0055394

**Meeting Minutes Transmittal**

**616 NRDWSF Project Meeting**
**Ecology Interface Meeting**
**2704HV/Rm. G229/600 Area**
**Hanford, Washington**
**July 26, 2001**

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The undersigned indicate by their signatures that these meeting minutes reflect the actual occurrences of the above dated Project/Ecology Interface Meeting.

Date: 08-30-01
Fred Jamison, Project Manager, Ecology

Date: 8/30/01
Project Manager Representative, RL

Date: 8-30-01
Project Manager Representative, FH WMP

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**616 NRDWSF PROJECT MEETING MINUTES**
Project Managers Meeting
2704HV/G229/600 Area
Hanford, Washington

July 26, 2001

I. Approval of the June 28, 2001 616 NRDWSF Project Meeting minutes (Ecology/DOE-RL/FH)

II. Operational Status
1. All physical closure activities are complete.
2. Ecology walkdown of building performed on February 13, 2001, confirming visual clean closure standard identified in the closure plan were satisfied.
3. Verbal approval of draft evaluation and unvalidated soil sample data by Ecology obtained per telephone conversation on March 5, 2001.
4. Validated soil sample data transmitted to Ecology on May 9, 2001.
5. Currently preparing final closure package (including professional engineer certification, and owner/operator certification) for official transmittal to Ecology.

III. Project Specific Issues
A. An evaluation of the 616 NRDWSF Soil Sample Data was provided by FH for inclusion in the Project Manager's Meeting minutes and the Administrative Record.

IV. Status of Action Items
A. No action items to report.

V. New Action Items
A. No new action items to report.

VI. Next Project Meeting
A. Next project meeting is tentatively scheduled for August 30, 2001.

# EVALUATION OF 616 NONRADIOACTIVE DANGEROUS WASTE STORAGE FACILITY SOIL SAMPLE DATA

## SUMMARY

Sampling and analysis of 616 Nonradioactive Dangerous Waste Storage Facility (616 NRDWSF) soil has been completed in accordance with the 616 NRDWSF closure plan (DOE-RL 1999). The soil sampling and analysis activities met closure plan requirements and laboratory analytical results are complete and useable for making a *Resource Conservation and Recovery Act* (RCRA) *of 1976* closure decision. Analyte concentrations do not exceed clean closure action levels established by the closure plan for this unit. Therefore, 616 NRDWSF soil qualifies for clean closure without soil removal or further soil sampling.

## SITE SETTING AND BACKGROUND

The 616 NRDWSF is located in the 600 Area of the Hanford Facility. The 616 NRDWSF operated as a final status treatment, storage, and disposal (TSD) from 1986 until 1995 storing containerized, nonradioactive dangerous waste. 616 NRDWSF operated under the conditions of the *Hanford Facility Dangerous Waste Permit Application, 616 Nonradioactive Dangerous Waste Storage Facility* (DOE-RL 1999) and was included in the Hanford facility RCRA Permit (HF RCRA Permit), Part III, Chapter 1. Unit operating conditions required documentation and cleanup of any dangerous waste spills. During the period of operations, no documented dangerous waste spills occurred to dangerous waste storage or loading area surfaces that could have reached soil.

Before beginning closure activities, the approved closure plan was revised. This revision made 616 NRDWSF closure more consistent with closures of other Hanford Facility container management units by reducing the number of soil samples and by verifying clean closure of structures using visual inspections instead of sampling. The revised plan was submitted to Washington State Department of Ecology (Ecology) in May 1999 as a Class 3 Modification to the HF RCRA Permit for approval during Modification E.

With Ecology concurrence (Ecology 1999), 616 NRDWSF closure activities began in May 2000 in accordance with the revised closure plan and were completed in September 2000. Closure activities included removal of waste handling equipment, decontamination of indoor and outdoor storage and receiving area structures, and sampling of unit soil.

## SAMPLING AND ANALYSES REQUIRED BY THE CLOSURE PLAN

One closure verification sample was required to be taken from surface soils of the french drain (Figure 1, Detail 2). The sampling of french drain soils occurred August 10, 2000. Gravel was removed from the bottom of the french drain to the gravel-soil interface to gain access to soils for sampling. A description of the sampling activities is in a 616 NRDWSF closure log (field logbook).

The single soil sample was numbered 616S-3. Section 11.1.2.4 of the closure plan required the soil sample to be analyzed for pH, volatile organic analytes (VOA), semi-volatile organic analytes (semi-VOA), RCRA metals, polychlorinated biphenyls (PCB), herbicides, pesticides, phosphorous pesticides, cyanide, total organic halides (TOX), anions, phenols, and chrome VI. Specific target analytes and the U.S. Environmental Protection Agency (EPA)-approved analytical method to be used were as agreed to during closure plan negotiations and are shown in Table 11-1, *Target Analytes and Detection Levels*, Appendix A, of the closure plan.

The closure plan also required taking three, field-generated quality assurance/quality control (QA/QC) samples, consisting of one trip blank, one equipment blank, and one field blank. Trip blank 616S-1 was analyzed for VOAs. Equipment blank 616S-2 was analyzed for total metals. Field blank 616S-4 was analyzed for VOAs and semi-VOAs. Narrative on field generated QA/QC sample results is provided to facilitate evaluation of soil sample data. Data from field-generated QC samples are available on request.

Soil sample analyses were performed by Severn-Trent Analytical Laboratory, St. Louis, MO., and the onsite Waste Sampling and Characterization Facility (WSCF). Severn-Trent analyzed all field-generated QA/QC samples. Severn-Trent received all samples within temperature criteria and holding time. Severn-Trent case narrative cites some nonsignificant QC issues (e.g., matrix spike and duplicate recoveries for semi-VOAs and metals). The WSCF analytical comment report identifies no nonconformances or deviations in sample handling and receipt but reported a detection limit increase (from 25 micrograms/gram to 50 micrograms/gram) on diesel range analysis to account for low target and surrogate compound recoveries. Common laboratory contaminants bis (2-ethyl-hexyl) phthalate and dioctyl phthalate were detected in a WSCF laboratory blank. These laboratory QC issues do not compromise the usability or reliability of these data in making RCRA closure decisions.

Sample information is retained under Sampling Authorization Form Number R100-060 (SMO 2000). Copies of WSCF and Severn-Trent Laboratory laboratory data sheets, laboratory narrative, and the data validation report have been submitted to Ecology under separate cover.

## LABORATORY ANALYTICAL DEVIATIONS

As described in the following sections, some substitutions of analytical methods occurred and some analyses were omitted. This evaluation demonstrates that these deviations do not compromise the usability or completeness of data for making RCRA closure decisions.

### Laboratory Analytical Omissions

Some analyses specified by the closure plan were not performed on soil sample 616S-3. The analyses for TPH (total petroleum hydrocarbons) and bis (2-ehtylhexyl) phosphoric acid (D2EHPA) identified in Table 11-1 of the closure plan were omitted. Analyses for TOX and Chrome VI identified in Section 11.1.2.4 of closure plan text were omitted. Omission of these analyses is justified in the following paragraphs and the data package will be considered complete without these analyses.

TPH analysis is a nonspecific analysis that identifies the presence of petroleum hydrocarbons in all ranges. Generally, where this analysis identifies the presence of petroleum hydrocarbons, further sampling to identify specific hydrocarbons is indicated. However, analyses for all primary hydrocarbon ranges were performed as a portion of the initial analysis. These analyses included 'oil and grease' (EPA 423.1; Severn-Trent; nondetect); diesel range hydrocarbons [Washington Total Petroleum Hydrocarbon (WTPH) diesel; WSCF; nondetect]; gas range hydrocarbons (WTPH gas; WSCF; nondetect); and, kerosene range hydrocarbons (EPA 8015M; Severn-Trent; nondetected). Consequently, the TPH general analysis was not necessary and the omission does not impact a clean closure decision.

D2EHPA is a slightly water soluble acid. No record exists of D2EHPA ever having been stored at 616 NRDWSF or of any spills to soil. In the unlikely event that this constituent ever existed at the unit and was released to french drain soil, the constituent reasonably could not have existed in french drain soil to the time of sampling. Any D2EHPA already would have been mobilized from the french drain soil by natural precipitation that flowed freely from the outdoor loading pads to the french drain from 1995 to

August 2000. Because D2EHPA reasonably cannot be expected to exist in unit soil at detectable levels, the omission of analysis for D2EHPA is acceptable and does not impact a clean closure decision.

TOX analysis is used to identify organic halides containing chlorine, bromine, and iodine. Analyses for VOAs and semi-VOAs were run that would target and report halogenated hydrocarbons including organic halides. No halogenated hydrocarbons were detected in the soil sample. Therefore, the data provided by TOX analysis are redundant and would not contribute toward making a clean closure decision.

Chrome VI analysis is used to differentiate chrome VI from other less toxic forms of chromium (e.g., chrome III). All forms of chromium were quantified in the 'total' chrome concentration for sample 616S-3 shown on Table 1. In the unlikely event that all chrome in the total chrome analysis is chrome VI, the concentration still would not exceed the *Model Toxic Control Act* (MTCA) health-based soil cleanup level [Washington Administrative Code (WAC) 173-303-340] for chrome VI identified in Table 1. Therefore, omission of this analysis does not prevent making a clean closure decision.

### Laboratory Analytical Method Substitutions

Analytical methods required in the closure plan (Table 11-1) were used with the following exceptions. Severn-Trent reported analyzing herbicides using method 8151 instead of method 8150 and oil and grease using method 9070 instead of method 413.1. Phosphate was analyzed using 365.1 instead of 365.4. 2-Butoxyethanol was analyzed using method 8270 instead of method 8015M. Because in all cases, the substituted analytical method is an appropriate RCRA [SW-846 (EPA 1992)] method, these substitutions are acceptable and analytical results obtained are useable in making a RCRA clean closure decision.

## PERFORMANCE STANDARDS AND ANALYTE CONCENTRATION SCREENING CRITERIA

The clean closure standard for soil is identified in the closure plan as the greater of an analyte's numeric health-based cleanup level calculated using WAC 173-303-340 (MTCA) Method B formulas (or Method A where appropriate) or natural background as established by Hanford Site background study 95/95 background thresholds (DOE/RL-92-24). Table 1 identifies the numeric clean closure level for each detected analyte. MTCA health-based levels shown in Table 1 are from the *MTCA Cleanup Levels and Risk Calculations* (CLARC II) (Ecology 1996). Because the unit is located well above groundwater and because no documented spills occurred to soil that could threaten groundwater, protection of groundwater was not a consideration in determining the appropriate MTCA Method B soil cleanup level. Criteria such as EPA guidelines and data qualifiers were considered in evaluating analytical results.

## SUMMARY OF DETECTED ANALYTES AND COMPARISON TO CLEAN CLOSURE LEVELS

Table 1 identifies significant analyte detections in soil sample 616S-3 and compares the detected concentration to the numeric MTCA health-based cleanup level and to the Hanford Site background threshold if available. Table 1 also lists concentration qualifiers assigned during laboratory sample analysis and/or during sample validation.

The analytical laboratories identified a target analyte as detected when the concentration exceeded the laboratory method detection level (MDL) and/or the laboratory reporting limit (RL). The MDL is the minimum concentration of a substance that can be measured and reported with 99% confidence that the

analyte concentration is greater than zero. The RL is the concentration that the laboratory can, with certainty, detect for any sample and is normally 3 to 10 times the MDL.

PCBs, herbicides, pesticides, phosphorous pesticides, cyanide, and phenols were not detected in the soil sample and generally require no further discussion.

### Organic Analyte Detections

Table 1 reports concentrations of acetone and tetrachloroethene (TCE) in soil sample 616S-3 at slightly above detection levels. Both were detected at below their respective RLs and the results were J-qualified by the laboratory as estimated values because of low concentrations. These are common laboratory chemicals and, at these concentrations, most likely are the result of laboratory contamination. Table 1 shows that the as-found concentrations are well below their respective MTCA Method B residential health-based cleanup levels.

### Inorganic Analyte Detections--Metals and Anions

**Metals**. Nickel, copper, zinc, chromium, manganese, strontium, vanadium, lead, and barium were detected above RL and are listed in Table 1. All, except strontium, have established Hanford Site background thresholds that were not exceeded and so require no further evaluation. Strontium has no background threshold but was E-qualified and is well below the MTCA Method B cleanup level.

Arsenic, beryllium, cadmium, and mercury were reported at very low concentrations that exceeded MDL but were less than RL. All these have MTCA cleanup levels but are not listed in Table 1 because the highest RL is still below the lowest (most stringent) MTCA cleanup level.

Aluminum, calcium, titanium, magnesium, zirconium, cobalt, iron, lithium, potassium, sodium, and silicon were detected above RL but are not listed in Table 1. None of these have MTCA health-based cleanup levels. All have Hanford Site background thresholds, none of which were exceeded. In elemental form, these are significant constituents of normal, noncontaminated soil and are not WAC 173-303 dangerous waste constituents.

**Anions**. Nitrate, phosphate, and sulfate were detected and are listed in Table 1. All have Hanford sitewide background threshold values, none of which were exceeded.

### General Chemistry Detections

**Total Organic Carbon (TOC)**. Table 1 identifies TOC detected at 1,120 parts per million. TOC analysis is a nonspecific analysis for total carbon that is used to identify the need for further sampling for specific organic analytes. TOC itself is not a WAC 173-303 dangerous waste constituent and has no MTCA cleanup level. Comprehensive analysis for a broad suite of organic compounds was performed during initial sample analysis with no detections.

TOC analysis reports all carbon, including simple bases, sugars, and chlorophyll from common environmental sources such as plant and animal matter. The closure logbook notes that immediately before sampling, a well established rodent's nest of vegetation that contained animal offal and debris was removed from the french drain. This nest is a likely source for carbon-bearing constituents not related to complex, organic dangerous waste compounds.

**Total Phosphorous**. Total phosphorous, Chemical Abstract Service (CAS) number 7723-14-0, was reported at 644 parts per million. This is greater than the reporting limit shown in the closure plan

(Table 11-1) of 10,000 parts per billion. However, phosphorous has no direct bearing on WAC 173-303 dangerous waste regulations and no basis exists for regulating in-situ site soil because of phosphorous. Phosphorous is not a WAC 173-303 dangerous waste constituent. No MTCA cleanup level exists for phosphorous. No formal Hanford Site background threshold exists for phosphorous. Phosphorous would not cause soil to be regulated as a WAC 173-303 dangerous waste if removed for disposal.

Phosphorous can be found in several different forms under this CAS number: red, white, and amorphous. Toxicity information for purposes of regulation as dangerous waste under WAC 173-303 exists in the Registry of Toxic Effects for Chemical Substances (RTECS) only for phosphorous - white. However, because the RTECS 'toxicity criteria' (LD50 Oral Rat) for phosphorous - white is so high (3,030,000 parts per million), phosphorous has no WAC 173-303-100 'toxicity category' and so will not designate as dangerous waste.

The soil sample was analyzed for phosphorous compounds without detection and was analyzed for phosphorous pesticides to the degree required by the closure plan. Consequently, the total phosphorous concentration likely does not signify the presence of other such compounds. However, other possible sources of phosphorous in french drain soil could exist. Animal bones and teeth (i.e., from rodents that nested in the french drain) are high in phosphorous (Hawleys 1993). Volcanic ash from recent and past eruptions of Mount St. Helens and Mount Mazama can contain phosphorous oxides ($P_2O_5$) in the low percent weight (.2%)(USGS 1991) and is deposited in surface and near-surface layers of Hanford Site soil. If existing in french drain soil, such ash could be reported in a total phosphorous analysis in the very high parts per million.

### Field Quality Control Sample Results

4-Methyl-2-pentanone (hexone) and acetone were reported in trip blank 616S-1 and in field blank 616S-4. Di-n-butyl phthalate was reported in field blank 616S-4. These analytes are common laboratory contaminants that, except for acetone, were not detected in soil sample 616-3 and so are not identified in Table 1. Phthalates at levels less than 100 parts per million are common laboratory contaminants. Hexone is also a common laboratory chemical used in sample extraction processes and so reasonably can be considered a laboratory artifact.

## CONCLUSIONS

### 616 Nonradioactive Dangerous Waste Storage Facility Soil can be Clean Closed

The 616 NRDWSF soil sampling activity met closure plan requirements. Target analytes either were not detected or were reported at or near laboratory reporting levels. All analyte concentrations were well below the clean closure standard for 616 NRDWSF soil of Hanford Site background and/or MTCA Method B residential, health-based cleanup levels. Because sample data demonstrate that 616 NRDWSF soil contains no contamination above clean closure criteria, the unit soil qualifies for clean closure under the provisions of the closure plan, Section II.K of the HF Permit, and WAC 173-303-610, without soil removal or further soil sampling.

### Sampling Activity Deviations Do Not Require Permit Modification

As described earlier in this evaluation, some substitutions of analytical methods occurred and some analyses were omitted. This evaluation demonstrates that these deviations do not compromise the usability or completeness of data for making RCRA closure decisions. In accordance with Section II.K.6 of the HF RCRA Permit, deviations from a TSD unit closure plan that do not impact overall closure strategy but

provide equivalent results will be documented in the TSD unit-specific operating record and made available to Ecology upon request. Modification of the closure plan to reflect such deviations is not required. Because the described deviations do not impact the 616 NRDWSF clean closure strategy and because the soil sampling activity provided equivalent results, this data evaluation will be added to the 616 NRDWSF TSD unit operating record and provided to Ecology. The closure plan is acceptable without modification to include these deviations.

**Fate of Containerized French Drain Gravel**

Three 55-gallon (208-liter) drums containing gravel removed from the french drain currently are staged at the site. The regulatory status of this gravel is determined by french drain soil sample 616S-3 that demonstrates this soil is nonregulated. Based on 616S-3 analytical results, the gravel also will be considered nonregulated and will be returned to the french drain.

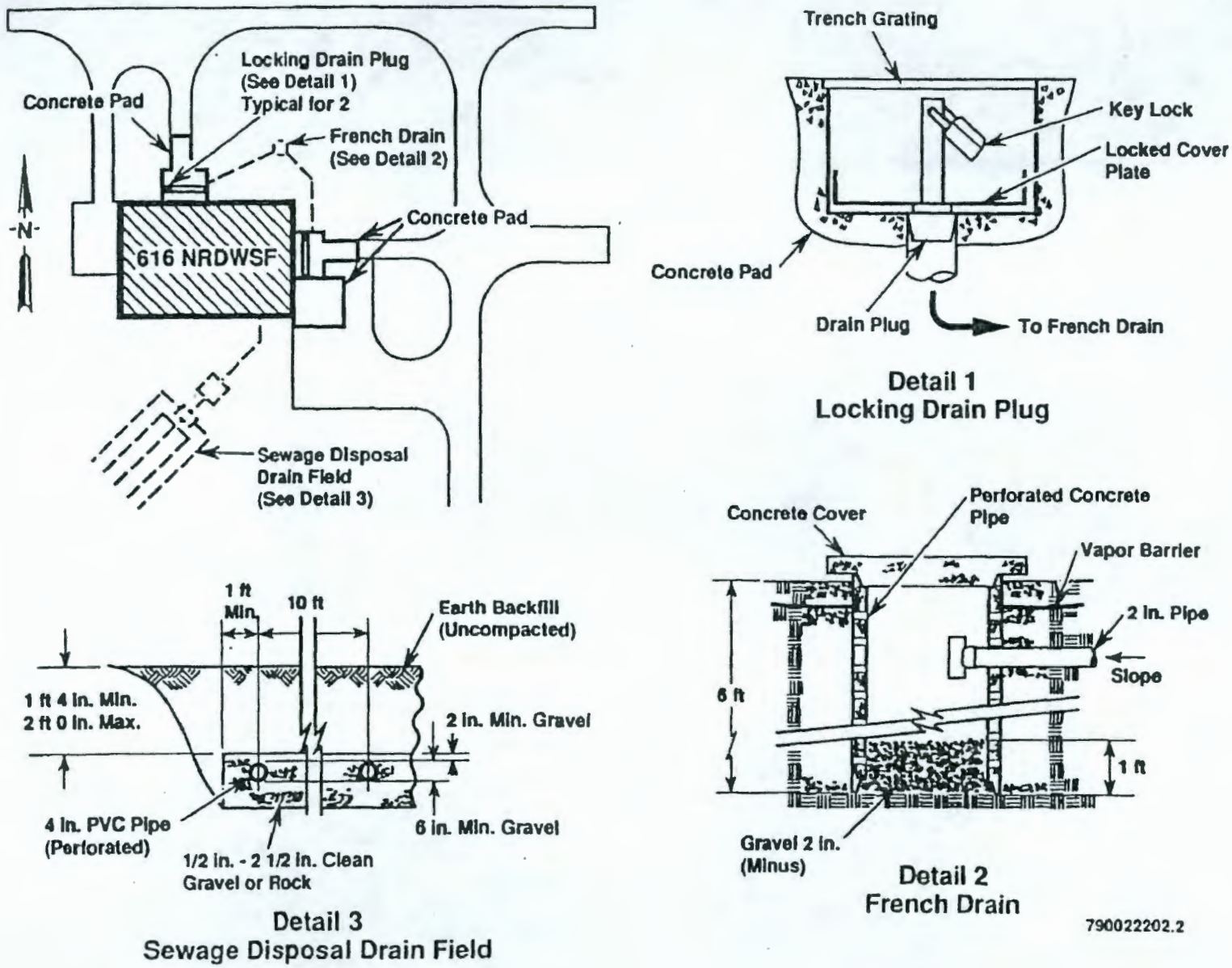


Figure 1. French Drain and Tile Field.

Table 1. Target Analytes Detected in Soil Sample 616S-3.

| Detected analyte | | | | RL/MDL | HSB | MTCA[1] method A & B Cleanup levels | | |
|---|---|---|---|---|---|---|---|---|
| Name | CAS No.[2] | Conc. | Qualifier code[3] | | | >A | >B | |
| | | | | | | | >Carc | >Tox |
| Volatile Organic Analytes[5] | | | | | | | | |
| Acetone | 67-64-1 | 15.0 | J | 20/10 | NA | NA[4] | NA | 8,000 |
| Tetrachloroethene | 127-18-4 | 4.0 | J | 5.0/1.5 | NA | .5 | 19.6 | 800 |
| General Chemistry[6] | | | | | | | | |
| TOC | NA | 1,120 | NA | 25/15.5 | NA | NA | NA | NA |
| Total Phosphorus | 7723-14-0 | 644 | NA | 100/68.0 | No | No | No | No |
| Inorganic Analytes[6] | | | | | | | | |
| Barium | 7440-39-3 | 72.3 | NA | 22.4/.09 | 175 | NA | NA | 5,600 |
| Chromium | 7440-47-3 | 10.8 | NA | 1.1/.3 | 28.0 | 100 | NA | 400 |
| Copper | 7440-50-8 | 16.4 | NA | 2.8/.38 | 30.0 | NA | NA | 2,960 |
| Nickel | 7440-02-0 | 10.8 | NA | 4.5/.86 | 25.0 | NA | NA | 1,600 |
| Strontium | 7440-24-6 | 20.4 | E | 5.6/.06 | NA | NA | NA | 48,000 |
| Manganese | 7439-96-5 | 341 | N | 1.7/.06 | 583 | NA | NA | 11,200 |
| Vanadium | 7440-62-2 | 60.2 | E | 5.6/.39 | 107 | NA | NA | NA |
| Zinc | 7440-66-6 | 191 | N | 2.2/.68 | 79 | NA | NA | 24,000 |
| Lead | 7439-92-1 | 8.8 | B | 11.2/3.24 | 14.9 | 250 | NA | NA |
| Nitrate (anion) | 14797-55-8 | 6.0 | NA | NA/.80 | 208 | NA | NA | 128,000 |
| Sulfate (anion) | 14808-79-8 | 26.8 | NA | NA/4.0 | 931 | NA | NA | NA |
| Phosphate (anion) | 1426-44-2 | 3.9 | NA | NA/1.2 | 12.7 | NA | NA | NA |

(1) MTCA Method A and B toxicity and carcinogenicity soil cleanup levels and practical quantitation limit values.
(2) CAS = Chemical Abstract System.
(3) Concentration qualifiers: J = Estimated; B = Estimated result less than RL: N= spiked analyte recovery is outside stated control limits; E=matrix interference.
(4) NA = not applicable.
(5) Concentrations in micrograms per kilogram (parts per billion).
(6) Concentrations in milligrams per kilogram (parts per million).

Carc = carcinogenicity
Conc. = concentration
HSB = Hanford Site Background
RL/MDL = reporting limit/method detection level
Tox = toxicity.

## REFERENCES

DOE-RL, 1999, Class 3 Modification to the *Hanford Facility Dangerous Waste Permit Application, 616 Nonradioactive Dangerous Waste Storage Facility*, DOE/RL-89-03, Revision 2A, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

DOE/RL-92-24, *Hanford Site Background: Parts 1 and 2, Soil Background for Nonradioactive Analytes*, Revision 1, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

Ecology, 1999, [Letter dated September 2, 1999] *616 Nonradioactive Dangerous Waste Storage Facility Closure Plan*, Washington State Department of Ecology, Kennewick.

Ecology, 1996, *Model Toxics Control Act Cleanup Levels and Risk Calculation Database (CLARC II)*, July 1996, Publication #94-145, Washington State Department of Ecology, Olympia, Washington.

EPA, 1992, *Test Methods for Evaluating Solid Waste - Physical/Chemical Methods, SW-846*, Third Edition, November 1966 and updates, U.S. Environmental Protection Agency, Washington, D.C.

Hawley's, 1993, *Condensed Chemical Dictionary*, Van Nostrand Reinhold, New York, NY, published 1993.

SMO, 2000, *Sample Management Office, Sample Authorization Form (SAF), No. R100-060*, Fluor Hanford, Inc., Richland, Washington.

USGS, 1991, *The Geology of North America, Vol. K-2, Quaternary Nonglacial Geology: Conterminos U.S.*, Chapter 5, Quaternary tephrochronology, pages 93-116. The Geological Society of America, 1991.

**Figure 2 Example Inspection Checklist**
**Decontamination and Inspection Checklist for 616 Nonradioactive Dangerous Waste Storage Facility Closure Activities**

**Complete one checklist for each area cleaned.**

1. Portion of unit (e.g., north loading pad): EAST LOADING AREA
2. Structure/component description/material (e.g., coated concrete floor): FLOOR, CURBING, TRENCH, GRATING

*NOTE: Attach photographs taken during visual inspection.*

**DECONTAMINATION**

3. Decontamination method (s): WATER, NABC NON-ACID DISINFECTANT BATHROOM CLEANER, MSDS # 23408 (Initial/date) SRA 09/18/00

4. Comments on decontamination (or N/A): N/A (Initial/date) SRA 09/18/00

5. Decontamination is complete. Date: 09/18/00 Time: 1316 (Initial/date) SRA 09/18/00

**VISUAL VERIFICATION INSPECTIONS**

6. Assigned visual inspector(s):

Name: JE Mitchell Signature: J Mitchell Initials: JEM
DAN SAUERESSIG [signature] DS

Assigning manager: [signature] Signature 9/14/00 Date

7. Visual inspection of all (Step 1) locations is complete. Date: 9/18/00 Time: 1331 Initial JEM

8. Visual performance standard met for all (Step 1) locations (no obvious visual signs of potential contamination). (Initial/date) JEM / 9/18/00

9. Visual inspection comments (if any): Several streaks of black paint to indicate areas requiring repair. Minor grout film on SE corner of curb from previous curb repair. Does not mask indications of potential dangerous waste. (Initial/date) JEM / 9/18/00

10. Additional comments (if any): Minor rust stains from grates and scissor lift.. (Initial/date) JEM / 9/18/00

Manager approval: [signature] Date 7/13/01

11. The checklist is complete. Forward the completed checklist to the Hanford Facility Operating Record. JEM 7/13/01 (Initial/date)

**Figure 2 Example Inspection Checklist**
**Decontamination and Inspection Checklist for 616 Nonradioactive Dangerous Waste Storage Facility Closure Activities**

**Complete one checklist for each area cleaned.**

1. Portion of unit (e.g., north loading pad): NORTH LOADING AREA
2. Structure/component description/material (e.g., coated concrete floor): FLOOR, CURBING, TRENCH, GRATING

*NOTE: Attach photographs taken during visual inspection.*

**DECONTAMINATION**

3. Decontamination method (s) : WATER, NABC NON-ACID DISINFECTANT BATHROOM CLEANER, MSDS # 23408

(Initial/date) JRA 09/14/00

4. Comments on decontamination (or N/A): N/A

(Initial/date) JRA 09/14/00

5. Decontamination is complete. Date: 09/14/00 Time: 0840 (Initial/date) JRA 09/14/00

**VISUAL VERIFICATION INSPECTIONS**

6. Assigned visual inspector(s):

Name: DAN SAULESSIG Signature: [signature] Initials: DS
JE MITCHELL [signature] JOM

Assigning manager: [signature] 9/12/00
Signature Date

7. Visual inspection of all (Step 1) locations is complete. Date: 9/14/00 Time: 0930 Initial JOM

8. Visual performance standard met for all (Step 1) locations (no obvious visual signs of potential contamination). (Initial/date) JOM / 9/14/00

9. Visual inspection comments (if any): Rain gutter leakage caused rust stain near NW corn of rollup door. Bird nesting and waste stains in various locations. Two faint tire marks on west side. Minor rust stains where grating contacts sump lip. (Initial/date) JOM / 9/14/00

10. Additional comments (if any): None.

(Initial/date) JOM / 9/14/00

Manager approval [signature] Date 7/13/01

11. The checklist is complete. Forward the completed checklist to the Hanford Facility Operating Record. JOM 11/13/01 (Initial/date)

**Figure 2 Example Inspection Checklist**
**Decontamination and Inspection Checklist for 616 Nonradioactive Dangerous Waste Storage Facility Closure Activities**

**Complete one checklist for each area cleaned.**

1. Portion of unit (e.g., north loading pad): PACKAGING AND SAMPLING ROOM "BASIN"
2. Structure/component description/material (e.g., coated concrete floor): TWO BASINS AND COUNTER TOP

*NOTE: Attach photographs taken during visual inspection.*

**DECONTAMINATION**

3. Decontamination method (s) : WATER, NABC NON-ACID DISINFECTANT BATHROOM CLEANER

(Initial/date) JRA 09/13/00

4. Comments on decontamination (or N/A): N/A

(Initial/date) JRA 09/13/00

5. Decontamination is complete. Date: 09/13/00 Time: 1313 (Initial/date) JRA 09/13/00

**VISUAL VERIFICATION INSPECTIONS**

6. Assigned visual inspector(s):

Name: DAN SALGRESSIG Signature: [signature] Initials: DS
JE MITCHELL [signature] JEM

Assigning manager: [signature] 9/12/00
Signature Date

7. Visual inspection of all (Step 1) locations is complete. Date: 9/18/00 Time: 1405 Initial JEM

8. Visual performance standard met for all (Step 1) locations (no obvious visual signs of potential contamination). (Initial/date) JEM 9/18/00

9. Visual inspection comments (if any): None.

(Initial/date) JEM 9/18/00

10. Additional comments (if any): None.

(Initial/date) JEM 9/18/00

Manager approval [signature] Date 7/13/01

11. The checklist is complete. Forward the completed checklist to the Hanford Facility Operating Record.
JEM 7/13/01 (Initial/date)

**Figure 2 Example Inspection Checklist**
**Decontamination and Inspection Checklist for 616 Nonradioactive Dangerous Waste Storage Facility Closure Activities**

**Complete one checklist for each area cleaned.**

1. Portion of unit (e.g., north loading pad): PACKAGING AND SAMPLING ROOM
2. Structure/component description/material (e.g., coated concrete floor): FLOOR, WALLS, SUMP, GRATING

*NOTE: Attach photographs taken during visual inspection.*

**DECONTAMINATION**

3. Decontamination method (s) : WATER, NABC NON-ACID DISINFECTANT BATHROOM CLEANER, MSDS # 23408

(Initial/date) RD 09/13/00

4. Comments on decontamination (or N/A): N/A

(Initial/date) SPA 09/13/00

5. Decontamination is complete. Date: 09/13/00 Time: 1100 (Initial/date) SPA 09/13/00

**VISUAL VERIFICATION INSPECTIONS**

6. Assigned visual inspector(s):

Name: DAN SAUERESSIG Signature: [signature] Initials: DS
JE MITCHELL [signature] JOM

Assigning manager: [signature] 9/12/00
Signature Date

7. Visual inspection of all (Step 1) locations is complete. Date: 9/18/00 Time: 1410 Initial JOM

8. Visual performance standard met for all (Step 1) locations (no obvious visual signs of potential contamination). (Initial/date) JOM 9/18/00

9. Visual inspection comments (if any): None.

(Initial/date) JOM 9/18/00

10. Additional comments (if any): None.

(Initial/date) JOM 9/18/00

Manager approval [signature] Date 7/13/01

11. The checklist is complete. Forward the completed checklist to the Hanford Facility Operating Record.
JOM 7/13/01 (Initial/date)

**Figure 2 Example Inspection Checklist**
**Decontamination and Inspection Checklist for 616 Nonradioactive Dangerous Waste Storage Facility Closure Activities**

**Complete one checklist for each area cleaned.**

1. Portion of unit (e.g., north loading pad): PACKAGING MATERIAL AND HANDLING EQUIP AREA
2. Structure/component description/material (e.g., coated concrete floor): FLOOR, WALLS, SUMP, GRATING

*NOTE: Attach photographs taken during visual inspection.*

**DECONTAMINATION**

3. Decontamination method (s) : WATER, NON-ACID (NABC) DISINFECTANT BATHROOM CLEANER. MSDS #23408

(Initial/date) JRA 109/20/00

4. Comments on decontamination (or N/A): N/A

(Initial/date) JRA 109/20/00

5. Decontamination is complete. Date: 09/20/00 Time: 1115 (Initial/date) JRA 109/20/00

**VISUAL VERIFICATION INSPECTIONS**

6. Assigned visual inspector(s):

Name: JE Mitchell Signature: [signature] Initials: JOM
DAN SAUERESSIG [signature] DS

Assigning manager: [signature] 9/14/00
Signature Date

7. Visual inspection of all (Step 1) locations is complete. Date: 9/22/00 Time: 1338 Initial JOM

8. Visual performance standard met for all (Step 1) locations (no obvious visual signs of potential contamination). (Initial/date) JOM 19/22/00

9. Visual inspection comments (if any): MINOR FLOOR STAINS POTENTIALLY FROM HYDRAULIC FLUID OR BATTERY ACID. MOST LIKELY HYDRAULIC FLUID SINCE STAINS ARE SAME COLOR. AND NEAR WHERE FORKLIFT WAS TYPICALLY STORED. (Initial/date) JOM 19/22/00

10. Additional comments (if any):

(Initial/date) JOM 19/22/00

Manager approval [signature] Date 7/13/01

11. The checklist is complete. Forward the completed checklist to the Hanford Facility Operating Record.
JOM 17/13/01 (Initial/date)

**Figure 2 Example Inspection Checklist**
**Decontamination and Inspection Checklist for 616 Nonradioactive Dangerous Waste Storage Facility Closure Activities**

**Complete one checklist for each area cleaned.**

1. Portion of unit (e.g., north loading pad): RECEIVING AREA
2. Structure/component description/material (e.g., coated concrete floor): FLOOR, WALLS, TRENCH, GRATING

*NOTE: Attach photographs taken during visual inspection.*

**DECONTAMINATION**

3. Decontamination method (s): WATER, NABC NON-ACID DISINFECTANT BATHROOM CLEANER, MSDS # 23408 (Initial/date) JRA 09/20/00

4. Comments on decontamination (or N/A): N/A (Initial/date) JRA 09/20/00

5. Decontamination is complete. Date: 09/20/00 Time: 1400 (Initial/date) JRA 09/20/00

**VISUAL VERIFICATION INSPECTIONS**

6. Assigned visual inspector(s):

Name: JE Mitchell Signature: [signature] Initials: JOM
DAN SAUCRESSIG [signature] DS

Assigning manager: [signature] Signature 9/14/00 Date

7. Visual inspection of all (Step 1) locations is complete. Date: 9/22/00 Time: 1338 Initial JOM

8. Visual performance standard met for all (Step 1) locations (no obvious visual signs of potential contamination). (Initial/date) JOM 9/22/00

9. Visual inspection comments (if any): MINOR FLOOR STAINS POTENTIALLY FROM HYDRAULIC FLUID. OR BATTERY ACID. MOST LIKELY HYDRAULIC FLUID SINCE STAINS ARE SAME COLOR AND NEAR WHERE FORKLIFT WAS TYPICALLY STORED. (Initial/date) JOM 9/22/00

10. Additional comments (if any): NONE. (Initial/date) JOM 9/22/00

Manager approval [signature] Date 7/13/01

11. The checklist is complete. Forward the completed checklist to the Hanford Facility Operating Record.
JOM 7/13/01 (Initial/date)

**Figure 2 Example Inspection Checklist**
**Decontamination and Inspection Checklist for 616 Nonradioactive Dangerous Waste Storage Facility Closure Activities**

**Complete one checklist for each area cleaned.**

1. Portion of unit (e.g., north loading pad): FLAM. 1A CELL
2. Structure/component description/material (e.g., coated concrete floor): FLOOR, WALLS, TRENCH, GRATING

*NOTE: Attach photographs taken during visual inspection.*

**DECONTAMINATION**

3. Decontamination method (s) : WATER, NABC NON-ACID DISINFECTANT BATHROOM CLEANER. MSDS # 23408

(Initial/date) JRA / 09/07/00

4. Comments on decontamination (or N/A): N/A

(Initial/date) JRA / 09/07/00

5. Decontamination is complete. Date: 09/07/00 Time: 0905 (Initial/date) JRA / 09/07/00

**VISUAL VERIFICATION INSPECTIONS**

6. Assigned visual inspector(s):

Name: DAN SAUERESSIG Signature: [signature] Initials: DS
JE MITCHELL [signature] JEM

Assigning manager: [signature] 9/12/00
Signature Date

7. Visual inspection of all (Step 1) locations is complete. Date: 9/14/00 Time: 0940 Initial JEM /

8. Visual performance standard met for all (Step 1) locations (no obvious visual signs of potential contamination). (Initial/date) JEM / 9/14/00

9. Visual inspection comments (if any): None.

(Initial/date) JEM / 9/14/00

10. Additional comments (if any): Slight mechanical wear.

(Initial/date) JEM / 9/14/00

Manager approval [signature] Date 7/13/01

11. The checklist is complete. Forward the completed checklist to the Hanford Facility Operating Record.
JEM / 7/13/01 (Initial/date)

**Figure 2 Example Inspection Checklist**
**Decontamination and Inspection Checklist for 616 Nonradioactive Dangerous Waste Storage Facility Closure Activities**

**Complete one checklist for each area cleaned.**

1. Portion of unit (e.g., north loading pad): FLAM. 1B CELL
2. Structure/component description/material (e.g., coated concrete floor): FLOOR, WALLS, TRENCH, GRATING

*NOTE: Attach photographs taken during visual inspection.*

**DECONTAMINATION**

3. Decontamination method (s): WATER, NABC NON-ACID DISINFECTANT BATHROOM CLEANER, MSDS # 23408

(Initial/date) JRA 09/11/00

4. Comments on decontamination (or N/A): N/A

(Initial/date) JRA 09/11/00

5. Decontamination is complete. Date: 09/11/00 Time: 0920 (Initial/date) JRA 09/11/00

**VISUAL VERIFICATION INSPECTIONS**

6. Assigned visual inspector(s):

Name: DAN SAUERESSIG Signature: [signature] Initials: DS
JE MITCHELL [signature] JOM

Assigning manager: [signature] 9/12/00
Signature Date

7. Visual inspection of all (Step 1) locations is complete. Date: 9/14/00 Time: 1020 Initial JOM

8. Visual performance standard met for all (Step 1) locations (no obvious visual signs of potential contamination). (Initial/date) JOM 9/14/00

9. Visual inspection comments (if any): Two ½" diameter spots of black ~~mase~~ thin substance beneath floor coating exposed by wear was noted and removed. Flecks of material were removed and added to decon waste container CIN # 9700357. (Initial/date) JOM 9/14/00

10. Additional comments (if any): _____

(Initial/date) _____

Manager approval [signature] Date 7/13/01

11. The checklist is complete. Forward the completed checklist to the Hanford Facility Operating Record.
JOM 7/13/01 (Initial/date)

**Figure 2 Example Inspection Checklist**
**Decontamination and Inspection Checklist for 616 Nonradioactive Dangerous Waste Storage Facility Closure Activities**

**Complete one checklist for each area cleaned.**

1. Portion of unit (e.g., north loading pad): COMBUSTIBLE CELL
2. Structure/component description/material (e.g., coated concrete floor): FLOOR, WALLS, TRENCH, GRATING

*NOTE: Attach photographs taken during visual inspection.*

**DECONTAMINATION**

3. Decontamination method (s): WATER, NABC NON-ACID DISINFECTANT BATHROOM CLEANER. MSDS #234/08

(Initial/date) JRA 09/11/00

4. Comments on decontamination (or N/A): N/A

(Initial/date) JRA 09/11/00

5. Decontamination is complete. Date: 09/11/00 Time: 1445 (Initial/date) JRA 09/11/00

**VISUAL VERIFICATION INSPECTIONS**

6. Assigned visual inspector(s):

Name: DAN SAUERESSIG, JE MITCHELL Signature: [signature], [signature] Initials: DS, JOM

Assigning manager: [signature] Signature 9/12/00 Date

7. Visual inspection of all (Step 1) locations is complete. Date: 9/18/00 Time: 1340 Initial JOM

8. Visual performance standard met for all (Step 1) locations (no obvious visual signs of potential contamination). (Initial/date) JOM 9/18/00

9. Visual inspection comments (if any): Slight streaks and discoloration in location E2-E4.

(Initial/date) JOM 9/18/00

10. Additional comments (if any): None.

(Initial/date) JOM 9/18/00

Manager approval [signature] Date 7/13/01

11. The checklist is complete. Forward the completed checklist to the Hanford Facility Operating Record. JOM 7/13/01 (Initial/date)

**Figure 2 Example Inspection Checklist**
**Decontamination and Inspection Checklist for 616 Nonradioactive Dangerous Waste Storage Facility Closure Activities**

**Complete one checklist for each area cleaned.**

1. Portion of unit (e.g., north loading pad): OXIDIZER JRA 9/12/00
2. Structure/component description/material (e.g., coated concrete floor): FLOOR, WALLS, TRENCH, GRATING

*NOTE: Attach photographs taken during visual inspection.*

**DECONTAMINATION**

3. Decontamination method (s): WATER, NABC NON-ACID DISINFECTANT BATHROOM CLEANER. MSDS #23408

(Initial/date) JRA / 09/12/00

4. Comments on decontamination (or N/A): N/A

(Initial/date) JRA / 09/12/00

5. Decontamination is complete. Date: 09/12/00 Time: 1105 (Initial/date) JRA / 09/12/00

**VISUAL VERIFICATION INSPECTIONS**

6. Assigned visual inspector(s):

Name: JE Mitchell Signature: JMitchell Initials: JOM
DAN SAUERESSIG DS

Assigning manager: [signature] 9/12/00
Signature Date

7. Visual inspection of all (Step 1) locations is complete. Date: 9/18/00 Time: 1401 Initial JOM / 9/18/00

8. Visual performance standard met for all (Step 1) locations (no obvious visual signs of potential contamination). (Initial/date) JOM / 9/18/00

9. Visual inspection comments (if any): None.

(Initial/date) JOM / 9/18/00

10. Additional comments (if any): None.

(Initial/date) JOM / 9/18/00

Manager approval [signature] Date 7/13/01

11. The checklist is complete. Forward the completed checklist to the Hanford Facility Operating Record.
JOM 7/13/01 (Initial/date)

**Figure 2 Example Inspection Checklist**
**Decontamination and Inspection Checklist for 616 Nonradioactive Dangerous Waste Storage Facility Closure Activities**

**Complete one checklist for each area cleaned.**

1. Portion of unit (e.g., north loading pad): CAUSTIC
2. Structure/component description/material (e.g., coated concrete floor): FLOOR, WALLS, TRENCH, GRATING

*NOTE: Attach photographs taken during visual inspection.*

**DECONTAMINATION**

3. Decontamination method (s) : WATER, NABC NON-ACID DISINFECTANT BATHROOM CLEANER. MSDS # 23408

(Initial/date) JRA / 09/12/00

4. Comments on decontamination (or N/A): N/A

(Initial/date) JRA / 09/12/00

5. Decontamination is complete. Date: 09/12/00 Time: 1410 (Initial/date) JRA / 09/12/00

**VISUAL VERIFICATION INSPECTIONS**

6. Assigned visual inspector(s):

Name: JE MITCHELL Signature: JMitchell Initials: JOM
DAN SAUERESSIG Dan S DS

Assigning manager: DR Pysel 9/12/00
Signature Date

7. Visual inspection of all (Step 1) locations is complete. Date: 9/18/00 Time: 1355 Initial JOM /

8. Visual performance standard met for all (Step 1) locations (no obvious visual signs of potential contamination). (Initial/date) JOM / 9/18/00

9. Visual inspection comments (if any): None

(Initial/date) JOM / 9/18/00

10. Additional comments (if any): None.

(Initial/date) JOM / 9/18/00

Manager approval [signature] Date 7/13/01

11. The checklist is complete. Forward the completed checklist to the Hanford Facility Operating Record.
JOM / 7/13/01 (Initial/date)

**Figure 2 Example Inspection Checklist**
**Decontamination and Inspection Checklist for 616 Nonradioactive Dangerous Waste Storage Facility Closure Activities**

**Complete one checklist for each area cleaned.**

1. Portion of unit (e.g., north loading pad): ACID CELL
2. Structure/component description/material (e.g., coated concrete floor): FLOOR, WALLS, TRENCH, GRATING

*NOTE: Attach photographs taken during visual inspection.*

**DECONTAMINATION**

3. Decontamination method (s) : WATER, NABC NON ACID DISINFECTANT BATHROOM CLEANER. MSDS # 234008

(Initial/date) JRA / 09/11/00

4. Comments on decontamination (or N/A): N/A

(Initial/date) JRA / 09/11/00

5. Decontamination is complete. Date: 09/11/00 Time: 1320 (Initial/date) JRA 09/11/00

**VISUAL VERIFICATION INSPECTIONS**

6. Assigned visual inspector(s):

Name: DAN SAUERESSIG Signature: [signature] Initials: DS
JE MITCHELL [signature] JEM

Assigning manager: [signature] 9/18/00
Signature Date

7. Visual inspection of all (Step 1) locations is complete. Date: 9/18/00 Time: 1348 Initial JEM /

8. Visual performance standard met for all (Step 1) locations (no obvious visual signs of potential contamination). (Initial/date) JEM / 9/18/00

9. Visual inspection comments (if any): None.

(Initial/date) JEM / 9/18/00

10. Additional comments (if any): None.

(Initial/date) JEM / 9/18/00

Manager approval [signature] Date 7/13/01

11. The checklist is complete. Forward the completed checklist to the Hanford Facility Operating Record. JEM / 7/13/01 (Initial/date)

**616 PROJECT MEETING**
**Project Managers Meeting**
**2704HV/Rm. G229/600 Area**
**Hanford, Washington**

**July 26, 2001**

## Attendance List

| Name | Organization | Phone Number | MSIN |
|---|---|---|---|
| Julie Stitt | FH | 2-0306 | |
| FRED JAMISON | ECOLOGY | 736-3022 | B5-18 |
| Janie Granger | FH | 376-7846 | |
| Darlene Hagel | FH | 373-4751 | |
| Greg SINTON | RL-WMD | 373-7939 | |
| PAUL W. MARTIN | FH WST SERV | | |
| DAN SAUERESSIG | FH | 376-9739 | T4-04 |
| Rick Engelmann | FH E+R | 376-7485 | G1-30 |
| Michael Collins | RL-WMD | 376 6536 | |
| Greta P. Davis | ECY | 736-3025 | B5-18 |
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