

N62604.AR.001871  
NCBC GULFPORT  
5090.3a

TRANSMITTAL LETTER FOR STACK TESTING SCHEDULE AND PROCEDURES NCBC  
GULFPORT MS  
3/21/1988  
TYNDALL AIR FORCE BASE



**DEPARTMENT OF THE AIR FORCE**  
HEADQUARTERS AIR FORCE ENGINEERING AND SERVICES CENTER  
TYNDALL AIR FORCE BASE FL 32403-8001

21 MARCH 88

REPLY TO ATTN OF:RDVW (MAJ STODDART)

SUBJ: STACK TESTING SCHEDULE AND PROCEDURES

TO: Ms Caron Falconer  
EPA, Region IV  
345 Courtland St  
Atlanta, Georgia 30365

1. Please find attached copies of EG&G's letter DJH-05-88 and the required Air Force certification statement. The attached describes the scope, schedule and procedure for collection of stack gas particulate samples that were directed by EPA, Region IV on 3 March 88. The attached also describes the test protocol for stack testing to be accomplished in support of a "steam lance" trial.

2. I am requesting that EPA, Region IV provide written approval for the following:

a. Remove the 5.3 ton/hr mass feed rate interlock during test 8 and any subsequent tests that may be performed in order to maintain the 5.3 ton/hr feed rate.

b. Permission to proceed with the steam lance tests.

c. Proceed with routine use of the steam lance if the tests demonstrate compliance with the 180 mg/dscm stack gas particulate standard.

d. Conduct additional tests as necessary. (The USAF will provide written notification to EPA at least 5 work days prior to the scheduled test.

3. The stack test series are scheduled for 5 through 7 April 88. Request you coordinate any travel plans with me so that I can obtain appropriate Navy clearances.

4. Should you have any questions, please contact me or Mr Jeff Short at : Tyndall AFB; Tele 904-283-2942 or NCBC Field Office; Tele, 601-864-4139.

*Terry L Stoddart*

Terry L Stoddart, Maj, USAF, BSC  
Chief, Environmental Restoration R&D

cc  
Mr Tobin  
Mr Haley ✓  
code orange

**CERTIFICATION STATEMENT**  
**REQUIRED BY 40 CFR 270.11 (d)**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

*Terry L Stoddart*

**Terry L Stoddart, Maj, USAF, BSC  
CH, Environmental Restoration R&D**

**DATE: 21 March 1988**



March 17, 1988

Maj. Terry L. Stoddart  
HQ AFESC/RDVW  
Building 1117  
Tyndall Air Force base, FL 32403

RESPONSE TO PARTICULATE STACK TEST REQUEST DJH-05-88

Ref: P.M. Tobin ltr to Maj. T. L. Stoddart, USAF, NCBC Particulate  
Test Request, March 3, 1988

Dear Maj. Stoddart:

Per your request, EG&G Idaho and Ensco have developed a test plan and schedule for the Method 5 particulate stack test requested in the referenced letter by the EPA Region IV. This letter, which describes those plans and schedule, will act in lieu of a formal test plan.

1. Test Method

EPA Reference Method 5 as defined in 40 CFR 60 Appendix A as updated July 1, 1987 will be strictly followed. Any deviations to the procedure will require the approval of EG&G Idaho and EPA Region IV.

2. Schedule

The tests will probably be performed by Environmental Laboratories, Inc., and begin on April 5, 1988. Although this schedule does not strictly comply with the requested EPA timetable, it does meet the intent of the request.

EPA has requested that the tests be conducted twenty-one days of operation after SCC, boiler, and packed tower cleanout but prior to April 2 (thirty days after the written notice was received). The SCC cleanout was completed on March 9, 1988, and routine operation resumed on March 10. On March 17, however, maintenance problems forced plant shutdown; operations are projected to resume on March 20. Therefore, the twenty-first day of operation will coincide with the April 2 thirty-day requirement.

Maj. T. L. Stoddart  
March 17, 1988  
DJH-05-88  
Page 2

Due to the Easter holiday, however, we are unable to support a test on April 2, or April 3, 1988. Furthermore, it is likely that additional maintenance problems will cause operational shutdown. Therefore, to accommodate the holiday and potential maintenance problems, the tests will commence on April 5 with April 4 being used for travel and setup.

EPA has also requested that the tests be performed twenty-one days after boiler and packed tower cleanout, however this request cannot be strictly met because such action would force plant shutdown. The boiler face plate and packed tower are cleaned routinely on an as needed basis as pressure drops become excessive. In addition, both equipment items must be totally cleaned by a "purge" operation when the routine maintenance cleaning procedures fail to achieve the decrease in pressure drop necessary. The routine maintenance procedures are conducted at least daily and entail a brief (approximately 30 minute) interruption in operations wherein all particulate in the equipment remains within the system. Per contrast, the purge clean operations lasts four to eight hours, and the particulate is removed from the system and treated as ash. The purge operations includes rodding of the boiler and removal of the packed tower packing material. It is not possible to operate for 21 continuous days without the routine maintenance cleaning or the purge cleaning.

In a conversation between myself and Caron Falconer, Caron indicated that EPA desired to have the test conducted under "worst case" conditions. Therefore, the boiler and packed tower will be purge cleaned no sooner than four days prior to the first EPA Method 5 test.

Attachment 1 shows the schedule for the requested tests in addition to an additional test series which is described in Item 7 below. Please note that there is no contingency in the schedule. EG&G Idaho and Ensco will make every reasonable effort to comply with the EPA timetable, however, maintenance actions or severe weather are likely to delay the test schedule. EG&G Idaho will keep both the Air Force and the EPA informed of any schedule delays.

### 3. Test Designation

These tests will be designated as Tests 8a, 8b, and 8c in order to avoid confusion with any previously run tests.

Maj. T. L. Stoddart  
March 17, 1988  
DJH-05-88  
Page 3

#### 4. Incinerator Operating Conditions

The incinerator will be operated at the same conditions as observed during the May 1987 RCRA trial burn tests with the exception of kiln draft. The kiln draft will be held to approximately 0.25 in. of water which is greater kiln draft observed during the RCRA trial burn and the maximum typically observed during normal operations.

The referenced letter requests that the feed rate be maintained at 5.3 ton/hr. Currently, the RD&D permit requires automatic waste feed shutoff when 5.3 tons/hr is reached. Therefore, the interlock will be removed during the days of testing in order to maintain a average feed rate of 5.3 tons/hr. The interlock will be reinstalled upon completion of the tests.

A complete list of proposed operating conditions is given in Attachment 2.

#### 5. Cyclone Configuration

During this stack test, only one cyclone will be used; the other cyclone will be blocked off. This configuration was used during the RCRA trial burn and since the commencement of routine operations. This configuration will probably be used for the duration of the project. If any modifications are made to the cyclone configuration, EG&G Idaho will inform the Air Force and request that the EPA be subsequently notified.

#### 6. Data Submittal

Per conversation between myself and Ms. Caron Falconer on March 8, 1988, the USAF will provide the EPA with the data sheets as specified in the Reference Method 5. Additionally, the Air Force will provide the EPA with the operational data collected by the Data Acquisition System for the test duration. That data will be collected at five-minute intervals and presented to EPA in the same general format that was presented in the RCRA Trial Burn Report, Appendix C, Exhibit 1. It is our understanding that no other data or analysis will be required for these tests.

#### 7. Steam Lance Tests

In an effort to reduce the amount of down time associated with SCC cleanout, access ports for steam lances have been installed at the upstream and downstream ends of the SCC. Those ports will be used to allow hand held steam lances to inject 140 psig (minimum) steam into the SCC. This action will entrain the particulate settled in the SCC

Maj. T. L. Stoddart  
March 17, 1988  
DJH-05-88  
Page 4

so that it carries over to the quench elbow and packed tower before it has an opportunity to slag onto the inside wall of the SCC. The particulate will then be collected by the quench elbow and packed tower.

This procedure will potentially eliminate the need for frequent and time consuming SCC cleanout. It may, however, increase the need for cleanout of the boiler face plate or the packed tower; such cleanout, however, is significantly less time consuming than SCC cleanout and thus should offer a substantial cost savings to the Air Force.

The steam lancing procedure would be considered a minor process modification. Therefore, to demonstrate that no additional particulate is emitted in the stack gases during steam lancing, we propose to conduct an additional Method 5 stack test (in triplicate) with the steam lance in operation.

After completion of the EPA requested stack tests, the incinerator will resume normal operations for approximately eight days or until the SCC requires cleanout. At that time, the incinerator will be shut down and the SCC cleaned. Once cleaning is complete, the incinerator will be restarted and run for approximately 12 to 24 hours to allow some particulate to collect in the SCC. Steam lancing procedures will be invoked and a Method 5 stack gas sample will be obtained simultaneously. The operating conditions listed in Attachment 2 will be used.

The draft steam lancing procedures are presented in Attachment 3 and describe the frequency, the duration, the methodology, and the equipment used. The procedure is currently being reviewed and will be revised to accommodate safety and efficiency concerns. The final procedure, however, is not expected to deviated significantly from this draft.

After the first steam lance/stack test is completed, the incinerator will continue operation for at least 18 hours before the next steam lance test is conducted. Operations personnel currently expect to steam lance on a twice daily basis if the procedure is approved. Therefore, the waiting period between tests simulates worst case operating conditions and ensures that there is more particulate in the SCC to be removed than would be seen during normal operations.

The steam lancing tests will be designated as Tests 9a, 9b, and 9c to avoid confusion with any previously run tests.

#### 8. Additional Tests (if necessary)

If the Test 8 series is unsuccessful, then an additional test series would be conducted. Those tests would be run after the SCC was

Maj. T. L. Stoddart  
March 17, 1988  
DJH-05-88  
Page 5

cleaned but before 21 days of operation had elapsed. Additionally, the Air Force may also wish to have additional tests conducted for academic purposes. In order to conduct any tests under "worst case" conditions, the 5.3 ton/hr mass feed rate interlock must be temporarily removed. The feed rate, however, would be manually held to as close to 5.3 ton/hour as possible.

Furthermore, it would be desirable to have on-site EPA representation during all subsequent tests. If additional tests are performed, EG&G would notify EPA within five working days prior to the tests.

#### 9. Requested Air Force Action

Please review this test plan and request written permission from EPA Region IV to:

- 1) remove the 5.3 ton/hr mass feed rate interlock during Test 8 and any subsequent tests that may be performed.
- 2) proceed with the steam lance tests.
3. proceed with steam lancing during normal operations if the tests demonstrate compliance with the 180 mg/dscm stack gas particulate standard.
4. conduct additional tests as deemed necessary pending EG&G notification of EPA within five working days prior to those tests.

If you have any questions please call me at (208) 526-9969.

Very truly yours,



Daniel J. Haley  
Sr. Programs Specialist  
Hazardous Waste Projects

Attachment:  
As Stated

cc: Rich Abramo, Ensco  
Fred Kuntz, Ensco  
Major F. T. Lubozynski, USAF  
Larry Moorehead, Ensco  
J. H. Nelson, EG&G Idaho  
J. O. Zane, EG&G Idaho (w/o Attach)