

Trafficking in stolen nuclear material on the rise

Experts cite cases since mid-1990s as cause for concern

By Sam Roe
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VIENNA—As fears rise over terrorists trying to possess nuclear bombs, a disturbing trend is emerging in the shadowy world of weapons smuggling: More thieves are trafficking in plutonium and highly enriched uranium, the essential materials for a nuclear device.

The number of confirmed incidents remains small—eight in the last three years. But that has risen since the mid-1990s, when some analysts thought the nuclear smuggling threat might be easing.

Experts point to the recent cases as evidence that too little is being done to safeguard nuclear facilities, particularly in Russia.

"It's a very good reason to ac-

celerate programs to enhance the physical security of these sites," said Rose Gottemoeller, who served in the Clinton administration as assistant energy secretary for non-proliferation and national security.

All the trafficking cases since 1999 have occurred in Europe or the countries of the former Soviet Union. In Paris, police arrested three men and seized 5 grams of highly enriched uranium inside a lead cylinder.

In Germany, a worker stole a vial containing a small amount of plutonium. And at the Bulgarian-Romanian border, customs officers discovered uranium hidden in the trunk of a car.

Experts said they were unsure why they were seeing more such trafficking cases. Improved police work might be leading to more arrests. But one theory is that trafficking is on the rise because terrorists and hostile nations are more interested in nuclear materials.

Since 1993, the International Atomic Energy Agency in Vienna, a United Nations watchdog,

has documented 411 incidents of trafficking in nuclear material and industrial and medical radioactive sources.

But not one of these incidents has been linked to terrorists, and only 18 involve even small amounts of plutonium or highly enriched uranium—the fissionable material needed for a nuclear weapon.

Nuclear junk

Most smuggling cases involve what is essentially nuclear junk, including low-enriched uranium, natural uranium and radioactive isotopes—material of little use to terrorists.

Most of it, experts said, could not even make a significant "dirty bomb," radioactive material packaged with conventional explosives to contaminate a large area.

But experts said it is likely that many traffickers escape attention, especially those moving through Central Asia, where centuries-old trade routes are poorly policed.

"We have very little idea what

fraction of the total traffic is being intercepted," said John Holdren, a Harvard professor who in 1995 led a classified study for President Bill Clinton on the security of nuclear materials in the former Soviet Union.

Those caught smuggling appear to be amateurs. Many are low-paid nuclear workers in the former Soviet states who steal small amounts of material hoping to make some quick money. Instead, they search in vain for buyers and eventually stumble into the police.

The first documented theft of highly enriched uranium from a nuclear facility in the former Soviet Union occurred in Russia in 1992. Leonid Smirnov, an engineer at a nuclear research facility outside Moscow, stole about 3 pounds of highly enriched uranium powder.

"He built up his stock for a long time, and nobody had any idea that anything was amiss," said Matthew Bunn, an expert on nuclear theft and a White House adviser in the mid-1990s.

But Smirnov became nerv-

ous, Bunn said. So he put the uranium in a suitcase and went to the train station in search of a buyer.

There, he bumped into several neighbors who were being followed by police for stealing batteries from their factory. The neighbors were arrested, and Smirnov was taken in for questioning.

"So he gets swept up," Bunn said, "and he's in jail, and police are questioning him, and they said, 'What's in the suitcase?' And he said: 'Uranium.'"

Difficult and expensive

So far, there is no conclusive evidence that terrorists have acquired a nuclear weapon or the materials to build one. While opinions vary, experts generally say that building a nuclear weapon from scratch is difficult and expensive. Iraqi leader Saddam Hussein tried for years, they note, apparently without success.

Even if terrorists had the proper materials—not an easy undertaking given the quantity

and quality required—they would need a team of highly technical specialists to design, construct and detonate the bomb, experts say.

Osama bin Laden has repeatedly stated his desire to obtain nuclear weapons, and President Bush has said that bin Laden's terrorist group, Al Qaeda, is seeking such devices.

A likely place for terrorists to obtain nuclear material is Russia, where there is enough highly enriched uranium and plutonium to make about 40,000 nuclear weapons, according to U.S. government studies.

Some of this material, the studies state, is inadequately protected.

Over the last decade, the United States has created numerous programs and spent hundreds of millions of dollars to help secure the Russian material.

Significant improvements have been made, but experts said security gaps, poor inventory records and excess plutonium production still are not being fully addressed.