

IAEA Illicit Trafficking Database (ITDB)

The IAEA started to collect information on nuclear trafficking in 1993. In 1995, the *Illicit Trafficking Database* (ITDB) became operational following a decision of the IAEA Board of Governors. Between January 1993 and December 2003, the ITDB had recorded a total of 884 incidents involving illicit trafficking in nuclear and other radioactive materials, of which 540 incidents were confirmed by States. The ITDB membership has expanded from 25 in 1995 to 75 in the end of 2003.

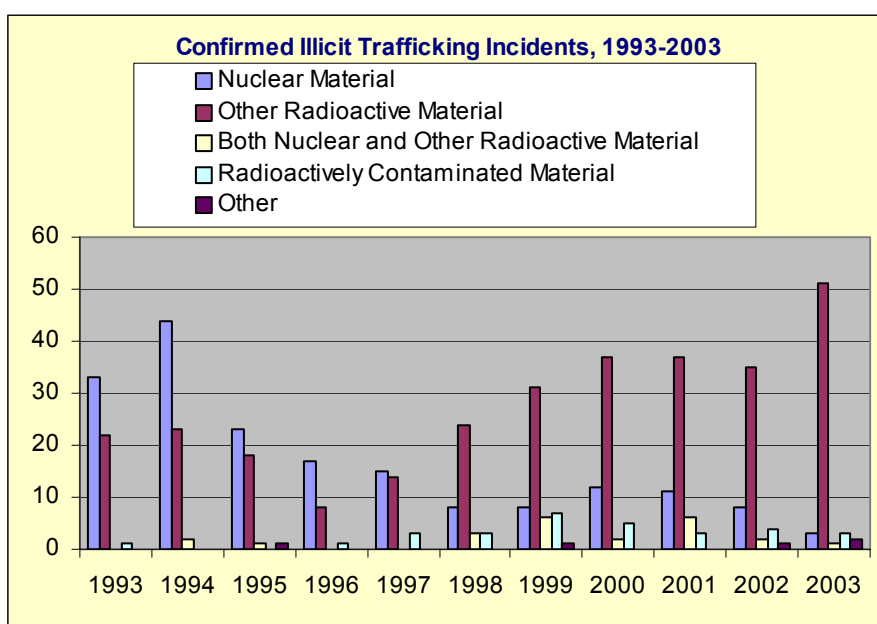
The ITDB was established to facilitate exchange of authoritative information on illicit trafficking in nuclear and other radioactive materials among States. Over the years the database's purpose has expanded to maintain and analyse this information with a view to identifying common trends and patterns and assisting States in preventing, detecting, and responding to illicit trafficking in nuclear and other radioactive materials and threats thereof. The ITDB also provides a reliable source of basic information on trafficking incidents to the media. The ITDB contains information reported or otherwise confirmed to it by the States, and information collected from open sources. Communication with States participating in the ITDB is maintained through national Points of Contact. The scope of the database includes incidents, which involve unauthorized acquisition, provision, possession, use, transfer or disposal of nuclear material and other radioactive material, whether intentional or unintentional and with or without crossing international borders. In 2003 the ITDB scope was expanded to include incidents, which involve unsuccessful or thwarted acts involving nuclear and other radioactive material.

ITDB statistics, 1993-2003

Of the 540 illicit trafficking incidents reported or otherwise confirmed to the ITDB between 1993 and December 2003, 182 incidents involved nuclear material, 335 incidents involved radioactive material other than nuclear material, and 23 incidents involved both nuclear and other radioactive materials. The majority of the confirmed incident involved criminal content, e.g. theft, illegal possession, smuggling, or intent to illegally sell the material. The graph below demonstrates dynamics of confirmed trafficking in nuclear and other radioactive materials between 1993 and 2003.

**Incidents confirmed to the IAEA Illicit Trafficking Database (ITDB)
by participating Member States (by category of material)
1993-2003**

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total
Nuclear Material	33	44	23	17	15	8	8	12	11	8	3	182
Other Radioactive Material	22	23	18	8	14	24	31	37	37	35	51	300
Both Nuclear and Other Radioactive Material	0	2	1	0	0	3	6	2	6	2	1	23
Radioactively Contaminated Material	1	0	0	1	3	3	7	5	3	4	3	30
Other	0	0	1	0	0	0	1	0	0	1	2	5
Total	56	69	43	26	32	38	53	56	57	50	60	540

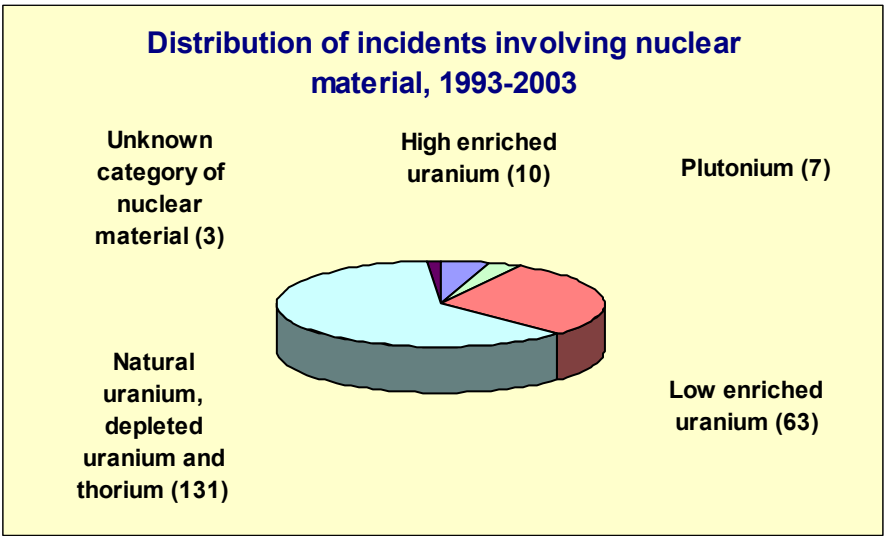


Note: Data for 2003 is provisional

Nuclear material

Illicit trafficking in nuclear material is a matter of grave concern. In the hands of terrorists or other criminals, nuclear material may contribute to the construction of an improvised nuclear explosive device, which could be used, or threatened to be used, for terrorist purposes. Not all nuclear materials are equally dangerous in this respect. Highly enriched uranium (HEU) and plutonium (Pu) may be suitable for direct use in an improvised nuclear explosive device with little or no additional processing. Nuclear material in the form of low enriched uranium (LEU), depleted uranium (DU), natural uranium (NU), and thorium (Th) requires extensive, technically complex processing to be used in an improvised nuclear explosive device.

Confirmed illicit trafficking in nuclear material was particularly pronounced in 1993-1995. Since then it has stabilized at a lower level. In the last two years, confirmed nuclear trafficking has been on decline. The minority of confirmed incidents involved weapons-usable nuclear material and most of them took place in the first half of the 1990-s (Table 1). A few of these incidents involved kilogram quantities of weapons-usable nuclear material. However, in several cases, the involved material was a sample of larger quantities in illegal circulation or at risk of theft. Also there is a concern that more sophisticated and organized trafficking in weapons-usable material may be occurring undetected. The overwhelming majority of confirmed nuclear trafficking involved low-grade material, such as LEU fuel or source material. The graph below demonstrates distribution of nuclear material by type in confirmed trafficking incidents between 1993 and 2003.



Note: Some incidents involved more than one type of nuclear material

Radioactive material other than nuclear material

Illicit trafficking in non-fissionable radioactive materials, such as radioactive sources used in a variety of industrial, medical and research applications, can give rise to a number of concerns. In the hands of terrorists or other criminals, these radioactive materials could be used for malicious purposes, e.g. in a radiological dispersal device (RDD). This threat has received increased attention since September 2001. Uncontrolled radioactive materials may have serious negative health and safety impact on persons, the general public at large, and the environment. And finally, unlawfully discarded radioactive sources, when accidentally melted at scrap metal recycle plants, may lead to negative environmental and economic consequences.

In most of the cases the trafficked radioactive material other than nuclear material was in the form of sealed radioactive sources, unsealed radioactive substances or radioactively contaminated material, such as scrap metal. Radioactive sources involved in confirmed trafficking demonstrate a wide range of activity levels (graph below).

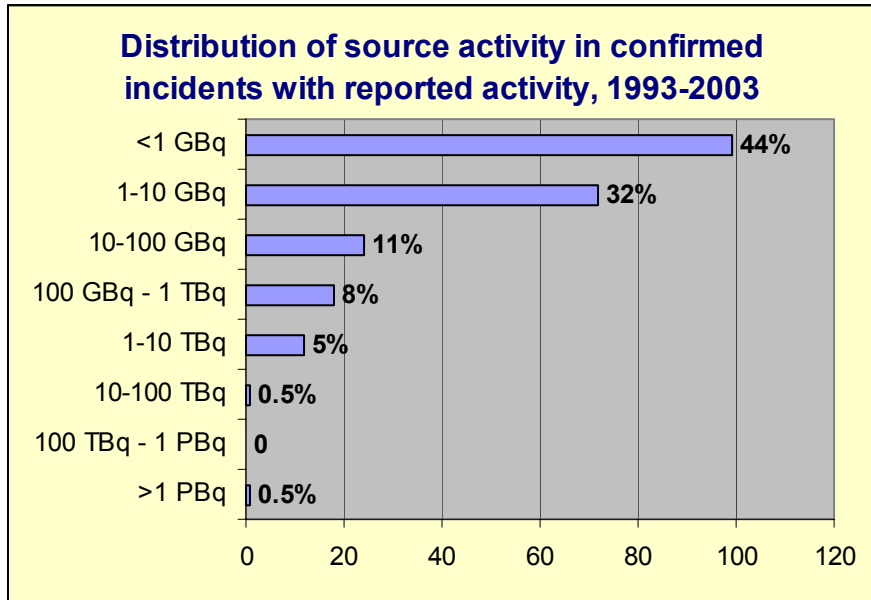


Table 1:

List of confirmed incidents involving HEU or Pu			
Date	Location	Material Involved	Incident Description
1993-05-24	Vilnius, Lithuania	HEU/ 150 g	4.4 t of beryllium including 140 kg contaminated with HEU were discovered in the storage area of a bank. Beryllium was imported legally.
1994-03	St. Petersburg, Russian Federation	HEU/ 2.972 kg	An individual was arrested in possession of HEU, which he had previously stolen from a nuclear facility for sale.
1994-05-10	Tengen-Wiechs, Germany	Pu/ 6.2 g	The material was detected in a building during a police search.
1994-06-13	Landshut, Germany	HEU/ 0.795 g	A group of individuals was arrested in illegal possession of HEU.
1994-07-25	Munich, Germany	Pu/ 0.24 g	A small sample of PuO ₂ -UO ₂ mixture was confiscated in an incident related to a larger seizure at Munich Airport on 1994-08-10.
1994-08-10	Munich Airport, Germany	Pu/ 363.4 g	PuO ₂ -UO ₂ mixture was seized at Munich airport.
1994-12-14	Prague, Czech Republic	HEU/ 2.73 kg	HEU was seized by police in Prague.
1995-06	Moscow, Russian Federation	HEU/ 1.7 kg	An individual was arrested in possession of HEU, which he had previously stolen from a nuclear facility for sale.
1995-06-06	Prague, Czech Republic	HEU/ 0.415 g	An HEU sample was seized by police in Prague.
1995-06-008	Ceske Budejovice, Czech Republic	HEU/ 16.9 g	An HEU sample was seized by police in Ceske Budejovice.
1999-05-29	Rousse, Bulgaria	HEU/ 10 g	Customs officials arrested a man trying to smuggle HEU at the Rousse customs border check point.
1999-10-02	Kara-Balta, Kyrgyzstan	Pu/ 1.49 g	Two individuals were arrested trying to sell Pu.
2000-04-19	Batumi, Georgia	HEU/ 770 g	Four individuals were arrested in possession of HEU.
2000-09-16	Tbilisi Airport, Georgia	Pu/ 0.4 g	Nuclear material including Pu was seized by police in Tbilisi Airport.
2000-12	Karlsruhe, Germany	Pu/ 0.001 g	Mixed radioactive materials including a minute quantity of plutonium were stolen from the former pilot reprocessing plant.
2001-01-28	Asvestochori, Greece	Pu/ ~3 g	245 small metal plates containing Pu were found in a buried cache in the Kouri forest near the Asvestochori village.
2001-07-16	Paris, France	HEU/ 0.5 g	Three individuals trafficking in HEU were arrested in Paris. The perpetrators were seeking buyers for the material.