FEB 2 8 1994

Docket No. 030-05251 License No. 29-01248-02 (terminated)

AT&T
Attn: Michael Greenstein
Technical Manager,
Quality, Environmental Health & Safety
100 Terminal Avenue
Clark, New Jersey 07066

Dear Mr. Greenstein:

SUBJECT: CLARK FACILITY, REMOVAL OF CONTAMINATION

This refers to your letters dated October 18, 1993 and January 17, 1994 which present a plan for removing radioactive contamination from certain areas of your facility at the above address. This facility was formerly authorized to use cesium-137 by Atomic Energy Commission (AEC) License No. 29-1248-02 which was terminated by the AEC on January 8, 1979. We have no objection to the implementation of your proposal. In implementing your plan you should consider the following:

> In describing your plans for detecting and remediating any leakage from the sewer line into the soil you did not present a specific sampling plan or number of samples. You should assure that sufficient samples are taken to provide a high degree of assurance that soil contamination in excess of 15 pCi/g is detected.

We do not need a written reply concerning the above item, but would be happy to discuss it with you by telephone at your convenience. I can be reached at (610) 337-5252. Please keep me informed of your schedule for implementing the plan.

Your cooperation with us is appreciated.

Sincerely,

Original Signed By:
John D. Kinneman

John D. Kinneman, Chief
Site Decommissioning Section

140136

cc:
R. Kumor, AT&T

MI 10

bcc:
M. Miller, RI

R. Zimmerman
PRSS
2/24/94

AT&T Submarine Systems, Inc.
100 Terminal Avenue
Clark, NJ 07066
908 396-4000

January 17, 1994

John Kinneman
U.S. Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, PA 19406-1415

Re: Docket No. 030-05251
License No. 29-01248-02 (terminated)

Dear Mr. Kinneman:

This letter is sent in reply to your letter requesting additional information on the proposed decontamination of our facility. Our information is supplied to you in the order of your requests.

1. We will conduct all activities involving radioactive material in compliance with 10CFR20.

2. a) Using a pancake probe with an area of 20 sq cm and an efficiency of 0.1 in an area with a 30 cpm background, and making the assumption as suggested in NUREG/CR-5849 that a "three-fold increase in the audible signal is required before a change is readily recognizable", then the calculated MDA for surface scanning is 4500 dpm per 100 sq cm (page 5.8).

   b) Excavations in the area of the contaminated sewer line will be lined with protective plastic to prevent spillage into the soil of contaminated materials. At sites of possible contamination, the soil will be sampled and analyzed by gamma-ray spectroscopy. The systematic sensitivity for a one-liter Marinelli beaker counted on the Bell Labs 20% efficient germanium detector is adequate to determine less than 1.0 pCi/g Cs-137 in a 1300 g sample. Standardization of the systematic response is performed using Amersham and Analytics Marinelli beaker mixed gamma ray standards with NIST traceability. Any volumetrically contaminated soil or concrete that is greater than 15 pCi/g will be disposed of in a low level radioactive waste site. In areas where the pipe will not be excavated, radioactivity measurements with a survey instrument will be made to establish the residual radioactivity in the pipe. The sensitivity of these measurements will be sufficient to detect less than 1 microCurie in the pipe.The results of the soil analyses and pipe radiation surveys will be contained in the final report which will be sent to you.

3. Radiation levels from the Cs-137 will be reduced to 5 microrem per hour at one meter from the surface of the floor.

4. Undetected exposures of individuals working in or frequenting the facility are not likely. The highest measured dose rate in an area accessible to personnel occurs at the clean-out port of the Isotope Room's North branch line. This has been measured to be 40 microrem/hr at floor level. Assuming 100% occupancy of this 5"x5" portion of the hallway by a single individual, this would result in an absorbed dose of 80 millirem to the feet in one working year of 2000 hours, a value which is 0.1% of the occupational limit to the extremities. The whole body exposure at 1 meter in this location would be negligible for a standing individual in comparison to the 5000 mrem annual occupational limit for Total Effective Dose Equivalent.

   Radiation surveys of the area and study of the existing records indicate that there is little likelihood of additionalcontamination at the facility.

5. AT&T will keep the Commission apprised of work schedules. We have sent the decontamination plan to the New Jersey Department of Environmental Protection and Energy, Radioactive Materials Section and have received their clearance to proceed upon your approval.

We trust that this letter and the conference call on 1/14 between yourself, Richard Kumor here, the Bell Labs Radiation Protection Department, U. S. Ecology have successfully addressed your concerns about this project.

Sincerely,

Michael Greenstein
Technical Manager

cc: J. E. Riley - AT&T Bell Labs, Murray Hill
R. M. Kumor - AT&T Clark Shop, Clark