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United States Environmental Protection Agency
REGION VII
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Kansas City, Kansas 66101

SITE RECONNAISSANCE TO EVALUATE ASBESTOS REMOVAL FOR MARCO PETROLEUM SITE, CHANUTE, KANSAS

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1.0 INTRODUCTION

TapanAm Associates Inc., was tasked by the U.S. Environmental Protection Agency to conduct a site visit and discuss asbestos removal options for the MARCO Petroleum Site at Chanute Kansas.

The site visit was conducted on 12/22/1993 by representatives from EPA, TapanAm, and asbestos specialist from PSI, Inc. A brief description of the site visit and asbestos removal options for the MARCO site is discussed below.

Numerous asbestos removal options were discussed during the site visit. However, it is strongly recommended that a comprehensive asbestos inspection be conducted prior to any asbestos removal actions.

2.0 SITE RECONNAISSANCE AND INVESTIGATION

The MARCO petroleum site is an old oil refinery located north east of Chanute, Kansas, approximately 125 miles south of Kansas City.

To identify the extent and condition of friable asbestos containing materials, a visual inspection and walk-through of the entire site was conducted on December 22, 1993 with Carl Bailey (EPA), Siva Sivalingam (TapanAm) and Chuck Ferguson (PSI).

Suspect asbestos containing materials were identified both on the structures of the oil refinery components and in buildings at the site. The suspect asbestos containing material were present in boiler components (fire brick, mud, insulation, and gaskets), tower, tank and vessel coverings, pipe wrapping, and building components (Figures 1 and 2). The suspect asbestos containing materials on many pipes and tank structures used as insulation were delaminated and damaged (Figures 3 and 4). Due to its highly weathered conditions, large areas of these materials have fallen off the structures. Large piles of suspect asbestos debris were also found on the ground surface (Figure 5).

3.0 ASBESTOS REMOVAL OPTIONS

Various asbestos removal options were discussed during the site survey. The site will be divided and demarcated into separate operable units. Each area will then be contained and the friable asbestos material will be wetted before removal. The asbestos removal options include gross removal, dismantling, glove bagging, demolition and outdoor removal. Three stage decontamination chambers, windbreaks, scaffolding, HEPA equipped negative air machines, and HEPA equipped vacuum cleaners will be used for asbestos removal. The option of cutting off sections of pipes with asbestos insulation and disposing it as a unit is not viable. Since these pipes may contain petroleum products, any spark generated during the cutting action might start a fire or an explosion.

Removal of friable asbestos above ground level would include piping, distillation towers, cracking units, tank farms, stripping towers, vessels, contaminated debris, and inside components of buildings. Asbestos debris scattered on the ground should also be cleaned up and disposed of properly at an approved landfill. The work proposed for asbestos removal should be done in accordance with applicable current EPA, OSHA, KDHE, and local regulations.

4.0 RECOMMENDATIONS

Since no prior asbestos survey has been completed, we recommend that a comprehensive asbestos inspection be conducted before any asbestos removal actions. The asbestos inspection would identify the locations, quantities and conditions of friable or damaged materials associated with asbestos containing materials.

The Comprehensive Asbestos Inspection should be conducted in accordance with the Asbestos Hazard Emergency Response Act (AHERA). Upon completion of the asbestos inspection, the data and results should be clearly documented on a site plan or building blue prints the locations of confirmed asbestos containing materials (ACM). The total quantity of ACM should be included, calculated on a square footage basis for surfacing and miscellaneous materials, and on a linear footage basis for pipe insulation, ducts, etc. Based on this asbestos survey, a cost estimate and project design for asbestos removal can be provided.

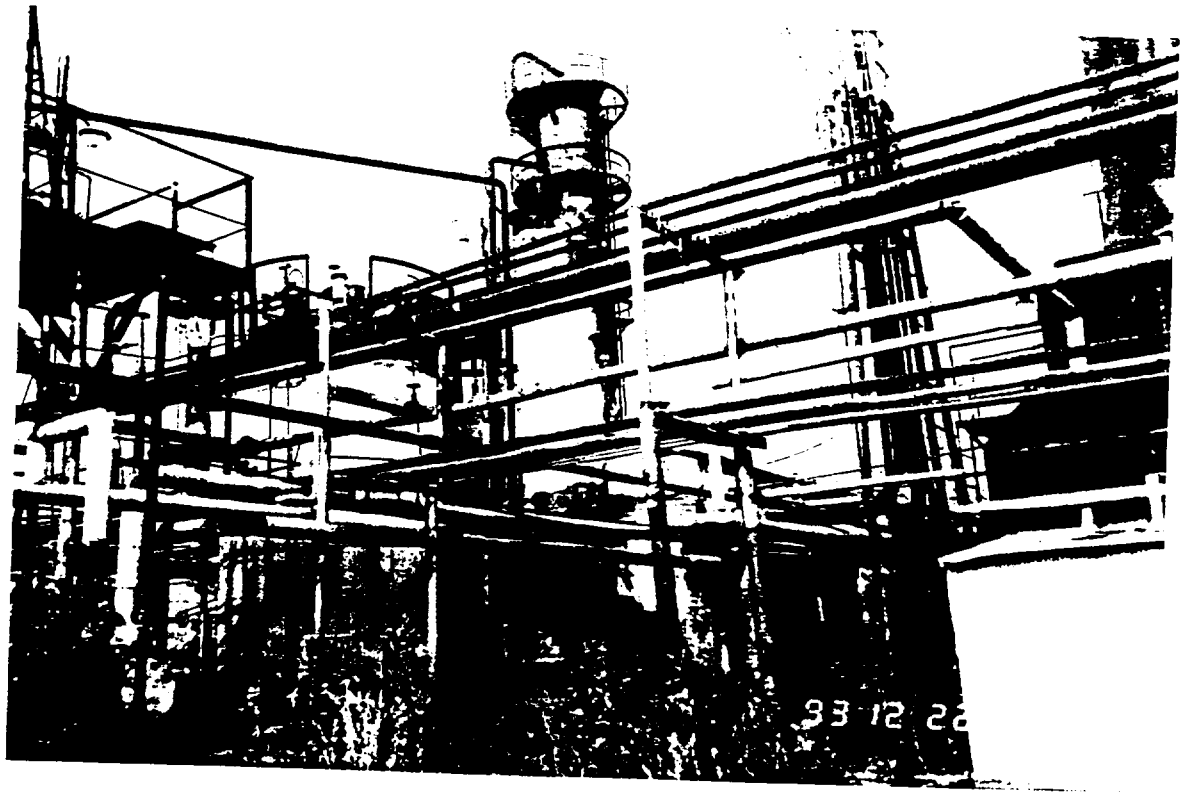

Figure 1. Suspect asbestos containing materials used as insulation for pipes.

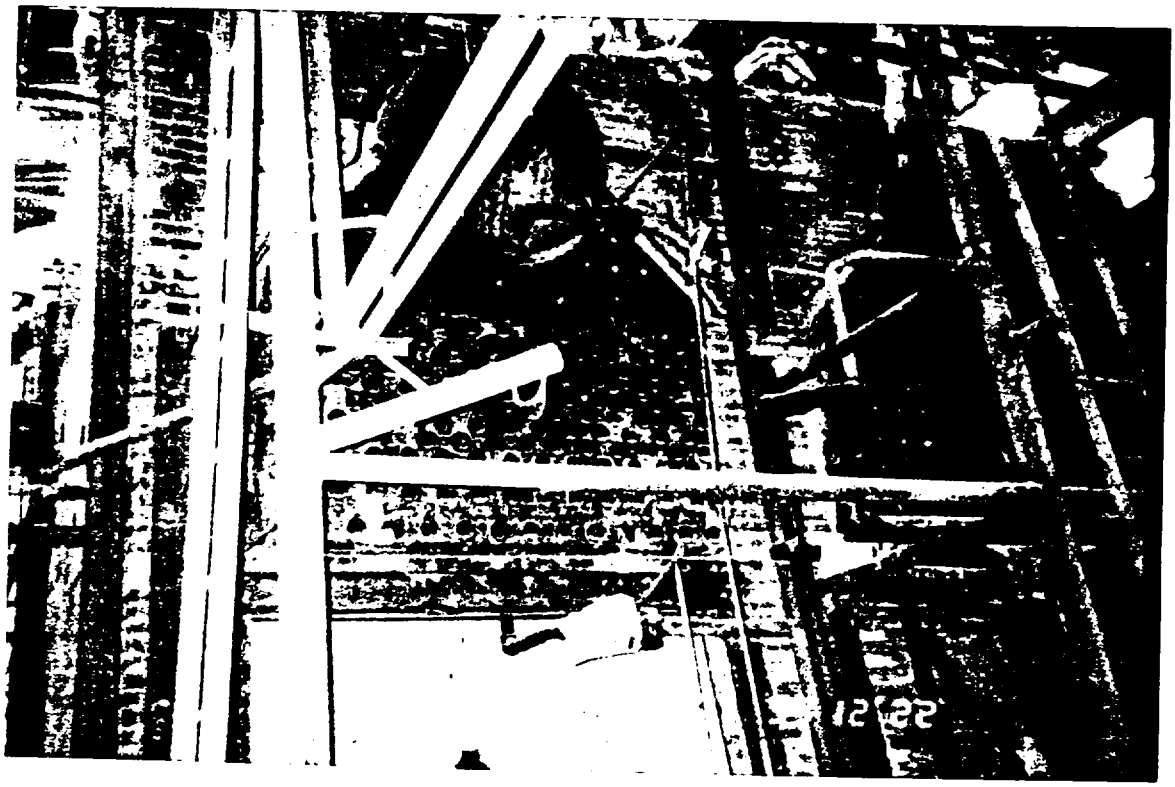

Figure 2. Suspect asbestos containing materials used in the boiler room.

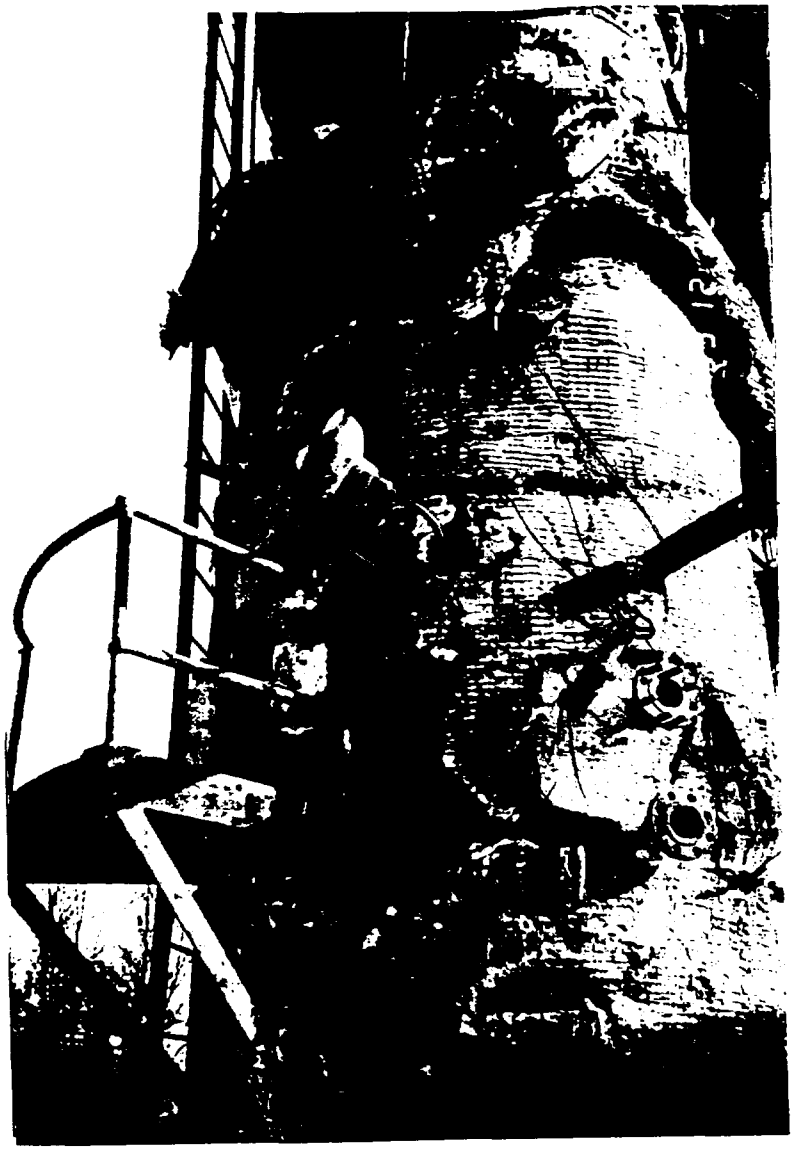

Figure 3. Delaminated and weathered suspect asbestos containing material on cracking unit.

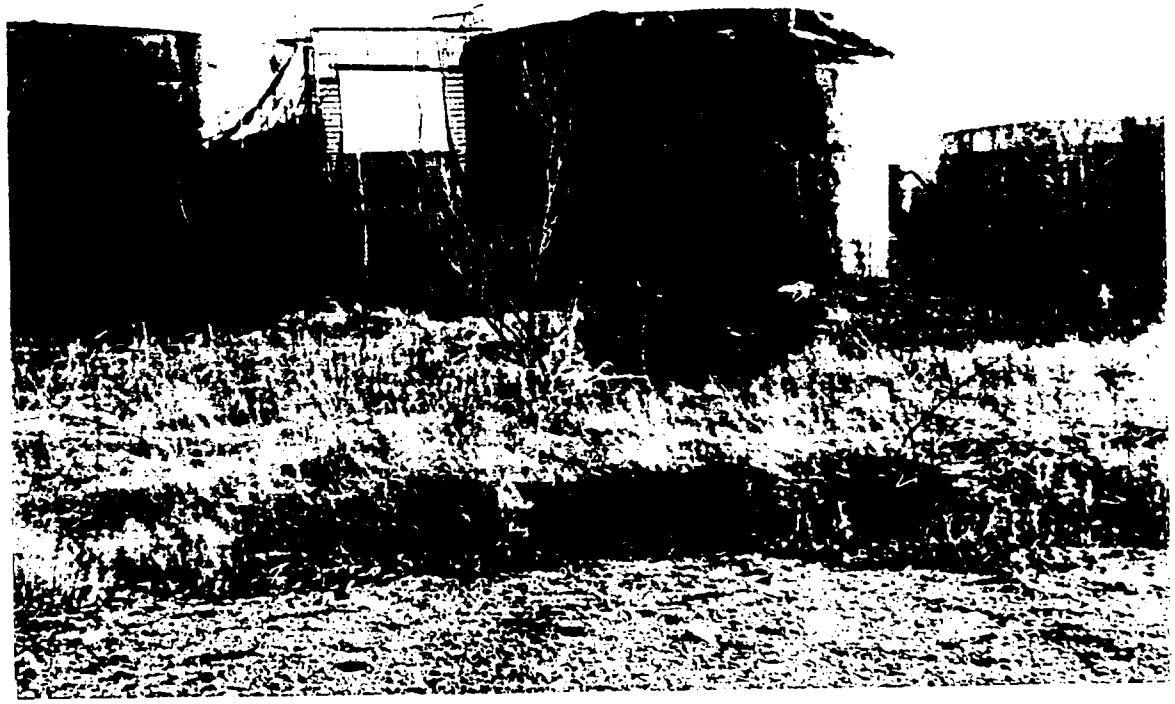

Figure 4. Damaged suspect asbestos containing materials surrounding the tank.

Figure 5. Suspect friable asbestos containing materials scattered on the ground surface.