OCT 5 1978

MEMORANDUM FOR: J. Carl Stepp, Chief, Geosciences Branch
Division of Site Safety and Environmental Analysis

FROM: Owen Thompson, Geotechnical Engineer
Geotechnical Engineering Section, Geosciences Branch, DSE

THRU: L. W. Heller, Leader, Geotechnical Engineering Section
Geosciences Branch, DSE

SUBJECT: SITE VISIT TO FANSTEEL METALS AUGUST 29, 1978

DOCKET NUMBER: 040-07580
TAC NUMBER: 4655, R-53
RESPONSIBLE BRANCH: Radioisotopes Licensing Branch, NMSS
PROJECT MANAGER: E. Wright

On August 29, 1978, I visited the site of Fansteel Metals to witness construction of a tile drain system around the perimeter of the proposed waste retention system (pond). The purpose of the drain is:

1. To lower the groundwater level as a construction expedient

2. To maintain the permanent groundwater level below the base of the lined pond.

At the time of my visit, the tile drain along the north side of the pond was completed. At the east (outfall) end, a flow of approximately 15 to 20 gpm was recorded on August 28, 1978.

While at the site, I was conducted on a tour of the other ponds and appurtenances by Mr. J. Pierrat, Manager, Muskogee Plant. I also met with Mr. T. Carlile, Jr., Manager, Plant Services. Important aspects of pond design and construction which had been discussed in previous correspondence and meetings were outlined, as follows:

(a) Inspection and testing of earthwork must be by a qualified Soils Technician under the direction of a Registered Professional Soils Engineer.

(b) All disturbed or fill soils beneath new embankments must be removed and replaced by controlled fill.

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(c) The design engineer must assess the impact of the tile drain trench on the pond design, specifically to identify those locations where the trench backfill should be controlled, compacted fill.

(d) The details of the as-built tile drain system must be documented, including location, elevation, width of trench, gradation of granular filter, outfall details, etc.

(e) The flow rate in the tile drain system should be recorded at significant times (at least monthly) and submitted to NRC with as-built details.

(f) Information requested in our memorandum dated June 15, 1978 to B. Singer, NMSS from J. Stepp, must be provided.

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cc: R. Denise
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