

K-1066-K UF₆ Cylinder Storage Yard

The K-1066-K cylinder storage yard is located in the western portion of the East Tennessee Technology Park ~860 ft west of Buildings K-31 and K-33. This yard lies west of Perimeter Road, adjacent to the K-1065 RCRA Storage Complex, and is separately fenced. Perimeter Road runs north and south ~80 ft from the eastern side of the yard, and an access drive provides entry from Perimeter Road to the southeast corner of the yard. A lighted security patrol road runs outside the security fencing along the southern and western sides of the yard. There are also equipment access gates on the south and west sides of this yard. K-1066-K Yard is posted as a Fixed Contamination Area and TLD's are required. This yard is considered a Nuclear Facility, Category 2. Postings designate the yard location, entry and notification requirements, and warn of the presence of PCBs on particular cylinders.

This yard is considered to be inadequate for long-term cylinder storage. The southern area of the yard is paved with concrete estimated to be 4 inches thick, while the northern portion of the yard consists of gravel estimated to be 6 inches thick. Because of surface irregularities and improper drainage, large puddles form on the concrete yard during rainfall. K-1066-K Yard was constructed in 1980-1982.

The total area of K Yard is approximately 2.25 acres (~98,000 ft²). The southern area (concrete) is approximately 1.5 acres. Although considered inadequate for long-term storage because of poor drainage, this area has an estimated capacity of 1100 48-inch cylinders double stacked with 4 feet aisle spacing and 60 inches center-to-center stacking configuration. The northern area (gravel) accounts for roughly 0.7 acres. Also considered inadequate for long-term storage because of its gravel surface, this area has an estimated capacity of 500 48-inch cylinders double stacked with 4 feet aisle spacing and 60 inches center-to-center stacking configuration.

Currently, cylinders are stacked two high, west to east. There are approximately 2450 wooden saddles and 150 concrete saddles in this yard. K yard currently stores 2549 48-inch full DU cylinders, and an additional 108 small diameter sample sized cylinders (1S, 2S, FAB3, and SAM). The full DU cylinders stored in this yard are inadequately spaced (narrow aisles and center-to-center spacing) and many are improperly stacked. To date, eighteen cylinders have been removed from ground contact, requiring an additional 80 cylinder moves to access those in ground contact. The graveled north side, where 5 cylinders were recently removed from ground contact, has many cylinders currently with stiffening ring- to-ground contact.

Plans for FY 2001-2003 are to remove all 2549 48-inch full DU cylinders in K yard, re-coat them using the facilities in E yard, and place them into adequate storage. K-1066-J yard will be used to store approximately 1500, and the remaining 1049 will be brought back to suitable storage in K yard. FY 2002 plans are to upgrade the northern gravel portion of K yard using compacted gravel to receive up to 500 cylinders, and the remaining 549 will be stored on the existing concrete southern portion.

The yard is relatively level, with a mean elevation of 775 ft ASL. The yard drains predominantly to the west, with surface runoff channeling through a series of drainage ditches and storm sewers and discharging through a 42-inch storm sewer outfall into Beaver Pond (K-901-A) located west of the yard. The ORR boundary is ~2200 ft southwest of the yard.

There are two small utility buildings near the southeast entrance to K-1066-K yard used for equipment storage and a personnel cool-down area. The equipment storage building (no building designation) is approximately 8'X10' with no electrical supply, and the cool-down building, K-1310-CR, is approximately 10' X 15' with lights and window unit HVAC. Power is supplied from a utility pole at the southeast entrance to K yard.



Aerial and elevation views taken from east side of K-1066-K Yard