FEDERAL BUREAU OF INVESTIGATION
INTELLIGENCE BULLETIN
Weapons of Mass Destruction Directorate

22 March 2007

(U) Indicators for Terrorist Use of Toxic Industrial Chemicals

(U) THIS INTELLIGENCE BULLETIN PROVIDES LAW ENFORCEMENT AND OTHER PUBLIC SAFETY OFFICIALS WITH SITUATIONAL AWARENESS CONCERNING INTERNATIONAL AND DOMESTIC TERRORIST TACTICS.

(U) HANDLING NOTICE: Recipients are reminded that FBI Intelligence Bulletins contain sensitive terrorism and counterterrorism information meant for use primarily within the law enforcement and homeland security communities. Such bulletins shall not be released, either in written or oral form, to the media, the general public, or other personnel who do not have a valid need-to-know without prior approval from an authorized FBI official, as such release could jeopardize national security.

(U//FOUO) This intelligence bulletin addresses the Weapons of Mass Destruction (WMD) topic of the NIPF and responds to FBI Intelligence Requirements CBRN-II.A.2, CBRN-II.B2, CBRN-III.B.1, CBRN-III.C.1, CBRN-III.D.1, CBRN-III.E.2, and CBRN-III.E.3.

(U//FOUO) The release of a toxic industrial chemical (TIC) by a terrorist group or lone actor represents a significant threat. TICs are readily available in large quantities, routinely shipped by commercial carriers, and often stored in bulk containers. Most TICs are generally less toxic than chemical warfare (CW) agents, but a large volume of TICs can be equally dangerous. The release of a TIC in a populated area is capable of generating numerous casualties and deaths; the toxic effects would be more dangerous if release occurred in an enclosed space.

- (U//FOUO) Some TICs such as phosgene, hydrogen cyanide, and chlorine are dangerous without any modification and can serve as "ready-made" chemical agents. Even with limited expertise, terrorists could produce an improvised dispersal device (IDD) to release TICs, or they could rupture TIC containers at a fixed site or while in transit.

- (U//FOUO) Other TICs such as potassium cyanide or sodium cyanide can be combined with additional chemicals to produce more toxic chemicals. Simple plans for constructing crude chemical devices are available in extremist literature and can be found on the Internet.

(U//FOUO) Certain TICs are also precursors required for the production of CW agents, such as blister or nerve agents. The production and transport of large quantities of these TICs are regulated by the Chemical Weapons Convention, making acquisition of sizeable amounts more difficult. Synthesizing CW agents such as sulfur mustard or sarin would require more expertise and equipment than creating an IDD or damaging a TIC container.

(U//FOUO) Potential Indicators for Terrorist use of TICs

Potential indicators of attempts to acquire TICs, use TICs as weapons, or produce an IID for TICS include:[1]

- (U//FOUO) Interest in or surveillance of specific industrial, transportation, and storage facilities containing TICs (such as chemical plants, railroad cars, chemical tankers, industrial storage tanks, and so forth);
- (U//FOUO) Inquiries to companies involved in the production, distribution, or sale of TICs; attempts to acquire instructions on the use or handling of TICs;
- (U//FOUO) Research into IDDs for hazardous chemicals, including handheld IDDs (such as spray bottles) or IDDs that can be mounted on trucks, trailers, aircrafts, or boats;
- (U//FOUO) Reluctance to explain the need for possessing, purchasing, or inquiring about TICs and chemical equipment, especially if the individual appears to lack scientific or technical knowledge or skills;
- (U//FOUO) Attempts to conceal activities or identities, such as ordering TIC deliveries to remote locations or using false names when attempting to purchase TICs;
- (U//FOUO) Injuries consistent with those sustained in the production, handling, or use of chemicals (such as chemical burns and missing hands or fingers);
- (U//FOUO) Noxious or unusual fumes, liquids, or odors coming from a location incongruous with chemical use;
- (U//FOUO) Chemical containers or laboratory equipment discarded in dumpsters;
- (U//FOUO) Purchase or rental of agricultural chemical sprayers, spraying vehicles, or aircraft; possession of large numbers of atomizers or spray bottles;
- (U//FOUO) Presence of chemical fume hoods, exhaust systems, or air-filtration units that are inconsistent with routine building requirements in a facility;
- (U//FOUO) Possession of chemical protective garments, masks, or respirators; or
- (U//FOUO) Interest in obtaining HAZMAT endorsements for commercial drivers' licenses.

(U) Common High-Risk TICs:

The following TICs present a high risk because they can be used as improvised chemical weapons, combined to form more toxic chemicals, or used as precursors for CW agents:[2]

- (U) Ammonia
- (U) Arsine
- (U) Chlorine
- (U) Fluorine
- (U) Hydrogen chloride
- (U) Hydrogen cyanide
- (U) Hydrogen fluoride
- (U) Hydrogen sulfide
- (U) Malathion
- (U) Parathion
- (U) Phosgene
- (U) Phosphorous oxychloride
- (U) Phosphorous trichloride
- (U) Potassium cyanide
- (U) Sodium cyanide
- (U) Sulfur dioxide
- (U) Sulfuric acid

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(U) Chemical Facility

(U) Phosphorous oxychloride, phosphorous trichloride, hydrogen fluoride, potassium cyanide and sodium cyanide are precursor chemicals on the Australia Group export control list. Phosphorous oxychloride and phosphorous trichloride are also listed by the Chemical Weapons Convention.

(U) A more comprehensive list of TICs can be found at:
http://www.osha.gov/SLTC/emergencypreparedness/chemical.html

(U) A list of chemicals regulated by the Chemical Weapons Convention can be found at:
http://www.opcw.org/html/db/cwc/cwc_annex_on_chemicals.html

(U) Precursor chemicals on the Australia Group export control list can be found at:
http://www.australiagroup.net/en/control_list/precursors.htm

(U) Recipients should immediately report suspicious or criminal activities potentially related to terrorism to their local FBI Joint Terrorism Task Force. FBI regional phone numbers can be found online at http://www.fbi.gov/contact/fo/fo.htm.

(U) ADMINISTRATIVE NOTE: LAW ENFORCEMENT RESPONSE

(U) This intelligence bulletin was prepared by the WMD Directorate of the FBI. Questions or comments may be directed to the WMD Intelligence Analysis Section at (202) 324-1883.

(U) Endnotes

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[1] (U) "Chemical & Biological Outreach Program", 2006; Federal Bureau of Investigation (UNCLASSIFIED).

[2] (U) *Ibid*; OSHA Saftey and Health Guide, Toxic Industrial Chemicals, available at http://www.osha.gov/SLTC/emergencypreparedness/chemical.html (UNCLASSIFIED).

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Product Date 22 March 2007

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