

2.0 HISTOKY OF RMA HBSF

Rocky Mountain Arsenal occupies over 17,000 acres, approximately 27 square miles, of land in Adams County, directly northeast of metropolitan Denver, Colorado (see Figure 1). The HBSF, which is owned by the Air Force and was operated by RMA between 1962 and May 5, 1982 (Strang, 1982), is located east of the South Plants area in the northeast corner of Section 1 (see Figure 2). The site consists of two yards each completely surrounded by a chain-link security fence and a barbed-wire fence. The yards are connected by two overhead pipelines.

The west yard was constructed in 1961 and is approximately 346,000 square feet (ft²) in area. The yard contains the loading and unloading facilities for rail cars and tank trucks; the blending facilities; a 44,000-gallon inground concrete tank for the collection of wastewaters and area runoff; a drum filling station; a drum storage pad; office, storage, and tool sheds; and two 19,000-gallon carbon steel and four 24,900-gallon stainless steel bulk storage tanks.

The east yard was constructed in 1976 as an additional storage facility for unsymmetrical dimethylhydrazine (UDMH). The east yard is approximately 103,000 ft² in area and contains one 50,000- and one 200,000-gallon carbon steel storage tank.

Figure 3 illustrates the schematic layout of the HBSF. Table 1 lists the major equipment and structures located at the HBSF. In addition, the HBSF contains asbestos and polyurethane insulated piping, electrical equipment that may contain polychlorinated biphenyls (PCBs), and flammable liquids including ethylene glycol that was used as a heat transfer fluid in the storage tank heat exchanger units.

The HBSF has been used as a depot to receive, blend, store and distribute hydrazine fuels. The primary operation was the blending of anhydrous hydrazine and UDMH to produce Aerozine 50. The materials were manufactured elsewhere and shipped to RMA for blending. Blending operations were not continuous and occurred in response to requests by the Air Force. Other operations at the HBSF included loading and unloading rail cars and tank trucks; destruction of off-spec batches of Aerozine 50; and storage of Aerozine 50, anhydrous hydrazine, monomethyl hydrazine (MMH), monopropellant hydrazine, hydrazine 70, UDMH, and hydrazine.

Hydrazine and UDMH are ignitable, corrosive and toxic. They are unstable in the natural environment and rapidly decompose when exposed to the atmosphere. One of the decomposition products is n-nitrosodimethylamine (NDMA), a suspected carcinogen. From January through March 1982, OSHA surveyed the HBSF and detected the presence of airborne NDMA within the HBSF. In May 1982, RMA ceased operations and closed the HBSF to all but safety-essential or emergency-response entries.

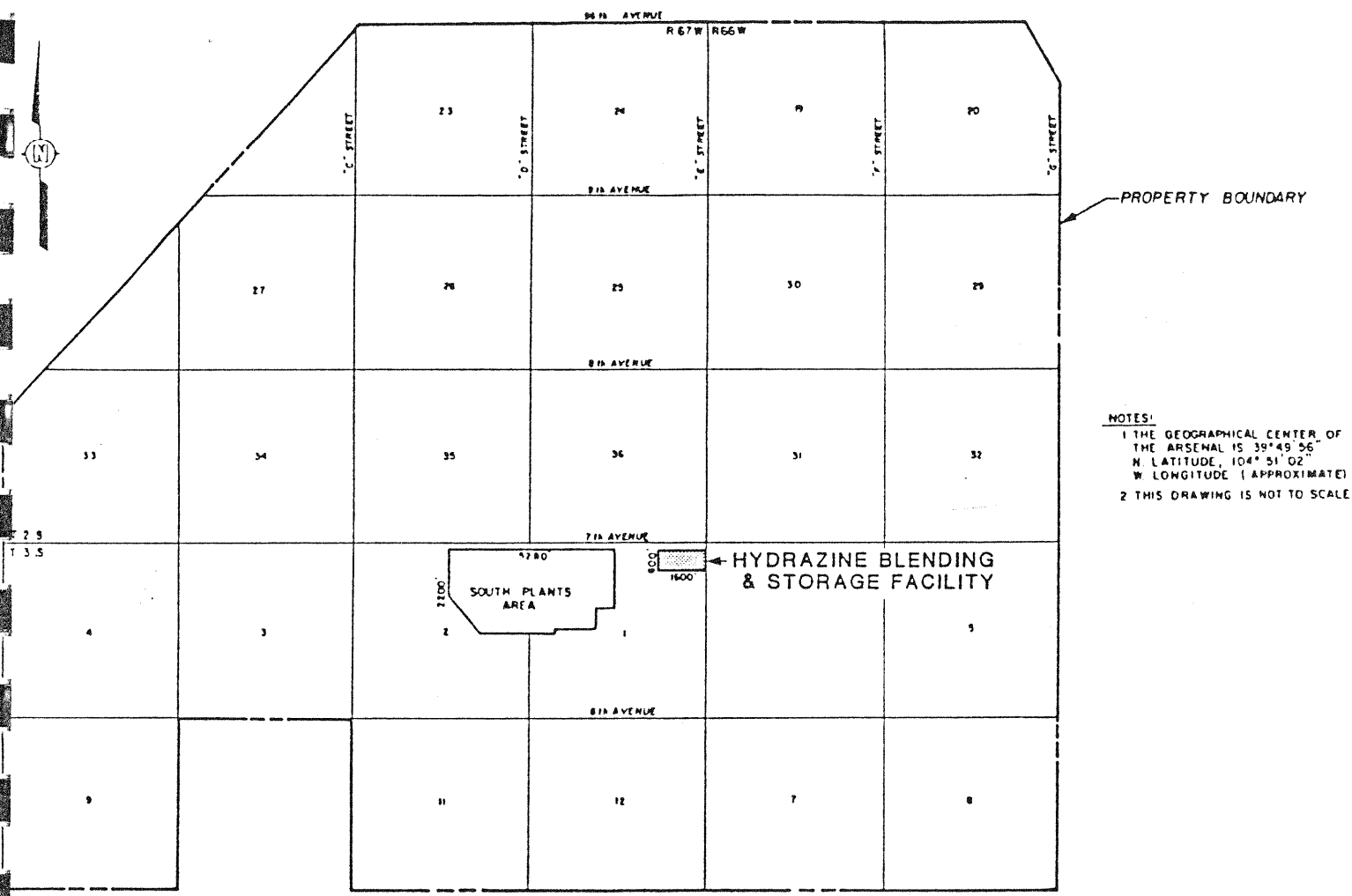


Figure 2. HBSF Location Map

Source: Final Report Hydrazine Blending and Storage Facility Wastewater Treatment and Decommissioning Assessment, Version 3.1, Ebasco Services Incorporated, June 1988.