

QL**O-(2-DIISOPROPYLAMINOETHYL) O'-ETHYL METHYLPHOSPHONITE**

QL is a thick, non-lethal, colorless liquid with a strong, fishy smell. **QL** can be combined with a second non-lethal compound to make the lethal nerve agent **VX**. The Army completed destruction of the **QL** stored at Pine Bluff Arsenal in September 2006 in accordance with U.S. international treaty obligations.

Workers at Newport Chemical Depot, Indiana, produced the United States' inventory of the binary precursor chemical **QL**. After closing the Newport **VX** Production Facility in 1968, the **QL** was moved to the Pilot Plant at Aberdeen Proving Ground, Maryland, for storage. In the late 1980s, the **QL** was transferred to Pine Bluff Arsenal, Arkansas, for use in development work on the binary chemical weapons program, where it remained until its destruction in 2006.

The **BLU-80/B** bomb, commonly known as the **Bigeye** bomb, was a developmental 500-pound air-launched binary chemical weapon intended to disperse **VX**. Construction of the **Bigeye** bomb fill-and-close facility at the Pine Bluff Integrated Binary Production Facilities (PB IBPF) was only partially completed, and no filling of the bombs ever took place. The Army only produced a few of these bombs; they remained empty or filled with a safe, simulated chemical for test purposes. International treaty inspectors witnessed the destruction of all these bombs in the summer of 1999.

Bigeye bomb components

Major components of the bomb included the airframe, reactor and dissemination systems. The airframe consisted of the outside skin and folding fin assembly. The reactor area inside the bomb contained chambers for **QL** and sulfur, which were separated by a steel diaphragm. Prior to release of the bomb, the diaphragm would rupture, allowing the chemicals to combine and form the nerve agent **VX** while in flight to the target. Once operators released the bomb, a time-delayed fuze would ignite to cut several dissemination ports, allowing air to be forced through the bomb and spread nerve agent over the target area.

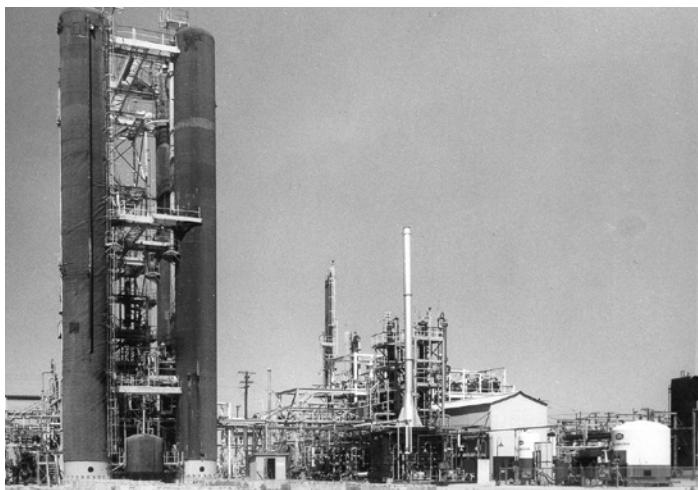
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Processing QL

QL is neutralized by mixing it with water. The **QL** stored at Pine Bluff Arsenal was neutralized at the Pine Bluff Binary Destruction Facility (PB BDF) in a mission that began on June 6 and was completed on September 27, 2006.

The wastewater, or neutralant, from processing **QL** contains byproducts that require additional treatment before final disposal. The **QL** operation at PB BDF generated approximately 80,000 gallons of **QL** neutralant. The Recovered Chemical Materiel Directorate disposes of secondary waste in a safe, environmentally sound and cost-effective manner, ensuring compliance with the Chemical Weapons Convention.

After completing the **QL** neutralization operations, the Army demolished the PB BDF in accordance with U.S. international obligations in December 2006.



*Workers at Newport Chemical Depot, Indiana, produced the United States' inventory of **QL**, one of two non-lethal compounds used to make the lethal nerve agent **VX**. The Newport **VX** Production Facility produced 4,400 tons of **VX** from 1961 to 1968, when the facility was closed.*

