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May 12, 1999

Mr. John W. N. Hickey, Chief
Low-Level Waste and Decommissioning Projects Branch
Division of Waste Management
Office of Nuclear Materials Safety and Safeguards
US Nuclear Regulatory Commission
11555 Rockville Pike
Washington, DC 20555-0001

40-8724

Re: Final Radiological Survey Report and Additional Responses to the Nuclear Regulatory Commission Letter Dated December 22, 1998

Dear Mr. Hickey:

In accordance with the Northeast Ohio Regional Sewer District (NEORSD) Remediation Plan (September 1996) and on behalf of the NEORSD, enclosed (Enclosure 1) is a copy of the Final Radiological Survey Report for the North Fill (NFA) and South Fill (SFA) Areas of the Southerly Wastewater Treatment Plan (SWTP). Results of the survey confirm that radiation levels over the contaminated areas within the NFA and SFA do not exceed 10 μR/hr above background at 1 meter with the minimum 2 foot cover in place. Thus, these areas meet the NRC release criteria for unrestricted use.

Both a short-term and long-term dose assessment was performed on the NFA and the SFA (NEORSD letter to NRC dated April 15, 1999). The results of the dose assessment demonstrated that the potential short-term exposure for an individual who excavated into the contaminated area in the NFA is 3.2 mRem. In addition, the results of the long-term dose assessment for the NFA using the industrial scenario is 0.03 mRem with the 2 foot minimum cover and 45 mRem without the subject cover. These potential exposures are well below the 100 mRem/yr limit specified in 10 CFR 20.1301. The potential short and long-term exposure for the SFA is bounded by the NFA assessment scenario since the contamination levels in the SFA are much less.

Based on the results of the short-term and long-term dose assessments and the radiological surveys performed on the NFA and SFA, an unrestricted release of these areas by the NRC is warranted.

Your letter dated December 22, 1998 to Mr. Erwin J. Odeal, Executive Director, NEORSD provided a list of actions that the NEORSD should take to enable the NRC to release the NFA and SFA of the SWTP from the NRC Site Decommissioning Management Plan and bring the case to a conclusion.

Presented below is an updated response to the NRC letter and related actions:

1) The remediation of both the NFA and SFA is complete. A minimum of 2 foot of cover has been placed over the contaminated areas within the NFA and SFA.

2) The radiation surveys of the NFA and SFA are complete and the results enclosed (Enclosure 1). The results of the walkover survey confirmed that the NFA and SFA meet the NRC exposure rate limit of 10 μR/hr above background at 1 meter.

3) The NEORSD calculated how long the 458 pCi/g maximum Co-60 concentration sample previously collected from the NFA, would take to decay to 8 pCi/g. The calculated time frame was 24 years.

4) Although the NFA and SFA are currently fenced and posted, the NEORSD sees no reason why the NFA and SFA should remain fenced and posted if the areas are released for unrestricted use. No additional postings would be warranted or are being considered by the NEORSD for the unrestricted NFA and SFA areas.

5) a. Contamination within the NFA and SFA is documented in the NEORSD Remediation Plan. There is also an internal NEORSD policy which documents that the NFA and SFA contain contaminated areas and that the NEORSD Manager of Water Quality and Surveillance must be notified prior to any work being performed in these areas.

   b. As stated previously, the NEORSD sees no reason why the NFA and SFA should remain fenced and posted if the areas meet the NRC criteria for unrestricted release. Disturbance of the NFA is controlled through the provisions of Ohio Environmental Protection Agency (OEPA) Rule 13 which requires notification and approval. Disturbance of the SFA will be controlled by provision of an OEPA Permit to Install (PTI) and the general solid waste provisions.

   c. As stated previously, disturbing the NFA or SFA requires notification and approval by the OEPA. The Ohio Department of Health will be copied on any NEORSD intent to disturb the NFA or NFA.

6) a. The results of the radiological survey of the NFA and SFA are enclosed (Enclosure 1).

b. The NEORSD confirms that it will not be continuing the groundwater monitoring program after the final groundwater sampling regime scheduled for early June 1999.

The reasons for discontinuing the groundwater monitoring program are:

- Measured distribution coefficient of the contaminated ash demonstrated that the Co-60 is not soluble (Site Remediation Plan, September 1996).
- Almost 6 years of sampling confirms that the Co-60 is not migrating from the NFA or SFA.
- The half-life of Co-60 is 5.7 years. Thus, this short half-life assures a relatively rapid decay of the Co-60 present in the NFA and SFA.

Enclosed (Enclosure 2) are the results of the groundwater monitoring program and TLD program for the NFA and SFA.

c. As stated in the NEORSD letter (T. Lenhart to S. Nalluswami) dated November 25, 1998, the NEORSD does not intend nor has any plans to disturb the 2 foot cover placed on the NFA and SFA. The SFA will have a costly and elaborate engineered cover and surface water control system that will in effect preclude disturbance. The NFA has a 3-4 foot cover. The ash within the NFA and SFA is solid waste and as such requires notification and approval of the OEPA if the material is disturbed (See NEORSD letter dated April 15, 1999).

d. There is no calculated restricted termination date since the NEORSD is requesting unrestricted release.

If you have any questions, please give me a call at (716) 592-3431.

Very truly yours,

Theodore G. Adams

Theodore G. Adams
Project Manager

Enclosure

cc: E. Odeal
T. Lenhart
R. Connelly
D. Nelson
B. Koh

ENCLOSURE 1

Final Radiological Status Survey Summary
Northeast Ohio Regional Sewer District
Southerly Wastewater Treatment Plant

FINAL RADIOLOGICAL STATUS SURVEY SUMMARY
NORTHEAST OHIO REGIONAL SEWER DISTRICT
SOUTHERLY WASTEWATER TREATMENT PLANT

1.0 Introduction

This Final Radiological Status Survey Summary describes the activities completed as part of the Northeast Ohio Regional Sewer District (NEORSD) Southerly Wastewater Treatment Plant (SWTP) remediation. The final radiological survey activities were performed in accordance with the Site Remediation Plan (B. Koh, September 1996).

The following sections present a summary of the final radiological status survey performed for the SWTP North Fill Area (NFA) and South Fill Area (SFA).

2.0 Required Survey and Sampling Activities

The following activities are included in the final status survey.

1). Perform surface scanning
2). Exposure rate measurements
3). Perform direct measurements

The previous grid pattern was utilized, to the extent practical.

The final radiological status survey activities were performed in accordance with the following NEORSD field procedures:

1). FP-01 - Beta Gamma Surveys
2). FP-14 - Low-level Radiation Surveys

2.1 Scanning

Surface scans (100%) were performed for the capped areas of the NFA and SFA using a calibrated Ludlum Model 2221 ratemeter coupled to a Ludlum 44-10 Sodium Iodide (NaI) detector. Scan results ranged from 3800 to 7500 cpm and 3200 to 5900 cpm for the NFA and SFA, respectively. These are instrument response readings uncorrected for background. The background gamma radiation levels for the NaI detectors ranged from 3000 to 5100 cpm and

3100 to 5200 cpm for the NFA and SFA, respectively.

2.2 Exposure Rate Measurements

Exposure rate measurements were obtained at evenly spaced intervals (~40 feet) for the capped areas of the NFA and SFA using a calibrated Bicron Micro Rem Survey Meter. Observed exposure rates fluctuated from 3 to 6 μRem/hr and 3 to 5 μRem/hr for the NFA and SFA, respectively. Background readings ranged from 3 to 4 μRem/hr and 3 to 5 μRem/hr for the NFA and SFA, respectively. Exposure rate measurements are presented on Figure 1 and 2 for the NFA and SFA, respectively. All exposure rate readings were well within the USNRC guideline level of 10 μRem/hr above background.

2.3 Direct Measurements

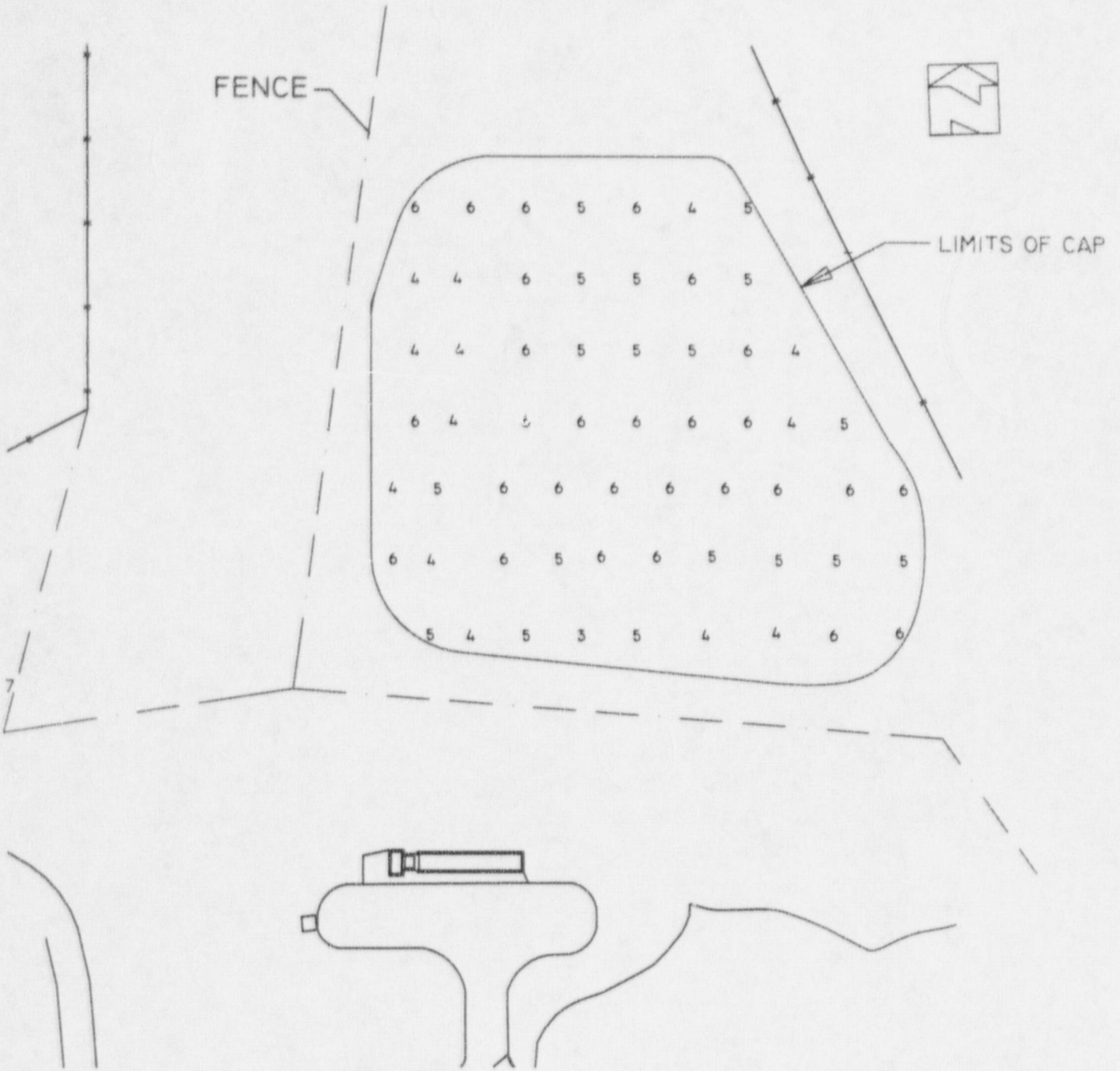
One minute direct gamma measurements were obtained at evenly spaced intervals (~40 feet) for the capped areas of the NFA and SFA using a calibrated Ludlum Model 2221 scaler coupled to a Ludlum 44-10 NaI detector. Direct gamma measurements ranged from 3825 to 7488 cpm and 3279 to 5900 cpm for the NFA and SFA, respectively. These are instrument response readings uncorrected for background. The background gamma levels for the NaI detectors averaged 3994 and 4467 cpm for the NFA and SFA, respectively.

2.4 USNRC Verification Survey

The United States Nuclear Regulatory Commission (USNRC Region III) intends to perform verification surveys of the NFA and SFA sometime in the future.

3.0 Conclusions

Based on the final radiological status survey activities, all survey data for the NFA and SFA was determined to meet the criteria for unrestricted release. No exposure rates were observed greater than twice background and were well within the USNRC guideline level of 10 μRem/hr above background. These readings support the request for release of the NFA and SFA for unrestricted use.



LEGEND

5 = MICROREM PER HOUR

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FIGURE 1
NORTH FILL AREA
EXPOSURE RATE READINGS

SOURCE:

DATE: 4/15/99

SCALE: 0 20 M

LEGEND

5 = MICROREM PER HOUR

B. KOH & ASSOCIATES, INC.

312-2

BASEMAP: AEROCON PHOTOGRAMMETRIC SERVICES, 1992

FIGURE 2

SOUTH FILL AREA
EXPOSURE RATE READINGS

SCALE (m)

0 60

ENCLOSURE 2

Groundwater and TLD Monitoring Results for the North Fill Area and South Fill Area

Groundwater Monitoring Results for North Fill and South Fill Area

Lab sample	Location	Date	Cobalt 60 (uCi/ml)
DM-1	SOUTH FILL	08/04/93	<3.55 E-8
DM-1	SOUTH FILL	11/29/93	<2.00 E-8
DM-1	SOUTH FILL	04/05/94	<2.00 E-8
DM-1	SOUTH FILL	07/19/94	0.00 E+0
DM-1	SOUTH FILL	09/28/94	<8.00 E-9
DM-1	SOUTH FILL	01/05/95	<6.10 E-9
DM-1	SOUTH FILL	04/19/95	<5.30 E-9
DM-1	SOUTH FILL	07/10/95	<5.29 E-9
DM-1	SOUTH FILL	12/03/96	<1.51 E-8
DM-1	SOUTH FILL	04/09/97	<1.25 E-8
DM-1	SOUTH FILL	11/20/97	<1.09 E-8
DM-1	SOUTH FILL	04/24/98	<4.28 E-9
DM-2	SOUTH FILL	08/04/93	<3.55 E-8
DM-2	SOUTH FILL	11/29/93	<2.00 E-8
DM-2	SOUTH FILL	04/05/94	<2.00 E-8
DM-2	SOUTH FILL	07/19/94	0.00 E+0
DM-2	SOUTH FILL	09/28/94	<3.00 E-8
DM-2	SOUTH FILL	01/05/95	<4.70 E-9
DM-2	SOUTH FILL	04/19/95	<7.60 E-9
DM-2	SOUTH FILL	07/10/95	<3.76 E-9
DM-2	SOUTH FILL	12/03/96	<1.04 E-8
DM-2	SOUTH FILL	04/09/97	<8.15 E-9
DM-2	SOUTH FILL	11/07/97	<1.74 E-8
DM-2	SOUTH FILL	04/24/98	<8.64 E-9
DM-3	SOUTH FILL	08/04/93	<9.66 E-8
DM-3	SOUTH FILL	11/29/93	<6.00 E-8
DM-3	SOUTH FILL	04/05/94	<2.00 E-8
DM-3	SOUTH FILL	07/19/94	0.00 E+0
DM-3	SOUTH FILL	09/28/94	0.00 E+0
DM-3	SOUTH FILL	01/05/95	<6.10 E-9
DM-3	SOUTH FILL	04/19/95	<7.00 E-9
DM-3	SOUTH FILL	07/10/95	<4.88 E-9
DM-3	SOUTH FILL	12/03/96	<1.24 E-8
DM-3	SOUTH FILL	04/09/97	<1.37 E-8
DM-3	SOUTH FILL	11/07/97	<8.92 E-9
DM-3	SOUTH FILL	04/24/98	<2.16 E-8

Lab sample	Location	Date	Cobalt 60 (uCi/ml)
DM-4	SOUTH FILL	08/04/93	<3.55 E-8
DM-4	SOUTH FILL	11/29/93	<6.00 E-9
DM-4	SOUTH FILL	04/05/94	<2.00 E-8
DM-4	SOUTH FILL	07/19/94	0.00 E+0
DM-4	SOUTH FILL	09/28/94	<5.00 E-8
DM-4	SOUTH FILL	01/05/95	<5.80 E-9
DM-4	SOUTH FILL	04/19/95	<7.50 E-9
DM-4	SOUTH FILL	07/10/95	<3.47 E-9
DM-4	SOUTH FILL	12/03/96	<9.88 E-9
DM-4	SOUTH FILL	04/09/97	<1.13 E-8
DM-4	SOUTH FILL	11/20/97	<1.39 E-8
DM-4	SOUTH FILL	04/24/98	<9.54 E-9
DM-5	SOUTH FILL	08/04/93	<9.66 E-8
DM-5	SOUTH FILL	11/29/93	<6.00 E-9
DM-5	SOUTH FILL	04/05/94	<2.00 E-8
DM-5	SOUTH FILL	07/19/94	0.00 E+0
DM-5	SOUTH FILL	09/28/94	<6.00 E-9
DM-5	SOUTH FILL	01/05/95	<6.20 E-9
DM-5	SOUTH FILL	04/19/95	<5.60 E-9
DM-5	SOUTH FILL	07/10/95	<5.31 E-9
DM-5	SOUTH FILL	12/03/96	<9.11 E-9
DM-5	SOUTH FILL	04/09/97	<9.11 E-9
DM-5	SOUTH FILL	11/07/97	<7.76 E-9
DM-5	SOUTH FILL	04/24/98	<4.30 E-9
DM-6	SOUTH FILL	08/04/93	<3.55 E-8
DM-6	SOUTH FILL	12/01/93	<3.00 E-9
DM-6	SOUTH FILL	04/05/94	<2.00 E-8
DM-6	SOUTH FILL	07/19/94	0.00 E+0
DM-6	SOUTH FILL	09/28/94	<7.00 E-8
DM-6	SOUTH FILL	01/05/95	<6.10 E-9
DM-6	SOUTH FILL	04/19/95	<7.60 E-9
DM-6	SOUTH FILL	07/10/95	<5.08 E-9
DM-6	SOUTH FILL	12/03/96	NO DATA
DM-6	SOUTH FILL	04/09/97	<4.32 E-9
DM-6	SOUTH FILL	11/07/97	<6.80 E-9
DM-6	SOUTH FILL	04/24/98	<8.08 E-9

Lab sample	Location	Date	Cobalt 60 (uCi/ml)
DM-7	SOUTH FILL	08/04/93	<3.55 E-8
DM-7	SOUTH FILL	12/01/93	<5.00 E-9
DM-7	SOUTH FILL	04/05/94	<2.00 E-8
DM-7	SOUTH FILL	07/19/94	0.00 E+0
DM-7	SOUTH FILL	09/28/94	0.00 E+0
DM-7	SOUTH FILL	01/05/95	<6.60 E-9
DM-7	SOUTH FILL	04/19/95	<6.00 E-9
DM-7	SOUTH FILL	07/10/95	<2.82 E-9
DM-7	SOUTH FILL	12/03/96	<1.27 E-8
DM-7	SOUTH FILL	04/09/97	<8.33 E-9
DM-7	SOUTH FILL	11/07/97	<1.53 E-8
DM-7	SOUTH FILL	04/24/98	<9.31 E-9
DM-8	SOUTH FILL	08/04/93	NO DATA
DM-8	SOUTH FILL	11/29/93	NO DATA
DM-8	SOUTH FILL	04/05/94	<2.00 E-8
DM-8	SOUTH FILL	07/19/94	0.00 E+0
DM-8	SOUTH FILL	09/28/94	<2.00 E-8
DM-8	SOUTH FILL	01/05/95	<5.50 E-9
DM-8	SOUTH FILL	04/19/95	<6.30 E-9
DM-8	SOUTH FILL	07/10/95	NO DATA
DM-8	SOUTH FILL	12/03/96	<1.43 E-8
DM-8	SOUTH FILL	04/09/97	<1.14 E-8
DM-8	SOUTH FILL	11/07/97	<1.10 E-8
DM-8	SOUTH FILL	04/24/98	<9.41 E-9
DM-9	SOUTH FILL	08/04/93	NO DATA
DM-9	SOUTH FILL	11/29/93	NO DATA
DM-9	SOUTH FILL	04/05/94	<2.00 E-8
DM-9	SOUTH FILL	07/19/94	0.00 E+0
DM-9	SOUTH FILL	09/28/94	<6.00 E-9
DM-9	SOUTH FILL	01/05/95	<6.80 E-9
DM-9	SOUTH FILL	04/19/95	<4.90 E-9
DM-9	SOUTH FILL	07/10/95	<5.56 E-9
DM-9	SOUTH FILL	12/03/96	<5.74 E-9
DM-9	SOUTH FILL	04/09/97	<5.34 E-9
DM-9	SOUTH FILL	11/07/97	<9.32 E-9
DM-9	SOUTH FILL	04/24/98	<9.16 E-9

Lab sample	Location	Date	Cobalt 60 (uCi/ml)
DMN-1	NORTH FILL	08/04/93	<4.80 E-8
DMN-1	NORTH FILL	12/01/93	<5.00 E-9
DMN-1	NORTH FILL	04/05/94	<2.00 E-8
DMN-1	NORTH FILL	07/19/94	NO DATA
DMN-1	NORTH FILL	09/29/94	NO DATA
DMN-1	NORTH FILL	01/12/95	<7.20 E-9
DMN-1	NORTH FILL	04/19/95	<6.60 E-9
DMN-1	NORTH FILL	07/10/95	<2.34 E-9
DMN-1	NORTH FILL	12/03/96	<1.12 E-8
DMN-1	NORTH FILL	04/09/97	NO DATA
DMN-1	NORTH FILL	11/07/97	<1.11 E-8
DMN-1	NORTH FILL	04/24/98	<8.56 E-9
DMN-2	NORTH FILL	08/04/93	<3.55 E-8
DMN-2	NORTH FILL	12/01/93	<4.00 E-9
DMN-2	NORTH FILL	04/05/94	<2.00 E-8
DMN-2	NORTH FILL	07/19/94	0.00 E+0
DMN-2	NORTH FILL	09/29/94	<6.00 E-9
DMN-2	NORTH FILL	01/04/95	<5.40 E-9
DMN-2	NORTH FILL	04/19/95	<5.40 E-9
DMN-2	NORTH FILL	07/10/95	<5.72 E-9
DMN-2	NORTH FILL	12/03/96	<1.08 E-8
DMN-2	NORTH FILL	04/09/97	NO DATA
DMN-2	NORTH FILL	11/07/97	<4.24 E-9
DMN-2	NORTH FILL	04/24/98	<9.32 E-9
DMN-3	NORTH FILL	08/04/93	<3.55 E-8
DMN-3	NORTH FILL	12/01/93	<5.00 E-9
DMN-3	NORTH FILL	04/05/94	<2.00 E-8
DMN-3	NORTH FILL	07/19/94	0.00 E+0
DMN-3	NORTH FILL	09/29/94	<8.00 E-9
DMN-3	NORTH FILL	01/04/95	<4.90 E-9
DMN-3	NORTH FILL	04/19/95	<6.70 E-9
DMN-3	NORTH FILL	07/10/95	<4.01 E-9
DMN-3	NORTH FILL	12/03/96	<1.13 E-8
DMN-3	NORTH FILL	04/09/97	<9.87 E-9
DMN-3	NORTH FILL	11/07/97	<1.06 E-8
DMN-3	NORTH FILL	04/24/98	<9.80 E-9

Lab sample	Location	Date	Cobalt 60 (uCi/ml)
DMN-4	NORTH FILL	08/04/93	<3.55 E-8
DMN-4	NORTH FILL	12/01/93	<3.00 E-8
DMN-4	NORTH FILL	04/05/94	<2.00 E-8
DMN-4	NORTH FILL	07/19/94	0.00 E+0
DMN-4	NORTH FILL	09/29/94	<2.00 E-8
DMN-4	NORTH FILL	01/04/95	<6.00 E-9
DMN-4	NORTH FILL	04/19/95	<6.00 E-9
DMN-4	NORTH FILL	07/10/95	<5.66 E-9
DMN-4	NORTH FILL	12/03/96	<1.22 E-8
DMN-4	NORTH FILL	04/09/97	<9.31 E-9
DMN-4	NORTH FILL	11/07/97	<9.12 E-9
DMN-4	NORTH FILL	04/24/98	<1.24 E-8
TRIP BLANK	SOUTH FILL	08/04/93	<4.06 E-8
TRIP BLANK	SOUTH FILL	11/29/93	<7.00 E-9

1993 - SOUTH FILL AREA

LOCATION	1/19/93 3/1/93	3/1/93 4/1/93	4/1/93 5/6/93	5/6/93 7/29/93	7/29/93 11/3/93*
Ash Lagoon - North	10	M	**	M	20
Ash Lagoon - East	M	M	10	M	20
Ash Lagoon - South	M	M	10	M	20
South Fill Area - South	M	M	10	M	20
South Fill Area - West	M	M	10	M	30
South Fill Area - North	10	M	M	M	30

** No analyses performed - The TLD was lost
M - means minimal (< 10 mRem) as defined by Landauer
* 7/29/93-11/3/93 - No control badge returned with dosimeters

1994 - SOUTH FILL AREA

LOCATION	11/3/93 2/3/94	2/3/94 5/5/94	5/5/94 7/7/94	7/7/94 10/4/94	10/4/94 1/11/95*
Ash Lagoon - North	30	M	M	M	M
Ash Lagoon - East	20	M	M	10	10
Ash Lagoon - South	20	M	M	M	M
South Fill Area - South	30	M	M	M	M
South Fill Area - West	30	M	M	M	M
South Fill Area - North	20	M	M	M	M

M - means minimal (< 10 mRem) as defined by Landauer
* 11/3/93-2/3/94 - No control badge returned with dosimeters

1995 - SOUTH FILL AREA

LOCATION	1/11/95 3/31/95	3/31/95 7/25/95	7/25/95 10/3/95	10/3/95 1/4/96
Ash Lagoon - North	M	M	M	M
Ash Lagoon - East	M	M	M	M
Ash Lagoon - South	M	M	M	M
South Fill Area - South	M	M	M	M
South Fill Area - West	M	M	M	M
South Fill Area - North	M	M	M	M

M - means minimal (< 10 mRem) as defined by Landauer

1996 - SOUTH FILL AREA

LOCATION	1/4/96 3/29/96	3/29/96 7/2/96	7/2/96 10/1/96	10/1/96 12/30/96
Ash Lagoon - North	M	M	M	M
Ash Lagoon - East	M	20	20	M
Ash Lagoon - South	M	M	M	M
South Fill Area - South	M	10	10	M
South Fill Area - West	M	M	M	M
South Fill Area - North	M	10	10	M

M - means minimal (< 10 mRem) as defined by Landauer

1997 - SOUTH FILL AREA

LOCATION	12/30/96 4/1/97	4/1/97 6/30/97	6/30/97 10/3/97	10/3/97 12/31/97
Ash Lagoon - North	M	M	M	M
Ash Lagoon - East	M	20	10	M
Ash Lagoon - South	M	M	M	M
South Fill Area - South	M	30	M	M
South Fill Area - West	M	10	M	M
South Fill Area - North	M	10	10	M

M - means minimal (< 10 mRem) as defined by Landauer

1993 - NORTH FILL AREA

LOCATION	1/19/93 3/1/93	3/1/93 4/1/93	4/1/93 5/6/93	5/6/93 7/29/93	7/29/93 11/3/93
North Fill Area - West	M	M	10	M	20
North Fill Area - South	M	M	M	M	**
North Fill Area - East	M	M	10	M	20
North Fill Area - North	40	30	10	70	110

M - means minimal (< 10 mRem) as defined by Landauer
** - No analyses performed - The TLD was lost

1994 - NORTH FILL AREA

LOCATION	11/3/93 2/3/94*	2/3/94 5/5/94	5/5/94 7/7/94	7/7/94 10/4/94	10/4/94 1/11/95
North Fill Area - West	30	M	M	M	M
North Fill Area - South	20	M	M	M	M
North Fill Area - East	20	M	M	M	M
North Fill Area - North	90	60	50	60	70

M - means minimal (< 10 mRem) as defined by Landauer
* 11/3/93-2/3/94 - No control badge returned with dosimeters

1995 - NORTH FILL AREA

LOCATION	1/11/95 3/31/95	3/31/95 7/25/95	7/25/95 10/3/95	10/3/95 1/4/96
North Fill Area - West	M	M	M	M
North Fill Area - South	M	M	M	50
North Fill Area - East	M	M	M	M
North Fill Area - North	50	70	50	70

M - means minimal (< 10 mRem) as defined by Landauer

1996 - NORTH FILL AREA

LOCATION	1/4/96 3/29/96	3/26/96 7/2/96	7/2/96 10/1/96	10/1/96 12/30/96
North Fill Area - West	M	M	M	M
North Fill Area - South	M	M	M	M
North Fill Area - East	M	M	M	M
North Fill Area - North	40	50	50	30

M - means minimal (< 10 mRem) as defined by Landauer

1997 - NORTH FILL AREA

LOCATION	12/30/96 4/1/97	4/1/97 6/30/97	6/30/97 10/3/97	10/3/97 12/26/97
North Fill Area - West	20	**	M	M
North Fill Area - South	M	M	10	M
North Fill Area - East	20	M	10	M
North Fill Area - North	10	10	20	M

M - means minimal (< 10 mRem) as defined by Landauer
** No analyses performed - The TLD was lost

NOTE: The north TLD was moved from its former location early in 1997 to accommodate the North Fill Area Ash Relocation Project (Mill Creek Tunnel Project). The Ash Relocation Project removed the area formerly contributing to the elevated readings on the north TLD

LEGEND

▲ - TLD LOCATION

SCALE (m)

0 80

BASEMAP: AEROCON PHOTOGRAMMETRIC SERVICES, 1992

B. Koh & Associates Inc.

SOUTH FILL AREA
TLD LOCATIONS

SOURCE: DAMES & MOORE, 1993

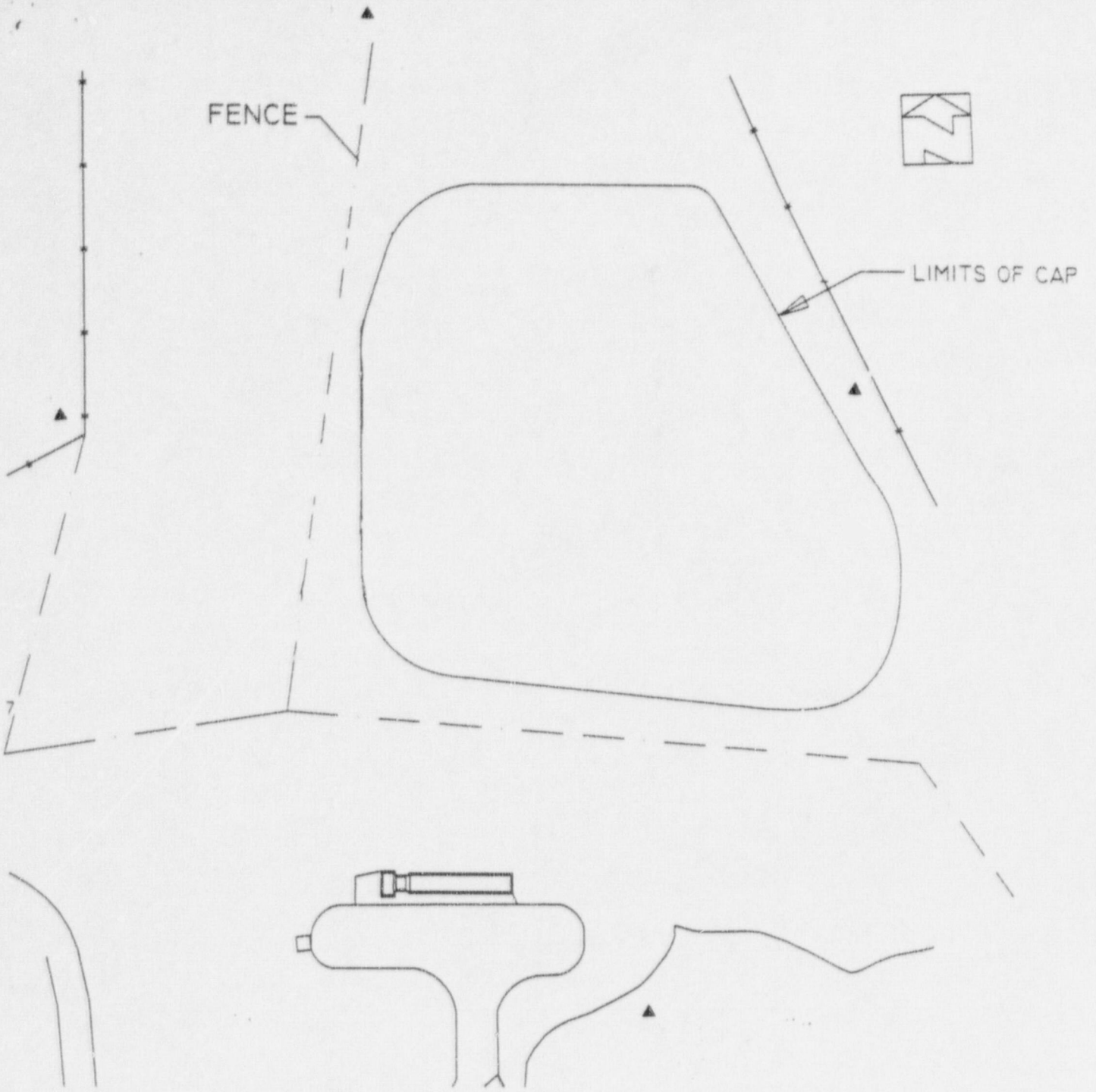
DATE: JUNE 15, 1994

SOUTH FILL AREA
MONITORING WELL LOCATIONS

SOURCE: DAMES & MOORE, 1993

DATE: JUNE 15, 1992

B. Kon & Associates, Inc.



B. KOH & ASSOCIATES, INC.

9199 REISTERSTOWN ROAD
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410-356-6612/(FAX) 410-356-4213

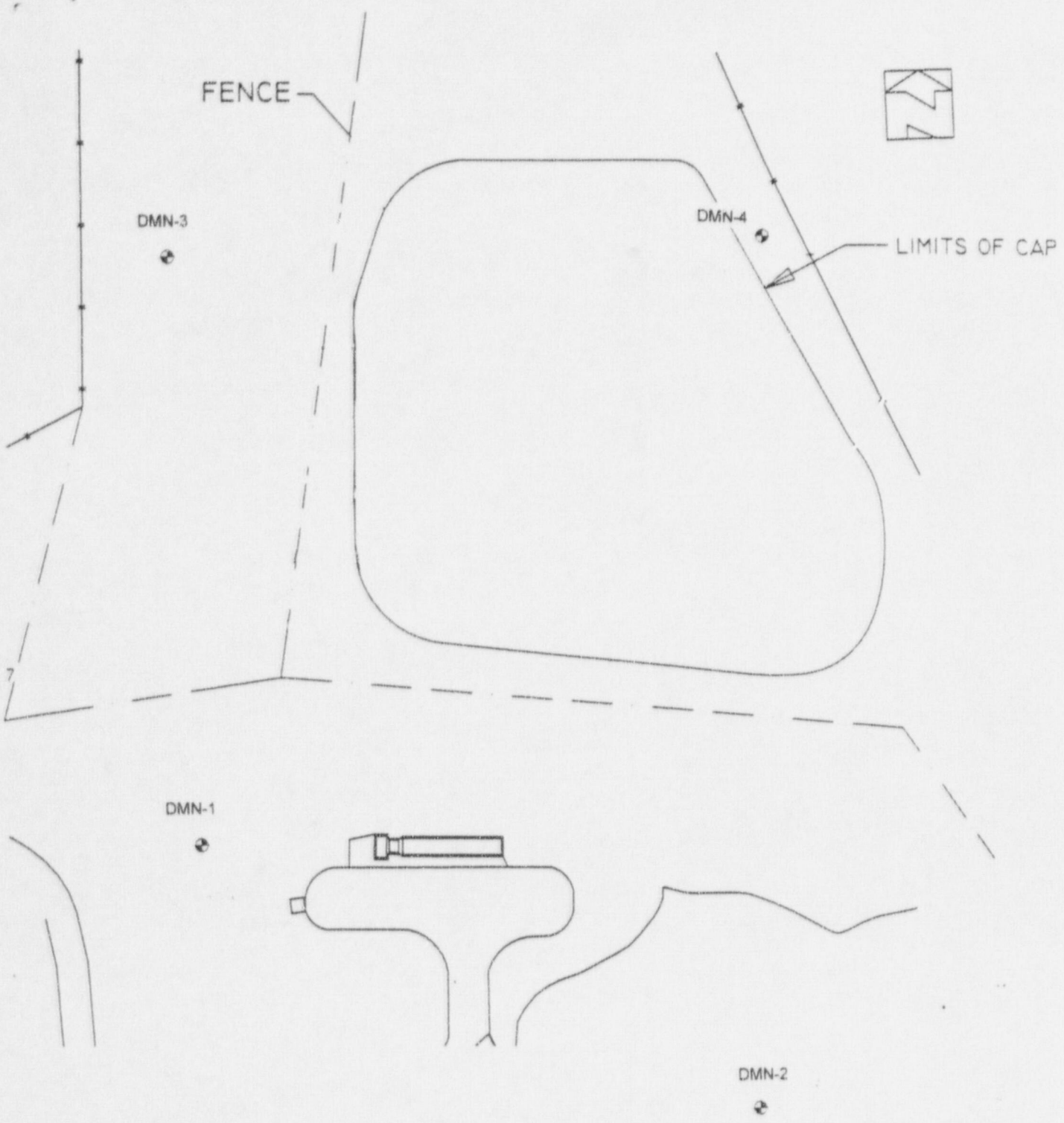
11 WEST MAIN STREET
SPRINGVILLE, NY 14141
716-592-3431/(FAX) 716-592-3439

NORTH FILL AREA
TLD LOCATIONS

SOURCE:

DATE: 2/19/97

SCALE: 0 20 M



LEGEND

- MONITORING WELL LOCATIONS

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NORTH FILL AREA
MONITORING WELL LOCATIONS

SOURCE:

DATE: 2/19/97

SCALE: 0 20 M