



# ***Facts About...***

Triumph Explosives Industries  
(Non-Master List Site)

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## **Site Location**

Triumph Explosives Industries (TEI) is a roughly 1400-acre property located on the western border of Elkton, Cecil County, Maryland. The TEI Site is located in the angle defined by MD 279 on the southeast, MD-213 on the east, Route 40 on the south and Nottingham Road on the West. Blue Ball Road bisects the property and Little Elk Creek flows through it. The geographic coordinates of the site are 039° 36.8205' North and 075° 50.8343' West. The Maryland Grid coordinates are 1,124,700 East by 650,200 North and are based on the intersection of Blue Ball Road and Elkton Road (MD-279). During WWII, the TEI plant consisted of an Army side to the East side of Blue Ball Road and a Navy side to the West side of Blue Ball Road.

## **Site History**

TEI originally started as a small fireworks manufacturing company in 1933. By 1938 the company expanded and was renamed Triumph Explosives, Inc. and began manufacturing munitions. By 1942, TEI expanded operations to over 1,200 acres and manufactured munitions to support the U.S. war effort until 1945.

The property has historically been a munitions and fireworks manufacturing plant (TEI) and portions of it have recently been a plant manufacturing rocket motors and propulsion systems (ATK). Throughout its operational history, the site was owned and operated by TEI under contract to the United States Government. Since the 1950s, Thiokol Chemical Company operating under a succession of names has controlled a large portion of the property (Thiokol Chemical Company, Morton-Thiokol Inc., Cordant Technologies Inc., Thiokol Propulsion, ATK Thiokol; currently ATK Launch Systems Group). ATK manufactures and performs research and development on rocket motors and propulsion systems.

## **Environmental Investigations**

Historical aerial photographs were used to identify waste disposal areas, anomalies and areas of disturbed soil. Attempts were made to acquire the exact location of these disturbed areas and translate them to current parcel maps.

The 1200-acre site of the TEI plant has been the subject of numerous environmental assessments in recent years. Preliminary Assessments (PA) and Site Inspections (SI) have been performed on Triumph Industrial Park, ATK, Central Chemical Company, Maryland Cork, IP Inc., G.E. Railcar, Crouse Bros. Excavating, and Elkton Farm. ATK and GE Railcar are in the midst of corrective actions for the remediation of perchlorate and trichloroethylene contaminant plumes. Elkton Farm is the subject of an EPA planned removal action for remediation of waste munitions associated with the TEI plant.



## Current Status

The munitions and pyrotechnics industry uses a combination of explosives materials, heavy metals, metallic compounds and perchlorates in their products. Military ordnance and pyrotechnics manufacturers use various alcohols, ethers and chlorinated solvents in their manufacturing process. Volatile organic compounds are used to blanket explosive compounds, degrease munitions components and are themselves components of certain explosive compounds. Principal contaminants of concern will include heavy metals, nitro-aromatic compounds, perchlorates, volatile organic compounds and polychlorinated biphenyls.

Chemicals and compounds listed in the cookbook for the fireworks manufacture at TEI include: Aluminum, antimony, arsenic, barium, iron oxide, magnesium, sulfur, hexachlorobenzene, carbon tetrachloride, picric acid, potassium perchlorate, potassium permanganate, potassium chloride, saltpeter, sodium oxalate, linseed oil and gilsonite.

Following the closure of TEI in 1945, the 1200-acre plant was split into a number of different parcels. The parcel on which the burn pit was located became part of the present day ATK site. ATK manufactures and tests solid fuel propellants and continues to operate a solid propellant burn platform in the vicinity of the old burn pit.

Access to the ATK portion of the property is fenced, guarded, and well controlled; however, access from Little Elk Creek is uncontrolled. There is limited control over the remainder of the TEI plant area.

## Conclusions/Recommendations

There are two known contaminant plumes impacting the TEI area. An MDE groundwater investigation of the Dwyer Property has documented areas of chlorinated hydrocarbon contamination beneath and surrounding the TEI Navy side. A separate series of groundwater investigations focused on G.E. Railcar and the Maryland Cork Company has documented chlorinated solvents beneath and surrounding those properties. Contamination in these two areas may be traced to two distinct sources. One is the TEI manufacturing operation; the other is the Spectron/Galaxy Chemical Company disposal of organic liquids and still bottoms on several parcels in the Triumph Industrial Park.

## Contact Person

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**Last updated:** May 18, 2009

