

# Board of Governors

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(GOV/2010/22)

## Implementation of the NPT Safeguards Agreement in the Syrian Arab Republic

*Report by the Director General*

1. On 18 February 2010, the Director General reported to the Board of Governors on the implementation of the NPT Safeguards Agreement in the Syrian Arab Republic (Syria) (GOV/2010/11). This report covers developments since that date.

### **A. The Dair Alzour Site**

2. On 2 June 2008, the Director General informed the Board of Governors that the Agency had been provided with information alleging that an installation at the Dair Alzour site in Syria, destroyed by Israel in September 2007, had been a nuclear reactor. The information further alleged that the reactor was under construction but not operational at the time of its destruction, and that it had been built with the assistance of the Democratic People's Republic of Korea (DPRK). By the end of October 2007, large scale clearing and levelling operations had taken place at the site which had removed or obscured the remains of the destroyed building.<sup>1</sup> Syria has maintained that the destroyed building was a non-nuclear military installation and that it had had no nuclear related cooperation with the DPRK.<sup>2</sup> While it cannot be excluded that the destroyed building was intended for non-nuclear use, the Agency has assessed that the features of the building and its connectivity to adequate cooling are similar to what may be found at nuclear reactor sites.<sup>3</sup> While Syria has indicated that its efforts to procure pumping

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<sup>1</sup> GOV/OR.1206, para. 26 and GOV/2008/60, para. 16.

<sup>2</sup> GOV/2008/60, para. 1 and GOV/2009/36, para. 15.

<sup>3</sup> GOV/2008/60, paras 10 and 11.

equipment and large quantities of barite and graphite were civilian and non-nuclear in nature, the Agency has assessed that these items could also support the construction of a nuclear reactor.<sup>4</sup>

3. The Agency was provided with access to the site on 23 June 2008, at which time it was permitted to take environmental samples but was not provided with the requested access to documentation relevant to the destroyed building and other buildings, or to debris and equipment from the destroyed building.<sup>5</sup> Analysis of the samples indicated the presence of particles of anthropogenic<sup>6</sup> natural uranium of a type not included in Syria's declared inventory of nuclear material. The Agency has assessed that there is a low probability that the particles originated from the missiles used to destroy the building, as was claimed by Syria.<sup>7</sup> The presence of such uranium particles points to the possibility of nuclear related activities at the site and adds to questions concerning the nature of the destroyed building. Syria has yet to provide a satisfactory explanation for the origin and presence of these particles. In this context, information yet to be provided by Israel might be helpful in clarifying the matter.<sup>8</sup>

4. As indicated in previous reports, Syria made a number of statements concerning the Dair Alzour site, the three other locations allegedly functionally related to it, the procurement activities referred to above and the alleged foreign assistance. The statements are limited in detail and no documentation has been provided to support them. Syria has also maintained its position that, due to the disposal of the debris from the Dair Alzour site, it is impossible to grant the Agency's request for access to the debris. The information and access provided by Syria to date have not allowed the Agency to confirm Syria's statements regarding the non-nuclear nature of the destroyed building, or to substantiate Syria's claims regarding its procurement efforts.

5. The Agency has repeatedly requested that Syria have substantive discussions with it on the nature of the destroyed building, and discuss relevant satellite imagery and other information available to the Agency. Since the Agency's visit to the Dair Alzour site in June 2008, Syria has declined to engage substantively with the Agency in this regard. Furthermore, Syria has maintained that, due to the military and non-nuclear nature of the Dair Alzour site and the three other locations, it had no obligation to provide more information under its Safeguards Agreement with the Agency.<sup>9</sup> In this regard, the Agency has previously explained to Syria that there is no limitation in comprehensive safeguards agreements on Agency access to information, activities or locations simply because they may be military related. In a letter dated 17 March 2010, the Agency reminded Syria of its repeated requests for:

- information concerning the Dair Alzour site, the infrastructure observed at the site and certain procurement efforts which Syria has stated were related to civilian non-nuclear activities;
- access to technical documentation and any other information related to the construction of the destroyed building;
- access to locations where the debris from the destroyed building, the remains of munitions, the debris from equipment and any salvaged equipment had been and/or are now situated; and

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<sup>4</sup> GOV/2009/36, para. 14.

<sup>5</sup> GOV/2008/60, para. 4.

<sup>6</sup> "Anthropogenic" refers to material that has been produced as a result of chemical processing.

<sup>7</sup> GOV/2009/9, para. 7.

<sup>8</sup> GOV/2009/36, para. 7.

<sup>9</sup> GOV/2009/56, para. 9.

- further access to the Dair Alzour site and access to three other locations allegedly functionally related to the Dair Alzour site.
6. The Agency has, on several occasions, offered to engage with Syria to establish the necessary modalities for managed access to sensitive information and locations, including the Dair Alzour site and the three other locations. Such access is essential to enable the Agency to establish the facts and make progress in its verification, while protecting military and other information which Syria considers to be sensitive. Given the passage of time and the possible degradation of information, the Agency requests Syria to provide prompt access to all relevant information. The Agency remains ready to discuss with Syria the necessary modalities for managed access.

## **B. Activities at the MNSR Site**

7. Particles of anthropogenic uranium of a type not included in Syria's reported inventory were found at the Miniature Neutron Source Reactor (MNSR) in 2008 and in 2009. Syria's initial explanations in June 2009 that the particles had originated either from standard reference materials used in neutron activation analysis or from a shielded transport container were not supported by the results of sampling carried out by the Agency.<sup>10</sup>
8. In the course of the Agency's investigation into the origin and presence of the uranium particles at the MNSR, Syria suggested in November 2009 that they may have originated from yellowcake produced domestically at the Homs phosphoric acid purification plant, and from a small quantity of imported depleted uranyl nitrate.<sup>11</sup>
9. A physical inventory verification (PIV) was undertaken at the MNSR on 31 March 2010. During the PIV, Syria provided the Agency with information concerning previously unreported activities involving the conversion of yellowcake to uranyl nitrate. Syria stated that the conversion activities involved tens of grams of nuclear material and had taken place in 2004 at the MNSR. Syria explained that the conversion activities had been performed in order to produce natural uranyl nitrate for comparison with depleted uranyl nitrate in irradiation experiments at the MNSR.
10. During the PIV, Syria presented approximately 1 kg of yellowcake which it stated had been produced at Homs, and small quantities of uranyl nitrate powders and solutions. Syria provided the Agency with access to samples which it stated had been irradiated during experiments at the MNSR. Syria also provided the Agency with copies of documentation said to be related to the conversion activities. Syria submitted to the Agency updated design information for the MNSR in a letter dated 11 April 2009 and draft inventory change reports concerning the newly declared material. In a letter to Syria dated 23 April 2010, the Agency requested further information concerning documentation and information provided during the PIV. In a letter dated 10 May 2010, Syria provided additional information. The Agency is awaiting the results of the analysis of samples taken during the PIV.
11. Further assessment of Syria's declarations concerning the conversion activities, the related experiments and the origin of the anthropogenic natural uranium particles is ongoing.

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<sup>10</sup> GOV/2009/75, para. 6.

<sup>11</sup> GOV/2010/11, para. 9.

## **C. Summary**

12. Syria has not cooperated with the Agency since June 2008 in connection with the unresolved issues related to the Dair Alzour site and the other three locations allegedly functionally related to it. As a consequence, the Agency has not been able to make progress towards resolving the outstanding issues related to those sites. Furthermore, with time, some of the necessary information may deteriorate or be lost entirely. The Director General urges Syria to cooperate with the Agency on these issues in a timely manner.

13. Syria has provided information on previously unreported uranium conversion and irradiation activities at the MNSR and additional explanations concerning the presence of the anthropogenic natural uranium particles at the MNSR. Subsequently, Syria submitted draft inventory change reports concerning the newly declared nuclear material. The information provided by Syria is still being assessed.

14. The Director General also urges Syria to bring into force an Additional Protocol to its Safeguards Agreement, which will further facilitate the Agency's work in verifying the correctness and completeness of Syria's declarations.

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