

Nuclear Latency (NL) Dataset  
Country Coding Sheets

**ALGERIA**

**COW COUNTRY CODE: 615**

List of Country's Enrichment and Reprocessing (ENR) Facilities

1. Hot cell facility at Ain Oussera

**Note:** There was reportedly centrifuge-related research in Algeria in 2007.<sup>1</sup> We have found no clear evidence that Algeria attempted to enrich uranium with centrifuges, so we excluded these activities from the dataset.

Detailed Facility-Specific Information and Sources

**1. Hot Cell Facility at Ain Oussera**

- a. ENR type (diffusion, centrifuge, EMIS, chemical and ion exchange, aerodynamic isotope separation, reprocessing).*

Reprocessing.

- b. Facility size (laboratory, pilot, commercial).*

Laboratory.<sup>2</sup>

- c. Is the facility under construction or in operation? If under construction, list the construction years. If in operation, list the years of operation.*

Scholars disagree on the start dates of construction and operation. We code construction beginning in 1986 based on Albright and Hinderson (2001). Zentner et al. list 1992 as the start of both construction and operation; we rely on their date for the operational start of the facility. We assume that this facility was operational as of 2012. Note, however, that Fitzpatrick (2011, 11) suggests that reprocessing activities in Algeria “appear dormant.” IAEA inspectors have been prohibited from the Ain Oussera hot-cell facility in the past and fuel rods were removed from the reactor without informing the IAEA.

- d. Was the facility developed covertly? If so, identify years that facility was covert.*

Yes, the facility was covert from construction until April 1991.<sup>3</sup> China did not notify the US State Department of their assistance until 1988 and the public was not aware of the facility until 1991.

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<sup>1</sup> Kemp, R. Scott. 2014. “The Nonproliferation Emperor Has No Clothes.” *International Security* 38, no. 4: 45.

<sup>2</sup> Zentner et al. describe it as a “small facility.” Some sources refer to this as a pilot plant.

- e. *Was the facility placed under IAEA safeguards? If so, identify the years that the facility was safeguarded.*

Safeguards entered into force in June 1992. Algeria joined the NPT in 1995. A more comprehensive safeguards agreement entered into force in January of 1997. Safeguards continue to be implemented.

- f. *Was the facility placed under regional safeguards? If so, identify the years that the facility was under regional safeguards.*

No.

- g. *Did the facility have a military purpose?*

Circumstantial evidence suggests some facilities at Ain Oussera were part of a covert nuclear weapons program. However, we were unable to locate any definitive evidence that the plant did, in fact, serve military purposes. In 2000, a new facility was built at Ain Oussera, separated from the other facilities by chain link fences. The larger, separated building has not been declared as a nuclear facility but it may be a large-scale reprocessing facility. Algeria was originally unwilling to open hot-cell facilities to inspectors and two fuel rods were removed without the IAEA being notified. The Spanish intelligence service Cesid stated in a 1998 report that Algeria would be able to restart their military nuclear program if the political situation required. The Cesid report states that Algeria maintained the required facilities to reprocess weapons grade plutonium. Algerian officials have claimed the facility to be for peaceful purposes.

- h. *Was the facility multinational? If so, identify the other countries that were involved.*

No, the facility is owned by Algeria.

- i. *Was the facility built with foreign assistance? If so, list the supplier(s) and what they provided.*

Yes. In 1983 Algeria and China signed a nuclear cooperation agreement. Following this agreement, China constructed the Es Salam 15-Mwt research reactor at Ain Oussera as well as a pilot-scale reprocessing system. The Zhongyuan Engineering Corp, a subsidiary of China's National Nuclear Corporation built the reactor. In 1991 Beijing acknowledged that in addition to building the reactor facility, the government also approved the delivery of 11 metric tons of heavy water and 216 fuel modules under the 1983 treaty.

Algeria has also benefitted from nuclear contracts with Argentina. In 1985 Algeria and Argentina negotiated contracts for the procurement of fuel elements and engineering expertise for a subcritical facility, research reactor, and pilot nuclear fuel

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<sup>3</sup> In April 1991 the international press revealed this facility (Albright, Berkhout, and Walker).

plant in Algeria. In the 1980's Argentina exported a 1-Mwt research reactor to Algeria that started operating in 1989.

j. *Sources.*

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<sup>4</sup> Details on the Algerian facility also available in the 1993 edition of this book.

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