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THE IMPLEMENTATION OF UNITED NATIONS SECURITY COUNCIL RESOLUTIONS 687, 707 AND 715 (1991) RELATING TO IRAQ

Report by the Director General

1. On 18 July 1991 the Board of Governors, after considering a report by the Director General on non-compliance by Iraq with its obligations under its safeguards agreement with the Agency (INFCIRC/172), adopted a resolution (contained in document GOV/2532) in which it inter alia requested the Director General to keep the Board and the General Conference informed of progress in the implementation of United Nations Security Council resolution 687 (1991).
2. On 20 September 1991 the General Conference adopted resolution GC(XXXV)/RES/568, in operative paragraph 5 of which it requested the Director General inter alia to report to the Board and to the thirty-sixth General Conference on his efforts to implement Security Council resolution 687 and 707 (1991).
3. On 25 September 1992 the General Conference adopted resolution GC(XXXVI)/RES/579 in operative paragraph 5 of which it requested the Director General inter alia to report to the Board and to the thirty-seventh General Conference on his efforts to implement Security Council resolution 687, 707 and 715 (1991).

4. On 1 October 1993, the General Conference adopted resolution GC(XXXVII)/RES/626 in operative paragraph 4 of which it requested the Director General inter alia to report to the Board and to the thirty-eighth regular session of the General Conference on his efforts to implement Security Council resolutions 687, 707 and 715 (1991).

5. Pursuant to the above-mentioned resolutions, the Director General has kept the Board of Governors fully informed about the Agency's activities in Iraq and copies of the inspection mission reports containing detailed descriptions of inspectors' work and findings, have been transmitted to the Board, the Agency's Member States and the Security Council.

6. The attached chronology by the Director General on "The Agency's activities concerning Iraq in 1993-94 under United Nations Security Council resolutions 687, 707 and 715 (1991)" has been prepared with a view to updating information provided last year to the General Conference in documents GOV/2677-GC(XXXVII)/1069 and GOV/2677/Add.1-GC(XXXVII)/1069/Add 1. It gives an overview of major events that occurred during the period September 1993 - August 1994, with references to the relevant documents.

7. The document is being issued simultaneously to the Board of Governors and the General Conference.

**THE IAEA'S ACTIVITIES CONCERNING IRAQ IN 1993 -1994
UNDER UNITED NATIONS SECURITY COUNCIL
RESOLUTIONS 687, 707 AND 715 (1991)**

CHRONOLOGY

1. From **10 to 24 September 1993**, at the request of the United Nations Special Commission, IAEA staff participated in an experimental aerial gamma survey. The objective of this survey was to assess the suitability of an airborne gamma detection system for locating possible undeclared or otherwise hidden stocks of radioactive materials including nuclear materials. The experimental survey covered areas at the sites of Tuwaitha, Al Jesira and Al Atheer. A second gamma survey with the participation of IAEA staff took place from **2 to 16 December 1993**. The potential and the limits of this gamma detection system which emerged from the two experimental campaigns are now under assessment. Preliminary results point to the need to obviate some major operational difficulties, while confirming the impressive technical capabilities of the gamma detection equipment.
2. At its thirty-seventh regular session, on **1 October 1993**, the IAEA's General Conference adopted resolution GC(XXXVII)/RES/626 demanding Iraq's immediate and full compliance with all of its obligations under relevant Security Council resolutions including replies to outstanding questions about foreign suppliers of specific items and sources which provided Iraq with technical advice, and including acceptance of the Plan for Future Ongoing Monitoring; commending the Director General and its staff for their strenuous efforts in the implementation of Security Council resolutions 687, 707 and 715 (1991); requesting the Director General to continue his efforts to put in place the necessary measures for the implementation of the Plan for Future Ongoing Monitoring; and requesting the Director General to report the views of the General Conference to the Secretary General and to report to the Board of Governors and to the thirty-eighth General Conference on his efforts to implement Security Council resolutions 687, 707 and 715 (1991).
3. A second round of high-level technical talks between the IAEA and the UN Special Commission, on the one hand, and Iraq, on the other, was held in Baghdad from **2 to 8 October 1993**. The Iraqi side provided the IAEA's Action Team with the long requested critical information regarding suppliers of prohibited and other materials, and sources of technical advice. Subject to verification of this information for accuracy and completeness, Iraq would be regarded to have complied with all the requirements concerning its disclosure of past nuclear activities as provided for in resolutions 687 and 707 (1991). A detailed report of this round of high-level talks can be found in United Nations documents S/26571 and S/26584.

4. On **5 October 1993**, all the equipment needed to undertake the removal from Iraq of the highly enriched irradiated fuel assemblies was delivered to Habbaniya and the first of the two planned removal campaigns was initiated by the Russian - US Contractor team under the supervision of IAEA staff and with the assistance of the IAEC.
5. On **29 October 1993**, the Director General transmitted to the United Nations Secretary General the fourth semi-annual report on the implementation of the IAEA's Plan for Future Ongoing Monitoring and Verification of Iraq's compliance with paragraph 12 of resolution 687 (1991). A copy of the Director General's report can be found in United Nations document S/26685.
6. On **1 November 1993**, the Director General addressed the United Nations General Assembly. In presenting the IAEA's annual report he elaborated on lessons learnt in Iraq and the need for the IAEA to strengthen its capability to detect undeclared nuclear materials and installations.
7. The twenty-second IAEA inspection mission in Iraq under Security Council resolution 687 (1991) took place from **1 to 15 November 1993**. A total of 41 sites or establishments were visited in the course of this inspection. Part of the ongoing monitoring and verification (OMV) effort in Iraq involves the periodic radiometric survey of the main water bodies in Iraq. This requires the collection of surface water, sediment and biota samples. Fifteen locations along the Tigris-Euphrates watersheds were sampled in the course of this mission. Progress was made in clarifying, with the Iraqi side, the reporting requirements of Annex 3 of the IAEA's OMV plan and the reconciliation of Iraqi equipment declarations with information obtained outside Iraq. Seventeen establishments were visited in connection with this work. A revised Annex 3 declaration that incorporated the identified improvements was handed over to the team at the conclusion of the mission. Meetings were held with the Iraqi side on the subject of the technical advice they had obtained from sources outside Iraq that had aided their centrifuge development efforts. The details provided regarding the evolution of the Iraqi centrifuge programme, the areas where they experienced difficulties, their strategy for dealing with these difficulties by seeking help from outside Iraq and, at the same time, taking advantage of additional information that was offered or otherwise obtained are credible. The very specific technical details provided regarding individual components of the Iraqi prototype centrifuges and the process through which they evolved are consistent with available information. Detailed microscopic examination, bulk density assessments and sampling for chemical analysis were performed on UO₂ contained in 201 drums declared by the Iraqi side to have come from Brazil. These results were, in turn, compared to UO₂ of Iraqi origin. This work together with a detailed review of literature describing Brazilian ore bodies and UO₂ production processes indicates that, pending results from the chemical analysis of samples, the material in question is not indigenous to Iraq (nor was it the result of an Iraqi UO₂ production process) and that

the most likely source of the material is Brazil as declared. Further corroboration will be sought with the assistance of the Brazilian Government. Monitoring inspections were carried out at the eight so-called "core" sites of the former Iraqi nuclear programme. Existing building modifications, new construction and future plans for turning four of the sites (Tarmiya, Al Sharqat, Al Jezira and Al Furat) to other, non-nuclear applications were reviewed. A more detailed declaration of the inventory of nuclear-related sites as required by paragraph 22b relevant to Annex 2 of the IAEA's OMV plan was provided in the course of the mission.

An action identified during a previous mission - the filling and sealing of the carbonate mine at Abu Skhair - was completed during this mission. Overall, the inspection ran smoothly and the Iraqi side was helpful throughout. A report on the twenty-second inspection mission can be found in document GOV/INF/720.

8. A third round of high-level technical talks between the three parties - IAEA, United Nations Special Commission and Iraq - took place in New York from **15 to 30 November 1993**. By far the most significant event occurring in the course of this round of talks was the formal acceptance by Iraq of resolution 715 (1991). By letter dated **26 November 1993** addressed to the President of the Security Council (document S/26811) the Minister for Foreign Affairs of Iraq recorded formally that "the Government of Iraq has decided to accept the obligations set forth in resolution 715 (1991) and to comply with the provisions of the plans for monitoring and verification as contained therein". The IAEA and the Special Commission noted that, with Iraq's acceptance, referred to above, the major remaining obstacle to Iraq's fulfillment of all its obligation under section C of resolution 687 (1991) had been removed. With this significant step forward the IAEA and the Special Commission would now proceed to satisfy themselves, as soon as possible, that they were in a position to implement, on an credible and sustainable basis, the plan for monitoring and verification and hence to report accordingly to the Security Council, under paragraph 22 of Security Council resolution 687 (1991). A detailed report of this round of talks is contained in documents S/26825 and S/26825/Corr.1.
9. On **4 December 1993** the first consignment of highly enriched irradiated fuel was airlifted from Habaniya to Russia.
10. On **10 December 1993** the Director General transmitted to the Secretary General the fifth semi-annual report on the implementation by the IAEA of the plan for the destruction, removal or rendering harmless of the items specified in paragraph 12 of resolution 687 (1991). A copy of the Director General's report can be found in document S/26897.
11. A further round of high-level technical talks between the three parties - IAEA, the Special Commission and Iraq - took place in Baghdad from **2 to 5 February 1994**. Steps taken by the IAEA and the Special Commission, on the one hand, and on the

other, by Iraq to put in place the Ongoing Monitoring and Verification Plan (OMV) were reviewed in the light of the significant progress made since July 1993 and of the formal acceptance by Iraq on 26 November 1993 of Security Council resolution 715 (1991). The two sides expressed their readiness to expedite the process of establishing OMVs in a spirit of goodwill, in order to achieve their joint objective; namely, at the earliest feasible time, for the IAEA and the Special Commission, to report to the Security Council that, in their view, Iraq had taken all the actions called for by paragraph 22 of resolution 687 (1991). A copy of the joint statement issued at the conclusion of this round of talks can be found in document S/1994/151.

12. The twenty-third IAEA inspection mission in Iraq under resolution 687 (1991) took place from **4 to 11 February 1994**. Monitoring inspections were carried out at eight sites with previous nuclear or nuclear-related missions. Additionally inspections were carried out at sites where items of equipment subject to monitoring in accordance with Annex 3 of the OMV were located and at a small number of randomly selected sites which had been declared to have power supplies exceeding 10 MVA. Requests were received from the Iraqi side for the release, for alternative usage, of equipment and materials from Tuwaitha, Al Qaim and Tarmiya. To the extent practicable the equipment and material was examined during the inspection visits and a formal response will be provided to Iraq in due course. Further progress was made in the course of the inspection in clarifying, with the Iraqi side, the required scope and preferred format for the reports submitted in accordance with Annex 2 of the IAEA's OMV plan. Priority of review was given to reports related to those facilities, installations or sites which had been identified as having a previous nuclear or nuclear-related utilization. It was agreed that Iraq would, on an urgent basis, provide updated reports on all sites subject to reporting in accordance with Annex 2 and Annex 3 of the OMV. The work started in IAEA-22, involving the detailed microscopic examination, bulk density assessments and sampling for chemical analysis of UO_2 , declared by the Iraqi side to have been supplied by Brazil, was continued. The results of this work support a conclusion that the material is of Brazilian origin but, as previously reported, the assistance of the Brazilian Government will be necessary to corroborate this conclusion. A surveillance system was installed and commissioned in the "vertical boring machines workshop" at Um Al Ma'arik. The surveillance system is designed to provide a means of continuous monitoring of the nature of the work pieces processed in that workshop. Verification of the inventory of the "sensitive" components and spare parts of the Tamuz reactors, TMZ-1 and TMZ-2 was successfully completed with the assistance of an expert provided by the vendor. A report of the twenty-third inspection mission can be found in document GOV/INF/733.
13. The second and final consignment of highly enriched uranium in the form of irradiated nuclear fuel was removed from Iraq on **12 February 1994** thus completing the removal of all declared stocks of nuclear - weapon - usable material from Iraq, as called for by Security Council resolution 687 (1991). Substantial technical

problems had to be solved in order to remove this irradiated fuel, some of which was buried under the rubble of a research reactor destroyed during the Gulf war. Removal operations were conducted by a team of Russian - US contractors with extensive assistance of the Iraqi counterpart and under the close supervision of IAEA staff. The removal by plane of irradiated fuel from Iraq - a unique operation without precedent - was successfully performed according to schedule. Thanks to the effective radiation protection measures adopted, the radiation exposure of all 170 individuals participating in the operation was kept much below allowable levels, indeed far below the level which could have been expected for such a difficult task. This achievement should be credited to the accurate preparatory work and the excellent cooperation of all parties involved. A detailed description of the fuel removal operation can be found in the September issue (1994/3) of the IAEA Bulletin.

14. A further round of high-level technical talks between the three concerned parties - IAEA, the Special Commission and Iraq - took place in New York from **14 to 19 March 1994**. As far as nuclear issues are concerned, the IAEA representatives and the Iraqi nuclear team reviewed the progress made in recent months, with particular reference to the verification of the information provided by Iraq on suppliers of material and equipment and the sources of technical advice. A review was also made of the other information required to be provided by Iraq under the terms of IAEA's plan for Ongoing Monitoring and Verification in Iraq, with a view to identifying outstanding matters. IAEA referred to the letter dated 13 October 1993 addressed to the Secretary-General (document S/26584), by the Director General of IAEA, in which the position of IAEA was detailed in light of the outcome of the high-level technical talks held in Baghdad from 30 September to 8 October 1993. In that letter, the Director General explained that the long-requested critical information concerning suppliers of prohibited and other material and the sources of technical advice, finally provided by Iraq, had to be verified for accuracy and completeness before Iraq would be regarded as having complied with all of the disclosure requirements concerning its nuclear activities. In the letter, the Director General also stated that, before the Agency would be ready to report Iraq's compliance with paragraphs 11, 12 and 13 of resolution 687 (1991), the IAEA would have to satisfy itself that it was in a position to implement fully the ongoing monitoring and verification plan, which would also require the prior receipt from Iraq of the data foreseen in the annexes to the IAEA plan. IAEA acknowledged the progress achieved thus far in the corroboration of the information provided by Iraq on suppliers and sources of technical advice and expressed its confidence that this verification could be completed with the assistance of Member States within a short time. It also acknowledged the Iraqi efforts to complete the information required under the provisions of the annexes to the plan. It was concluded that, as far as the information requirements were concerned, the necessary actions were close to satisfactory completion. As regarded the full implementation of the ongoing monitoring and verification plan, discussions were held on ways to expedite the implementation of the remaining measures

contemplated in the plan. IAEA also indicated that it would proceed with the deployment of surveillance equipment, which entailed the identification of optimal locations for the placement of such equipment, the installation of the equipment and the assurance of its proper functioning. That would be achieved through the dispatch by IAEA of specialized teams dedicated to such purposes. It was suggested that a reasonable target for completion of such activities, as currently contemplated, under optimal circumstances might be, at a minimum a matter of three to four months. Confidence was expressed that, by adopting such an approach, and assuming the continued full cooperation of the Iraqi authorities, the time needed for IAEA to assure itself of its ability to implement its plan fully would be minimized. The Iraqi team expressed its strong wish for a specific date by which IAEA would submit to the Security Council the report of Iraq's technical compliance with the relevant paragraphs of resolution 687 (1991). As outlined above, IAEA referred to the outstanding actions which would need to be completed before it would be in a position to conclude that such a report was possible. It was recognized that IAEA was in a different position from the Special Commission in so far as IAEA had already started implementing elements of its long-term monitoring plan and that, as a consequence, the IAEA report could well precede that of the Special Commission. However, the IAEA representatives stated that it would not be possible or practical to provide a specific date by which that might happen. A detailed report, issued at the end of this round of talks can be found in document S/1994/341.

15. The twenty-fourth IAEA inspection mission in Iraq under resolution 687 (1991) took place from **11 to 22 April 1994** and was mainly concerned with Ongoing Monitoring and Verification (OMV) relevant activities, such as the spring collection of surface water, sediment and biota samples; discussions with the Iraqi counterparts on the form and content of the inventory reports required by paragraphs 22 and 23 of the OMV plan and inspections at locations, particularly those which had a support role in the former nuclear weapons programme, in order to clarify details of the corresponding inventory reports prepared by Iraq; the assessment of the practical requirements for the installation of a video surveillance system to be installed in a machine-tool workshop; the examination of items of equipment, at the Al Qaim site, which Iraq had requested to be released for alternative usage; clarification of matters related to the origin and usage of natural uranium. Regarding this latter activity, a visit was made to Al Jesira and to a related location, Al Adaya, to evaluate uranium losses as holdup in plant equipment. A total of 39 facilities, installations and sites were visited in the course of this inspection. The detailed report of the inspection can be found in document GOV/INF/746.
16. On **20 April 1994**, the Director General transmitted to the Secretary General the sixth semi-annual report on the implementation of the IAEA's plan for Ongoing Monitoring and Verification of Iraq's compliance with paragraph 12 of resolution 687 (1991). A copy of Director General's report can be found in United Nations document S/1994/490.

17. A further round of high-level technical talks between the three concerned parties - IAEA, the Special Commission and Iraq - was held in Baghdad from **24 to 26 April 1994**. Issues relating to the implementation, in particular resolutions 687 and 715 (1991), were discussed.

The two sides reviewed the considerable progress made in this regard since the last round of high-level talks, held in New York on 14-19 March 1994. They noted that many actions had been undertaken in this period, including inspections to establish the baseline for implementation of ongoing monitoring and verification. In conducting this intensive programme of inspections, the Special Commission and the IAEA expressed their appreciation for Iraq's expeditious and positive responses to their requests for assistance and support. This has enabled inspections to be conducted efficiently and effectively, and has contributed significantly to the establishment of ongoing monitoring and verification as called for in the Security Council resolutions. The Special Commission and the IAEA welcomed Iraq's commitment to continue its cooperation with them. In fulfilling resolution 715 (1991) and the plans for ongoing monitoring and verification, Iraq assured the Special Commission and the IAEA that it would respect the rights and privileges of the Special Commission and the IAEA established under the plans, and, for their part, the Special Commission and the IAEA reiterated their commitment to exercise these rights and privileges in a manner that respected Iraq's legitimate concerns relating to sovereignty, independence, security and dignity in accordance with the Charter of the United Nations, and to conduct their activities in the least intrusive manner consistent with effective monitoring and verification. Both sides reiterated their commitment to continue and accelerate intensive efforts aimed at reaching their shared objective, namely, a situation where the Special Commission and the IAEA would be able to report to the Security Council that, in their view, Iraq had taken all the actions called for in paragraph 22 of resolution 687 (1991). A joint statement issued at the conclusion of this round of talks is contained in United Nations document S/1994/520.

18. **On 9 May 1994**, a meeting was held at the IAEA headquarters in Vienna between an Iraqi delegation headed by the Iraqi Deputy Prime Minister, Mr. Tarik Aziz and the Director General and his staff. The actions taken thus far in implementing many elements of the IAEA's plan for Ongoing Monitoring and Verification were reviewed. During the past several months Iraq had provided to the IAEA extensive cooperation and both sides agreed that this had contributed significantly to the implementation of these elements. Confidence was expressed that continued cooperation would contribute as well to the implementation of the remaining elements within the schedule envisaged during the March 1994 talks (see paragraph 14 above). The importance of the establishment in the Middle East of a zone free from weapons of mass destruction, as referred to in paragraph 14 of Security Council resolution 687 (1991) was stressed by both sides. The Director General stated that the IAEA was doing its very best to advise States which may negotiate such an agreement, about the

Agency's expertise in the field of verification and about the modes of verification which might be employed. Discussions took place on the status of technical cooperation in the areas of medical and agricultural applications of radioisotopes and radiation and the IAEA undertook to reevaluate the extent of such technical cooperation that would be appropriate in the context of the relevant Security Council resolutions. More detailed follow-up discussions were also held with a view to resolving specific outstanding issues. The Iraqi side reiterated its readiness to assist the IAEA in such matters. An information note on the results of this meeting was circulated to the IAEA's Member States on 11 May 1994.

19. **On 13-15 May 1994**, three IAEA staff made a site visit and held technical meetings with the Iraqi counterpart to prepare for the installation of IAEA optical surveillance systems in Nassr State Establishment at Taji. Actions required from the Iraqi side to expedite the installation of the equipment were discussed and agreed upon.
20. On **15 June 1994**, the Director General transmitted to the Secretary General the sixth semi-annual report on the implementation by the IAEA of the plan for destruction, removal or rendering harmless of the items specified in paragraph 12 of resolution 687 (1991). A copy of the Director General's report can be found in document S/1994/793.
21. The twenty-fifth IAEA inspection mission in Iraq under resolution 687 (1991) took place from **21 June to 1 July 1994**. This inspection was also principally directed towards Ongoing Monitoring and Verification (OMV) activities. Category 3 sites were covered during this inspection, i.e., those sites unrelated to the past nuclear program but judged to have capabilities useful to a reconstituted nuclear program. Video surveillance equipment was installed and commissioned at the flow-forming machine workshop at Nassr (Taji) and a third video unit was added to the two units already installed in the 'boring machine workshop' at Um Al Ma'arik. Several meetings were held with the Iraqi counterpart to assess the accuracy and completeness of Iraqi declarations under paragraph 22 of the OMV plan, thus enabling missing information to be included and any inadequacy to be remedied. Usage of equipment declared in accordance with Annex 3 of the OMV plan was monitored at a number of sites. Follow-up activities from the previous inspections were completed including the removal of irradiated beryllium components from the IRT reactor storage to location C and the characterization of the different batches of uranium. Assistance provided by the Brazilian government in identifying the Brazilian UO₂ exported to Iraq in 1981-1982 has permitted clarification of apparent discrepancies and provided corroboration of the Iraqi statements. The report of the twenty-fifth inspection mission will be issued as a GOV/INF document.
22. A further round of high-level technical talks between the three concerned parties - IAEA, the Special Commission and Iraq - was held in Baghdad on **4 and 5 July 1994**. Discussions focused upon respective assessments of the stages which have been

reached in connection with the two principal responsibilities of the Special Commission and the IAEA: the identification and destruction, removal or rendering harmless of Iraq's capabilities for and weapons of mass destruction; and the putting in place and operation of an effective system of monitoring and verification as approved by Security Council resolution 715 (1991). The Special Commission and the IAEA agreed that the first of these tasks was almost complete, with the destruction, removal or rendering harmless of declared and otherwise identified prohibited weapons and capabilities. On the second of the tasks indicated above, the Special Commission, the IAEA and Iraq noted that, through their best endeavors and the high degree of cooperation achieved, substantial progress had been made in all the areas covered by the plan for ongoing monitoring and verification.

In the nuclear area, the IAEA indicated that the system for environmental monitoring was now well established and anticipated its ongoing development. Having received from Iraq the supplementary information required under the IAEA plan for ongoing monitoring and verification, the IAEA was in the possession of adequate information to support its monitoring activities. The Special Commission and the IAEA indicated that the plans for the installation of sensors in all of the foregoing areas were well advanced and procurement of additional equipment was under way. The Iraqi delegation stressed the view that it had completed all actions contemplated in the relevant provisions of section C of resolution 687 (1991) and that, consequently, the Security Council should immediately apply paragraph 22 of the said resolution without any restrictions or further conditions. The Special Commission and the IAEA noted with appreciation the constructive cooperation received from Iraq and the efforts made by the competent Iraqi authorities in the conduct of their tasks. The Special Commission, the IAEA and Iraq agreed to continue the dialogue to further the execution of the relevant provisions of the Security Council's resolutions. The joint statement issued at the conclusion of this round of talks was circulated as document GOV/INF/749.

