

Board of Governors

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Implementation of the NPT Safeguards Agreement in the Syrian Arab Republic¹

Report by the Director General

1. On 2 June 2008, the Director General informed the Board of Governors that, in April of this year, the Agency had been provided with information alleging that an installation destroyed by Israel in the Syrian Arab Republic (Syria) last September was a nuclear reactor. According to this information, the reactor was not yet operational and no nuclear material had been introduced into it.² The Director General also informed the Board of Governors that Agency inspectors were scheduled to visit the site of the installation (Dair Alzour³), in order to verify, to the extent possible, the veracity of the available information. Syria has stated that the Dair Alzour site was a military site and was not involved in any nuclear activities. On 22 September 2008, the Director General provided an update on the events in his introductory statement to the Board of Governors.
2. The purpose of this report is to inform the Board of Governors of developments related to the Agency's ongoing inquiry into the allegation.

A. Chronology of Events

3. In a letter dated 2 May 2008, the Agency informed Syria that, in accordance with the Agency's safeguards responsibilities and Syria's safeguards obligations, the Agency intended to send a team of inspectors to Syria to review all available information and to visit the Dair Alzour site and three other locations alleged by some Member States to be of relevance.⁴ In a letter dated 31 May 2008, Syria

¹ INFCIRC/407.

² GOV/OR.1206, paras 26 and 28.

³ Also referred to in open sources as "Al Kibar".

⁴ The locations are alleged to have been functionally related to the Dair Alzour site.

agreed to a visit by the Agency to the Dair Alzour site and to the taking of environmental samples at that site. The Agency's visit to Syria, which took place between 22 and 24 June 2008, involved meetings with Syrian authorities in Damascus on 22 and 24 June 2008, and a visit to the Dair Alzour site on 23 June 2008.

4. During the Agency's 23 June 2008 visit to the Dair Alzour site, Syria provided unrestricted access to all of the buildings on the site, as a transparency measure, and reiterated that the site was a military installation which had not been, and was not, related to any nuclear applications. Syria has not yet acceded to the Agency's request to provide any documentation relevant to the destroyed building, or any of the other buildings, to support its statements.

5. During the meeting on 24 June 2008, the Agency reiterated its request for supporting documentation concerning the past and current use of the buildings at the Dair Alzour site and at the three other locations. The Agency also requested clarification about certain procurement activities by Syrian entities. During the meeting, Syria stated that the destroyed building could not have been a nuclear facility because of, inter alia, the unreliable and insufficient electricity supplies in the area, the limited availability of human resources in Syria and the unavailability of large quantities of treated water.

6. In a follow up letter to Syria dated 3 July 2008, the Agency reiterated its request for the information and documentation referred to in previous correspondence and discussions, and proposed dates for another Agency visit to Syria. In its reply of 21 July 2008, Syria responded that the visit should be postponed until "the necessary arrangements have been made with the bodies concerned in Syria". The Agency wrote to Syria on 15 August 2008, again reiterating its request, in response to which Syria, in a letter dated 24 August 2008, replied that any further developments must be based on the results of the sample analyses.

7. On 22 October 2008, the Agency provided the results of the environmental sample analyses to Syria, and requested a meeting with Syria with a view to discussing the results, obtaining the requested information and securing a visit to the three other locations. The Agency has not received a response to this request.

8. In a letter dated 11 November 2008, Syria confirmed its compliance with the Treaty on the Non-Proliferation of Nuclear Weapons (the NPT) and provided the following clarifications⁵:

- "The American allegation presented to the Agency for verification referred to a building under construction and not in operation;"
- "The analysis results of the samples taken from the destroyed site do not show any materials belonging to the construction of a nuclear reactor, confirming that the site which was under construction was for military purposes;"
- "We find it strange that there are a very limited number of humanly modified uranium particles in the analysis results of some samples, taking into consideration that the site was destroyed by Israeli missiles, the component parts of which are not known;"
- "It is necessary to draw attention also to the fact that the result of the analysis of one sample points to three uranium particles, whereas the results of four other samples taken from the same place within a 30 metre range contained no uranium particles;"

⁵ In the letter, Syria also expressed dissatisfaction with the leaking of the environmental sampling results to the media and concern that this was an indication of other parties attempting to use the Agency's activities for political purposes.

- “The only explanation for the presence of these modified uranium particles is that they were contained in the missiles that were dropped from the Israeli planes onto the building to increase the destructive power. Based on this, we hope that the Agency will verify the nature of the materials used in these missiles.”

B. Agency’s Verification

9. The Agency has conducted a thorough analysis of all information available to it as a result of the visit to the Dair Alzour site as well as information from other sources, including commercially available and other satellite imagery, open source photographs said to have been taken at the Dair Alzour site before the building was destroyed, information regarding procurement and the results of environmental sampling analyses.

10. Analysis of the available satellite imagery shows that construction activities were started at the Dair Alzour site between 26 April 2001 and 4 August 2001. The images show ongoing construction until August 2007. Imagery taken prior to and immediately after the bombing indicates that the destroyed box-shaped building may have had underground levels. Its containment structure appears to have been similar in dimension and layout to that required for a biological shield for nuclear reactors, and the overall size of the building was sufficient to house the equipment needed for a nuclear reactor of the type alleged.

11. As part of its assessment, the Agency has conducted an evaluation of the water pumping infrastructure observed by it during the June 2008 visit to Dair Alzour. The results of that evaluation indicate that the pumping capacity is adequate for a reactor of the size referred to in the allegation (25 MWth). During its visit to the site, the Agency observed sufficient electrical capacity to operate the pumping system.

12. Analysis of the environmental samples taken from the Dair Alzour site carried out by a number of the Agency’s Network of Analytical Laboratories revealed a significant number of natural uranium particles. The analysis of these particles indicates that the uranium is anthropogenic, i.e. that the material was produced as a result of chemical processing. As indicated above, Syria stated that the only explanation for these particles was that they were contained in the missiles used to destroy the building.

13. The Agency continues to assess the information related to efforts by Syrian entities to procure materials and equipment which could support the construction and operation of a nuclear reactor. It should be noted that it is possible that the procurement of such items was for non-nuclear use. The Agency has not yet received the requested information from Syria.

14. Satellite imagery and other information available to the Agency concerning installations at the three other locations in Syria referred to above suggest that those locations may be of relevance to the activities at the Dair Alzour site. As indicated above, the Agency requested access to the three locations on 2 May 2008. Analysis of satellite imagery taken of these locations indicates that landscaping activities and the removal of large containers took place shortly after the Agency’s request for access. While these activities may be unrelated to the Dair Alzour site, it would be helpful if Syria were to provide an explanation for these activities and to permit the Agency to visit the three locations.

C. Current Assessment

15. The Director General emphasizes that the Agency was severely hampered in discharging its responsibilities under the NPT and under Syria's Safeguards Agreement by the unilateral use of force and by the late provision of information concerning the building at the Dair Alzour site. In light of the destruction of the building and the subsequent removal of the remains, the Agency's verification of the situation has been made more difficult and complex, as well as more time and resource consuming.

16. The information provided by some Member States to the Agency includes satellite imagery of the Dair Alzour site and the three other locations. For its assessment of the site immediately after the bombing, the Agency used satellite imagery provided by Member States, as there was no high resolution imagery for that period available to the Agency from commercial vendors. The first commercial images that the Agency was able to obtain after the bombing on 6 September 2007 were taken on 24 October 2007; these images indicate large scale clearing and levelling operations had taken place at the Dair Alzour site after the bombing. To the extent it has been recently authorized by the providers to do so, the Agency intends, during its next meeting with Syria, to share with Syria that satellite imagery which is of relevance to the Agency's assessment.

17. While it cannot be excluded that the building in question was intended for non-nuclear use, the features of the building, as described above, along with the connectivity of the site to adequate pumping capacity of cooling water, are similar to what may be found in connection with a reactor site. Syria has not yet provided the requested documentation in support of its declarations concerning the nature or function of the destroyed building, nor agreed to a visit to the three other locations which the Agency has requested to visit.

18. The Agency is assessing Syria's explanation of the origin of the uranium particles found at the Dair Alzour site and intends to request Syria to permit the Agency to, inter alia, visit the locations where the debris from the building and any equipment removed from the Dair Alzour site are, for the purpose of taking samples. The Agency also intends to request Israel to provide information pertaining to Syria's claims regarding the origin of the uranium particles.

19. The Director General has called on Syria to provide the necessary transparency, including allowing visits to the requested locations and access to all available information, for the Agency to complete its assessment. The Director General also calls on other States that may possess relevant information, including satellite imagery, to make this available to the Agency and to authorize the Agency to share the information with Syria.

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