

Albany Dougherty Pre-Disaster Mitigation Plan

Chapter 3 – Local Technological Hazard, Risk and Vulnerability (HRV) Summary

The following technological hazard is regarded as having the greatest likelihood of impact to our community. Included is a description of the hazard.

Technological Hazards:

I. Hazardous Materials

A. Hazardous Materials (HAZMAT) Identify. Hazardous materials are chemical substances that, if released or misused, can pose a threat to the environment or human health. These chemicals are used in industry, agriculture, medicine, research, and consumer goods. Hazardous materials come in the form of explosives, flammable and combustible substances, poisons, and radioactive materials. Jurisdictions with facilities that produce, process or store hazardous materials are at risk, as are facilities that treat, store, or dispose of hazardous wastes. A major source of hazardous material accidents are spills along roadways, railways, pipelines, rivers and port areas.

In addition to spills, disasters can come about through radiological incidents and nuclear power plant accidents. The ingestion exposure pathway is within a 50-mile Emergency Planning Zone of any nuclear power plant. Radioactive materials are products in the operation of nuclear reactors.

B. Hazardous Materials Profile. Hazardous material spills are common in areas where hazardous materials are fabricated, processed, and stored. Transportation of hazardous materials by truck is the cause of the greatest number of hazardous materials events. Many products containing hazardous chemicals are routinely used and stored in homes. These products are also shipped daily on the nation's highways, railroads, waterways, and pipelines. In most cases, disasters involving hazardous materials are confined to a localized area, whether an accidental release occurs at a fixed facility or in association with a transportation incident. The United States Environmental Protection Agency sorts hazardous materials into six categories:

1. Toxic Agents (irritants, asphyxiates, narcotics)
2. Other Toxic Agents (hepatotoxic, nephrotoxic)
3. Hazardous Wastes
4. Hazardous Substances
5. Toxic Pollutants
6. Extremely Hazardous Substances

Albany Dougherty Pre-Disaster Mitigation Plan

Currently Dougherty County does not currently maintain statistical records recording the annual number of hazardous materials incidents. However, the fire and police departments and organizations like the American Red Cross stress the safe and proper handling of hazardous materials. Given the County's common utilization in commercial, manufacturing, and private sectors, and the required transportation of hazardous materials, the likely future probability of reoccurrence within the County is high.

- C. Assets Exposed to Hazardous Materials.** A hazardous materials accident can occur anywhere. Communities located near chemical manufacturing plants are particularly at risk. However, hazardous materials are transported on our roadways, railways and waterways daily, so any area is considered vulnerable to an accident. Hazardous materials affect people through inhalation, ingestion, or direct contact with skin. They can cause death, serious injury, long-lasting health problems, and damage to buildings, homes and other property.
- D. Estimated Potential Losses to Hazardous Materials.** Most hazardous materials events occur during transport. Transportation of hazardous materials on highways involves tanker trucks or trailers and certain types of specialized bulk cargo vehicles. Because of the distances traveled, it is not surprising that trucks are responsible for the greatest number of hazardous materials events. According to the Department of Transportation (DOT), the ten year period 1993 to 2002, there were 155,956 hazardous materials spills events in the United States. Of these, 93.2% were highway or railroads events. During this same period DOT recorded 221 deaths and 4007 injuries. Dougherty County is at risk from accidental release of hazardous materials involving transportation incidences because it is crisscrossed by inter/intra-state highways (119.1 miles) and rail track (96.4 miles).
- E. Land Use and Development Trends Related to Hazardous Materials.** Dougherty County does not at this time have a plan for land use or development trends germane to Hazardous materials.
- F. Multi-Jurisdictional Hazardous Materials.** Dougherty County includes the City of Albany. Both Albany and Dougherty County were working partners in the development of the Pre-Disaster Mitigation Plan. Hazardous Materials concerns of City and County committee members were received, discussed and consolidated into the Plan.
- G. General Summary Hazardous Materials.** Human error is the probable cause of most transportation incidents and associated consequences involving the release of hazardous materials. Varying quantities of hazardous materials are manufactured, used, or stored in Dougherty County, from major industrial plants to local dry cleaning establishments or

Albany Dougherty Pre-Disaster Mitigation Plan

gardening supply stores. Most victims of chemical accidents result from carelessness in using flammable or combustible materials. Chapter 5 provides the Albany Dougherty Pre-Disaster Mitigation Committees Hazardous materials Goals, Objectives, and Tasks.