of these outstanding issues can doubts arising therefrom about the exclusively peaceful nature of Iran's nuclear programme be dispelled, particularly in light of the many years of clandestine nuclear activities by Iran.

⁶ Acting under Chapter VII of the United Nations Charter, the Security Council, in resolution 1803 (2008), inter alia, reaffirmed Iran's obligation to, "without further delay, take the steps required by the Board of Governors in its resolution GOV/2006/14, which are essential to build confidence in the exclusively peaceful purpose of its nuclear programme and to resolve outstanding questions". As indicated in the Board's resolution, these steps include transparency measures, as requested by the Director General, which extend beyond the formal requirements of Iran's Safeguards Agreement and Additional Protocol.

F. Summary

22. The Agency has been able to continue to verify the non-diversion of declared nuclear material in Iran. Iran has provided the Agency with access to declared nuclear material and has provided the required nuclear material accounting reports in connection with declared nuclear material and activities. However, Iran has not implemented the modified text of its Subsidiary Arrangements General Part, Code 3.1 on the early provision of design information.

23. The Agency, regrettably, has not been able to make any substantive progress on the alleged studies and other associated key remaining issues which remain of serious concern. For the Agency to make progress, an important first step, in connection with the alleged studies, is for Iran to clarify the extent to which information contained in the relevant documentation is factually correct and where, in its view, such information may have been modified or relates to alternative, non-nuclear purposes. Iran needs to provide the Agency with substantive information to support its statements and provide access to relevant documentation and individuals in this regard. Unless Iran provides such transparency, and implements the Additional Protocol, the Agency will not be able to provide credible assurance about the absence of undeclared nuclear material and activities in Iran.

24. Contrary to the decisions of the Security Council, Iran has not suspended its enrichment related activities, having continued the operation of PFEP and FEP, and the installation of new cascades and the operation of new generation centrifuges for test purposes. Iran has also continued with the construction of the IR-40.

25. The Director General urges Iran to implement all measures required to build confidence in the exclusively peaceful nature of its nuclear programme at the earliest possible date.

26. The Director General will continue to report as appropriate.