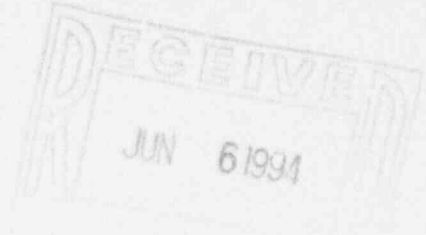


ENVIROCARE OF UTAH, INC.
THE SAFE ALTERNATIVE



QA/94-154
May 27, 1994

Samuel J. Collins
Division of Radiation
Safety and Safeguards
U.S. Nuclear Regulatory Commission
611 Ryan Plaza Drive, Suite 400
Arlington, Texas 76011-8064

dated 5/4/94

Re: ENVIROCARE RESPONSE TO NRC INSPECTION 40-8989/94-01 OF THE
SOUTH CLIVE WASTE DISPOSAL FACILITY

Dear Mr. Collins:

Enclosed is Envirocare's response to your comments pursuant to the
NRC inspection conducted on April 14 and 15, 1994. Additionally,
documentation of audits, calibrations, and corrective actions taken
to conform to your recommendations and/or requests are included.

Please contact me at (801) 532-1330 if any clarification or
additional information is needed.

Sincerely,

Charles Judd
Executive Vice President

cc: Utah Division of Radiation Control

220040

94-1141

IE-07
111

RESPONSE

1.0 Assessment: The inspectors reviewed selected Standard Operating Procedures (SOPs) being developed in accordance with license condition 9.6(a) for use with the 11e.(2) disposal activities. The procedures were based on existing procedures already in use for the state licensed conditions and commitments. Newly developed procedures included an 11e.(2) waste storage procedure and a respirator/airborne radioactivity procedure being developed to meet license condition 9.6(f). Most of the 45 SOPs identified for development had been written and were undergoing final revisions and approval.

1.1 Corrective Actions Taken or Planned: The incorporation of the 11e.(2) requirements into the Operating Procedures Manual was assigned and documented as Corrective Action Procedure (CAP) Item Number 21. A procedure for 11e.(2) waste storage (RW-6) was added, and a revision was made to procedure PMP-3 (Personal Air Monitoring) to meet 11e.(2) license condition 9.6(f). These revisions are under corporate authority's final review and approval.

2.0 Assessment: The licensee had established a system for distribution of controlled documents to ensure that outdated or superseded documents were taken out of use. An administrative assistant had been assigned responsibility to change out all controlled documents on site. The licensee had not utilized a signature changeout form for controlled documents. Licensee representatives stated that controlled documents had been audited quarterly but no records of these audits were maintained. They further stated that a process was in development to place tighter controls on distribution by requiring documented confirmation of receipt and changeout of controlled documents.

2.1 Corrective Actions Taken or Planned: An internal document transmittal form was generated (Form EC-2815) to accompany all controlled documents. This transmittal form requires a dated signature upon incorporation of the change and return of the form to the Document Control Officer within 10 working days of distribution. The next quarterly audit of the controlled documents is scheduled for May 26, 1994. A copy of this audit, when completed, will be forwarded to the Executive Vice-President for information and will be filed in the internal audit section of the operating record files.

3.0 Assessment: The licensee's quality assurance program as defined in the QA Manual and (the) Audit and Assessment Manual had not been fully implemented. At the time of the inspection, the QA Manual was undergoing revision to include the 11e.(2) operations.

3.1 Corrective Actions Taken or Planned: The Quality Assurance Manual has been revised to incorporate 11e.(2) operations. This manual was approved and distributed on April 28, 1994.

4.0 Assessment: It was noted that no system for characterizing the significance of findings or prioritizing the corrective action (item) had been established.

4.1 Corrective Actions Taken or Planned: The Corrective Action Program was revised to prioritize each CAP item. Items are assigned a priority of A, B, or C according to the needed urgency of the response. Also, specifically defined fields were added to the database to uniquely classify each Corrective Action Item to facilitate trend analysis. These new fields classify the domain (or general category) of the CAP item, the location or facility area, the department responsible for the corrective action, the department representative who is in charge of implementing the corrective action, and the identifying source of the corrective action (license requirement, external audit, QA, etc.). (See enclosed corrective action form and CAP report).

5.0 Assessment: The inspectors met with the QA officer who stated that the QA program should be fully implemented before receipt of 11e.(2) byproduct material. At the time of the inspection, no internal audits had been conducted of NRC licensed activities.

5.1 Corrective Actions Taken or Planned: The work on the excavation of the 11e(2) disposal cell had been started three days prior to the NRC inspection, April 14-15, 1994. As a result, no audits had yet been conducted of NRC licensed activities. Scheduled 11e(2) audits and assessments will be incorporated into the Audit and Assessment Manual by June 3, 1994. Nevertheless, on May 14, 1994 an audit was performed to ensure calibrations were current and correctly marked on all site measuring and testing equipment.

6.0 Assessment: No documentation was available to confirm that density sand to be used had been tested in accordance with American Society for Testing and Materials (ASTM) ASTM D-1556-90, para. 6.2.

6.1 Corrective Actions Taken or Planned: On April 21, 1994 the density sand was tested in accordance with ASTM D-1556-90 and confirmed to be in conformance.

7.0 Assessment: Soil specific gravity had not been reported as specified in ASTM D-698-91, paragraph 12.1.9.

7.1 Corrective Actions Taken or Planned: Soil specific gravity is reported as a part of all proctors performed by outside contract laboratories. Envirocare will modify the existing internal form to record proctor test results which will include the means for reporting the soil specific gravity for all on-site proctors by 6/3/94 (CAP item #54).

8.0 Assessment: Certain testing equipment calibrations had not been recorded. The licensee was in the process of completing this task. A comprehensive set of records including manufacturer's information and certificates of calibration should be maintained and kept up-to-date.

8.1 Corrective Actions Taken or Planned: On May 14, 1994, all measuring and testing equipment were audited and any necessary calibrations were completed and documented. Measuring and Testing Equipment Control was assigned to the QA Assistant. Henceforth, a monthly list of calibrations due for completion shall be generated to ensure timely completion of all calibration requirements.

9.0 Assessment: The Atterberg Limits grooving tool was not in accordance with ASTM D-4318-84, paragraph 6.2.

9.1 Corrective Actions Taken or Planned: On May 5, 1994 a new Atterberg Limits grooving tool was purchased, inspected in accordance with ASTM D-4318-84, and the inspection documented.

10.0 Assessment: The (Standard) Proctor hammer was not in accordance in with ASTM D-698-91, paragraph 6.2.1.

10.1 Corrective Actions Taken or Planned: On May 12, 1994 a new Standard Proctor Manual Rammer was purchased, inspected in accordance to ASTM D-698-91, and the inspection documented.

11.0 Assessment: Documentation was unavailable to confirm that the stirring paddle on the mixer meets the requirements of ASTM D-422-63, Figure 1 and that dispersion cups meet the requirements shown in Figure 2.

11.1 Corrective Actions Taken or Planned: On May 5 and 10, 1994 the stirring paddle and the dispersion cup, respectively, were inspected and confirmed to be in accordance with ASTM D-422-63, Figure 1 and Figure 2.

12.0 Assessment: Documentation was not maintained of outside independent training of soil laboratory and field testing personnel.

12.1 Corrective Actions Taken or Planned: Maintained in the Envirocare site files are: certificates of completion of eight hours of Nuclear Density Testing (Troxler) classroom and practical training provided by Nuclear Testing Services for all Troxler qualified personnel, and soil mechanics classroom and practical training which was provided in 1993 by Applied Geotechnical Engineering Consultants, Inc. (AGEC) for field and laboratory testing personnel.

13.0 Assessment: Personnel training record files did not contain professional resumes.

13.1 Corrective Actions Taken or Planned: Unfortunately, the Envirocare Site Manager was not present the day the audit was conducted by Dr. Spitzberg and Messrs. L Carson, and D. Rom. Professional resumes are maintained on site in the Site Manager's personnel files.

14.0 Assessment: Documentation was not on file to confirm that the licensee's contracted outside laboratory meets the requirements of ASTM E-329-90.

14.1 Corrective Actions Taken or Planned: The principal outside contract laboratory for soils analysis (AGEC) meets the requirements of ASTM E-329-90. More importantly, AGEC also participates in the Proficiency Sample Program from the AASHTO Materials Reference Laboratory. This provides validation of continued high quality of the data provided. A copy of these documents is now in the Envirocare site files.

ENVIROCARE OF UTAH

CORRECTIVE ACTION PROGRAM

(FORM EC-0255)

CORRECTIVE ACTION NUMBER _____ DATE IDENTIFIED _____

RESPONSIBLE DEPARTMENT HEAD _____

DESCRIPTION OF CORRECTIVE ACTION NEEDED: _____

PROPOSED COMPLETION DATE _____

IDENTIFIED BY

DEPT. HEAD APPROVAL

RESOLUTION OF CORRECTIVE ACTION ITEM: _____

DATE COMPLETED _____

RESPONSIBLE DEPT. HEAD

QA OFFICER CONCURRENCE

TREND ANALYSIS FOR CORRECTIVE ACTION PROGRAM (CAP) ITEMS

Five fields will be used for trend analysis of all CAP items. Each field can be sorted to identify continual problems or trends in any aspect of the Envirocare system. The fields are: IN-CHARGE (the department head who is responsible to ensure the CAP item is properly accomplished), DOMAIN (aspect of Envirocare process which the CAP item involves), LOCATION (the affected area), DEPARTMENT (the department that needs to correct the CAP), and SOURCE (origination of the Corrective Action). Given below is a list of key word entries under the trend fields listed above. The key words are shown with the exact spelling used in the DataBase file. Use the key word as listed. New key words may be added as necessary.

IN-CHARGE

George Hellstrom
Dan Owen
G. Copeland
Ray Jaffe
Vern A.
Jay Vance
M. Little
S. Peterson
R. Birt
M. Wicks
C. Warr
Jeff Low

DOMAIN

Rad. Training
OSHA Training
RCRA Training
Safety Training
Environ Monitor--monitoring
Access Control
Railcar Decon
Equip Decon
Truck Decon
Truck Unloading
Rollover
11e.2 Accept
LARW Acceptance
MW Acceptance
MW Storage Pad
MW Facility
MW Tanks
MW Evap Pond
MW Records
Records (general)
Procedures
Site Safety
Vehicles
MW Lab Anal.
LARW Lab Anal.
Eng. Testing
11e.2 Cell
MW Cell
LARW Cell
NORM Cell
BA Work Areas
Dust Control
Bulk Storage
11e. Storage
Envirocare (gen -- general)
Groundwater

DEPARTMENT

Scheduling
Operations
QA
Occup Safety
Rad. Safety
Permitting
Site Lab
Engineering
Training
Doc. Control
Maintenance
Groundwater

LOCATION

MW Evap Pond
MW Building
Site (general)
LARW Strge Pads
BA Mechanc
LARW Cell
11e.2 Cell
MW Cell
Truck Unloading
Admin. Decon
Restricted Roads
Rollover
Env. Stations
All disposal cells-- Disposal (gen.)
Admin. Lab
Soils Lab
Railcar Decon
MW Strge Pad
MW Treatment
Corporate Off.
Admin. Records
Corp. Records
Access Point Restricted Area-- Sec. Access
Norm LARW Wells
MW Wells
11e.(2) Wells

SOURCE

Corporate Authority-- Executive
IHI Audit
Safety Meeting
DOE Audit
RSO Field Inspec
Site Mng. Inspec
Eng. Audit
Health Phy. Audit
GWDP Audit
RCRA Audit
NOV
NRC Audit
11e.2 License
LARW License
QA
EPA

ENVIROCARE OF UTAH

Density Sand Calibration

Dated from 4-21-94 to _____

Calibration Number _____ Cone & Plate Number ENV0291

1. Wt. of bottle & Cone before filling cone & plate.
2. Wt. of bottle & Cone after filling cone & plate.
3. Wt. of sand to fill cone & plate.
4. Wt. of bottle & sand before filling cone, plate, & 0.1 cu. ft. container
5. Wt. of bottle & sand after filling cone, plate, & 0.1 cu. ft. container
6. Wt. of sand to fill cone, plate & 0.1 cu. ft. container
7. Wt. of sand to fill cone & plate (Linell)
8. Wt. of sand to fill 0.1 cu. ft. container

	A	B	C	D
(g)				
1.	3469.3	3595.8	3999.4	4251.9
2.	1644.9	1752.3	2148.0	2410.4
3.	1824.4	1843.5	1851.4	1841.5
4.	6856.7	6954.2	6850.2	X
5.	1534.1	1641.3	1527.6	X
6.	5322.6	5312.9	5322.6	X
7.	1840.2	1840.2	1840.2	X
8.	3482.4	3472.7	3482.4	X

9. Average Wt. of sand to fill 0.1 cu. ft. container $\frac{A + B + C + D}{4}$ (Line 8) = 3479.2 g
10. Loose density of sand (lbs./ft.³) = $\frac{\text{Wt. of 0.1 cu. ft. (Line 9)} \times 10}{453.6}$ = 101.2 lb/ft³
11. Average Wt. of sand to fill cone & plate = $\frac{A + B + C + D}{4}$ (Line 3) = 1840.2 g

$$V = 2126.3 \text{ cm}^3 \text{ or } .075^4 \text{ ft}^3$$

$$\rho = \frac{3479.2 \text{ g}}{2126.3 \text{ cm}^3} = 1.649 \text{ g/cm}^3$$

Calibrated By SHANE JOHANSON SY

$$\rho = 1.649 \frac{\text{g}}{\text{cm}^3} \times \frac{1 \text{ g/cm}^3}{0.01602 \text{ lb/ft}^3} = 101.2 \text{ lb/ft}^3$$

6" mold (water volume calculation)

$$\begin{aligned} \text{mold} &= 6542.3 \text{ g} \\ \text{mold + plate} &= 6675.0 \text{ g} \\ \text{wt. mold + plate w/ water} &= 8679.1 \end{aligned}$$

$$T(^{\circ}\text{F}) \text{ OF water} = 67.1^{\circ}$$

$$\rho \text{ (according to table) } \text{H}_2\text{O} = .99833$$

First measure

$$\begin{array}{r} \text{MASS OF H}_2\text{O} = 8679.1 \text{ g} \\ - 6542.3 \end{array}$$

$$\boxed{2136.8 \text{ g}}$$

$$V_1 = \frac{2136.8 \text{ g}}{.99833 \text{ g/mL}} = 2140.4 \text{ mL} = 2140.4 \text{ cm}^3$$

Second measure

$$\text{wt. mold + plate w/ water} = 8650.9$$

$$\begin{array}{r} \text{MASS H}_2\text{O} = 8650.9 \\ - 6542.3 \end{array}$$

$$\boxed{2108.6 \text{ g}}$$

$$V_2 = \frac{2108.6 \text{ g}}{.99833} = 2112.1 \text{ cm}^3$$

$$V_{\text{ave}} = \frac{2140.4 + 2112.1}{2 (1000)} = \boxed{2126.3 \text{ cm}^3}$$

$$\frac{2126.3}{16.39} = 129.75 \text{ in}^3 \quad \frac{129.75 \text{ in}^3}{1728} = \boxed{.075 \text{ f}}$$

6" mold (length measured volume)

diameter at top

$$\begin{array}{ll} d_1 = 6.0013 \text{ in} & d_4 = 6.0015 \text{ " } \\ d_2 = 6.0015 \text{ " } & d_5 = 6.005 \text{ " } \\ d_3 = 5.9895 \text{ " } & d_6 = 5.969 \text{ " } \end{array}$$

$$d_{AV} = 5.995 \text{ "}$$

diameter at bottom

$$\begin{array}{ll} d_1 = 6.001 \text{ " } & d_4 = 5.944 \\ d_2 = 5.992 & d_5 = 5.996 \\ d_3 = 5.9915 & d_6 = 5.992 \end{array}$$

$$d_{AV} = 5.986 \text{ "}$$

height

$$h_1 = 4.584 \text{ " } \quad h_2 = 4.586 \text{ " } \quad h_3 = 4.585 \text{ "}$$

$$h_{AV} = 4.585 \text{ "}$$

$$V = \frac{(\pi)(4.585)[5.995 + 5.986]^2}{(16)(1728)}$$

$$= \boxed{.0748 \text{ ft}^3}$$

$$d_T = 5.995 \times 2.54 = 15.23 \text{ cm}$$

$$B = 5.986 \times 2.54 = 15.20$$

$$h = 4.585 \times 2.54 = 11.65$$

$$V = \frac{(\pi)(11.65)[15.23 + 15.20]^2}{16}$$

$$= \boxed{2118.2 \text{ cm}^3}$$

4" mold (volume by water calculation)

$$\text{wt. mold} = 4262.7 \text{ g}$$

$$\text{wt. ① H}_2\text{O} + \text{mold} = 5215.9 \text{ g}$$

$$\text{wt. ② H}_2\text{O} + \text{mold} = 5220.5 \text{ g}$$

$$w_{+, \text{ave}} = 5218.2 \text{ g}$$

$$\begin{array}{r} 5218.2 \\ - 4262.7 \\ \hline \end{array}$$

$$\text{wt. H}_2\text{O} = 955.5 \text{ g}$$

$$T = 69.4^\circ\text{F}$$

$$\rho = .99802 \text{ g/cm}^3$$

$$V_{\text{ave}} = \frac{955}{.99802} = \boxed{957.4 \text{ cm}^3}$$

$$\frac{957.4 \text{ cm}^3}{16.39} = \frac{58.41 \text{ in}^3}{1728} = \boxed{.0338 \text{ cm}^3}$$

4" mold (volume by length calculation)

height (h)

$$h_1 = 4.5861'' \quad h_2 = 4.580'' \quad h_3 = 4.590''$$

$$h_{av} = 4.585$$

diameter at top (d_T)

$$d_1 = 3.994'' \quad d_4 = 3.995''$$

$$d_2 = 3.981'' \quad d_5 = 3.992''$$

$$d_3 = 3.985'' \quad d_6 = 3.983''$$

$$d_{av} = 3.988''$$

diameter at bottom (d_B)

$$d_1 = 3.994'' \quad d_4 = 3.979''$$

$$d_2 = 3.997'' \quad d_5 = 3.985''$$

$$d_3 = 3.983'' \quad d_6 = 3.957''$$

$$d_{av} = 3.983''$$

$$V = \frac{\pi (3.988 + 3.983)^2 (4.585)}{(16)(1728)} = \boxed{.0331 \text{ ft}^3}$$

SI

$$d_1 = 3.988 \times 2.54 = 10.13 \text{ cm}$$

$$d_{15} = 3.983 \times 2.54 = 10.12 \text{ cm}$$

$$h = 4.585 \times 2.54 = 11.64 \text{ cm}$$

$$V = \frac{\pi (10.13 + 10.12)^2 (11.64)}{16} =$$

$$\boxed{937.2}$$

Liquid Limit Device (ASTM 4318)

6.1.1 BASE -

6.1.2 FEET -

6.1.3 Cup - mass = 192.2 g

6.1.4 CAM - The CAM raises the cup smoothly over $\approx 200^\circ$ OF CAM rotation.

6.1.5. CARRIAGE - The cup CARRIAGE was Adjusted to allow 10 mm OF drop for the cup.
The cup hanger is ATTACHED by a pin to the CARRIAGE.

DIMENSIONS

A - 54.1 mm

B - 20 mm

C - 26.3 mm

E - $\frac{54.1}{\cos 20} = 57.6$ mm

F - $1.242 \times 25.4 = 32$ mm

G - 13 mm

H - 19 mm

J - 59.4 mm

K - 50.9 mm

L - 150 mm

M - 125 mm

N - 19 mm

P - 26 mm

R - 24 mm

T - 44 mm

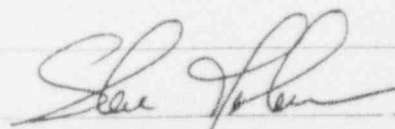
U - 46.1 mm

V - 3.1 mm

W - 13 mm

Z - 7.9 mm

Performed by



5-5-94

Grooving Tool - 5-5-94

Measured according to ASTM D4318

A - 2.03 mm

B - 10.9 mm

C - 39.7 mm

D - 8.03 mm

E - 50.0 mm

F - 2.08 mm

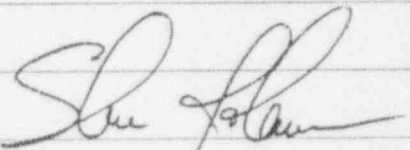
G - 10.2 mm

H - 18.5 mm

J - 60 mm

L - $\tan^{-1} \frac{.79}{.44} = 60.9^\circ$

N - 20.2 mm

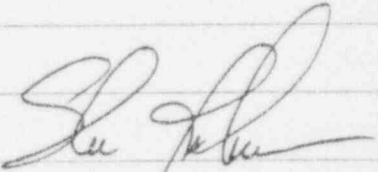

5-5-94

Gage - (ASTM D4318) - 5-5-94

Length - 49.9 mm

breadth - 25.3 mm

width - 10.1 mm

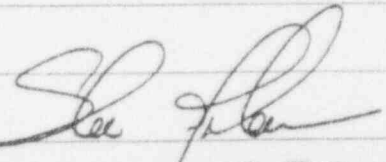

5-5-94

ASTM D422) Stirring Paddle - 5-5-94

thickness - .049" sp 5-5-94

punch hole - ~~25.3 mm~~ .203"

center to tip - .5"

Performed by 
5-5-94

Scale 5-5-94

Using certified weight measurements:

Known mass

2000 g

1000 g

20 g

200 g

50 g

Measured Mass

2000.0 g

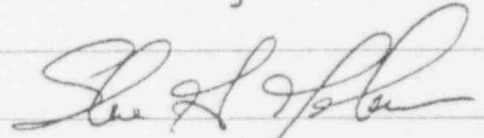
1000.0 g

20.0 g

200.0 g

50.0 g

Performed by



5-6-94

4" mold (volume by water calculation)

$$\text{wt. mold} = 4262.7 \text{ g}$$

$$\text{wt. ① H}_2\text{O + mold} = 5215.9 \text{ g}$$

$$\text{wt. ② H}_2\text{O + mold} = 5220.5 \text{ g}$$

$$\text{wt. av} = 5218.2 \text{ g}$$

$$\begin{array}{r} 5218.2 \\ - 4262.7 \\ \hline \end{array}$$

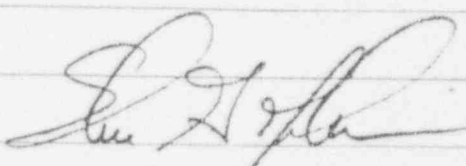
$$\text{wt. H}_2\text{O} = 955.5 \text{ g}$$

$$T = 69.4^\circ\text{F}$$

$$\rho = .99802 \text{ g/cm}^3$$

$$V_{\text{ave}} = \frac{955}{.99802} = \boxed{957.4 \text{ cm}^3}$$

$$\frac{957.4 \text{ cm}^3}{16.39} = \frac{58.41 \text{ in}^3}{1728} = \boxed{.0338 \text{ c}}$$

Performed by 
4-21-94

REMOVED by *Jim Nipke*
4-21-94

6" mold (water volume calculation)

$$\begin{aligned} \text{mold} &= 6542.3 \text{ g} \\ \text{mold + plate} &= 6675.0 \text{ g} \\ \text{wt. mold + plate w/ water} &= 8679.1 \end{aligned}$$

$$T(^{\circ}\text{F}) \text{ OF water} = 67.1^{\circ}$$

$$\rho \text{ (according to table) } \text{H}_2\text{O} = .99833$$

First measure

$$\begin{aligned} \text{MASS OF H}_2\text{O} &= 8679.1 \text{ g} \\ &- 6542.3 \end{aligned}$$

$$\boxed{2136.8 \text{ g}}$$

$$V_1 = \frac{2136.8 \text{ g}}{.99833 \text{ g/mL}} = 2140.4 \text{ mL} = 2140.4 \text{ cm}^3$$

Second measure

$$\text{wt. mold + plate w/ water} = 8650.9$$

$$\begin{aligned} \text{MASS H}_2\text{O} &= 8650.9 \\ &- 6542.3 \end{aligned}$$

$$\boxed{2108.6 \text{ g}}$$

$$V_2 = \frac{2108.6 \text{ g}}{.99833} = 2112.1 \text{ cm}^3$$

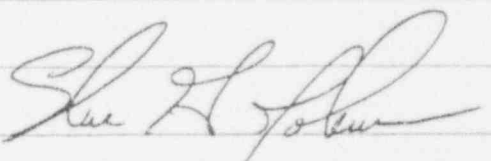
$$V_{\text{AVE}} = \frac{2140.4 + 2112.1}{2 (1000)} = \boxed{2126.3 \text{ cm}^3}$$

$$\frac{2126.3}{16.39} = 129.75 \text{ in}^3$$

$$\frac{129.75 \text{ in}^3}{1728} = \boxed{.075 \text{ ft}^3}$$

Dispersion Cup for ASTM D422

Top diameter = 3.8" SY 5-10-94
Bottom diameter = ~~1.3"~~ 2.6"
Baffle location = 61°
Height = 7"
Radius = 1.3"

Performed by 
5-10-94

May 17, 1994

To: File

From: Shane Johanson *SJ*
QA Assistant

Topic: Audit of Site Measuring and Testing Equipment

On May 14, 1994 an audit was performed on Envirocare's measuring and testing equipment at the Site Facility. Instruments were inspected to ensure calibration stickers were found on all equipment requiring calibration and that calibration requirements were met. In general, all equipment was found in conformance with calibration due dates and appropriately marked. Additionally, the control sheet containing all equipment requiring calibration was inspected, including the calibration dates listed to ensure agreement with the calibration stickers on the instruments. This data sheet was also found to be generally up-to-date.

Concerns noted from this audit include several instruments that require annual calibration and yet do not have a previously performed calibration date. These instruments include: the engineering Stadia Pole used for cell survey, the Keason Tape Measure also used for surveying, the Thermometer used in the soils lab. The tape measure must be sent to be calibrated by the State of Utah. The Stadia Pole will be calibrated using the tape measure upon calibration of the tape measure. No facility has yet been found that calibrates thermometers nor has a soils testing lab been found that calibrates their thermometers. Also, the present measuring and testing equipment calibration data sheet contains several instruments that require monthly calibration. The recorded due calibration date for the laboratory Mettler Balance is March 21, 1994. This calibration was completed, yet no present calibration requirement is found on the sheet (should be April 21 as last calibration performed). This date was found on the instrument, but not on the sheet. The calibration data sheet should be current enough to include monthly calibrations due.

May 17, 1994

To: File

From: Shane Johanson *SJ*
QA Assistant

Topic: Calibration of QC Engineering Measuring and Testing Equipment

On the following dates the noted QC Engineering Measuring and Test Equipment was calibrated in accordance with the referenced ASTM standard.

Equipment	Date	ASTM Standard
Sand Density	4/21/94	D 1556-91
5 in. Proctor Mold	4/21/94	D 698-91
4 in. Proctor Mold	4/21/94	D 698-91
Flat Grooving Tool	5/5/94	D 4318-84
Gage Block	5/5/94	D 4318-84
Stirring Paddle	5/5/94	D 422-90
Liquid Limit Device *	5/5/94	D 4318-84
Dispersion Cup	5/10/94	D 422-90
Manual Proctor Rammer	5/12/94	D 698-91
Slump Mold	5/12/94	C 143-90a

* All specifications measured were in compliance with the ASTM Standard. The only part of the device not measured was the hardness of the rubber for the base of the device and the feet of the device. This required equipment we did not have access to. The device was determined to be in compliance and will be tested for hardness when possible.

CORRECTIVE ACTIONS PROGRAM

<u>CORRECTIVE ACTION</u>	<u>IN-CHARGE</u>	<u>PRIORITY</u>	<u>INITIATED</u>	<u>PROPOSAL</u>	<u>DEPARTMENT</u>	<u>DOMAIN</u>	<u>LOCATION</u>	<u>SOURCE</u>	<u>COMPLETE</u>	<u>REASON FOR CORRECTIVE ACTION</u>	<u>STATUS</u>
13. MW Storage Pad Run-Off Ditch appears to Leak	Dan Owen	B	04/29/94	/ /	Operations	MW Storage Pad	MW Strge Pad	QA	NO	MW Storage Pad Run-Off Ditch appears to leak through to natural soil & dirt becomes water saturated.	Facility Design Change was submitted and placed on hold by Dennis R.
20. Revision to Safety and Health Manual	Ray Jaffe	B	11/01/93	05/23/94	Occup Safety	Site Safety	Site (general)	Executive	NO	Update Safety Manual to reflect current requirements	IN-CHARGE has scheduled a training seminar in May for Better project results.
21. Incorporate 11e.(2) requirements in OP Manual	S. Copeland	B	02/21/94	04/14/94	QA	Procedures	Site (general)	11e.(2) License	NO	Pre-requisite for 11e.(2) material acceptance	All changes necessary to include 11e.(2) specs have been made. Awaits final approval.
23. Modify Admin. Building Decon Facility	Steve P.	B	03/07/94	06/07/94	Engineering	Truck Decon	Admin. Decon	DOE Audit	NO	To prevent overspray outside of Restricted Area boundary	Options for facility modification have been submitted for executive decision.
29. Install curb at southeast edge of MW Eiao. pond	Dan Owen	B	03/11/94	04/25/94	Operations	MW Eiao Pond	MW Eiao Pond	IHI Audit	NO	Curb necessary to prevent vehicles from sliding off the dirt road into the swep. pond when roads are wet	Materials will be picked up Wednesday to install the curb.
31. Better Mixed Waste Locker Facility	Steve P.	B	03/11/94	07/20/94	Engineering	MW Facility	MW Building	IHI Audit	NO	Better Locker facility needed to prevent contamination outside Restricted Area and more locker space also needed.	Design for change is in progress, bids projected for two weeks (06/06/94).
36. Fix Asphalt at Administration Building	Steve P.	C	03/16/94	/ /	Engineering	Truck Decon	Admin. Decon	Executive	NO	Asphalt requested to extend beyond the wash pad & continue design for modification of	Project pends completion of design for modification of

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 C = Response necessary. ACTION IMPLEMENTED: to assure greater efficiency within the company; to increase quality of production; for best management purposes.

CORRECTIVE ACTIONS PROGRAM

<u>CORRECTIVE ACTION</u>	<u>IN-CHARGE</u>	<u>PRIORITY</u>	<u>INITIATED</u>	<u>PROPOSAL</u>	<u>DEPARTMENT</u>	<u>DOMAIN</u>	<u>LOCATION</u>	<u>SOURCE</u>	<u>COMPLETE</u>	<u>REASON FOR CORRECTIVE ACTION</u>	<u>STATUS</u>
										to changing trailer for best overall appearance	decon pad (CAP 23)
43. Remove debris from BA mechanic area in R. Area	Dan Owen	C	01/23/94	06/15/94	Operations	BA Work Areas	BA Mechanc Area	RSO Field Inspec	NO	Debris, Metal, Tires, etc. has accumulated at Restricted Area mechanic area & must be disposed of or released.	Debris not removed according to RSO conformance. On-going but initial removal needed.
45. Index for individual records needed at site	Mardi W.	C	03/23/94	06/30/94	Doc. Control	Records(general	Admin. Records	DOE Audit	NO	File index is needed for each individual document to avoid loss of records on file at the site	Project 25% complete. Requires extensive work.
46. Lab Hood must be labelled with inspec. sticker	M. Little	C	03/23/94	06/30/94	Site Lab	Site Safety	Admin. Lab	DOE Audit	NO	Lab Hood needs to be labelled with an inspection sticker listing date of inspection, air flow, etc.	IHI Audit will be scheduled by Ray Jaffe for June to inspect the hood & provide the sticker.
50. Place adhesive on tractor to prevent slipping	C. Warr	A	04/22/94	05/09/94	Maintenance	Site Safety	Site (general)	QA	NO	One person has already slipped and been injured. Adhesive sand strips will allow better traction & prevent future injury	Material arrived 05/20/94 and tractor will be operable Monday (05/23/94).
52. Groundwater Pump Retrofit.	Jeff Low	B	05/16/94	07/01/94	Groundwater	Groundwater	Norm LARW wells	Executive	NO	Stainless steel fittings must be removed and replaced with PVC pipe to prevent corrosion.	New on CAP list.
53. Update of RCRA Field Permit.	M. Wicks	B	03/03/94	05/27/94	Doc. Control	Records(general	Admin. Records	Executive	NO	Field Permit must be changed to reflect current RCRA permit requirements.	Under QA review.

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54. Add soil specific gravity to Proctor report	G. Copeland	B	05/04/94	06/03/94	Engineering	Eng. Testing	Soils Lab	NRC Audit	NO	Report of the soil specific gravity is needed with each Proctor as specified in ASTM D-698-91.	Computer software to generate this information is being obtained from AGECC.

<u>CORRECTIVE ACTION OVERDUE</u>	<u>ORIG. DATE</u>	<u>IN-CHARGE</u>	<u>NEW DATE</u>	<u>REASON FOR DELAY</u>
21. Change Operating Procedures Manual etc Incorporate 11e.(2) Requirements	03/07/94	G. Copeland		Project under administrative review for approval.
20. Revision to Safety and Health Manual	03/25/94	Ray Jaffe	05/27/94	Greater size of project and IN-CHARGE felt need for better training to complete the project. Ray has attended training and states that the project will be completed by the end of the week.
29. Install curb at southeast edge of MW Evap. Pond	03/11/94	Den Owen	06/03/94	Delay in receipt of materials. Supplies will be picked up Wednesday and installation of the curb can begin.
43. Remove debris from Broken Arrow's mechanic area inside the Restricted Area.	01/23/94	Den Owen	06/15/94	Removal of the debris was not satisfactory to the Corporate and Site RSO's request. Excess debris surrounding the mechanic area in the Restricted Area needs to be removed from the Restricted Area or disposed to allow a more controlled atmosphere.
45. Index for individual records needed at the site.	03/23/94	W. Wicks	06/30/94	Extended work has been made to complete the project. Because of the large amount of files that exist at the site, this CAP item requires another month to complete.
50. Place adhesive on tractor to prevent slipping.	04/22/94	C. Warr	05/23/94	Delay in receipt of materials. However, the adhesive arrived on 5/20/94 and the tractor will be secured and in use 05/23/94.

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