



Tetra Tech EM Inc.

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January 8, 1999

Attention: Ms. Penny Leinwander
Department of Health Services
Environmental Management Branch
601 N. 7th Street, MS 396
P. O. Box 942732
Sacramento, CA 94234-7320

**Subject: Supplemental Radiological Survey Data, Alameda Point
Radiological Removal Action IR Sites 5 and 10
Interim Data Transmittal
CLEAN II Contract No. N 62474-94-D-7609 CTO No. 0147**

Dear Ms Leinwander:

This letter transmits supplemental data to support the radiological removal action at Installation Restoration (IR) sites 5 and 10 at Alameda Point. This data was requested by Mary Rose Cassa of the Office of Military Facilities, Department of Toxic Substance Control in a letter to George Kikugawa of Engineering Field Activity West, dated January 6, 1998.

Data for Grids E2, F2, G2, H2, I2, and J2 (located inside Building 5), corresponding to the line originating in the small parts paint shop and proceeding to the first 90-degree turn, appear on survey sheets numbered 001, 002, 007, 026, and 026A, which have been previously provided. Updated annotated data sheets for these grids are enclosed.

With respect to grid location N2, based on the count was incorrectly read as 30,000, the actual count rate was 10,000. An enlarged section of the data sheet is included to verify that the count was actually recorded as 10,000. The background count taken during the survey was 5,543. Refer to survey data sheets 001 and 002 which are enclosed.

Sections of the line designated as B85, B86, B87, and B88 in the subject letter were not provided with our previous data transmittal. Grids 85, 86, 87, and 88, which are located inside the building were surveyed on November 13, 1998. The main line inside Building 5 is not designated by a letter as the outside lines are; therefore, B-x actually refers to a grid located in the B-line outside the building. Grids designated with only a number are located inside Building 5. Data sheets for grids 85, 86, 87, and 88 are enclosed.

It is unclear which drain line the question regarding missing data is in reference to; therefore, both drain lines are discussed. F-line survey data for grids F7, F8, F9, F10, and F11 appear on sheets 020 and 023. These data sheets are enclosed. Data for sections F11 and F12, which are still under investigation, are not approved for release. Grids B8, B9, B10, and B11 do not exist. The B-line is approximately 70 feet long and includes only 7 grids, B1 through B7. The results of the surveys of grids B1 through B7 are on survey sheet 005.

A sketch of the area where the D line, C-line and A-line intersect is enclosed to clarify the original field sketch for the surveys conducted in this area. The sketch is included as sheet 005A.

Outside samples were collected in the centerline of the trench (pipe layline) at the center of the trench section (midway between the line dividing the grid sections) unless otherwise noted. For each sample, rather than a four-point composite as specified in the workplan, a composite of the two locations noted on the survey data sheet was analyzed; however, if an elevated area (defined in the workplan as three times the lowest count rate) was identified, only a single-point sample was collected for analysis. This approach provides for a better estimate of data variability than could be obtained by a four-point composite. Over 20 samples were collected in the approximately 1,000 feet of trench opened, corresponding to one sample per every 50 feet.

The workplan specified the following:

The sewer excavation consists of one survey unit. The total number of samples will be derived using the MARSSIM methodology for a contaminant also present in background (EPA 1997). A minimum of 36 samples from the site and 10 background samples will be collected in order to achieve the necessary statistical power. Soils within the limits of the excavation will be selected for sampling after a gamma radiation scan of the surface soil identifies the area of highest detector response. Soils will be sampled from an excavator bucket or with a tube sampler. If the gamma scan shows relatively uniform response, one sample consisting of a composite from four evenly spaced sample locations will be collected per 100 linear feet of trench. If the variation between highest and lowest detector response is greater than a factor of 3, one sample will be collected at the highest location, and the second sample composited from four evenly spaced locations per hundred feet of trench.

Additional soil samples may be collected and field screened using the scintillation detector connected to a ratemeter/scaler, single channel analyzer, or field-based spectrometer. The activity of field screened samples will be estimated by correlation to laboratory analyzed samples. Field screened data will be used to support the conclusions obtained by laboratory measurement and to provide better assurance that the numerical goals have been attained.

The off-site verification laboratory will quantify radium-226 by measuring the 186.4 KeV photon emissions. After analysis, the laboratory will correct all results to a dry-weight basis.

All survey grids were scanned and the scan data and analytical data was reviewed prior to authorizing New World Technologies to proceed with placing new pipe and backfilling the excavations. Samples were collected to be as evenly distributed as possible, allowing for trench plates or shoring blocking access, dewatering processes, and other obstructions to sampling. The samples are considered

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representative of the radiological condition of the site. A number of field-screened sample analytical results will be provided at a later date to support and supplement the laboratory analytical data.

If you have any questions, please do not hesitate to contact me at (415-222-8228) or Conrad Sherman at (415-222-8377).

Sincerely



Edward Ho
Project Manager

Enclosure

cc: George Kikugawa (EFA West)
LCDR Vincent DeInnocentiis (NAVSEADETRASO)

Mary Rose Cassa (DTSC)

ENCLOSURE

**SUPPLEMENTAL RADIOLOGICAL SURVEY DATA,
RADIOLOGICAL REMOVAL ACTION
IR SITES 5 AND 10 INTERIM DATA**

**THE ABOVE IDENTIFIED ENCLOSURE IS NOT
AVAILABLE.**

**EXTENSIVE RESEARCH WAS PERFORMED BY
SOUTHWEST DIVISION TO LOCATE THIS
ENCLOSURE. THIS PAGE HAS BEEN INSERTED
AS A PLACEHOLDER AND WILL BE REPLACED
SHOULD THE MISSING ITEM BE LOCATED.**

QUESTIONS MAY BE DIRECTED TO:

**DIANE C. SILVA
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