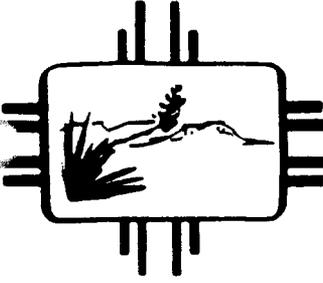


Cannon (Red)
filed in blue also



New Mexico Health and Environment Department

GARREY CARRUTHERS
Governor
DENNIS BOYD
Secretary
MICHAEL J. BURKHART
Deputy Secretary
RICHARD MITZELFELT
Director

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

October 29, 1990

Colonel David E. Benson, Commander
27th Combat Support Group
Cannon Air Force Base, NM 88103

**RE: COMPLIANCE ORDER/SCHEDULE
CANNON AIR FORCE BASE
NM7572124454**

**DOCKET NUMBER
901002**

Dear Colonel Benson:

Enclosed herein is a **COMPLIANCE ORDER/SCHEDULE** (CO) issued to Cannon Air Force Base (CAFB) by the New Mexico Environmental Improvement Division (EID) pursuant to the New Mexico Hazardous Waste Act, Section 74-4-10 NMSA 1978. The Compliance Order/Schedule states that CAFB has failed to comply with the New Mexico Hazardous Waste Regulations (HWMR-5) promulgated under the authority of the New Mexico Hazardous Waste Act. These violations are specifically set out in this CO.

The CO sets forth a schedule of compliance. Pursuant to §74-4-10.H, NMSA 1978, CAFB has thirty (30) days in which to appeal this CO. If CAFB appeals this CO, any settlement negotiations will not delay a public hearing pursuant to §74-4-10.H, NMSA 1978 and the Rules Governing Appeals from Compliance Orders under the Hazardous Waste Act. If CAFB neither complies with nor appeals this CO, EID may file an action in the District Court to enforce this CO.

Colonel David E. Benson
October 29, 1990
Page 2

All inquiries should be directed to Suzanne Moore-Mayne (505)
827-0170.

Sincerely,



Kirkland L. Jones, Ph.D.
Deputy Director
Waste Management Branch
Environmental Improvement Division

KJ/smm

cc: Mickey Flowers, U.S. EPA Region VI (6H-HS)
Felicia Orth, HED, Office of General Counsel
Garrison McCaslin, EID District IV Office
Jim Richards, Chief Environmental Contract Planning, CAFB
Ronald W. Jahns, AFRCE-CR/ROV

STATE OF NEW MEXICO
ENVIRONMENTAL IMPROVEMENT DIVISION
HEALTH AND ENVIRONMENT DEPARTMENT

IN THE MATTER OF:
CANNON AIR FORCE BASE
NEW MEXICO
ID. NO. NM7572124454

COMPLIANCE ORDER
NMHWA 901002

RESPONDENT.

ADMINISTRATIVE ORDER REQUIRING COMPLIANCE

This Administrative Order ("Order") is issued to Cannon Air Force Base ("Respondent") pursuant to the New Mexico Hazardous Waste Act, §74-4-10 NMSA 1978. The authority to issue this Order has been delegated by the Director of the Environmental Improvement Division ("EID") of the New Mexico Health and Environment Department to the EID Deputy Director of the Waste Management Branch ("Complainant").

FINDINGS

1. The Respondent is a federal facility which generates, treats, stores and/or disposes of hazardous waste at Cannon Air Force Base, New Mexico.
2. The Respondent owned and operated a hazardous waste disposal unit, Cell 3, Landfill 5, during 1981.
3. On August 3, 1988, EID sent the Respondent an approved closure plan with an effective date of October 3, 1988.
4. On October 12, 1988, the Respondent requested the effective date of the approved closure plan be changed to March 3, 1989.
5. On November 2, 1988, the Respondent requested EID to approve a gradient change for the soil mantle of the final cover from 3% to 9.09% from the site's central axis to all sides.
6. On November 10, 1988, EID approved the Respondent's requests of #4 and #5 above and changed the effective date to March 2, 1989 and changed the gradient of the soil mantle to 9.0 ±

0.5%.

7. On September 22, 1989, the Respondent submitted the certification of closure for Cell 3, Landfill 5.
8. On October 23, 1989, EID sent the Respondent a letter stating that the certification of closure submitted by the Respondent was incomplete. The letter stated that the following had not been submitted as required by the approved closure plan: annotated map showing the location of the test cap; a copy of the QA/QC report; and a final closure report. Additionally, the Respondent's format for certification was not as required by HWMR-5.
9. On January 23, 1990, the Respondent submitted the items requested in #8 above.
10. On March 1, 1990, EID issued a Notice of Violation (NOV) as a result of its review of the information submitted by the Respondent. The NOV cited violations of HWMR-5, as amended 1989, Part VI, 40 CFR section 265.115, noncompliance with the approved closure plan and Pt. IX, sec. 270.11(d), falsely certifying closure. The specific violations of the approved closure plan listed in the NOV were:
 - a. Listed below are the materials requested and the inadequacies of the materials received.
 - 1) Annotated map with the location of the test cap.

EID requested, per the approved closure plan, an annotated map showing the location of the test cap. The Respondent's January 22nd submittal provided the annotated map. Review of the map revealed that the location of the test cell was not in accordance with the approved closure plan.
 - 2) Copy of the QA/QC report.

EID requested, per the approved closure plan, a copy of the QA/QC report. A copy of the Quality Control Program was submitted; however, the report generated from the Program was not submitted.
 - 3) Written final report.

EID requested, per the approved closure plan, a copy of the written report which required a summary of the QA/QC plan and all accumulated data. Some accumulated data were submitted.
 - 4) Certification of closure.

EID requested certification of closure per the format required by Pt. IX, sec. 270.11(d) and the approved closure plan. This certification was provided, and, in combination with the previous certification of October 23, 1989, would have been adequate, except that review of the information provided to EID indicates that this certification by the Respondent is false (see b).

b. Listed below are the specific instances where, based upon the information provided by the Respondent, EID has determined that closure of Landfill 5 Cell 3 was not in accordance with the approved plan and, consequently, does not accept certification.

1) Location of Cell 3 final cover.

EID noted in review of the daily logs submitted by the Respondent that there was an apparent lack of knowledge of the specific dimensions of Cell 3, the cover was moved 15 feet to cover the approximated area of Cell 3, and the anchor trench was not constructed as designed. This design change was apparently to avoid a release of gasses from another cell during the excavation of the trench.

2) Test cap construction.

Review of the daily logs revealed that the test cap was not constructed concurrently with the final cover as required by the approved closure plan nor was any information provided on the testing of the test cap for uniformity and effective permeability.

c. Presence of Methylene Chloride at Cell 3.

1) The field activity logs prepared by IT Corporation indicated that Aromatics samples were collected on three separate days during the grading operations and that the analytical results from these samples indicated the presence of low levels of methylene chloride in the air space over Cell 3. These samples were analyzed over a two-day period by the laboratory and no information was provided indicating possible laboratory contamination. Methylene chloride was not identified by the Respondent in the waste inventory as being disposed of in Cell 3.

EID requested additional information regarding the above

violations.

11. On April 4 and 26, 1990, and May 31, 1990, the Respondent submitted documentation in response to the NOV.
12. On June 29, 1990, EID issued a request for additional information and indicated that sufficient information had been submitted for items 10.a.1., 10.a.2., 10.a.3., 10.a.4., b.2., and c. However the violations of noncompliance with the plan, false certification of closure and the specific violations of the plan cited in 10.a.4, 10.b.1 and 10.b.2 have not been resolved. EID's response to the information submitted by the Respondent on each of the violations is listed below.

- a. 1) Annotated map with location of test cap.

Moving the test cap location to an area that had not been used as a cell is acceptable; however, as explained in b.2. below, it is not acceptable that the test cap was not constructed concurrently with the final cover, and it was not tested for uniformity and effective permeability.

- 2) Copy of QA/QC report

The report provided in the correspondence dated April 26, 1990 satisfied EID's request, per the approved closure plan, for the QA/QC report generated from the Quality Control Program.

- 3) Copy of final report.

The information submitted April 4, 1990 as a response to this item satisfied EID's request, per the approved closure plan, for the final report.

- 4) Certification of closure

Certification of closure is not accepted at this time.

- b. 1) Location of Cell 3 final cover

The information provided by the Respondent in its correspondence does not allay EID's concerns that the final cap does not cover all of Cell 3. It appears from the daily field log that: on July 12, the location of the cell was found to be incorrect and it was relocated using the plat information developed in 1988; and on July 19, after rough grading was well underway, the location of the

final cover was moved again 15 feet to the west. The decision to move the cover 15 feet west appears to be due to the appearance of the graded cell area, not to reestablishing the May 1988 cell locations. The field logs also indicated that, because of the potential for intersecting landfill debris during the diggings for the footings, the decision was made to pour the footings above ground to eliminate any chance of causing a release of gasses during excavation of the trench. The QA/QC Report submitted in the Respondent's April 26 response, also verified the above sequence of events and states that, because landfill debris was encountered while rough grading the area prior to installing the clay cap layer (the two foot cover as described in the approved closure plan was not actually present), the decision was made to change the grade elevation and to change the footing design.

With a cell width of about 40 feet and an extension of the cover about six feet away from the edge of the cell in each direction, relocating the cover 15 feet to the west could have resulted in about nine feet of the cell being exposed.

b. 2) Test cap construction

The test cap was not constructed until after the final cover of Cell 3 had been completed. As the approved closure plan required, the test cap was to be constructed concurrently with the final cover and the procedures used to lay the final cover were to be tested on the test cap. This process should not have delayed the construction of the final cover. Using a test cap, the performance of the final cover can be predicted without damaging its integrity. Both the approved closure plan and the Respondent's specifications for closure of Cell 3, dated March 1989, emphasized the importance and purpose of the test cap. In spite of this emphasis on the test cap, the Respondent decided to deviate significantly from the approved closure plan for reasons unrelated to engineering and physical conditions encountered during closure activities. If there are any questions in the future regarding the performance of the final cover, this test cap cannot be used with any certainty because it was not constructed concurrently with the final cover. Installation of a test cap is not a situation unique to the Respondent; it is standard procedure

for a RCRA landfill closure in place.

c. Presence of methylene chloride at Cell 3

The Respondent's response satisfies EID's request for an explanation of the presence of methylene chloride in the samples taken during closure activities. Methylene chloride apparently was present in the air space during the grading operation at Cell 3. If, in the future, methylene chloride is detected in the groundwater monitoring system at the landfill or additional information is obtained that indicates that methylene chloride may have been disposed of in Cell 3, the Respondent may be required to redetermine what wastes actually or possibly were disposed of in Cell 3 and make the appropriate revisions or amendments to any post-closure permit and deed notices.

After further review of the closure plan schedule, EID noted that the Respondent was to submit its QA/QC plan to EID 3 weeks past the approval date of the closure plan. The Respondent did not submit its QA/QC plan to EID.

EID requested additional information on violation 10.b.1 above.

13. On or about August 6, 1990, the Respondent submitted documentation responding to the request for additional information on violation 10.b.1 in the form of historical aerial photographs of the Landfill 5 area.
14. Review of the information submitted by the Respondent regarding violation 10.b.1 indicates that the final cover may be misplaced in the north-south dimension as well as the east-west dimension.
14. Review of the information submitted by the Respondent to date, indicates that the violations of noncompliance with the plan and false certification of closure and the specific violations of the plan listed in 10.a.4, 10.b.1 and 10.b.2 are not resolved.

CONCLUSIONS

1. Cannon Air Force Base ("Respondent") is a "person" within the meaning of the New Mexico Hazardous Waste Act, §74-4-3.K NMSA 1978, and therefore is subject to the provisions of that Act.
2. Section 6001 of the Resource Conservation and Recovery Act

(as amended) provides that federal facilities and any instrumentalities thereof, are subject to state hazardous waste management regulations.

3. The Respondent is the owner or operator of a hazardous waste facility that treats, stores or disposes of hazardous waste within the meaning of the New Mexico Hazardous Waste Act, Sections 74-4-3.C., N. and Q. NMSA 1978, and therefore is subject to the provisions of that Act.
4. Landfill 5, Cell 3 is a land disposal unit and subject to Part VI, §265 and Part IX, §270 of HWMR-5.
5. The Respondent has violated HWMR-5, specifically Pt. IX, sec. 270.11(d) and Pt. VI, sec. 265.115 (certification of closure) and the approved closure plan. The violations of noncompliance with the plan and false certification of closure in accordance with the plan and the specific violations of the plan cited in this order as numbers 10.a.4, 10.b.1, and 10.b.2 have not been resolved. The violations cited as numbers 10.a.1, 10.a.2 and 10.a.3 were requests for information required in the approved closure plan and have been addressed. Violation 10.c. has been addressed, as noted in 12.c.

COMPLIANCE ORDER/SCHEDULE

Pursuant to the New Mexico Hazardous Waste Act §74-4-10 NMSA 1978, and under the authority of the EID Director, the Respondent is hereby ordered to conduct the following activities by the dates set forth below:

1. Within 60 days of issuance of this Compliance Order/Schedule, the Respondent must detail in a report every instance where final closure activities deviated from the approved plan. The Respondent must also provide an explanation as to why and how each particular activity, material, test, etc., deviated from the approved plan. For example, the report must include, but not be limited to, changes in sequencing of closure activities, changes in numbers or types of tests performed, changes in or lack of required warranties, changes in method(s) of cover maintenance, changes in materials used, all design changes and all unforeseen or unusual events which occurred during closure activities.

The Respondent must also submit documentation as to how Landfill 5, Cell 3 was actually closed including calculations, as-built descriptions and diagrams. Documentation already submitted and listed in Attachment A of this order is not required to be

resubmitted.

2. Within 60 days of the issuance of this Compliance Order/Schedule, the Respondent must accurately determine the location of Cell 3. The investigation must not disturb the integrity of the final cover on Cell 3. This information must be provided to EID in a report within the above 60-day time frame. The method(s) used to determine the location of Cell 3 may include corings; geophysical methods, electromagnetic methods, resistivity methods, radar, or equivalent methods; or any combination of the above methods.

This Compliance Order/Schedule is effective immediately, and will become final unless the Respondent submits a written request for a public hearing to the Director of the EID no later than thirty (30) days after receipt of this Compliance Order/Schedule.

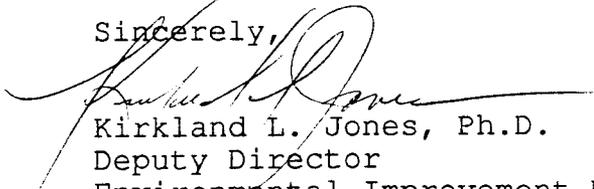
If, for any reason, the Respondent should fail to comply with the requirement of this Compliance Order/Schedule, EID may seek relief in district court pursuant to §74-4-10 of NMSA 1978.

All correspondence relating to this Compliance Order/Schedule shall be sent by Registered Mail, or Certified Mail, return receipt requested, to the following address:

Ms. Kathleen Sisneros
Bureau Chief
Hazardous and Radioactive Waste Bureau
1190 St. Francis Drive
Santa Fe, New Mexico
87503

Compliance with the requirements of this Order does not relieve the Respondent of its obligations to comply with HWMR-5 nor its obligations to comply with any other applicable laws and regulations.

Sincerely,



Kirkland L. Jones, Ph.D.
Deputy Director
Environmental Improvement Division

KJ/smm

xc: Mickey Flowers, U.S. EPA Region VI (6H-HS)
Garrison McCaslin, District IV Office
Felicia Orth, HED Office of General Counsel
Jim Richards, Chief Environmental Contract Planning, CAFB
Roland W. Jahns, AFRCE-CR/ROV

ATTACHMENT A

INFORMATION SUBMITTED BY CANNON AIR FORCE BASE IN RESPONSE TO
NOTICE OF VIOLATION OF MARCH 1, 1990

September 22, 1989

- Certification from contractor and independent registered professional engineer

January 22, 1990

- Quality Control Program, Bradley Construction Company
- Analytical Services, Certificate of Analysis, International Technology Corporation (IT)
- Analytical Services, Statement of Qualifications, IT
- cover letter Bradley Construction (September 22, 1989), attachment - daily logs
- Health, Emergency Response, Safety, Fire Protection, Decontamination and Environmental Protection Plan, IT for Bradley Construction
- Health and Safety Closeout Report, IT for Bradley Construction
- certification statement by Colonel David E. Benson

April 4, 1990

- letter from IT to Bradley Construction concerning summary of air monitoring results
- Certificate of Analysis, QA/QC summary, IT
- Survey Report
- Vegetative soil analysis report
- seed specifications (for cover)
- hypalon warranty
- fencing certification
- time loss statement from Bradley
- hypalon liner installation instructions from Watersaver Company, Inc. to Bradley Construction
- xeroxed photographs of installation of cover
- hypalon installation certification
- as-built detail drawing of drain ditch
- filter sand test data
- gray clay soil test data
- footings test data
- filter sand test data
- concrete sand filler test data
- sand-clay mixture lab test
- letter to Bradley Construction from IT concerning methylene chloride in air monitoring samples

ATTACHMENT A
Page 2

April 26, 1990

- QA/QC report from Bradley Construction
- letter from IT to Bradley Construction concerning methylene chloride detection in the air monitoring samples.

May 31, 1990

- Specifications for Closure of No. 3 of Landfill Area 5, March 1989
- drawings associated with specifications

August 6, 1990

- historical aerial photographs -
 - October 17, 1976
 - November 1976
 - September 30, 1978
 - August 27, 1984
 - May 22, 1989
 - October 13, 1989
- surveyed plat of Cell 3 cover
- Quality Assurance Plan, for cell 3 closure, December 1988