

time the Agency had been involved in such an exercise, forcing it to develop procedures to deal with information relating to actual nuclear weapons development. The Agency had access to both civilian nuclear facilities and what was left of military nuclear facilities after the South Africans had dismantled them. After a series of inspections of installations and materials and examination of documents the Agency was able to declare in 1994 that the history of South African fissile material production had been established and that all such remaining material had been put under safeguards. In addition the Agency was able to gain insight into advanced South African weapon research projects, such as those for the production of tritium and lithium-6, that had raised proliferation questions.<sup>20</sup> The Agency was also involved in verifying the sealing of two shafts drilled for conducting nuclear tests in the Kalahari Desert, a task that today would probably be given to the CTBTO.

### *Iraq: cooperation with UNSCOM and UNMOVIC*

IAEA verification activity in Iraq, in addition to its normal safeguards activity, was even more intensive and ground-breaking than its work in South Africa. After the first Gulf War the Agency was mandated by the UN Security Council to verify, in cooperation with the UN Special Commission (UNSCOM), that Iraq was ridding itself of its nuclear capabilities, for which it established an Iraq Action Team, later the Iraq Nuclear Verification Office (INVO).

Not only did the IAEA conduct wide-ranging inspections to ensure that Iraq had declared all of its nuclear activities, the most intrusive the Agency had ever conducted, but it also engaged in the unprecedented supervised and verified destruction of designated nuclear facilities. Unlike UNSCOM, which dealt with Iraq's chemical, biological and missile capabilities, the IAEA was essentially able to close the file on Iraq's nuclear capability and attest to its verified destruction or control.

When UN inspectors re-entered Iraq in late 2002 under the aegis of the UN Monitoring, Verification and Inspection Commission (UNMOVIC), the IAEA was again mandated to continue with its nuclear brief. Again it was able to verify, with more confidence than UNMOVIC was in regard to CBW, that the nuclear file was essentially closed and that Iraq did not have nuclear weapons or the capability to rapidly produce them.<sup>21</sup>

The IAEA gained invaluable experience from its work in Iraq. It was able to use and refine new techniques, particularly environmental sampling, which have been of benefit in implementing strengthened safeguards generally. It also learned lessons from being involved in the type of hostile verification environment that it does not normally encounter (although it did to some extent in North Korea). In cooperation with the two Security Council-mandated bodies it was also able to develop appropriate verification protocols for intrusive inspection situations, participate in multidisciplinary inspections and training exercises and again get a foretaste of the tasks involved in verifying complete nuclear disarmament. Finally, it was able to professionally and speedily deal with

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<sup>20</sup> See G. Dillon and Dimitri Perricos., 'Verification and correctness of inventory: experience gained in the verification of the completeness of the inventory of South Africa's nuclear installations and materials', *International Nuclear Safeguards 1994: Vision for the Future*, IAEA, Vienna, 1994, pp. 231-42.

<sup>21</sup> Since the US invasion of Iraq the Agency has been grudgingly permitted to return for limited periods and has verified that all of the nuclear material remaining there when the war started remains accounted for, although it has also verified that much of the previously inspected and sealed nuclear equipment has been dismantled and found its way into scrap yards in Jordan and the Netherlands.