UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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FOB Chron:Read File/DS File/Subject File/Author File
Comments, Draft Permit, Army, DFS, chemical agent

Mr. James L. Bacon
Program Manager for Chemical Demilitarization
Department of the Army
Aberdeen Proving Ground, Maryland 21010-4005

Dear Mr. Bacon:

In response to your comments of May 11, 2000, regarding the Draft National TSCA Permit for the Army Chemical Disposal Facilities, NPCD provides the enclosed. The enclosure includes your comments followed by the EPA responses. Please contact Hiroshi Dodohara at (202) 260-3959 for matters concerning this subject.

Sincerely,

/S/

John W. Melone, Director
National Programs Chemical Division

Enclosure

cc: Joe Stang
PMCD Aberdeen PG

CONCURRENCES

SYMBOL	7404	7404						
SURNAME	Dodohara	Barney for Melone						
DATE	6/27/00							

EPA Form 1320-1A (1/90)

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COMMENTS ON DRAFT TSCA PERMIT
FOR ANCDF, PBCDF, TOCDF AND UMCDF

1. GENERAL.

A. There are substantial numbers of conflicting operating parameters between the draft National Toxic Substances Control Act (TSCA) Permit and the Pine Bluff Chemical Agent Disposal Facility (PBCDF) Resource Conservation and Recovery Act (RCRA) Permit. There are also differences in the sequencing of trial burns between the draft TSCA Permit and the PBCDF RCRA Permit.

Response: EPA will address these issues when PBCDF submits documentation as will be required by the TSCA approval. Ideally, the RCRA trial burn procedures should take precedence since the PCB sampling will be an addendum to the RCRA requirements.

B. Additionally, the Environmental Protection Agency (EPA) should be aware that the PBCDF design incorporates a carbon filter system downstream of the pollution abatement system (PAS) to reduce the potential of undesirable emissions in the event of an upset condition. The Deactivation Furnace System (DFS) complies with TSCA requirements prior to the DFS, therefore, the PFS should not be considered a TSCA regulated unit. Gas samples can be taken upstream of the PFS or by bypassing the PFS for the purpose of Destruction and Removal Efficiency (DRE) calculation.

Response: EPA has not had the opportunity to review the PBCDF design. The question of whether the PFS should not be a TSCA regulated unit will have to wait until after EPA reviews the design. At TOCDF, gas samples were taken upstream of the common stack. Thus assuming that the PFS is downstream of the common stack, sampling upstream of the PFS should not be problematic.

C. Also, the quantity of PCBs detected in the process gaskets as measured in the EPA study lacks the required mass to make a detectable difference in the process stream. In contrast, the gaskets in the sampling train are in contact with a small volume of gas for an extended period of time. This most likely is the source of the problem trial bums. There is supporting evidence presented in the Army's investigation at Tooele that the trial burn non-compliance issues were due to PCBs in sampling train equipment, poor sampling protocols and process equipment contamination with cutting oil in and around the sampling ports. Therefore, it is suggested that the requirement to sample ancillary equipment be deleted from the permit.

Response: Requirements in the permit to sample ancillary equipment will remain until the Army submits compelling evidence that the sampling train was the source of the problematic trial burns. The Army's evidence indicate that although material in the sampling train and ancillary equipment contains trace amount of PCBs, these PCBs do not exhibit identical chromatographic profiles as the "problematic PCBs." Therefore,

the sampling and analytical procedures could not have contributed to the trial burn problems. However, will EPA will accept proposals for alternatives to performing a campaign to sample for PCB-contaminated gaskets and other ancillary equipment. The proposals should contain technical data such as chromatographic results. Because factors concerning this issue are technical in nature, further discussion is provided in the Appendix.

2. Cover Letter. The effective date of the permit is based on the date of signature. The instantaneous and time delayed Automatic Waste Feed Cut-Offs (AWFCO) required under this permit will take time to implement because of the effort needed to reprogram and test the DFS process control logic. Reprogramming the process logic cannot begin until the TSCA Permit is finalized. As the cover letter is currently written, with the effective date being based on the date of signature, processing of rockets in the DFS will have to be stopped when the TSCA permit becomes effective until revisions to the process control logic are completed. Suggest revising the last sentence of the first paragraph to read "Effective dates of the approval for the Tooele Chemical Agent Disposal Facility (TOCDF) are from ninety days after (date of signature) through (five years after date of signature).

Response: EPA is aware that the control logic will have to be reprogrammed. However, the Army and the Contractor had ample opportunity to resolve these differences in the past. EPA made available preliminary drafts of the approval for the Army's review. EPA believes that testing the process logic changes can begin immediately as the Army's schedule allows. Then those changes which are problematic can be highlighted and discussed. Moreover, because of the public participation procedures currently in progress, the time line for signing the TSCA approval is indeterminate at best.

3. Cover Letter, Para. 1, Permit Page 2 "Effective Dates" and Page 20, condition 21. Effective dates should be site specific as each facility is in various stages of completion. PBCDF suggested the effective date and the five-year term of the permit for each of the demilitarization facilities under construction should be contingent on certification by an independent Professional Engineer and the date the first rocket is introduced into the DFS. This certification is required by the RCRA Permit as well, so the DFS cannot be operated prior to this certification. Making the effective date the date of certification by an independent Professional Engineer would be consistent with condition 18 on page 19. EPA should also clarify that approval for individual sites is severable in the case of revocation or non-renewal.

Response: The intention of the basic TSCA permit is to apply nationwide, applicable to each DFS facility. To single out the effective dates for each facility would negate the purpose of the nationwide concept for permitting.

4. Cover Letter, page 2, para. 1 and Permit page 1, para 2, line 9. Morrison Knudsen Corporation has purchased Raytheon Engineers and Constructors (RE&C) from the

Raytheon Corporation effective May 31, 2000. Raytheon Demilitarization Company (RDC) is a wholly owned subsidiary of RE&C and therefore RDC will be owned by Morrison Knudsen. Please replace any reference to "Raytheon" with "Raytheon Demilitarization Company" or"RDC". Also, at Anniston Chemical Agent Disposal Facility (ANCDF) the correct name for the Systems Contractor is Westinghouse Government Environmental Services Company LLC.

Response: The changes have been made.

5. A. Cover Letter, page 2, para 5; page 6, para 2.a and page 21, Approval, para 2. This paragraph also states that TOCDF condition (2.a) shall apply to the other facilities. There are instances both in the TOCDF specific conditions (2.a) and other places in the draft permit where TOCDF and/or EG&G are mentioned by name, where clarification is needed to indicate whether or not the particular condition is to be applied to the sites now under construction. For example: Condition of Approval 2.a states operation of the TOCDF DFS is subject to the TOCDF Preliminary Operation Permit Application, Research & Development (R&D) Test Plan, Demonstration Test Plan Report, and Test Bum Report #2. This is not specifically included in condition 2b. as incumbent upon PBCDF, ANCDF, and Umatilla Chemical Agent Disposal Facility (UMCDF), but presumably would be.

   Response: For clarification, all reference to "condition (2.a)" is changed to "condition [2.a(1) and 2.a(2)]."

   B. Also the second paragraph on page 33 makes all TOCDF material received by the EPA part of the "application" to which the facilities currently under construction will also be bound. EPA should clarify when TOCDF conditions are incumbent on the sites now under construction and when they are not.

   Response: Changing the applicable condition from 2.a to the more operationally-specific conditions 2.a(1) and 2.a(2), should clarify EPA's intentions not to cross-reference applications from individual facilities.

6. Page 5, 1.a(2). Shutdown should be defined in the definitions section as being PCB waste feed for 30 or more consecutive days.

Response: For clarification, Condition 1.a(2) is changed to "Resuming a permitted **PCB Disposal** activity after a shutdown **of PCB waste feed** for 30 **or more consecutive days**.

7. Page 7. This page describes a requirement to take the kiln forward for an additional 30 seconds (or one additional turn) after an AWFCO causes the kiln to go into oscillation if rocket pieces are fed into the kiln to clear the feed gate. TOCDF proposes that this condition be deleted for the following reasons: (a) The action described by this condition would be difficult to automate. (b) Continued forward rotation of the kiln when it should have gone into oscillation mode could result in rocket pieces exiting the kiln that had not been fully treated and the mixing of those pieces with those that had been fully treated. (c) The rocket pieces fed are contained

inside the treatment unit and cannot fall from the kiln because the kiln feed end is totally enclosed. (d) The rocket bursters are chopped which prevents them from exploding regardless of their position in the kiln. (e) Combustion gases and any fugitive emissions are controlled regardless of the position of rocket pieces in the kiln because the incinerator's induced draft is maintained.

> **Response**: (a) EPA will consider removal of this condition upon reviewing an acceptable explanation why a 30-delay cannot be implemented without difficulty, (b) continuing forward rotation of the kiln will not expel rocket pieces which are not fully treated and will not mix treated and untreated parts because Condition 2.a(2)E specifies that the kiln will not enter the oscillation phase whenever kiln and HDC are in operational compliance, (c) this explanation is not applicable to this issue, (d) chopping bursters will not prevent them from exploding, it only enhances deflagration versus exploding, this explanation is also not applicable to this issue, (e) this explanation has no bearing on this issue.

8. Page 7, section 2.a(2)A(l). The AWFCOs referenced in this section do not correspond to the PBCDF RCRA permitted parameters.

Response: This issue is better discussed after EPA has reviewed PBCDF's documents.

9. Page 7, section 2.a.(2)D. The PBCDF RCRA permit requires a minimum of 15 minutes residence time for solids in the heated discharge conveyor (HDC). An instantaneous AWFCO based upon "HDC malfunction is too vague to be instituted.

Response: For clarification, the condition is amended from "....Discharge Conveyor Residence Time is nominally 19 minutes. An instantaneous AWFCO for HDC malfunctions shall be in place...." to "....Discharge Conveyor Residence Time is nominally 19 minutes. A 5-minute delay AWFCO for HDC malfunctions shall be in place when the residence time decrease to 15 minute or below ...."

10. Page 7, section 2.a.(2)E. For PBCDF delete: "The Retort Rotational Speed Target Value shall be 1.9 rpm." Insert: Maximum Retort Rotational Speed shall be no more than 2.0 rpm. The PBCDF RCRA Permit AWFCO addresses this issue. Assigning a rotation speed of 1.9 rpm with an instantaneous AWFCO at 2.0 rpm will result in continuing activation of the AWFCO. The PBCDF RCRA Permit has already established an AWFCO for retort rotation at 2 rpm. Setting a minimum rotation speed is counter productive, as slower rotational speeds will increase solids' residence time.

Response: EPA will consider a time-delayed AWFCO at 2 rpm or some higher value. Justification for such a change must be provided. Submission of operational data is suggested. Again, EPA will address these comments after the facility documents are reviewed. EPA feels that a minimum rotational speed is required. At slow rotational speeds, if the feed rate is operating at the maximum value, the feed material will have a tendency to "back up." The accumulation of feed material in the feed chute may cause clogging of the feed mechanism and

result in intensive effort to loosen the agglomerated material. Also, slow rotational speeds may be an indication of problems with the rotating mechanism and that shutdown may be imminent.

11 . Page 8, condition 2.a.(2)M. <700 conflicts with table A <750 gpm. The instantaneous cutoff value should be 750 gpm rather than 700. The value 750 appears in the associated AWFCO table. The 750 gpm value is more restrictive and equal to the value imposed by the existing PBCDF RCRA Part B Permit.

Response: The condition is changed from <700 gpm to <750 gpm.

12. Page 9, section 2.a.(2j. For PBCDF delete "stack sampling analysis' Insert: " sampling analysis". Sampling for the DFS will not take place in the common stack for the PBCDF_ Rather it will be done in the duct prior to the common stack.

Response: During the TOCDF Trial Burns, the DFS flue gas was sampled in the DFS flue gas duct prior to the common stack. At the other facilities, it is expected that trial burn test and other compliance-type tests will follow the same procedures. Stating that only "sampling analysis" is required may be misleading. The common term used for flue gas sampling in incinerators and combustors is "stack sampling analysis" even when the sampling location does not fit the definition or description of a "stack."

13. A. Page 9, section 2.a.(2)V or W. This paragraph requires all AWFCOs which are based on one-hour rolling averages to be based on three-minute averages when PCBs are being treated. This forces the PBCDF to greatly shorten their averaging period. Unless separate one-hour rolling averages are maintained, PBCDF will be forced to report compliance to RCRA using the shortened averaging period. Additionally, TSCA gives greater than 3 minutes for certain AWFCO in the listing. An example would be 2(a)(ii)(n) which gives a 5-minute delay on the AWFCO. This occurs several times.

    Response: The inconsistency in 3- and 5- minute delays will be resolved. The three minute averages is installed because at TOCDF and JACADS EPA observed that during time periods where the operations experienced feeding problems, there was a tendency to "catch up" with the one-rolling average. During these "catch up" periods, the feed rates were significantly higher than the prescribed 38 rockets/hr rate. Whether the faster feed rates contributed significantly to problems with achieving the six-9s DRE is a matter for discussion. Unless PMCD can definitively separate the DRE problems from the feeding problem, EPA will maintaining the three-minute rolling average.

    B At TOCDF this condition will only impact the one-hour rolling average exhaust gas carbon monoxide concentration calculation. The recently promulgated Final Standards for Hazardous Air Pollutants for Hazardous Waste Combustion Facilities (40 CFR 63.1200) regulate most incinerator operating parameters based on rolling one- and twelve-hour averages. These regulations require the operator to base incinerator operating limits on one-minute and one-hour rolling averages demonstrated during comprehensive compliance

testing. The operating parameters specified in the TSCA draft permit, with exception of kiln pressure, will be regulated under 40 CFR 63.1200 (Final MACT Rule for Hazardous Waste Combustors) as one-hour rolling averages. Metal and chlorine feed rates will be based on twelve-hour rolling averages. The requirement to change the rolling average basis from one- or twelve-hour to three minutes when the operating limits were derived based on rolling averages of greater lengths may result in operating limits that are unworkable. The requirement to base AV\1FCOs on three-minute rolling averages should either be deleted or revised to specify which operating parameters will be required to be limited based on three-minute rolling averages. As written, the use of the word "all' is interpreted to mean all the operating parameters listed in this permit and those twelve-hour rolling average parameters regulated by 40 CFR 63.1200. NOTE: After September 30, 2002, the DFS will be regulated by three different environmental agencies, each regulating AWFCOs. Many of the AWFCOs regulated by each agency will be the same, but what will be different is the basis of how the limits are determined (i.e., instantaneous, time delay, hourly rolling average, or a three-minute rolling average AWFCO). This type of regulatory environment, with different agencies regulating overlapping parameters on different bases, makes it very difficult for operators to determine compliance.

Response: At TOCDF, EPA focused on the feed rate and the carbon monoxide for reasons already stated, i.e., the tendency to "catch up" after a period of slow feed rate. Although carbon monoxide was not problematic, the same concept of "catching up" with feeding off-spec hazardous waste after a period of low CO emission is applicable. For PBCDF, EPA must reiterate the need for reviewing PBCDF documents prior to changing conditions such as these.

14. Page 10, Table A. Scrubber Tower Liquid Feed Rate Instantaneous Cut-off of <750 dose not match <700 in condition 2.a(2)M.

Response: Condition 2.a(2)M changed to <750.

15. Page 11, 2.b(l).

A. An anomalous peak that occurred intermittently during the first TOCDF trial burn lead to DRE calculations of just shy of the required 99.9999. A number of actions were taken relative to removing suspect process gaskets and materials that might have contaminated the sampling trains. The second burn showed no anomalous peaks. Thus, since a number of factors changed, it cannot be conclusively determined if the offending peak resulted from one or more of the materials removed from the process or if the peak even would have reoccurred if no action was taken.

Comment: Process gaskets, as well as material from the sampling trains which potentially contained the PCB with the anomalous peaks, were replaced for the second trial burn. The TOCDF PCB study clearly indicated that the PCBs in sampling train related material

exhibited chromatographic profiles not matching those from the first trial burns. Eliminating the sampling train as the source of contaminant PCBs results in only the process gaskets being the potential source of the anomalous PCB peaks.

B. EPA takes the position that the peak identified as 2,2',4,4'-tetrachlorobiphenyl resulted from inadvertent inclusion of trace quantities of this congener during the manufacture of various gasket materials used in the DFS and assumes that such trace quantities were extracted during the trial burn and released in sufficient quantities to show up in the DRE calculations. The TOCDF investigation concludes that this peak is more likely the result of contamination of the sampling train. The results of the EPA and the TOCDF investigation are not definitive.

Comment: The TOCDF report makes no definitive conclusion as to the source of the 2,2',4,4'-tetrachlorobiphenyl congener, only that further study is needed. Although various material in both the EPA and TOCDF studies contained this congener, none excepting the process gaskets exhibited the pronounced chromatographic peaks of this congener that matched the trial burn chromatograms.

C. The sites should be allowed the latitude to investigate the potential for PCB contamination during trial bums to include literature searches, vendor information, and/or sampling and analysis to eliminate as much as possible the potential of an anomalous peak during trial burns. Additionally, simple replacement of the type of process gaskets suspected of causing the peak should be allowed rather than requiring a sampling campaign. Some potential suspected material may have already been installed at some sites.

Response: EPA will accept proposals of plans from the facilities to investigate the PCB contamination. Acceptable proposals must include definitive evidence of absence of PCBs, e.g., chromatograms from samples of process equipment or life cycle history of process ingredients from which the process equipment was manufactured.

D. Regulating construction of a permitted unit based on the potential for PCBs in components at concentrations of much less than 2 ppm may not be covered by specific regulations.

Response: EPA regulates only the permitting of PCB Disposal facilities, not the construction of such facilities. PCB disposal facilities, i.e., incinerators, must demonstrate the capability to achieve the six 9s DRE. Without assurances that the facilities will achieve the DREs during trial burn, EPA cannot be certain that the facilities will comply with the DREs during normal operations. Therefore, EPA cannot issue these approvals.

E. The health and environmental risk of continued storage of chemical weapons far outweighs any potential risk of such PCBs as evidenced by EPA's regulatory limits in the PCB regulations.

Comment: Recent studies for the risk reassessment of dioxins indicate that PCBs risk

factors may be significant higher than formerly viewed. Therefore, EPA desires that PMCD make every effort to omit PCB-containing equipment from the DFS. Additionally, EPA is well aware of the risks posed by continued storage of chemical weapons. In addition to the risk posed from the storage of chemical weapons, stakeholders who are impacted by the DFS are concerned with other factors such as exposure to PCBs. EPA must consider these factors.

F. Suggest the first two sentences be deleted and replaced with "ANCDF, PBCDF and UMCDF shall investigate the potential for PCB contamination in their respective DFS systems downstream of the secondary combustion unit. Items containing PCBs shall be eliminated as much as practicable prior to agent trial burn tests."

Response: See response to Item C above.

16. Page 11, 2.b(3) (interim Operations/Approval Conditions).

A. PBCDF is limited to 50% of the anticipated feed rate of 40 rockets/hour (i.e., 20 rockets/hour) during shakedown. The RCRA trial bum will be the first opportunity allowed to burn at full 100% rate. Therefore, PBCDF cannot meet the requirement to burn at the same rate that will be run during the trial burn. Suggest rewording to "rocket feed rate will be the same rate anticipated during the RCRA trial burn, unless limited by the RCRA permit. In this event, the rate shall be the maximum allowed by the RCRA permit during shakedown."

Response: EPA has not approved interim operations based on data from operations performed with 50% of anticipated processing feed rate. Approval of interim operations is based on full scale operations. EPA has observed over the years that when trial burns are performed with critical operations such as feed rate at maximum value for the first time, the probability for an unsuccessful set of tests is high. Under TSCA, EPA may issue a R&D approval to perform the shakedown at the 40 rockets/hr rate. If the Arkansas RCRA program will concur with the TSCA R&D approval, then the shakedown may be performed at the trial burn feed rate.

B. The limitation on the amount of time rocket feed can be shut off during a performance test should be two hours. It is difficult to determine whether this limitation is specific to each performance run or to all three runs. Suggest changing "There shall be no more than a total of two hours when rocket feed is shut off during the test." to "There shall be no more than a total of two hours per run when the rocket feed is shut off."

Response: EPA amends to condition to read "There shall be no more than a total of two hours when the rocket feed is shut off during **each run**."

C. Also, this paragraph requires the DFS to conduct three performance runs at full rocket rate while sampling exhaust gas for PCB during the shakedown period. This requirement will take almost as much effort as the RCRA trial burn considering the coordination required to successfully perform a series of performance tests and the amount of time required to generate, analyze, prepare, review, and submit the associated report. It is suggested that during the shakedown period, DFS facilities be required to collect PCB exhaust gas samples during one run at idle (to ensure PCB contamination issues are resolved) and one run during maximum rocket feed rate to ensure PCB DRE can be reasonably met.

Response: The policy for interim operations calls for three runs to be completed.

17. Page 13, 2.d (1) and (2) - Specific Feedstock Restriction and Operating Conditions and Restrictions. Title 15 United States Code (U.S.C.) Chapter 53 Toxic Substances Control Act, Section 2608 "relationships to other Federal Laws" (b) "Laws Administered by the Administrator" states: "The Administrator shall coordinate actions taken under this chapter with actions taken under other Federal laws administered in whole or in part by the Administrator. If the Administrator determines that -a risk to health or the environment associated with a chemical substance or mixture could be eliminated or reduced to a sufficient extent by actions taken under the authorities contained in such other Federal laws, the Administrator shall use such authorities to protect against such risk unless the Administrator determines, in the Administrator's discretion, that it is in the public interest to protect against such risk by actions taken under this chapter. This subsection shall not be construed to relieve the Administrator of any requirement imposed on the Administrator by such other Federal laws." 40 CFR 761.70(d) "Approval of Incinerators" (5) allows the regional Administrator or the National Program Director to waive any requirement respecting incineration of PCBs as part of the approval provided the owner/operator of the incinerator has presented evidence that operation of the incinerator does not present an unreasonable risk of injury to health or the environment. Evidence provided to EPA and/or State authorities consists of. the TOCDF TSCA Permit Application, Trial Burn Report, and related materials listed on page 6 item 2.a of the draft TSCA permit; the federally delegated PBCDF RCRA Permit issued by the State of Arkansas Department of Environmental Quality and associated PBCDF RCRA Permit Application; and the PBCDF Health Risk Assessment required under RCRA that verifies protection of human health and ecology, which includes in the assessment PCB, 2,3,7,8-tetrachlorodibenzodioxins, and 2,3,7,8 - tetrachlorodibenzofurans. Based on the fact that the EPA delegated RCRA programs provides equivalent protection of health and the environment as does TSCA requirements, and on the evidence listed above presented by PMCD, the requirements for approval for the PBCDF facility should be limited to Professional Engineers certification that the facilities are substantially equivalent to the TOCDF design and submission of RCRA Trial Burn Plans and Final Trial Burn Reports to the EPA Fibers and Organics Branch. Detailed specificity for trial bums, operational parameters, recordkeeping, and reporting are adequately covered in the federally delegated State administered RCRA Permit.

Response: The standard TSCA permitting procedure when duplicate facilities or equipment are involved is to proceed with permitting the initial or prototype unit through a demonstration test

and evaluation of the test results. Based on acceptable demonstration results the TSCA permit is issued. Then certification of the duplicity of subsequent facilities or equipment by an unbiased professional engineer qualifies these additional units to operate under the TSCA permit. However, with the Deactivation Furnace System of the Chemical Disposal Facilities, EPA observed an unusual level of difficulty in bringing the DFS up to operational readiness. No less than eight trial burns total were required at JACADS and TOCDF to perform at levels acceptable to the agencies involved. This does not instill the confidence in EPA to allow operation of the DFS without some degree of oversight prior to approval for normal operation. In addition, operating conditions in TSCA approvals are based on trial burn conditions. RCRA permit conditions are based on equipment manufacturers' specifications, and not necessarily amended to reflect trial burn conditions. For these reasons, EPA will require minimal oversight from start up through trial burn phases of each DFS facility applicable to the TSCA PCB Disposal regulations.

18. Page 14, Condition 3, 2nd Para, 4 1h and 8th lines. Change "...discovered to contain greater than 2 ppm ..." to "...discovered to contain greater than or equal to ..."

Response: The condition is corrected as suggested.

19. Page 14, Condition 3, 3rd Para. This paragraph states "should sampling of treated material or residue be required for polychlorinated dibenzodioxins and polychlorinated dibenzofurans ... the analysis must be accomplished using laboratory techniques with detectable limits below 0.2 parts per billion (ppb). This is not a typical requirement for solid residuals from TSCA incinerators. The wording leaves it ambiguous as to when such sampling "should" be required. Request this language be deleted.

Response: To clarify, the paragraph will begin with "Whenever an agency(s) requires the sampling and analysis of treated material..." The requirement for a detectable limit provides assurance that higher detectable limits are not inadvertently used, giving the false impression that PCBs are not detected, but in actuality may be present in the requisite detectable quantity.

20. Page 14115, Condition 4, 4th line and 7th line. Clarification - define "both product ash DFS streams" and "major system failure".

Response: The term "both product ash DFS streams" is amended to "both cyclone ash and HCD ash streams." The term "major system failure" is changed to "failure."

21 - Page 14/15, para. 3 and 4. The incinerator failures discussed in Paragraph 4 are determined by review of the analytical results generated by analysis required by conditions detailed in Paragraph 3. The analyses referenced in Paragraph 3 are not required if the facility disposed of DFS residue in EPA approved facilities. DFS residues include spent scrubber brine, cyclone ash and HDC ash. All these residues are at a minimum Toxicity Characteristic for metal(s) and will

be required to be disposed of at an EPA approved waste management facility. Therefore, the analyses referenced in Paragraph 3 should not be required and the analytical results used to determine incinerator failures should not be generated. The interrelationship of these two paragraphs and the requirements therein should be deleted or revised for clarifying overall intent.

Response: Condition 3 begins with "The following requirements (Condition 3) do not apply if the process residues are disposed of in EPA-approved facilities, including chemical waste landfills and Subtitle C landfills (for solid residues), or EPA-approved deep well injection or wastewater treatment facilities (for liquid residues):" This statement applies to Condition 4 and Condition 5(c). However, PMCD cannot escape any future liabilities involved as a result of omission of analysis for these material.

22. Page 15, 2nd line. Not meeting the limits for residuals is not typically defined as a major system failure in TSCA incinerator permits. Also regulatory notifications are made by the Program Manager for Chemical Demilitarization (PMCD) not the Systems Contractor (SC) pursuant to contractual obligation. Suggest rewording the last sentence of page 14 (continuing on page 15) to "PMCD shall notify [EPA] of the failure to meet the residual limits on the day analytical results become available or the next business day if the results do not become available during normal business hours."

Reasons; The sentence had be changed to "The **PMCD** must notify the EPA Regional Office and the Fibers and Organics Branch (202) 260-3933 or by FAX at (202) 260-1724 during the business hours in Washington, D.C. on the day of the **failure** or, if failure does not occur during business hours, during the next regular business day, and file a written report within fifteen (15) days."

23. Page 15, Condition 5.g. Clarification: Define "burn"

Response: To clarify, "burn" is changed to "operation."

24. Page 15, Para 6. Propose changing "...with procedures outlined in SW-846, and may be part of an air permit compliance demonstration such as a State Air Permit" to "...With procedures outlined in SW-846, and may be performed in conjunction with stack testing conducted to demonstrate compliance with other environmental permits the facility may hold." Due to the limited number of agent VX rockets and the low levels of PCBs in the remaining shipping and firing tubes at TOCDF, demonstration of DRE may not be calculable. Suggest removing DRE requirements from annual monitoring in such cases where the PCB feed rates are not high enough to facilitate calculation of the required 99.9999% DRE.

Response: Requirements in Condition 6 are conditional upon request from EPA. EPA will maintain original language in case unforseen problems develop during full scale operations

25. Page 16, Condition 8, page 17 Condition 14. g & h. The wording "...provided in the application and trial bum plan necessarily refers to TOCDF's application and trial bum plan. This language needs to be changed to reference the appropriate spill or contingency plan incorporated into the respective facilitys' RCRA permit applications.

Response: No change is necessary. The paragraph does not refer to TOCDF. Commenter correctly interpreted the terms "application" and "trial burn plan" to refer to the respective facility's RCRA permit application.

26. Page 16, Condition 9. TSCA regulation of the DFS is limited to the rocket campaign(s) at the facilities. Mines will also be processed through the DFS. Revise to read "...as a result of the operation of the DFS during rocket campaigns must be reported... "

Response: No change is necessary. Again commenter interpreted the condition correctly, i.e., that this approval applies only to PCB/rocket disposal.

27. Page 17, Condition 13. Note- the PBCDF tenants, ANCDF, TOCDF and UMCDF are on military installations. The Installation Commander or delegated subcontractor may obtain some approvals/permits.

Response: The approval condition requires that all applicable permits and approvals from all agencies are in place prior to commencement of operations. It delegates the responsibility to PMCD/System Contractor to obtain these approval. It does not require PMCD/System Contractor to physically obtain these permits and approvals.

28. Page 18, Condition 16 d. The PBCDF, ANCDF, TOCDF and UMCDF do not accept off-site wastes and are not commercial incinerators. They do not take PCBs, or any other material, from clients for destruction. The sole mission of chemical agent disposal facilities is the destruction of chemical warfare materiel. Inclusion of this line is misleading to the public.

Response: The condition must remain intact. The possibility exists that a private company such as the System Contractor may purchase the PBCDF and/or the operations. In such a scenario, the mission of PBCDF may be altered to include off-site waste.

29. Page 18, Condition 16-g. Define "operator and supervisor"

Response: For the purpose of this approval, "operator" would be the System Contractor and the "supervisor" would be the Plant Manager, unless the Plant Manager has a different title such as the Plant Supervisor.

30. Page 18, Condition 16.h. The requirements included in this paragraph are contradictory with the following paragraph and redundant to those found in the federal regulations. Currently TOCDF complies with the processing data recording and recordkeeping requirements detailed in 40 CFR 761.180 which requires operators of incinerators approved to dispose of PCBs to submit a written report by July 15 of each year and allows for the on-site storage of incinerator process data records. Compliance with the reporting requirements specified in paragraph 16.h. will result in duplication of annual reports submitted to EPA (in addition to maintaining the same records on-site as required by current regulations). It will also result in the submittal to EPA of redundant information on two different schedules (one schedule based on the approval date of the TSCA permit, and the other based on the date specified in the federal regulations). The paragraph following 16.h. references the centralized on-site storage of records but does not specify which records may be stored on-site as opposed to which record must be submitted annually to EPA. Suggest revising Paragraph 16.h. to specify which records are required to be submitted to EPA and which are required to be maintained on-site for EPA review, and basing the report submittal date on that specified in 40 CFR 761.180. At a minimum, the storage of operating data on-site rather than the annual submittal should be allowed.

Response: The annual and the report required by 40 CFR 761.180 should be one and the same. A letter explaining the time difference should suffice. Condition 16.h is changed to store operating data on-site rather than to submit them to EPA.

31. Page 19, Condition 17. In the event of permit transfer, the transferee is required to provide financial assurance for closure and post closure. This contradicts Condition 15 on page 18.

Response: If and when the permit is transferred, the transferee will more than likely be a private entity. Should that happen, the transferee will be required to obtain financial assurance.

32. Page 21, Approval para. E., 2nd line. Delete "or moving the" The DFSs are fixed units.

Response: The commenter has a point. Because the DFS <u>is</u> a fixed process, the term "moving the" does not apply to the DFS, until PMCD or the System Contractor disassembles and moves the facility.

33. Page 21, Approval Para. 4. Delete "at any location". This language implies, like the previous comment, that the units being authorized are mobile. This is not accurate.

Response: The commenter has a point. However since the DFS <u>is</u> a fixed unit but duplicated at several locations, the term "at any location" may apply to the DFS.

Appendix

Response to Mr. Steve Weaver's comments on the PCB-contaminated gaskets (May 16, 2000):

1	Page 2. 2nd ¶ of cover letter	Delete: paragraph beginning "EPA explored possible causes for the inconsistent DRE results at TOCDF, and discovered that gaskets used in the flue gas duct work and sampling train contained trace quantities of PCBs. EPA determined that the contaminant PCBs contributed to the inconsistent DRE results. The findings of the EPA study prompted TOCDF to investigate the contamination problem further. Conclusions of both studies are similar in that the gasket material contributed...." **Response:** EPA will retain this paragraph. TOCDF found no new material which contained the 2,2',4,4'-tetrachlorobiphenyl (PCB-47). Therefore, EPA believes that the gaskets found to contain the (PCB-47) contributed significantly to the inconsistent DRE results.
	Page 2, 3rd ¶ of cover letter	Delete paragraph beginning: (second page, third paragraph, and page AI-4, second full paragraph) "To preclude the emission of the contaminant PCBs. PMCD shall begin a campaign to detect PCB contaminants in ancillary process equipment or including...." **Response:** EPA will retain this paragraph. TOCDF removed gaskets from the DFS plant believed to contain PCBs prior to Trial Burn 2 operations. Trial Burn 2 resulted in the best series of test results of any DFS test at JACADS or TOCDF.
	Page 11, lst ¶ of draft permit.	Delete this section: (1) <u>PCB Contaminated Process Ancillary Equipment</u>. ANCDF, PBCDF and UMCDF shall begin a campaign to detect PCB contaminants in ancillary process equipment including but not limited to expansion joints, gaskets, and rubber sealants (caulking compounds, etc.) used in the cyclone separator and other equipment downstream of the secondary combustor. including the combustor exit connectors. Items containing PCBs shall be eliminated from the process equipment prior to incineration operations or construction. Each facility will submit a report of the results from the study to the Fibers and Organics Branch (7404), Office of Pesticides and Toxic Substances, 401 M Street S. W., Washington, D. C. 20460.

The quantity of PCB's detected in the process gaskets as measured in the EPA Study lacks the required mass to make a detectable difference in the process stream (see attached calculation). In contrast, the gaskets in the sampling train are in contact with a small distinct volume of gas for an extended period of time. This most likely is the source of the problem trial bums. There is supporting evidence presented in the Army's investigation at Tooele that the trial burn failures were due to PCB's in sampling train equipment, poor sampling protocols and process equipment contaminated with cutting oil in and around sample ports.

Response: EPA agrees that the quantity of PCBs detected in the process lacks the required mass to accumulate a detectable quantity of PCB in the stack sample. However, EPA disagrees that the Army presented credible evidence to support conclusions that the PCBs present in the stack emission analysis during the trial burns were caused by contaminants in the sampling train equipment, poor sampling protocols and process equipment contaminated with cutting oil in and around sample ports.

1. Diminutive quantities of contaminant PCBs. Commenter has calculated the quantity of PCB-contaminated gaskets required to be over 9,000 pounds of gaskets. This quantity was based on the highest concentration of PCBs found in the samples collected during the EPA investigation, i.e., 39.5 nanogram/gm of gasket. This concentration was found in one of the gaskets collected and analyzed by the Army and did not contain significant quantity of the PCB-47. Commenter must take account of the limited scope of the EPA study. There were a few shortcomings:

A. Limited cooperation from the TOCDF operating Army Contractor (this is being generous).

B. The large gaskets are located on the high temperature processing equipment. EPA collected samples of used gaskets which likely contained little residual PCBs after being exposed to the high process temperatures during the trial burn operations. New or unused gaskets were not available. These large gaskets may have contained higher concentrations of PCBs when new. These gaskets and other processing equipment may contain larger quantities of PCBs than the gaskets sampled and analyzed by either EPA or the Army.

C. Commenter did not take account of the storage capacity of the brine for PCBs. Because PCBs are inclined to cling onto particulate, the low solubility of PCBs in water may not indicate the level of PCBs potentially stored in the brine. The PCB-47 congener was detected in the brine. More focus on the

usage practice, pumping route and sampling protocol of the brine during Trial Burn 1 may have revealed some significant information. The quantity of PCBs stored in the brine may have been significant. Brine with PCBs accumulated during pre-trial burn operations may have been stored separately and used intermittently during Trial Burn 1 and may have contributed to some of the PCB emissions.

2. Sampling train equipment: EPA performed an audit of the Army's laboratory and found no evidence that laboratory equipment contained contaminant PCBs. The Army presented data which indicated that O-Rings, laboratory gloves and other laboratory material which may have been used during the tests contained PCBs but chromatographic profiles of these PCBs did not match those of the stack emissions from Trial Burn 2.

3. Poor sampling protocols. Sampling protocols used during Trial Burn 2 were standards methods approved by EPA. These methods are identical to those to be used in Pine Bluff, excepting updated items. One incident which occurred during stack sampling operations in Trial Burn 1 was precipitated by a sampling personnel <u>not</u> following sampling protocols. The incident was not based on poor sampling protocols.

4. Contaminated cutting oil in sampling ports. The original sampling plan for TOCDF included sampling stack emissions in the CDF common stack. When samplers determined that gas velocity in the common stack would be too low to comply with sampling standards, the decision was made to sample stack emissions from the DFS flue duct leading to the common stack. Last minute preparation for Trial Burn 1, included installation of new sampling ports. During a series of R&D tests, PCBs were detected in significant levels in the stack emissions. Investigation revealed that a major source of these PCBs originated from cutting oil used during the installation of the new sampling ports. Decontamination of the DFS exhaust duct removed the source of PCBs from the cutting oil. Therefore, the contaminant PCBs detected during Trial Burn 1 cannot be attributed to the cutting oil incident.

DEPARTMENT OF THE ARMY
PROGRAM MANAGER FOR CHEMICAL DEMILITARIZATION
ABERDEEN PROVING GROUND, MARYLAND 21010-4005

Environmental and Monitoring Office

Mr. John W. Melone
Director, National Program Chemicals Division
Office of Pollution Prevention and Toxics
Environmental Protection Agency
401 M Street SW, Mail Code 7404
Washington, D.C. 20460

Dear Mr. Melone:

My staff has reviewed the draft permit to incinerate in the Deactivation Furnace Systems polychlorinated biphenyls contained in M-55 chemical agent rocket shipping and firing tubes. Enclosed are our comments.

Please contact Mr. Joseph Stang of my staff at (410) 436-2007 if you have any questions regarding our comments.

Sincerely,

James L. Bacon

James L. Bacon
Program Manager for
Chemical Demilitarization

Enclosure

OPTIONAL FORM 99 (7-90)

FAX TRANSMITTAL # of pages ► 13

To DOPI	From Joe Stang
Dept./Agency US EPA	Phone # 410 436 2007
Fax # 202 260 1724	Fax # 410 436 3435

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COMMENTS ON DRAFT TSCA PERMIT FOR ANCDF, PBCDF, TOCDF AND UMCDF

1. GENERAL. There are substantial numbers of conflicting operating parameters between the draft National Toxic Substances Control Act (TSCA) Permit and the Pine Bluff Chemical Agent Disposal Facility (PBCDF) Resource Conservation and Recovery Act (RCRA) Permit. There are also differences in the sequencing of trial burns between the draft TSCA Permit and the PBCDF RCRA Permit. Additionally, the Environmental Protection Agency (EPA) should be aware that the PBCDF design incorporates a carbon filter system downstream of the pollution abatement system (PAS) to reduce the potential of undesirable emissions in the event of an upset condition. The Deactivation Furnace System (DFS) complies with TSCA requirements prior to the PFS, therefore, the PFS should not be considered a TSCA regulated unit. Gas samples can be taken upstream of the PFS or by bypassing the PFS for the purpose of Destruction and Removal Efficiency (DRE) calculation. Also, the quantity of PCBs detected in the process gaskets as measured in the EPA study lacks the required mass to make a detectable difference in the process stream. In contrast, the gaskets in the sampling train are in contact with a small volume of gas for an extended period of time. This most likely is the source of the problem trial burns. There is supporting evidence presented in the Army's investigation at Tooele that the trial burn non-compliance issues were due to PCBs in sampling train equipment, poor sampling protocols and process equipment contamination with cutting oil in and around the sampling ports. Therefore, it is suggested that the requirement to sample ancillary equipment be deleted from the permit.

2. Cover Letter. The effective date of the permit is based on the date of signature. The instantaneous and time delayed Automatic Waste Feed Cut-Offs (AWFCO) required under this permit will take time to implement because of the effort needed to reprogram and test the DFS process control logic. Reprogramming the process logic cannot begin until the TSCA Permit is finalized. As the cover letter is currently written, with the effective date being based on the date of signature, processing of rockets in the DFS will have to be stopped when the TSCA permit becomes effective until revisions to the process control logic are completed. Suggest revising the last sentence of the first paragraph to read "Effective dates of the approval for the Tooele Chemical Agent Disposal Facility (TOCDF) are from ninety days after (date of signature) through (five years after date of signature).

3. Cover Letter, Para. 1, Permit Page 2 "Effective Dates" and Page 20, condition 21. Effective dates should be site specific as each facility is in various stages of completion. PBCDF suggested the effective date and the five-year term of the permit for each of the demilitarization facilities under construction should be contingent on certification by an independent Professional Engineer and the date the first rocket is introduced into the DFS. This certification is required by the RCRA Permit as well, so the DFS cannot be operated prior to this certification. Making the effective date the date of certification by an independent Professional Engineer would be consistent with condition 18 on page 19. EPA should also clarify that approval for individual sites is severable in the case of revocation or non-renewal.

4. Cover Letter, page 2, para. 1 and Permit page 1, para 2, line 9. Morrison Knudsen Corporation has purchased Raytheon Engineers and Constructors (RE&C) from the Raytheon Corporation effective May 31, 2000. Raytheon Demilitarization Company (RDC) is a wholly owned subsidiary of RE&C and therefore RDC will be owned by Morrison Knudsen. Please replace any reference to "Raytheon" with "Raytheon Demilitarization Company " or "RDC". Also, at Anniston Chemical Agent Disposal Facility (ANCDF) the correct name for the Systems Contractor is Westinghouse Government Environmental Services Company LLC.

5. Cover Letter, page 2, para 5; page 6, para 2.a and page 21, Approval, para 2. This paragraph also states that TOCDF condition (2.a) shall apply to the other facilities. There are instances both in the TOCDF specific conditions (2.a) and other places in the draft permit where TOCDF and/or EG&G are mentioned by name, where clarification is needed to indicate whether or not the particular condition is to be applied to the sites now under construction. For example: Condition of Approval 2.a states operation of the TOCDF DFS is subject to the TOCDF Preliminary Operation Permit Application, Research & Development (R&D) Test Plan, Demonstration Test Plan Report, and Test Burn Report #2. This is not specifically included in condition 2b. as incumbent upon PBCDF, ANCDF, and Umatilla Chemical Agent Disposal Facility (UMCDF), but presumably would be. Also the second paragraph on page 33 makes all TOCDF material received by the EPA part of the "application" to which the facilities currently under construction will also be bound. EPA should clarify when TOCDF conditions are incumbent on the sites now under construction and when they are not.

6. Page 5, 1.a(2). Shutdown should be defined in the definitions section as being PCB waste feed for 30 or more consecutive days.

7. Page 7. This page describes a requirement to take the kiln forward for an additional 30 seconds (or one additional turn) after an AWFCO causes the kiln to go into oscillation if rocket pieces are fed into the kiln to clear the feed gate. TOCDF proposes that this condition be deleted for the following reasons: (a) The action described by this condition would be difficult to automate. (b) Continued forward rotation of the kiln when it should have gone into oscillation mode could result in rocket pieces exiting the kiln that had not been fully treated and the mixing of those pieces with those that had been fully treated. (c) The rocket pieces fed are contained inside the treatment unit and cannot fall from the kiln because the kiln feed end is totally enclosed. (d) The rocket bursters are chopped which prevents them from exploding regardless of their position in the kiln. (e) Combustion gases and any fugitive emissions are controlled regardless of the position of rocket pieces in the kiln because the incinerator's induced draft is maintained.

8. Page 7, section 2.a(2)A(I). The AWFCOs referenced in this section do not correspond to the PBCDF RCRA permitted parameters.

9. Page 7, section 2.a.(2)D. The PBCDF RCRA permit requires a minimum of 15 minutes residence time for solids in the heated discharge conveyor (HDC). An instantaneous AWFCO based upon "HDC malfunction" is too vague to be instituted.

10. Page 7, section 2.a.(2)E. For PBCDF delete: "The Retort Rotational Speed Target Value shall be 1.9 rpm." Insert: Maximum Retort Rotational Speed shall be no more than 2.0 rpm. The PBCDF RCRA Permit AWFCO addresses this issue. Assigning a rotation speed of 1.9 rpm with an instantaneous AWFCO at 2.0 rpm will result in continuing activation of the AWFCO. The PBCDF RCRA Permit has already established an AWFCO for retort rotation at 2 rpm. Setting a minimum rotation speed is counter productive, as slower rotational speeds will increase solids' residence time.

11. Page 8, condition 2.a.(2)M. <700 conflicts with table A <750 gpm. The instantaneous cutoff value should be 750 gpm rather than 700. The value 750 appears in the associated AWFCO table. The 750 gpm value is more restrictive and equal to the value imposed by the existing PBCDF RCRA Part B Permit.

12. Page 9, section 2.a.(2)T. For PBCDF delete "stack sampling analysis" Insert: "sampling analysis". Sampling for the DFS will not take place in the common stack for the PBCDF. Rather it will be done in the duct prior to the common stack.

13. Page 9, section 2.a.(2)VorW. This paragraph requires all AWFCOs which are based on one-hour rolling averages to be based on three-minute averages when PCBs are being treated. This forces the PBCDF to greatly shorten their averaging period. Unless separate one-hour rolling averages are maintained, PBCDF will be forced to report compliance to RCRA using the shortened averaging period. Additionally, TSCA gives greater than 3 minutes for certain AWFCO in the listing. An example would be 2(a)(ii)(n) which gives a 5-minute delay on the AWFCO. This occurs several times. At TOCDF this condition will only impact the one-hour rolling average exhaust gas carbon monoxide concentration calculation. The recently promulgated Final Standards for Hazardous Air Pollutants for Hazardous Waste Combustion Facilities (40 CFR 63.1200) regulate most incinerator operating parameters based on rolling one- and twelve-hour averages. These regulations require the operator to base incinerator operating limits on one-minute and one-hour rolling averages demonstrated during comprehensive compliance testing. The operating parameters specified in the TSCA draft permit, with exception of kiln pressure, will be regulated under 40 CFR 63.1200 (Final MACT Rule for Hazardous Waste Combustors) as one-hour rolling averages. Metal and chlorine feed rates will be based on twelve-hour rolling averages. The requirement to change the rolling average basis from one- or twelve-hour to three minutes when the operating limits were derived based on rolling averages of greater lengths may result in operating limits that are unworkable. The requirement to base AWFCOs on three-minute rolling averages should either be deleted or revised to specify which operating parameters will be required to be limited based on three-minute rolling averages. As written, the use of the word "all' is interpreted to mean all the operating parameters listed in this permit and those twelve-hour rolling average parameters regulated by 40 CFR 63.1200. NOTE: After September 30, 2002, the DFS will be regulated by three different environmental agencies, each regulating AWFCOs. Many of the AWFCOs regulated by each agency will be the same, but what will be different is the basis of how the limits are determined (i.e., instantaneous, time delay, hourly rolling average, or a three-minute rolling average AWFCO). This type of regulatory environment, with different agencies regulating

overlapping parameters on different bases, makes it very difficult for operators to determine compliance.

14. Page 10, Table A. Scrubber Tower Liquid Feed Rate Instantaneous Cut-off of <750 dose not match <700 in condition 2.a(2)M.

15. Page 11, 2.b(1). An anomalous peak that occurred intermittently during the first TOCDF trial burn lead to DRE calculations of just shy of the required 99.9999. A number of actions were taken relative to removing suspect process gaskets and materials that might have contaminated the sampling trains. The second burn showed no anomalous peaks. Thus, since a number of factors changed, it cannot be conclusively determined if the offending peak resulted from one or more of the materials removed from the process or if the peak even would have reoccurred if no action was taken. EPA takes the position that the peak identified as 2,2',4,4'-tetrachlorobiphenyl resulted from inadvertent inclusion of trace quantities of this congener during the manufacture of various gasket materials used in the DFS and assumes that such trace quantities were extracted during the trial burn and released in sufficient quantities to show up in the DRE calculations. The TOCDF investigation concludes that this peak is more likely the result of contamination of the sampling train. The results of the EPA and the TOCDF investigation are not definitive. The sites should be allowed the latitude to investigate the potential for PCB contamination during trial burns to include literature searches, vendor information, and/or sampling and analysis to eliminate as much as possible the potential of an anomalous peak during trial burns. Additionally, simple replacement of the type of process gaskets suspected of causing the peak should be allowed rather than requiring a sampling campaign. Some potential suspected material may have already been installed at some sites. Regulating construction of a permitted unit based on the potential for PCBs in components at concentrations of much less than 2 ppm may not be covered by specific regulations. The health and environmental risk of continued storage of chemical weapons far outweighs any potential risk of such PCBs as evidenced by EPA's regulatory limits in the PCB regulations. Suggest the first two sentences be deleted and replaced with "ANCDF, PBCDF and UMCDF shall investigate the potential for PCB contamination in their respective DFS systems downstream of the secondary combustion unit. Items containing PCBs shall be eliminated as much as practicable prior to agent trial burn tests."

16. Page 11, 2.b(3) (Interim Operations/Approval Conditions). PBCDF is limited to 50% of the anticipated feed rate of 40 rockets/hour (i.e., 20 rockets/hour) during shakedown. The RCRA trial burn will be the first opportunity allowed to burn at full 100% rate. Therefore, PBCDF cannot meet the requirement to burn at the same rate that will be run during the trial burn. Suggest rewording to "rocket feed rate will be the same rate anticipated during the RCRA trial burn, unless limited by the RCRA permit. In this event, the rate shall be the maximum allowed by the RCRA permit during shakedown." The limitation on the amount of time rocket feed can be shut off during a performance test should be two hours. It is difficult to determine whether this limitation is specific to each performance run or to all three runs. Suggest changing "There shall be no more than a total of two hours when rocket feed is shut off during the test." to "There shall be no more than a total of two hours per run when the rocket feed is shut off." Also, this paragraph requires the DFS to conduct three performance runs at full

rocket rate while sampling exhaust gas for PCB during the shakedown period. This requirement will take almost as much effort as the RCRA trial burn considering the coordination required to successfully perform a series of performance tests and the amount of time required to generate, analyze, prepare, review, and submit the associated report. It is suggested that during the shakedown period, DFS facilities be required to collect PCB exhaust gas samples during one run at idle (to ensure PCB contamination issues are resolved) and one run during maximum rocket feed rate to ensure PCB DRE can be reasonably met.

17. Page 13, 2.d (1) and (2) – Specific Feedstock Restriction and Operating Conditions and Restrictions. Title 15 United States Code (U.S.C.) Chapter 53 Toxic Substances Control Act, Section 2608 "relationships to other Federal Laws" (b) "Laws Administered by the Administrator" states: "The Administrator shall coordinate actions taken under this chapter with actions taken under other Federal laws administered in whole or in part by the Administrator. If the Administrator determines that a risk to health or the environment associated with a chemical substance or mixture could be eliminated or reduced to a sufficient extent by actions taken under the authorities contained in such other Federal laws, the Administrator shall use such authorities to protect against such risk unless the Administrator determines, in the Administrator's discretion, that it is in the public interest to protect against such risk by actions taken under this chapter. This subsection shall not be construed to relieve the Administrator of any requirement imposed on the Administrator by such other Federal laws." 40 CFR 761.70(d) "Approval of Incinerators" (5) allows the regional Administrator or the National Program Director to waive any requirement respecting incineration of PCBs as part of the approval provided the owner/operator of the incinerator has presented evidence that operation of the incinerator does not present an unreasonable risk of injury to health or the environment. Evidence provided to EPA and/or State authorities consists of: the TOCDF TSCA Permit Application, Trial Burn Report, and related materials listed on page 6 item 2.a of the draft TSCA permit; the federally delegated PBCDF RCRA Permit issued by the State of Arkansas Department of Environmental Quality and associated PBCDF RCRA Permit Application; and the PBCDF Health Risk Assessment required under RCRA that verifies protection of human health and ecology, which includes in the assessment PCB, 2,3,7,8-tetrachlorodibenzodioxins, and 2,3,7,8-tetrachlorodibenzofurans. Based on the fact that the EPA delegated RCRA programs provides equivalent protection of health and the environment as does TSCA requirements, and on the evidence listed above presented by PMCD, the requirements for approval for the PBCDF facility should be limited to Professional Engineers certification that the facilities are substantially equivalent to the TOCDF design and submission of RCRA Trial Burn Plans and Final Trial Burn Reports to the EPA Fibers and Organics Branch. Detailed specificity for trial burns, operational parameters, recordkeeping, and reporting are adequately covered in the federally delegated State administered RCRA Permit.

18. Page 14, Condition 3, 2nd Para, 4th and 8th lines. Change "...discovered to contain greater than 2 ppm ..." to "...discovered to contain greater than or equal to ..."

19. Page 14, Condition 3, 3rd Para. This paragraph states "should sampling of treated material or residue be required for polychlorinated dibenzodioxins and polychlorinated

dibenzofurans...the analysis must be accomplished using laboratory techniques with detectable limits below 0.2 parts per billion (ppb). This is not a typical requirement for solid residuals from TSCA incinerators. The wording leaves it ambiguous as to when such sampling "should" be required. Request this language be deleted.

20. Page 14/15, Condition 4, 4th line and 7th line. Clarification – define "both product ash DFS streams" and "major system failure".

21. Page 14/15, para. 3 and 4. The incinerator failures discussed in Paragraph 4 are determined by review of the analytical results generated by analysis required by conditions detailed in Paragraph 3. The analyses referenced in Paragraph 3 are not required if the facility disposed of DFS residue in EPA approved facilities. DFS residues include spent scrubber brine, cyclone ash and HDC ash. All these residues are at a minimum Toxicity Characteristic for metal(s) and will be required to be disposed of at an EPA approved waste management facility. Therefore, the analyses referenced in Paragraph 3 should not be required and the analytical results used to determine incinerator failures should not be generated. The interrelationship of these two paragraphs and the requirements therein should be deleted or revised for clarifying overall intent.

22. Page 15, 2nd line. Not meeting the limits for residuals is not typically defined as a major system failure in TSCA incinerator permits. Also regulatory notifications are made by the Program Manager for Chemical Demilitarization (PMCD) not the Systems Contractor (SC) pursuant to contractual obligation. Suggest rewording the last sentence of page 14 (continuing on page 15) to "PMCD shall notify [EPA] of the failure to meet the residual limits on the day analytical results become available or the next business day if the results do not become available during normal business hours."

23. Page 15, Condition 5.g. Clarification: Define "burn"

24. Page 15, Para 6. Propose changing "...with procedures outlined in SW-846, and may be part of an air permit compliance demonstration such as a State Air Permit" to "...with procedures outlined in SW-846, and may be performed in conjunction with stack testing conducted to demonstrate compliance with other environmental permits the facility may hold." Due to the limited number of agent VX rockets and the low levels of PCBs in the remaining shipping and firing tubes at TOCDF, demonstration of DRE may not be calculable. Suggest removing DRE requirements from annual monitoring in such cases where the PCB feed rates are not high enough to facilitate calculation of the required 99.9999% DRE.

25. Page 16, Condition 8, page 17 Condition 14. g & h. The wording "...provided in the application and trial burn plan necessarily refers to TOCDF's application and trial burn plan. This language needs to be changed to reference the appropriate spill or contingency plan incorporated into the respective facilitys' RCRA permit applications.

26. Page 16, Condition 9. TSCA regulation of the DFS is limited to the rocket campaign(s) at the facilities. Mines will also be processed through the DFS. Revise to

read "...as a result of the operation of the DFS during rocket campaigns must be reported..."

27. Page 17, Condition 13. Note: the PBCDF tenants, ANCDF, TOCDF and UMCDF are on military installations. The Installation Commander or delegated subcontractor may obtain some approvals/permits.

28. Page 18, Condition 16 d. The PBCDF, ANCDF, TOCDF and UMCDF do not accept off-site wastes and are not commercial incinerators. They do not take PCBs, or any other material, from clients for destruction. The sole mission of chemical agent disposal facilities is the destruction of chemical warfare materiel. Inclusion of this line is misleading to the public.

29. Page 18, Condition 16.g. Define "operator and supervisor"

30. Page 18, Condition 16.h. The requirements included in this paragraph are contradictory with the following paragraph and redundant to those found in the federal regulations. Currently TOCDF complies with the processing data recording and record-keeping requirements detailed in 40 CFR 761.180 which requires operators of incinerators approved to dispose of PCBs to submit a written report by July 15 of each year and allows for the on-site storage of incinerator process data records. Compliance with the reporting requirements specified in paragraph 16.h. will result in duplication of annual reports submitted to EPA (in addition to maintaining the same records on-site as required by current regulations). It will also result in the submittal to EPA of redundant information on two different schedules (one schedule based on the approval date of the TSCA permit, and the other based on the date specified in the federal regulations). The paragraph following 16.h. references the centralized on-site storage of records but does not specify which records may be stored on-site as opposed to which record must be submitted annually to EPA. Suggest revising Paragraph 16.h. to specify which records are required to be submitted to EPA and which are required to be maintained on-site for EPA review, and basing the report submittal date on that specified in 40 CFR 761.180. At a minimum, the storage of operating data on-site rather than the annual submittal should be allowed.

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