Westinghouse Electric Corporation
Commercial Nuclear Fuel Division
Box 355
Pittsburgh Pennsylvania 15230-0355

RS 92-50
December 8, 1992

U. S. Nuclear Regulatory Commission
Office of Nuclear Reactor Regulation
Washington, D. C. 20555

Attention: Mr. Theodore S. Michaels

Gentlemen:

Subject: Request for Amendment to License TR-2, Docket 50-22

The Westinghouse Electric Corporation hereby requests an amendment to License TR-2, Docket 50-22, transferring the authorization to possess the retired Westinghouse Test Reactor (WTR) soil basins and remaining residual radioactivity to License SNM-770, Docket 70-698. This latter license is a broad special nuclear, byproduct and source grade materials license which covers all operations and facilities on the Waltz Mill Site, except those associated with the retired WTR. No change in the current SNM-770 possession limits will be required as a result of this amendment.

Attached is a description of the soil basins and a justification for making the transfer from the TR-2 possession only license to the SNM-770 site operating license. In accordance with the provisions of 10CFR170.21, no fee payment is due with this application. If you have any questions or require additional information, please contact me at the above address or telephone me on (412) 374-4652.

Very truly yours,

A. J. Nardi, Manager
Regulatory Services

cc: USNRC Region I
Copies Transmitted: 3 notarized & 10 conformed

COMMONWEALTH OF PENNSYLVANIA)
COUNTY OF ALLEGHENY) ss

Sworn and subscribed before me this

8th day of December, 1992

Notary Public

Notarial Seal
Paulette Sinnelic, Notary Public
Monroeville Boro, Allegheny County
My Commission Expires March 10, 1994
Member, Pennsylvania Association of Notaries

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TRANSFERRING POSSESSION OF RETIRED WTR SOIL BASINS FROM LICENSE TR-2 TO LICENSE SNM-770

BACKGROUND

Subsequent to the fuel element meltdown at the Westinghouse Test Reactor (WTR) in April 1960, it became necessary to store large quantities of contaminated water prior to processing and removal of the radioactivity. Since it was impossible to obtain tanks having sufficient capacity within a short time, several excavations were made on the site property to create holding basins where this water could be retained. Three (3) basins designated as No. 1, No. 2 and No. 3 were used for storage of this contaminated water. The basins are located on the site approximately as shown on Figure 1.

DESCRIPTION

Basin No. 1 is approximately 115 ft x 200 ft x 12 ft deep. Following excavation, the clay base of the basin was covered with a koroseal liner and the basin was filled with contaminated water. Basins No. 2 and No. 3 are immediately adjacent to each other and the approximate combined size of the 2 basins is 100 ft x 180 ft x 12 ft deep. Following excavation, the bottoms of these basins were covered with a 6-12 inch layer of sand and this surface was covered with polyethylene sheeting prior to filling with contaminated water.

Subsequently, all contaminated water was removed from these basins and processed through a 2000 gallon per hour evaporation plant. In mid-1963 the basins were backfilled with the earth which was originally excavated. The resulting soil surface of the area has a gradual slope from north to south which provides good surface drainage from this area.

CHARACTERIZATION

Limited data is available on the radioactivity present in the basins at the time of backfilling. However, utilizing what data available, we estimate the following activity to be present in the as of September 1992:

Basin No. 1 = 46 millicuries
Basin No. 2 = 0.5 millicuries
Basin No. 3 = 15 millicuries

Since the radionuclides present at the time of backfilling (29 years ago) were identified as mixed fission and activation products, the radioactivity remaining in the basins in 1992 is assumed to be primarily Cs-137 and Sr-90.

In 1979, a number of monitoring wells, identified as TH on Figure 2, were installed in the vicinity of the backfilled basins. Since the well installation, groundwater samples have been taken on a quarterly basis and analyzed for radioactivity. The gross alpha activity in all samples to date has been below the NRC identified action level of 15 picocuries per liter. Upon occasion, the gross beta activity in a quarterly well sample has exceeded the NRC identified action level of 50 picocuries per liter (to a maximum of 210 picocuries per liter). Further analysis of these samples has shown the major radionuclide to be Sr-90. Although the source of this low level contamination has not been definitely confirmed, the residual activity in the backfilled basins is strongly suspected.

Between 1981 and 1983, additional monitoring wells were installed in the area of the site low level radioactive waste complex which is possessed under License SNM-770 and which is in close proximity to the backfilled basins. These wells are identified as OHE and MW on Figure 2. Like the TH wells described above, the OHE and MW wells have been sampled on a quarterly basis. The gross alpha activity in all samples to date has been below the action level of 15 picocuries per liter. However, the gross beta activity in several of the wells has frequently exceeded the action

level of 50 picocuries per liter. As a result, various actions have been taken which have significantly reduced, but not eliminated, the contamination levels in these wells. Sources, other than the backfilled basins, have been identified as the major probable contributors to this contamination.

JUSTIFICATION

Westinghouse is in the process of hiring contractors to undertake an assessment and remediation of the soil and groundwater conditions on the Waltz Mill Site. Included in this work scope is a review of the existing data, obtaining additional characterization data as deemed necessary, and preparing and implementing a remediation plan to eliminate the groundwater contamination. Since some of the suspected sources (backfilled basins) of the soil and groundwater contamination are possessed under License TR-2 and other suspected sources (drainlines, underground piping, etc.) are possessed under License SNM-770, implementation of the assessment, characterization and remediation work will be unwieldy and inefficient due to different license conditions and the need to interact with different sections of the NRC. Since most of the suspected sources and the largest areas of significant soil and groundwater contamination are currently possessed under License SNM-770, we request that the backfilled WTR basins be removed from License TR-2 and placed in License SNM-770. Such a transfer to License SNM-770 will have no impact on current possession limits, scope of operations or license conditions, but will enhance our ability to proceed toward remediation in a more timely and efficient manner.

Furthermore, our objective is to decommission the facilities currently possessed under License TR-2 and to terminate that license. License SNM-770, however, covers all ongoing site activities involving radioactive materials and we anticipate retaining this license into the indefinite future. Therefore, continued soil and groundwater surveillance of the site would be performed under this license.

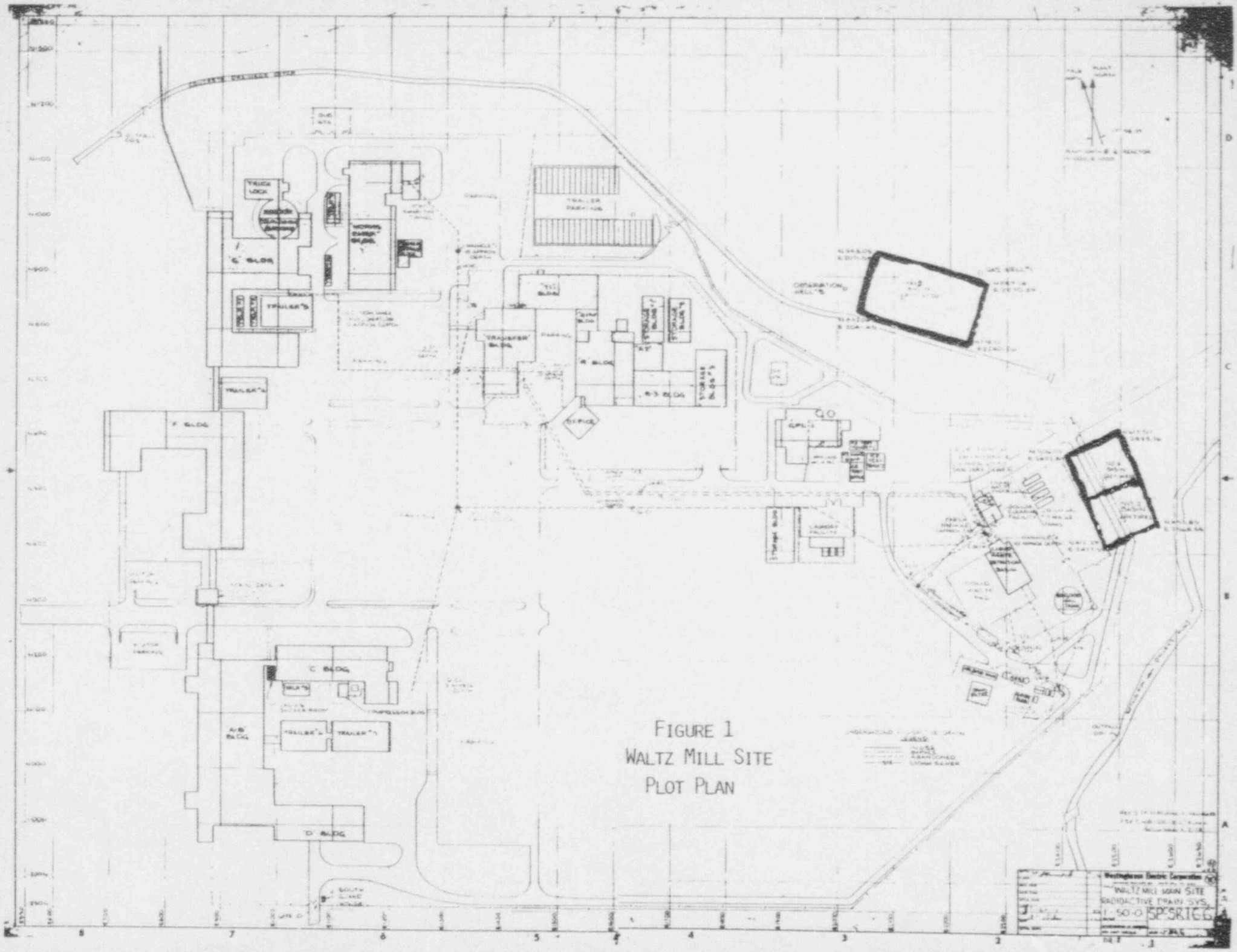

FIGURE 1
WALTZ MILL SITE
PLOT PLAN

FIGURE 2

Liquid and Solid Waste Complex