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APCO OIL CORPORATION

REFINERY DIVISION CYRIL, OKLAHOMA 73029

November 28, 1977

IND. & ENV. DIVISION
NOV 29 1977

Mr. H. A. Caves
Oklahoma State Department of Health
Northeast 10th Street & Stonewall
P. O. Box 52551
Oklahoma City, OK 73105

Dear Sir:

On Sept. 12, 1977, we submitted application form No. 848 for a Controlled Industrial Waste Disposal Site operating permit. In your return letter of Sept. 26, 1977, you requested further information on the wastes, sites, procedures monitoring and environmental safeguards involved at this facility. Enclosed is a summary of this information on our facility.

This information follows the outline in the "Guidelines for Controlled Industrial Waste Surface Disposal Sites" for permit application and will put us in compliance.

Very truly yours,

Apco Oil Corporation

C. G. McConnell, Manager

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WASTES: SOURCE - DESCRIPTION - DISPOSAL

Asphalt Sludge

This material is removed from a drop pot in the air line from an airblown asphalt operation to an incinerator. Production averages 70 lbs./day of sludge with no present expected change.

The sludge obtained is approximately 90% asphalt with a sufficiently high viscosity to be handled as a solid. Composition of this sludge is basically high molecular weight asphaltic hydrocarbons varying with crude run at facility. This asphalt offers no fire hazard due to high ignition temperature and is not permeable to water.

This sludge is disposed of onsite in a pit due to its small quantity.

Gasoline Tank Bottoms

This sludge is the result of tank cleanings. History has shown an average of one tank cleaning per each three years yielding approximately 600 lbs. (Will vary - average 200 lbs./year)

This material is approximately 90% Tetraethyl lead, with the remainder rust, etc.

Disposal of this material is done following A.P.I. and Ethyl Corp. recommended procedure of spreading sludge 3 inches thick over ground and allowing natural oxidation to occur. The lead is oxidized to a non-harmful state in approximately four weeks. This site is restricted for this purpose and subsequent layers are applied each cleaning.

API Separator Bottoms

This sludge is removed from the API separator on our waste water treatment system and by dredging channel and first series of skimming traps. Average production is estimated to be 2000 lb./year.

This material is basically silt carried in by our open ditch surface drainage system with an estimated 20% heavy oil from oil sewer.

Disposal is by surface spreading to allow to dry. Dried sludge is then used as dyke material or landfill cover on our trash disposal.

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DESCRIPTION OF PRESENT DISPOSAL SITES

Attached is a drawing showing the plant site, including our waste water facilities, the three areas used for disposal of the wastes previously described, and the nearest natural water way.

Area A is used for surface spreading of gasoline tank bottoms for air oxidation. This area is approx. 100 ft. x 300 ft. The area is 600 ft. from the waste water system and 250 ft. from Gladys creek.

Area B is used for both slip trench disposal of refinery trash, not considered industrial wastes (paper, wood, etc.), and API separator bottoms. The bottoms are spread, allowed to dry and used as trench cover material. The area is approximately 200 ft. by 300 ft. with its closest point 400 ft. from Gladys creek.

Area C is a pit, 100 ft. in diameter with raised dikes. This pit is 200 ft. from Gladys creek. This pit is used for disposal of the asphaltic sludge previously described.

GENERAL NOTES

The land upon which these disposal sites are located is basically of a sandy clay and silt composition. The area also contains a considerable amount of gypsum formations as evident by numerous outcroppings in the area. Due to this gypsum rock, past history on our waste water lagoon system has shown that seepage through this material is unpredictable. Surface water absorbed into the area will tend to follow the fissures present in the gypsum. The natural drainage is toward Gladys creek which has a min. elevation of 30 ft. below the surrounding area. Due to this difference in elevation most ground water not entrapped in the gypsum rock shows up in the side of the creek bank. Historically this has been minimal but does offer somewhat of a natural monitoring well system.

The water table in this area is well below the creek bed elevation, thus it offers no problem.

Due to a surface water drainage system within the processing area which also drains most of the city of Cyril, the disposal areas are not subject to surface water from surrounding areas. This water is channeled through our water treatment system.

The pit used for asphalt disposal has been in service for many years. This material has formed a liner in the pit by its very nature and does not offer a problem with seepage.

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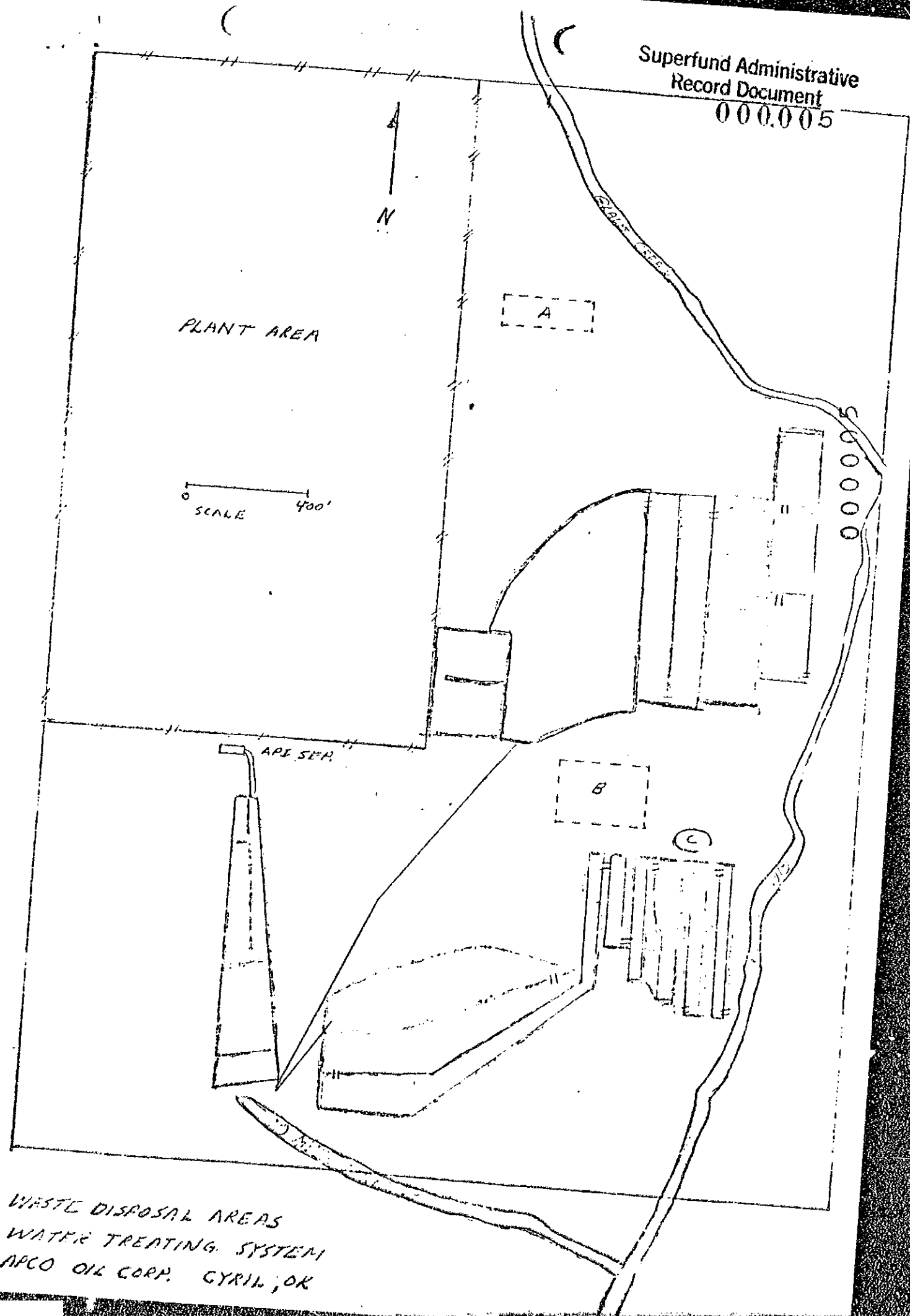
CONCLUSION

Due to the type, quantities and frequency of wastes to be disposed of, the present method of disposal is a practical procedure. Installation of monitoring wells is not practical due to the nature of the soil and gypsum formations in the area. The presence of the elevation differential between Gladys creek and the disposal areas serves as a natural observation site.

Observation of the natural water way (Gladys Creek) over the history of the disposal site has not shown seepage of these materials into the creek. The inspection of this waterway is made daily by the slop pumper, area foreman, process engineer, and plant manager which allows for immediate action if any problem should occur.

The present procedure for disposal of these waste is a well controlled, practical and safe procedure without offering a detrimental effect to the environment.

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WASTE DISPOSAL AREAS
WATER TREATING SYSTEM
APCO OIL CORP. CYRIL, OK