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FACT SHEET 9 FOR 1997 CHICORA TANK FARM CNC CHARLESTON SC
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NAVFAC SOUTHERN



NAVAL BASE, CHARLESTON

Environmental Cleanup Program

This fact sheet is one of a series to inform interested citizens about the environmental investigations and cleanup actions at Naval Base, Charleston. Other fact sheets will be written at appropriate points in the program and in response to public interest. Distribution is coordinated through the Public Affairs Office at Naval Facilities Engineering Command, Southern Division, (803) 820-5771.

CHICORA TANK FARM

BACKGROUND

The Chicora Tank Farm is a 23-acre site which formerly supplied fuel and lubricants to Naval Base Charleston. It is located approximately 500 yards west of the former Naval Base. The tank farm currently consists of six non-operational fuel storage tanks which are covered with mounds of soil 3 - 5 feet high.

The tanks were constructed in 1943. Five were designed to hold fuel oil for use in boilers on Navy ships, and one tank was designed to hold waste oil. In 1988, the first of the six tanks was taken out of service and, currently, none of the tanks is in use.

SUMMARY OF ENVIRONMENTAL HISTORY

In 1986, testing was done in response to fuel that had leaked into the pump rooms of three of the large Chicora tanks. The tests were completed to determine if the surrounding soil or groundwater had been contaminated by the leaking fuel. No evidence of petroleum contamination was found.

*The **holding capacity** of the five tanks is 2,100,000 gallons each, and each tank is approximately 138 feet in diameter by 20 feet high. The sixth tank holds 1,134,000 gallons and is 102 feet in diameter by 20 feet high.*

In 1988, petroleum was discovered in one of the manholes of the french drain system. The Navy completed a detailed assessment to determine the extent of potential contamination. Assessment activities included a tracer survey, soil-gas survey, installation of soil borings and groundwater monitoring wells, and collection and analysis of soil, sediment, and water samples. In addition, samples were taken from the bottom of the tank farm's spill containment pond and quarterly monitoring was performed on well samples and from the french drain system pipelines.

The petroleum was removed from the manhole, and no more product returned, suggesting that the petroleum came from a single release, not a constant source. After a year of sampling, it was concluded that very low-level petroleum contamination is present in the groundwater near tank P.

South Carolina Department of Health and Environmental Control (DHEC) reviewed the results of the Navy's investigations and issued a "no further action" decision. DHEC also recommended that the tanks be cleaned and permanently closed.

More detailed information on the results of the environmental assessment of the tank farm can be found in the information repository at the Dorchester Road Regional Library.

TANK CLOSURE

In October 1995, initial decommissioning and tank closure options were addressed. The four options were:

- Option 1...** Clean and fill the tanks with inert material and leave in place.
- Option 2...** Partial demolition of tank roofs. Clean and fill with inert material.
- Option 3...** Partial demolition, with debris from tank used to fill remaining structure. Clean and fill remaining volume with inert material.
- Option 4...** Complete removal of tanks and piping.

State regulators, members of the Naval Base Charleston Restoration Advisory Board, the Navy, and the Environmental Protection Agency agreed that Option 3 was the preferred closure method. Option 3 was chosen because partial demolition of the tanks would shorten the height of the tanks, resulting in a fairly flat ground surface that would be more accommodating to future uses than the existing hills.

Option 3 includes knocking in the top and part of the sides of the tanks, allowing all demolition debris to fall into the tanks. The tanks would then be backfilled and a clay cap placed on top of the excavation to prevent groundwater infiltration. After the process is complete, the property will have small mounds at each tank site instead of the large hills currently there.

The Navy will proceed with Option 3 if the intended user of the property requires it for their plans. If no user is found for the property, the Navy will proceed with Option 1 which is technically simpler than Option 3.

Procedure for Cleaning Tanks

The contents of all tanks will be sampled and analyzed for proper disposal. After removal and disposal of any residual material, the tanks will be thoroughly washed and the resulting wastewater will be properly disposed. In addition, all fuel transfer and sludge pipelines connected to the tank farm will be cleaned, filled with inert material, capped, and abandoned in place.

STATUS

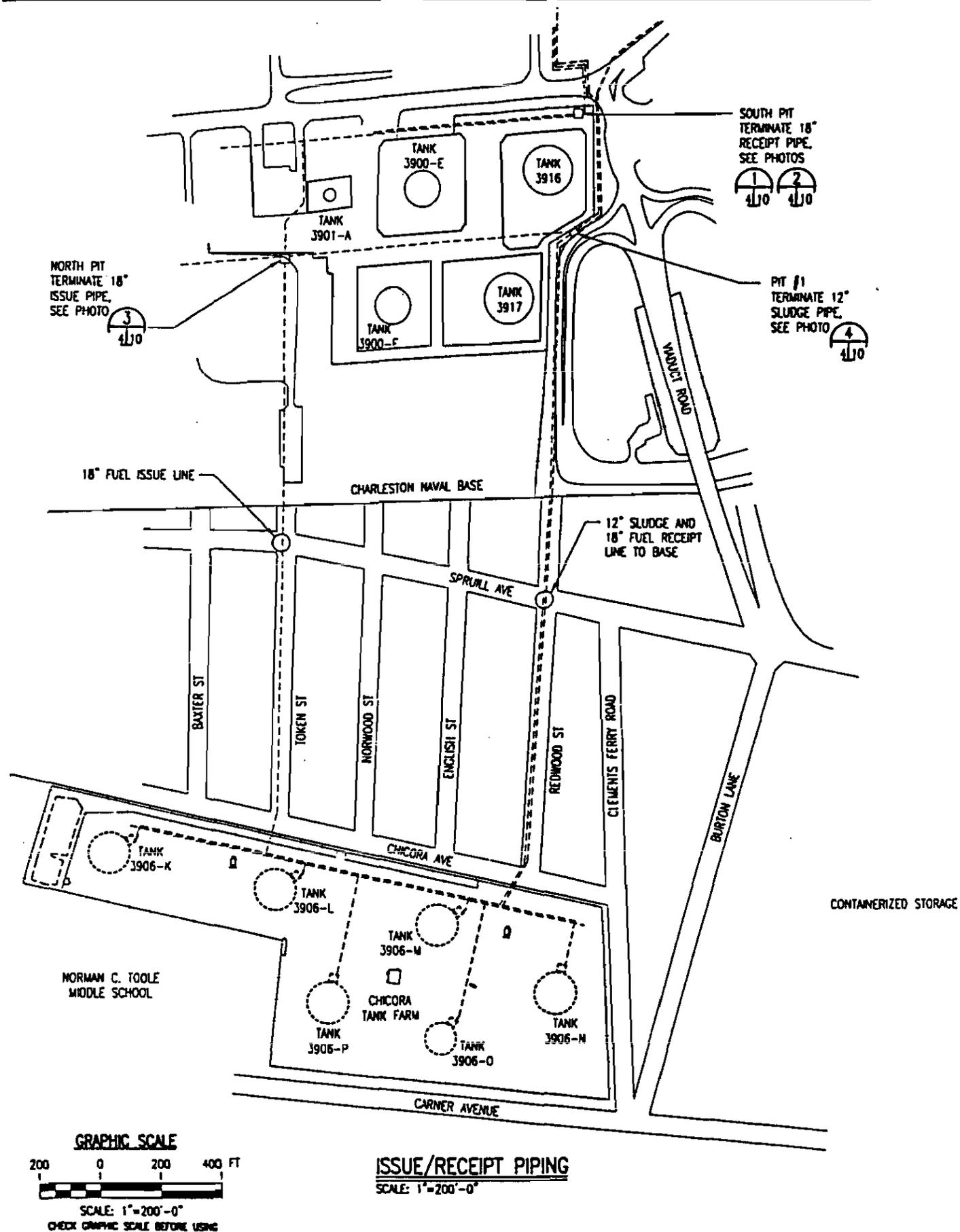
Currently, the RDA is working toward an arrangement to provide the property to a public entity free of charge or rent. However, the new owner/user will be responsible for all future maintenance and upkeep. The Navy will be responsible for any environmental cleanup that relates to its past activities.

As this time, the RDA is waiting to hear from various public entities before proceeding with conveyance.

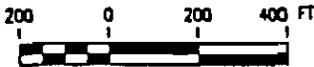
FOR MORE INFORMATION

For more information on this fact sheet or any questions regarding the Naval Base Charleston environmental cleanup program in general, call or write:

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