



HANFORD ENVIRONMENTAL HEALTH FOUNDATION

CO 9855

July 24, 1985

UNC Nuclear Industries
1114-N Building, 100-N Area

Attn: E. M. Greager

PARTICULATE ANALYSIS - 183H BASIN

Results of the particulate analysis of 18 membrane filter samples received July 17-19 are shown in the attached table. These samples were reportedly collected during sludge removal from the 183H Basin.

As requested, half of the samples were further analyzed for the anions expected from the sludge (nitrate, fluoride, and sulfate) and half were analyzed for copper and sodium, two of the most prominent metals in the sludge. All reported air concentrations are based on sampling data provided. For those parameters for which they have been established, eight hour time-weighted averages (TWAs) are also listed in the table.

Based on the results shown and our discussion of these results on July 24, the following analytical protocol will be used on future samples:

1. All samples will be weighed and analyzed for particulate.
2. The four highest samples per week will be further analyzed--two for copper and two for anions. Other samples exceeding 1 mg/m^3 particulate will also be further analyzed.
3. All particulate results above 1 mg/m^3 will be reported daily; all others will be reported weekly.

If there are questions concerning this report, please contact us.

Maureen K. Hamilton

M. K. Hamilton, CIH
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ANALYTICAL RESULTS - 183H BASIN
Membrane Filters Received July 17-19, 1985

Date	Sample	Air Volume	mg/m ³ Particulate	mg/m ³ F	mg/m ³ NO ₃	mg/m ³ SO ₂	mg/m ³ Cu	mg/m ³ Na
7-17	South 183-H Pond	13.6m ³	0.17	0.0006	0.0012	0.016	*	*
	N End 183-H Pond	13.6m ³	0.04	0.0018	0.0006	0.0024	*	*
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18	N9592 South Basin	4.24m ³	0.09	0.0008	0.0005	0.0041	*	*
	N735 South Solar Pond	4.24m ³	0.03	<0.0007	0.0002	0.0011	*	*
	H296 North	4.24m ³	0.11	<0.0007	<0.0001	<0.0007	*	*
	N9115	4.24m ³	0.08	<0.0007	0.0002	<0.0007	*	*
	N9764 Blank	---	---	---	---	---	*	*
7-19	E972 North	3.4m ³	<0.03	<0.0004	0.0011	0.0019	*	*
	E547 North	3.4m ³	<0.03	<0.0004	0.0004	<0.0009	*	*
	E879 North	3.4m ³	<0.03	<0.0004	0.0002	0.0015	*	*
	H9175 South	3.4m ³	0.06	<0.0004	0.0007	0.0022	*	*
	N6970 Blank	---	---	---	---	---	*	*
8-hour Time-Weighted Average			10.0	2.5	N.E.**	N.E.	1.0	N.E.
7-18	N571 South Solar Pond	5.95m ³	0.19	*	*	*	0.0012	0.006
	South End	5.95m ³	0.09	*	*	*	0.0005	0.002
	North End	5.95m ³	<0.02	*	*	*	0.0002	<0.001
	North End	5.95m ³	0.28	*	*	*	0.0009	0.005
	Blank	---	---	*	*	*	---	---
7-19	N15 South	6.80m ³	0.19	*	*	*	0.0027	0.017
	958 North	6.80m ³	0.07	*	*	*	0.0007	0.003
	H1077 South	6.80m ³	0.02	*	*	*	0.0002	<0.001
	N9131 North	6.80m ³	0.08	*	*	*	0.0010	0.005
	N989 Blank	---	---	*	*	*	---	---

*Not Analyzed

**None Established

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