

00-2A

**“FWDA MOA ENVIRONMENTAL TEAM”**

**“PARCELS 6 & 22”**

## Parcels 6 & 22: Environmental Issues

1. AOC's
  - a. Bldg 528
    - i. Results from RI/FS sampling showed that only asphalt-related SVOC's & arsenic exceeded Region 6 Industrial Screening levels.
    - ii. Samples were taken from beneath asphalt.
    - iii. This area has since been paved by TPL – removing the exposure pathway.
  - b. Bldg 536: PCB remediation is complete.
  - c. Bldg 537:
    - i. PCB remediation is complete.
    - ii. Release assessment for pesticides outside of Bldg 537 to be conducted.
  - d. Bldg 542 & 539 (600)
    - i. Investigation to determine source of & extent of groundwater contamination to be conducted.
  - e. Bldg 29: Release assessment: confirmation sampling remains
  - f. Septic tanks
    - i. Bldg 542 & 539 (600) septic systems: will be investigated as part of the above investigation.
    - ii. Bldg 536 & 537 septic systems: will be investigated as part of the release assessment.
2. Asbestos
3. Lead Based Paint
4. PCB in paint

**Ft. Wingate (FWDA)  
MOA Environmental Team  
Organization, Proceedings, and Specific Actions**

In accordance with paragraph 2.7 of the Department of Army/Department of Interior (DA/DOI) Memorandum of Agreement (MOA); “designated representatives of the signatories of this MOA shall formally and finally agree on the environmental remediation requirements and future land uses for (FWDA) land areas...”, and, “The Army and DOI will agree on environmental remediation requirements and future land uses for the entire Property prior to signature of this MOA. The resultant agreement on environmental remediation requirements and future land uses will become part of (the) MOA and shall document the Army’s ultimate environmental clean up obligation for transfer of the property to the DOI”.

This document is intended to define organization, proceedings, and the specific actions required of the MOA Environmental Team to meet the intent of the MOA.

**Organization and Proceedings:**

1. Representatives of the MOA Environmental Team that will concur with recommendations made in accordance with this document are:

**Department of Interior**

Pablo Padilla – Pueblo of Zuni  
Eugenia Quintana – Navajo Nation  
William Walker – Bureau of Indian Affairs (BIA) Southwest Region  
Rose Duwyenie – BIA Navajo Region  
Brian Lloyd – Bureau of Land Management (BLM) Albuquerque Field Office  
Mark Blakeslee – BLM New Mexico State Office

**Department of Army**

Larry Fisher – FWDA BRAC Environmental Coordinator  
Dwayne Ford – Ft. Worth District Corps of Engineers  
Tim Matthews – Operations Support Command  
Tom Turner – Tooele Army Depot

2. The persons designated as team representatives may be replaced upon notification to the team that they will no longer be able to participate in team meetings.
3. Meetings and conference calls of the team representatives shall be held regularly. Meetings and conference calls will be scheduled to accommodate team representatives’ schedules. Meeting agendas and preparation materials will be sent to team representatives, only. Team representatives are responsible for coordinating distribution of materials, pre-meeting discussions, or post-meeting actions with others within their own organizations.

4. Meetings and conference calls are open to participation of other DOI and Army personnel, or contractors directly supporting the FWDA environmental project, at the discretion of individual team representatives. Participation in meetings and conference calls of persons outside of DOI and Army will be subject to notification and approval by team representatives.

Specific MOA Environmental Team Actions Required:

1. Determine the risk assessment/risk management process that will be utilized to arrive at clean-up levels and environmental remediation requirements for appropriate Areas of Concern (AOC's) at FWDA.
2. Ensure that future land uses for FWDA land parcels are accurately defined.
3. Ensure that Navajo and Zuni cultural and traditional aspects are appropriately considered in risk assessment exposure scenarios and factors.
4. Review existing data to determine Areas of Concern (AOC's) that need to be forwarded to the risk assessment, and which AOC's are response complete.
5. Review existing data to determine which non-RCRA Corrective Action projects need to be performed (e.g. asbestos, lead-based paint, etc.).
6. Prioritize and schedule the individual remediation tasks within each land parcel.
7. Incorporate the schedule for remediation tasks developed above into the overall FWDA transfer schedule.
8. Evaluate the above items and document recommendations for each land parcel.
9. Forward recommendations to DA/DOI representatives for inclusion in the MOA or for dispute resolution.
10. Completion of items 1 through 9 will meet the intent of the MOA paragraph 2.7, to gain signature of the MOA. Evaluation and management of risk assessment data will be an ongoing action for this team following signature of the MOA.



Meeting Record  
FWDA BLM/DA Transfer Team Meeting  
July 25, 2000  
COE Albuquerque office

Meeting Attendees (sign-in sheet attached):

Dwayne Ford	USACE- Fort Worth	817-978-3977 x1644
Katy Fitzgerald	USACE- Fort Worth	817-978-3221 x1972
Thomas Hemstreet	BIA Navajo Region	505-863-8268
Clayton Seoutewa	BIA Zuni Agency	505-782-5591
Allison Carbo	PMC Environmental	610-280-5056
Mary Jane Stell	PMC Environmental	610-280-5062
Larry Fisher	Tooele Army Depot	435-833-3257
Tom Turner	Tooele Army Depot	435-833-2762
Mark Blakeslee	Bureau of Land Management	505-438-7424
Eugenia Quintana	Navajo Nation EPA	520-871-7800
T. Parker Sando	BIA, SWRO	505-346-7136
Calvin Quimayousie	BIA, NRO	505-863-8244
Fern Becenti	BIA, NRO- Prop. Management	505-863-8223
Roseria Duwyenie	BIA- NRO- Env. Services	505-863-8285
Bill Walker	BIA, SWRO- EQS	505-346-7507

Mr. Dwayne Ford, FWDA Technical Manager for USACE Fort Worth District, provided a brief introduction to the meeting and reviewed the proposed agenda. He opened the meeting by presenting the Risk Assessment Work Plan (RAWP) by following the outline in the handout, which is attached.

I. Comments concerning the RAWP

- Dwayne presented that this is a continuing teaming process and that he would like an open discussion and dialogue
- Purpose of meeting- develop a process for conducting the risk assessments
  1. Risk assessments should determine whether previous Army activities at FWDA resulted in conditions which are incompatible with future planned land uses or represent unacceptable risks to the future occupants
  2. The risk assessment should be a process which attempts to quantify the risks at each site, enabling the BLM/DA team to make subsequent risk management decisions
  3. The BLM/DA team should jointly develop the process and be confident that the results are conservative, productive, and consider Native American cultural factors
  4. The risk assessment process should be critical to parcel transfer and an approach which is jointly developed, agreed to, and executed by the BLM/DA team will expedite property transfer
- Objectives of the Risk Assessment Work Plan:
  - The RAWP is written in two parts, which are designed to accomplish the following:
    - a. protect human health- addressed in the Human Health Risk Assessment (HHRA)
    - b. protect the ecology of the area – addressed in the Ecological Risk Assessment (ERA)
- Rose said that NTEC got a grant from USEPA Region IX to develop Native American exposure scenario and that she is currently looking into getting this information for the team.
- Rose asked about how the PRGs fit into the GPRA goals.
  - Allison responded that PMC used Region VI PRGs for their screening except in subsistence farming scenarios. In these scenarios, a background screening was done first.
- Rose asked about data elevated above the background limits but below PRGs or action levels
  - Dwayne responded that we will look at the cumulative risk including all data. The process outlined in the handout was described.
- Rose asked about the constituents that were not sampled for, like perchlorate.
  - Tom replied that NMED will be sampling for perchlorate next week.
  - Rose then pointed out that some states only have standards for water.

Mary Jane responded that they followed PA/SI/RI process, identified what was done at each AOC, the potential COCs, and analyzed a large list of parameters to detect the COCs. Since perchlorate is a new issue, it will be addressed separately.

Dwayne added that perchlorate should be in the same areas as explosives, which means that the remedy for explosives in ground water will also likely address perchlorate. There is a steering committee with members from EPA, NASA, DOD and other agencies that are working to define acceptable levels of perchlorate and set a standard for perchlorate. The few regulatory numbers that are available are not final yet and they still may change so we could be too conservative or not conservative enough if we select our own thresholds now. Any numbers at this point are arbitrary. Tom added that the Army will be responsible if perchlorate issues arise at a later time.

Allison added that at this time there is no data regarding any acute or chronic effects of perchlorate.

- In the Baseline Human Health Risk Assessment, Allison stressed the importance of getting input from the Native Americans regarding the Exposure Assessment. This section identifies the number of days and years an individual lives or works on a certain part of the land, the body weight of the individuals living there, etc. This information needs to be reasonably accurate and adapted to the future users of the land so that the model will calculate risk levels which closely reflect the exposure pathways which will be affecting the future land users.
- Allison pointed out that in Section 2.1.1, the macronutrients will not be assessed because the land users will never reach the tox levels. These are chemicals needed for good health. There is no toxicity data on these.
- Rose asked what exposure scenarios would be used to evaluate the risks in the areas identified in the reuse plan.
  - Dwayne referred to pages 2-6 in the handout, which outlines these.
  - Allison explained that 2 scenarios, residential and industrial, will be used in most cases to give a range of risks for the risk management decisions.
  - Mary Jane explained that the elimination of risks can be made part of the redevelopment and that eliminating contact can eliminate the risks.
  - Tom said that future use of the land may be restricted based upon the risks.
  - These are all options, along with remediation, which can be used by the risk management team to bring risks to within acceptable levels.
- The maximum screening levels used by Region VI are available at the Region VI web-site for both the Human Health and the Ecological Risk Assessment.
- Clayton said that the Zuni tribe may have changes to the Navajo Nation Economic Reuse Master Plan for FWDA, but that he will check with them and get back to everyone.
- Clayton asked the difference between the Residential and Industrial risk assessment models.
  - Allison responded that the difference is basically the exposure duration (residential will be higher because you are living there all or most of your life, whereas with industrial you are only working there 5 days a week for 8 or 10 hours a day and you probably won't be working there all of your life) and the soil ingestion rates.
- Calvin asked if the next parcels to be transferred will have a Risk Assessment done and will they be cleaned up in time for transfer.
  - Parcels 15 and 17 are okay because there are no AOCs in those parcels. Parcels 6 and 22 are being used by TPL in the same manner as the Army was using them. The Army did an environmental baseline survey in the Parcels 6 and 22. The agreement between the Army and TPL is that any contamination caused by TPL will be their responsibility to clean up. Tom pointed out that these sites are planned for industrial reuse very similar to their original use. TPL has an obligation to identify any risks as part of their worker protection. If it is currently safe to work there the future land use is the same, there is no point in doing a RA. A Risk Assessment will not be performed on Parcels 6 and 22.
- Mark asked if the Risk Assessment models were protective enough if the tribes decide to use the lands for something else in the future. For example, is residential protective enough for hunting and gathering in the Forest land? It was brought up that Parcel 20 may be used for seasonal living or pinon gathering and is currently targeted for a recreational exposure model.
  - Rose said that a permit could be granted to gather piñon nuts throughout the season.

Mary Jane said that this is the input that PMC needs so that they can adjust their models for the Risk Assessment.

- Rose asked if she can contact Mary Jane and Allison regarding questions concerning the RAWP.  
Dwayne said yes, definitely, anyone who needs to contact them can and are encouraged to do so.
- When the exposure assumptions are done for the residential users and the children are only defined for ages 0-6, for children above age 6, are the adult figures used?  
The teenage years are not explicitly done because the child model is the most conservative and the children are more susceptible to exposure when they are very young. The 0-6 age child model is therefore more conservative and is also protective of older children.

II. After all of the comments concerning the HHRA, Dwayne began presenting the ERA by following the outline in the handout.

- Under the Ecological Risk Assessment, Allison stated that the Preassessment will not be used to drop any sites. All sites that go through the preassessment will be carried through the whole process. The preassessment will be used to prioritize the sites to see which ones have better habitats, etc.
- Several people had concerns regarding the Habitat-Specific Food Web and the characterization of the land as a lowland tall grass prairie and suburban areas.  
Allison explained that the habitat was mapped and it was found that much of the land was tall grass prairie. The Administration area was found to be a suburban area.
- Rose asked if the Risk Assessment under the feeding guilds will address T and E species.  
Allison replied that the endangered species were looked at during the initial environmental investigation and will be considered in the ERA.  
Rose would like a copy of the methods used to evaluate the T and E species.
- Rose said that she thought the area around Parcel 10 and the suspected POL area would be considered a wetland.  
Dwayne said that this would be considered when the habitat and exposure setting was evaluated.  
Mary Jane said that she did not remember wetland vegetation there.
- Rose asked if sheep were considered in the section concerning the uptake of beef and produce because the tribes raise more sheep than they do cattle.  
Allison said that no, sheep were not used because there is really no model for sheep. She will look into getting a model for or adapting the beef model for sheep.
- Allison and Mary Jane need the input from the tribes regarding details such as how much land will be used for gardens, how much produce will be brought in from outside, how much beef or sheep will be raised on how much land, how much silage will be brought in from outside the installation, etc.

III. After all the comments and recommendations about the Risk Assessment Work Plan were discussed, Dwayne began presenting the Risk Assessment Technical Memorandum (RATM) following the outline on the handout. Dwayne summarized the Army's preliminary concept for minimizing human risk at the OB/OD unit, which involves precluding exposure to or off-site migration of UXO or contaminants.

To minimize physical contact, access such as fencing and signage already installed on the southern boundary of the OB/OD unit.

To prevent exposure to groundwater, a series of sentinel wells will be installed to monitor for off-site migration. The geologists agree that the very complex geography of the area makes accurate characterizations of source, nature, and extent impossible. Instead, sentinel wells along migration pathways will ensure that off-site migration of contaminated groundwater is detected.

To minimize contaminants or UXO from leaving the OB/OD unit through a surface water pathway, focused stabilization and/or excavation of the debris piles will be conducted where appropriate and possibly a downstream stilling basin or similar structure will be constructed.

With this remedial concept in mind, human risk at the OB/OD unit will be evaluated very similar to that of the rest of the installation with the exception that the exposure models will be tailored to the OB/OD unit conditions. Specifically, this will entail evaluation of off-site recreational users and on-site remediation workers.

- RATM is written for the OB/OD area only, which will be retained by the Army.



- Rose said that the future use of the OB/OD area assumes fencing and signs. She would like the same access controls around all fenced boundaries. The Western boundary fence is not adequate to restrict use.

Tom will try to accelerate western boundary fence to address this issue.

- Dwayne stressed the high quality of the habitat and the wetland there, and identified that as the resource to be protected.
- Dwayne explained the Army Environmental Center approach to rank and evaluate habitat and natural and cultural resources.
- Rose asked how this fits in with the MOU between the Army and U.S. Fish and Wildlife.
  - No one knows about this MOU. Tom thinks that the MOU might be between BMDO and not the Army. Bill Smith should be contacted about this MOU.
- Dwayne explained the use of representative species at lower trophic levels.
  - He explained that if the lower trophic levels are not being impacted, then the upper trophic levels are okay.
  - Samples of the vegetation at the OB/OD area are being collected to input into the models.
  - LOAELS numbers were used because they are protective of the population.
  - If the populations are at risk, options to bring the risks to acceptable levels need to be looked at. If there are no risks to the population, there is no action.
- Rose said that Ron Kneebone told her that the Southern properties may be designated as a critical habitat for the endangered Mexican Spotted Owl. Rose again inquired whether T and E species would be considered. Allison indicated that the habitat would be evaluated for suitability for T and E species.
- Rose would like a copy of the Harris and Harper paper on Native American scenario.

IV. After the RATM was discussed, some miscellaneous items were brought up.

- Rose said that the next parcels on their wish list to be transferred after 15, 17, 6, and 22 are 5, 8, 10, and 14.
  - There are no AOCs on these parcels, so the RA approach does not affect the scheduling.
  - However, parcel 10 has the Suspected POL area
  - The next groups of parcels are 4, 7, 13, 18, 23, and 24 and 11, 12, 16, and 21.
  - Parcel 25 is a new parcel, so they are not sure where in the sequence they want this parcel.
- There is a correction on Table 1 listing the parcels and their risk assessment models. Building 530 is not TPL property. Since the future use is possibly going to be industrial, the residential and industrial risk assessment models will be used.
- Calvin and Thomas had concerns about how the sites will be transferred. On what does the transfer sequence depend?
  - Tom and Dwayne both said that the priority and sequence of the parcels to be transferred can be decided in this BLM/DA team.
- Rose suggested that the team have regularly scheduled meeting times to discuss issues and that team members should have assignments to be done by the next meeting.
- Rose mentioned that on August 9 and 10, there is a walk through at FWDA and that on the 8 of August would be a good time to have the next meeting.
- Tom will draft up a description of the BLM/DA team's charter and objectives as an attachment to the MOA and send out to the other team members. It was discussed that this team was not put together to identify clean up levels but to define the process which enables the clean up levels to be determined.
- Tom suggested using meeting minutes to document all recommendations made in the team meetings.
- Thomas said that the Navajo regional director needs to review, sign off on, or at least be aware of the agreements made in these meetings. The methods for making the parent organizations or management aware of the BLM/DA team's recommendations were discussed. It was decided that each BLM/DA team member should be responsible for making sure their management has the opportunity to review and provide input into the process.
- Rose asked if the Administration Record has been updated
  - Dwayne said that copies were made, but it has not been updated. He will check on it.

V. The action items for each individual were discussed:

- PMC- a. copy of the Harris and Harper paper to other team members



- b. contact Robin Streeter to try to get the data on the Native American scenario from Region IX
- c. send Rose a copy of the methods used to determine/evaluate the T and E species
- d. look at the habitat description to make sure that FWDA is a tall grass prairie or that data closest to the setting is available
- e. find a model for sheep or adapt the beef model to account for sheep
- Clayton- a. get Zuni input on the Risk Assessment methods and on the reuse plan changes
  - b. Get Zuni input on the use of recreational area for food gathering, what food will be gathered
- Thomas- set up the meeting room for the next meeting (see item VI)
- Rose- try to get the Native American scenario data
- Dwayne/Katy- a. type up meeting minutes and send to team members
  - b. set up conference call (see item VI)
  - c. check on updating the Administration Record
- Eugenia- get Navajo input on RA approach and the use of areas
- Mark- a. will review the RA approach with Brian Floyd (since Karl Ford is not available)
  - b. work with Tom on the MOU Amendment
  - c. send update to Dwight Hemple
- Tom- a. write up draft charter for this group to lay out the process to finalize the MOA
  - b. get the environmental baseline on Parcels 6 and 22 to team members
  - c. develop a format for documenting the recommendations for the MOA

VI. Some upcoming meetings and conference calls that everyone needs to be aware of:

- A conference call was set up for August 17, 2000 at 10:00 am mountain time, 12:00 eastern time.
- The next BCT/RAB meeting is September 13, 2000 at the Navajo Chapter House Church Rock.
- Tom said that if the team was going to meet the schedule of the MOA, we have 2 more months to finalize the approach.
- It was decided that the next meeting would be at 9 am on August 8 at the BIA office in Gallup, NM.

VII. The agenda for the August 8, 2000 meeting is as follows:

- Agenda for August 8, 2000 meeting:
  - a. RAWP action items from July 25, 2000
  - b. MOU Amendments- defining team charter and process for defining "clean up levels"
  - c. Parcels 6 and 22 tasks needed to facilitate transfer
  - d. Format for attachments to MOU regarding the RA approach recommendations

Meeting Record  
FWDA BLM/DA Transfer Team Meeting  
August 8, 2000  
Federal Building in Gallup, NM

Meeting Attendees (sign-in sheet attached)

Clayton Seoutewa	BIA, Zuni Agency	505-782-5591
Ernest Mackel	BIA, Zuni Agency	505-782-4577
Hayes A. Lewis	Pueblo of Zuni	505-782-4481 x 126
Mark Blakeslee	BLM	505-438-7424
Fern Becenti	BIA, Navajo Prop. Mgmt	505-863-8223
Lena M. Yazzie	BIA, Navajo	520-871-5934
Eugenia Quintana	Navajo Nation EPA	520-871-7800
Brian Lloyd	BLM	505-761-8798
Roseria Duwyenie	BIA-NRO-BES	505-863-8285
Bill Walker	BIA-SWRO-EQS	505-346-7507 x 7109
Tim Matthews	HQ, OSC	309-782-4532
Pablo Padilla	Pueblo of Zuni	505-782-8-5852
Tom Turner	Tooele Army Depot	435-833-2762
Parker Sando	BIA, SWRO	505-346-7136
Thomas Hemstreet	BIA, NRO	505-863-8268
Sharlene Begay-Platero	Navajo Nation	520-871-6969
Larry Fisher	Tooele Army Depot	435-833-3257
Katy Fitzgerald	COE Fort Worth	817-978-3221 x 1972
Dwayne Ford	COE Fort Worth	817-978-3977 x 1644
T.J. Namingha	BIA, NRO, Real Estate	520-871-5931

Mr. Dwayne Ford, FWDA Technical Manager for USACE Fort Worth District, provided a brief introduction to the meeting and reviewed the proposed agenda. He opened the meeting with a review of the completion of the Action Items from the last meeting.

I. Action Items from the previous meeting

- PMC to provide a copy of the Harris and Harper paper
  - Copies were sent to team members and additional copies were handed out at the August 8 meeting
- PMC to contact Robin Streeter concerning EPA Region IX data on Native American exposure scenario
  - Rose mentioned that there have been 3 meetings and that the notes from the meetings were to be sent to her.
- PMC to send a copy of the methodology used to evaluate T and E species
  - Dwayne read the information sent to him concerning this. It did not answer Rose's original question, so she will clarify her question to get a better answer.
- PMC to look at the habitat description to see if FWDA is tall grass prairie
  - PMC sent info to Dwayne that said that NMED wanted the habitat of FWDA to be classified as tall grass prairie, but that it can be classified as a grassland, whichever is more appropriate and agreed upon.
  - Bill Walker later stated that it was not tall grass prairie because the soils at FWDA don't exhibit the thick sod characteristic of tall grass prairie.
- PMC to find a model for sheep or adapt a beef model to account for sheep
  - PMC has data on sheep that they can use to modify the beef model. EPA Region VI requires the use of a beef model on other Army installations, but since sheep is more appropriate to FWDA, the BLM/DA team agreed to use a "sheep" model.
- Clayton was to get Zuni input regarding their changes to the Risk Assessment models and the land reuse plan

- Hayes said that there were no major problems with the risk assessment approach. He noted that, regarding potential changes to the reuse plan, there were no known changes which would affect the risk assessment approach or the general reuse plan categories. After transfer of the property, there might be some changes in specific utilization for the parcels but none which would change its “zoning” designation. For example, a parcel classified as “light industrial” might have several changes to the mix of businesses which ultimately occupy that parcel, but they would not be of such a nature to change the parcel to “heavy industrial” or “residential”. Therefore, the risk assessment should proceed as described in the RAWP handout with the corrections noted below.
  - The Zuni representatives noted some minor corrections that needed to be made to the RAWP handout.
    - A. On page 2-7, section 2.2.2.4 under the subsistence farming land use, the second paragraph needs to be changed from “... Navajo and possibly the Zuni tribes” to “... Navajo and Zuni tribes.”
    - B. On page 2-8, Hayes and Clayton expressed concern that the bullets under explaining why the RA model is very conservative were not tailored enough to the Navajo and Zuni tribes. Dwayne interjected here to point out that unless one of these bullets is incorrect, the RA model is very conservative because it assumes, for example that the Native American subsistence farmer stays in one area everyday for his whole life. In reality, the Native American lifestyle is such that he probably won’t live in the area on the same farm for all of his life because he is seasonally nomadic. If the RA was tailored more specifically to the Native American lifestyle, the model would become much less conservative because being nomadic decreases the exposure whereas having the model assume that the farmer lives in the same farm and grows or raises all of his food all of his life, greatly increases his exposure. The bullets were intended to show why the model was actually more conservative than a more “realistic” exposure scenario tailored more specifically to Navajo and Zuni lifestyles.
  - Thomas was to get the meeting room set up
  - Rose was to try to get the data from Region IX concerning the Native American exposure scenario
    - See previous action item.
  - Dwayne and Katy were to get the meeting minutes typed up and sent out to the team members, set up a conference call for August 17, 2000, and to check on updating the Administration Record
    - The minutes were sent out to the members who were present at the last meeting and extra copies were passed out to those who were not present
    - The conference call was moved to a later date and delegated to Tim
    - The Administration Record does need updating and Dwayne is working with Albuquerque District on an update.
  - Mark was to review the RA approach with Brian Lloyd, work on the MOU Amendment with Tom, and send an update to Dwight Hempel.
    - Mark came up with a format for the MOU Amendment regarding cleanup levels that he discussed later in the meeting
  - Tom was to draft a charter for the group to lay out the process to finalize the MOA, get the environmental baseline on Parcels 6 and 22 to the team members, and develop a format for documenting the recommendations for the MOA.
    - The charter was drafted and sent out to the team members. Additional copies were made and given out to those members who didn’t get a copy of the charter.
    - The environmental baseline was sent out to team members. Tom can provide additional copies to those members who did not receive them.
- II. After the Risk Assessment action items had been reviewed, Mr. Tom Turner, Environmental Division Chief for Tooele Army Depot, presented his draft of the group’s charter for determining the process to finalize the MOA.
- Tom said that the group needed to pick 6 BLM/BIA representatives and 4 Army representatives to create the core of the decision/recommendation making body as requested by the Department of



Interior and the Department of the Army BRAC office. Mark concurred when asked to name the BLM/BIA team members, the following representatives were identified:

- BLM/BIA:
  - a. Pablo Padilla- Pueblo of Zuni
  - b. Eugenia Quintana- Navajo Nation
  - c. Bill Walker- BIA Southwest Region
  - d. Rose Duwyenie- BIA Navajo Region
  - e. Brian Lloyd- BLM Albuquerque Field Office
  - f. Mark Blakeslee- BLM New Mexico State Office
- The Army then designated its team members as:
  - a. Tom Turner- TEAD
  - b. Larry Fisher- FWDA BEC
  - c. Tim Matthews- OSC
  - d. Dwayne Ford- Fort Worth COE

The group is not exclusive to these 10 people. These 10 people will be the ones required to attend all of the meetings and will be the points of contact for their agencies. It is their responsibility to disperse the information from the team meetings to their agencies and any people in their agencies who might need to be aware of the information from this group. This smaller group will provide the commitment needed for this project to be successful.

- Rose questioned what would happen if one member exited from the group. Would the slot still be open for a replacement?

Yes, all of the spots from the 10-person group will remain, and will be filled if one becomes empty. This statement needs to be added to the charter by Tom.
- Mark commented that action number 7 of the charter's action items is a step that requires decisions bigger than this group can make.

Tom replied that this group can do step 6 and he can change the charter to incorporate step 7 into the overall FWDA transfer schedule.
- Hayes would like the wording of number 3 to be changed from "... Native American..." to "... Zuni and Navajo..."
- Brian asked about what the definition of an AOC was. An AOC is an Area of Concern, a site where previous DOD activities may have potentially resulted in a release to the environment. The AOCs were identified based on previous documents and investigations, interviews with former employees, site inspections and walkovers, and process knowledge.
- Eugenia would like to change the phrase "...cultural aspects..." to "... cultural and traditional aspects..." in number 3.
- Tom welcomes suggestions for a shorter name for the team.
- Pablo would like Tom to have the changes to the charter done by Friday, August 18, 2000 because he will be attending an MOA team meeting where the charter will be discussed and he would like to have an updated copy of the charter.

Tom said that would be no problem.

III. The Contaminated Sites in Parcels 6 and 22 were discussed after comments were made regarding the draft charter.

- The AOCs in these parcels are:
  - a. Building 528- TPL is using as their main ammunition disassembly building
  - b. Building 536- TPL is using \*
  - c. Building 537- TPL is using \*
  - d. Building 542- TPL is using \*
  - e. Building 539-\*

\*- These buildings have septic tanks
- Building 528
  - The RI/FS results showed that several semivolatile organic compounds (SVOCs) numbers exceed the EPA Region VI Industrial screening levels. The SVOCs are typically associated with asphalt pavement and the sampling locations were all either beneath or adjacent to asphalt paved areas. There were no historical operations at

Building 528 which utilized significant quantities of SVOCs. The conclusion drawn from this was that the SVOCs were due to the pavement in the area.

- This same area has been paved over by TPL, which is a remedial action eliminating the exposure pathway because it was “capped”.
- Since the exposure pathway was eliminated, this building will not be in the RA and no further remedial action is required.
- The Environmental Baseline Survey (EBS) needs to be reviewed by everyone before the next meeting.
- Rose asked if the EBS documents the asbestos before TPL’s remedial actions or if it includes TPL’s asbestos abatement work.

Tom answered that the “original” asbestos is included in the survey, not TPL’s remedial actions.

- T.J. asked if a copy of the Facility Land Use Contract is available so that the wording on the BIA permit can be correct.

Tom will look at the contract.

- Mark pointed out that all of the results for Building 528 are below the Region VI Industrial screening numbers for all of the parameters that have numbers available.

#### • Building 536

- This building is an AOC because a PCB transformer leaked outside of the building.
- Levels of PCBs in the soil were found that required remediation.
- 1998 contractor removed the soil where the transformer leaked.
- After this soil removal, 8 confirmation samples were taken and all were shown to be non-detect, at levels of less than 0.1 ppm.
- Since the confirmation samples showed no detection of PCBs, the PCB remediation work is complete and this building will not be included in the Risk Assessment.

#### • Building 537

- This building has the same story with the PCB transformer as Building 536.
- The remediation was done under the same contract as Building 536.
- The confirmation samples were all non-detect, therefore the PCB remediation work is complete.
- This is also an AOC because there was a possible pesticide release to a small drainage area outside of the building.
- A Release Assessment is to be done to determine if there are enough contaminants in the soil to do a Risk Assessment screening.
- This work will be done in the future after the land is transferred.
- Pablo asked about the timeframe for getting back the Release Assessment results.  
Dwayne replied that Data Quality Objectives (DQOs) drafts are ready for review. The Corps is looking to award a contract to collect data and hopefully get the draft results by November 30, 2000.

- Mark pointed out that the pesticide levels are below the EPA Region VI health levels for Industrial areas.
- There was an issue of distrust with the Army that the work will not be completed after the land is transferred.

- Sharlene asked if the agreement for the Army to work on Building 537 after it is transferred can be put into the Public Land Order as well as in the MOA.

Tom said that whoever would be in charge of that is above this group. We will need to consult with the larger FWDA IPR group.

- The septic systems at buildings 536/537 will be investigated as part of the same release assessment for those buildings. They are in Parcel 23, so they are not an immediate concern.

#### • Buildings 542/539

- Building 539 is actually marked building 600, but is referred to as 539 on maps, etc.
- Building 539 was a shower room when the installation was in use and is considered an AOC because a background monitor well installed outside of the TNT leaching beds beside this building detected explosives.



- This building will possibly be put on the list of buildings to be worked on after the transfer if funds don't get approved by the end of this fiscal year.  
Funding has been received to proceed with this project.
- This investigation work will include the septic systems/tanks.
- Igloo blocks D and B are AOCs, but are being used by TPL for storage of explosive material, which is what the Army had used them for.
  - The question was posed about what testing would be done at the Igloo Blocks.  
Wipe samples from the interiors were taken at a percentage of the Igloos. The results from the samples taken now would be caused by the same thing that had caused positive detections of the first samples.
- There has been a proposal to retract the boundary of Parcel 6 to exclude Buildings 12, 13, and 29. The USDA has said that Buildings 12 and 13 are not ready to be transferred yet.
  - Rose and Sharlene would like to talk to someone, possibly Dwight, about the transfer of Buildings 12 and 13 and about the extension of the boundary of Parcel 6.
- Thomas asked if there were concerns at Building 29 before it was torn down.  
Dwayne replied that it was remediated because of safety issues, not because of environmental issues. The building was investigated as an AOC because of a report that the herbicides had at one time been stored there. Only one detection of an herbicide was found. Since then the building has been demolished and additional samples beneath the footprint of the building will be collected as part of the release assessment.

IV. After the discussion concerning the contaminated sites in Parcels 6 and 22, other environmental contaminants were discussed.

- Asbestos
  - Information regarding these contaminants is discussed in the Environmental Baseline Survey (EBS)
  - The asbestos which was in poor condition has been abated.
  - If asbestos was found in good condition, it was left alone.
  - TPL has the responsibility to take care of the asbestos found in the buildings they are using.
  - The Environmental Site Assessment (ESA) references 3 buildings that need asbestos remediation. They are buildings 31, 33, and 541.
  - Building 31 has been abated.
  - Building 541 has been abated by TPL because they put in a new boiler and a new roof.
  - However, the ESA says that Building 33 needs to be taken care of by the Army since the contract with TPL was relinquished.
  - Dwight Hempel has some contradictory information regarding the remediation of these buildings
  - Tom and Larry have an action item to find out the right information about Building 33.
- Thomas asked if TPL reports the improvements they make or their remediation activities to anyone, especially the Army.  
Larry reported that he does not receive any information from them about the work that they do, but that Tom and Larry can find out what they have and haven't done.  
Rose said that they may have to report to the state depending on the size of the project.  
Sharlene would like to know what was done by TPL and what was left undone, since BIA will be responsible for the land.
- Lead-based paint
  - None of the buildings in Parcels 6 and 22 have been sampled, but it is presumed that lead-based paint is present. However, the future land use is not intended for residential housing or daycare centers, so sampling for lead-based paint is not required under existing Army policies.



- The question was posed about what would happen if the buildings containing lead-based paint were to be leased out to outside businesses.  
The information about the existing lead-based paint would have to be disclosed by the BLM/BIA to the future landowners, but that if remedial action is required, the future landowners would be responsible for remediation.

#### • PCBs in paint

- A sample from the paint in Building 11 was taken which showed that PCBs were present in the paint itself.
- There is the possibility of PCBs in the paint of other buildings, but they haven't been sampled.
- EPA has proposed a rule for the exemption to continue using and for distribution in commerce for buildings having PCBs in paint as long as the building follows these conditions:
  - PCBs must be in place and in good condition
  - Marking or identifying the PCBs
  - Making the information about the health risks available to employees and other occupants of the building
  - Monitoring for PCBs in the air and on the surface
    - The PCBs present will need to be removed or encapsulated if they are present in levels that exceed regulation levels.
    - Wipe monitoring will need to be done quarterly for the first year after remediation and annually for every year after that.
- EPA does not have a time frame yet for when the proposed rule will be finalized
- All buildings on the installation, including those being used by BMDO, have the possibility for containing PCBs
- Building 11 has a fairly high amount of PCBs present, 100-250 ppm.
- Currently the only regulation causing concern for PCBs in paint is one concerning the Distribution in Commerce, which prohibits the transfer of building 11 and other buildings containing PCBs.
- Rose asked if the paint in Building 11 is intact, whether it is interior or exterior, and where the written notice to the USEPA, records, maintenance and other such documents will be kept.  
TPL or BLM will have to keep the documents.  
The paint known to contain PCBs is inside the building. Some of it is in good condition; some of it is in poor condition.
- The Army's position regarding the Distribution in Commerce is that the land is being transferred from one federal agency to another federal agency, and should not be considered as distribution in commerce.
- Mark needs to talk to Dwight about :
  - A letter concerning the ESA that says that the Army will be responsible for cleaning up elevated levels of lead found in ammunition storage igloos when TPL leaves the installation.
  - The letter also references rumors of some 500-pound bombs in Igloo Block B. We need clarification before the Parcel is transferred.
    - Dwayne took an action item to find out about these bombs from a survey done by PMC
- There were elevated Cadmium levels in Building 530, in Parcel 21, which could be harmful to wildlife
- There are a lot of rodent feces in the buildings, which would be a health issue due to the hanta virus.
  - This is not an environmental issue that can be remediated by this group. It needs to become an issue by the future land users as a health/safety/industrial hygiene issue.

- Rose asked if the AOCs in Parcels 6, 22, 15, and 17 are covered under the permit and who will monitor the permit after the transfer.
  - Tom replied that there is no permit now. The OB/OD area is covered under a closure plan. Army's position is that on sites where the Army feels there is no more work to be done, no more work will be done by the Army. The Army will follow the 1998 post-closure rule to close areas like the OB/OD area without a permit. A permit application has not been acted upon nor has a Corrective Action Order been issued by NMED.
  
- V. After other environmental contaminants were discussed, Mark explained his handout, the Appendix A draft.
  - Tom can draft up an MOA/MOU to incorporate what was talked about today.
  - Mark can e-mail an electronic copy of his handout.
  
- VI. Action Items
  - Dwayne requested that everyone take an action item to review the Native American exposure factors handout given out by PMC at the last meeting and report any changes or comments at the next meeting/conference call. If you need a copy of the handout, please contact Dwayne or PMC.
  - Tom-
    - Update charter and e-mail the changes by the 18<sup>th</sup> of August
    - Get clarification on the asbestos in Building 33 and TPL projects/improvements
    - Try to find documentation about the 500-pound bombs
    - Provide TPL Facilities Land Use contract language requiring TPL to perform asbestos abatement
  - Pablo-
    - Talk to the Zuni cultural people about doing a cultural inventory/documentation
    - Read and review the Harris and Harper paper's applicability to the Zuni people with Andrew Othole
  - Larry-
    - Try to get funding for sending Stuart Harris to a RAB meeting to talk about doing an exposure survey
  - Rose-
    - Make inquiries on training from Stuart Harris
    - Read the Harris and Harper paper
    - Refine question about the T and E species for the RI/FS
    - Get information from the Navajo Nation about the plants/herbs they will use
    - Call Bill Smith about the critical habitat for the spotted owl
  - Sharlene-
    - Work with Rose and Eugenia on the cultural inventory
  - Dwayne-
    - Get meeting minutes sent out to everyone
    - Try to find documentation on the 500-pound bombs
    - Review the format that Mark came up with for the MOA
    - Find out if there is a "pick list" for the habitat classifications
  - Clayton-
    - Read the EBS information
  - Thomas-
    - Read the EBS information
    - Read and review Mark's handout
    - Review the Harris and Harper paper
    - Helping Rose with the cultural inventory
  - Parker-
    - Work with T.J. on the permit

- Mark-
  - Comments on the draft Appendix A
  - Coordinate with Dwight on the draft letter regarding the ESA
- Fern-
  - Let Calvin know about the missile launch in relation to the T and E species
- Eugenia-
  - Read the EBS
  - Provide comments on the draft Appendix A
  - Work with Rose on the cultural inventory
- Brian-
  - Review the draft Appendix A
  - Review the ESA
- T.J.-
  - Work on the permit with Parker
- Bill-
  - Figure out what land classification FWDA is- prairie, grassland, etc.
- Tim-
  - Set up the conference call
  - Help out Tooele when they need it

VII. Upcoming Meetings

- August 24<sup>th</sup>- Conference Call at 10 a.m. mountain time  
 Tim will set up, Phone number is  
 (309) 782-6000, conference code 2453

TBD

VIII. Agenda for the next meeting

- Risk Assessment action items
- Parcels 6 and 22 action items
- MOU



FWDA MOA ENVIRONMENTAL TEAM  
CONFERENCE CALL MINUTES  
9/21/00

Present:

Eugenia Quintana  
Rose Duweynie  
Pablo Padilla  
Mark Blakeslee  
Dwayne Ford  
Larry Fisher  
Tim Matthews  
Tom Turner  
Troy Lucio

1. Reviewed the discussions from the 9/12/00 meeting in Gallup which were:
  - a. Cancel the Harris & Harper visit on the 22<sup>nd</sup> & 23<sup>rd</sup> of September and reschedule on a date they both can attend.
  - b. Sub-contract through PMC to pay for the Harris & Harper visit.
  - c. Provided information on the Army's investigation of the buried 500 # bombs in Igloo Block B.
  - d. Approved the meeting minutes from the 8/8/00 meeting in Gallup.
2. Harris & Harper
  - a. Eugenia is waiting for dates when Mr. Harper will be available. She will provide that information to the team when she is notified.
  - b. Dwayne mentioned that sub-contracting for Harris & Harper's visit through PMC could be done.
3. Parcels 6 & 22 Environmental Issues:
  - a. Information on the 500 # bomb investigation in Igloo Block B was requested to be faxed to Pablo and Rose.  
Rose: Fax # (505) 863-8369 (new number)  
Pablo: Fax # (505) 782-2726

- b. Rose asked about the agreements that need to be in place to require the Army to do the investigative work planned for the septic tanks, Bldg. 537, and Bldg. 542/539 (600). It was discussed that the Environmental Team would provide the recommendations for required projects in Parcels 6 & 22 to the Army BRAC office (Pat Flynt) and to DOI (Dwight Hempel) for follow-on action to determine the appropriate agreements and language for the agreements.
- c. Rose requested that copies of the Enhanced Preliminary Assessment, RCRA Facility Assessment, and the Master Environmental Plan be provided to the BLM/BIA team members.
- d. Mark Blakeslee mentioned that Dwight Hempel feels like the investigation work should be completed prior to transfer. Discussion was the same as noted in paragraph (b) above.
- e. The Asbestos Management Plan needs to be updated to reflect the abatement work that has been completed by TPL.
- f. Septic Tank DQO Review:
  - 1. Gate Guardhouse Bldg. 18:

Change wording to indicate that it is assumed that only domestic wastewater was discharged to this septic tank.
  - 2. Bldg. 536:
    - a. Size of the septic tank was not mentioned.
    - b. Change the wording of the last sentence to: remove the phrase; "only sanitary waste was discharged to the septic tank".
    - c. 6<sup>th</sup> line of paragraph; change wording to: "appear to be approximately 6 feet beneath the surrounding grade".
  - 3. General Comment: Change DQO font size to 12.



4. Bldg. 537:
  - a. Size of the septic tank was not mentioned.
  - b. Change the wording of the last sentence to read similarly as the recommended change to Bldg. 536, last sentence.
5. Bldg. 542/Bldg. 600. Move these sections after the Sewage Treatment Plant section to separate from those sites that will be investigated as part of the Release Assessment project.
6. Describe the rationale for sample locations as they relate to potential releases from piping.
7. Optional Design for Obtaining Data (page 5):
  - a. Rose inquired about analyzing for TPH and an indicator for hydrocarbons. Dwayne clarified that the VOC and SVOC analyses suggested in the DQO's will cover nearly all the hydrocarbon constituents detected by the generic TPH test. In other words, the VOC and SVOC test is more comprehensive and specific than the TPH analysis.
8. Add to other principle team member sections (on all DQO's):
  - a. Bill Walker
  - b. Pablo Padilla
  - c. Eugenia Quintana
  - d. Brain Lloyd
  - e. Tim Matthews
- f. It was decided to only review the DQO's for Parcels 6 & 22.
- g. The Bldg. 537 DQO needs to be provided to all team members for review.
- h. The workplan for the Bldg. 542/539 (600) investigation will be provided to all team members when it is available. Dwayne will check on the date that this will be available.

- i. Rose inquired about the guidance document that was used to develop the DQO's. Dwayne noted that there is an EPA DQO guidance document that describes the general requirements for developing DQO's. The DQO data sheets provided to the team members, however, were developed in-house by the Ft. Worth COE.
- j. The EPA DQO guidance document will be referenced in the DQO's.

k. PCB in Paints:

1. The proposed rule reference and summary will be emailed to the team members by Tom.
2. Tom described the Army position on PCB's in paint and will provide that with the email mentioned above.
3. Everyone needs to review the summary and the proposed rule for discussion during our next conference call.
4. Pablo also requested information on the PCB levels found in the paint at Bldg. 11.
5. Appendix A

- Dwayne, Larry & Tom will review Appendix A and consolidate comments to send to Mark.
- Narrative for Parcels 6 & 22 will be drafted by Tom and provided for team review. This narrative will eventually be included as an addition to Mark's current Appendix A information.

5. Action Items:

- a. Eugenia: Provide dates for Harris & Harper visit.
- b. Tom:
  - Fax information on 500 # bomb investigation to Rose and Pablo.
  - Email PCB in paint information to the team.
  - Describe Army position concerning PCB's in paint in the same email.
  - Provide information concerning PCB levels in Bldg. 11 paint.
  - Write narrative for Parcels 6 & 22 to include in Appendix A.



- c. Dwayne:
  - Make requested changes to DQO's.
  - Provide Bldg. 537 DQO to the team.
  - Provide EPA DQO guidance document to Rose.
  - Reference the EPA DQO guidance document in the DQO's.
  - Provide date for availability of Bldg. 542 workplan.
- d. Larry:
  - Update Asbestos Management Plan with TPL abatement projects.
  - Provide copies of the following reports to Dof team members:
    - Enhanced Preliminary Assessment
    - RCRA Facility Assessment
    - Master Environmental Plan
  - Add Pablo to the main email list.
- e. All: Review Appendix A and provide comments to Mark.

6. Next conference call is scheduled for 5 October @ 9:00 Mountain Time (10:00 Central).

Agenda:

1. Approve meeting minutes
2. Harris & Harper
3. Parcel 6 & 22 Environmental Issues
  - a. Bldg. 537 DQO
  - b. Bldg. 542 Workplan
  - c. PCB's in paint
4. Appendix A
5. Next meeting/conference call

**Tom Turner**

**From:** Tom Turner  
**Sent:** Monday, 16 October, 2000 09:55  
**To:** 'Bill Walker - BIA'; 'Brian Lloyd - BLM'; 'Dwayne Ford - Ft Worth COE'; 'Eugenia Quintana - Navajo Nation'; 'Larry Fisher'; 'Mark Blakeslee - BLM'; 'Pablo Padilla - Pueblo of Zuni'; 'Rose Duwyenie - BIA'; 'Tim Matthews - OSC'  
**Subject:** Conference Call 10/16/00

Minutes from conference call 10/16/00

Present:

Dwayne Ford  
Beverly Post  
Tim Matthews  
Pablo Padilla  
Ernie Mackel  
Mark Blakeslee  
Bill Walker  
Tom Turner

1. PCB's in paint.
  - a. Pablo reported that the Zuni and Navajo MOA team had met and that they are uncomfortable with transferring the buildings in Parcels 6 & 22 to the tribes without first sampling for PCB content in the paints in the buildings. The sampling could be done by either the Army or BIA prior to transferring to the tribes.
  - b. We need BIA input on this issue of concern for the tribes in the next conference call.
2. Bldg 542/600.
  - a. The workplan for this investigation has been distributed to the team members. The workplan needs review by the team, with comments to be discussed in the next conference call. This is a priority assignment as the contractor is planning to begin field work in early November.
3. Appendix A.
  - a. Comments to Appendix A were provided by Dwayne Ford, Larry Fisher, and Tom Turner. A copy of the comments has been provided to the team members. Prior to making the changes suggested to Appendix A, the team needs to review and offer any additional comments. During the next conference call, Appendix A will be discussed for approval of all changes.
4. Dwayne Ford has accepted a 1-year developmental assignment with EPA working on the Brownfields Program. His assignment will begin on 26 October. Beverly Post will be taking over his FWDA assignment.
5. The next conference call will be held on 26 October at 9:00 am Mountain Time. The same phone number (309) 782-6000, code: 2453, will be used.
  - a. Agenda:
    1. PCB's in paint. BIA position.
    2. Bldg 542/600 workplan. Discuss comments for approval of the workplan.
    3. Appendix A. Discuss comments for approval of Appendix A.
    4. This conference call should wrap up the issues associated with Parcels 6 & 22. We need to provide a recommendation to either proceed with transfer or on the issues that require resolution prior to transfer.

Tom Turner



FWDA MOA ENVIRONMENTAL TEAM  
CONFERENCE CALL MINUTES  
10/26/00

Present:

Ralph Gonzales – BIA  
Brian Lloyd – BLM  
Bill Walker - BIA  
Eugenia Quintana – Navajo Nation  
Rose Duweynie - BIA  
Pablo Padilla - Zuni  
Mark Blakeslee - BLM  
Beverly Post - COE  
Larry Fisher - TEAD  
Tom Turner - TEAD

1. Approved and accepted the meeting minutes from the 10/16/00 conference call.
2. PCB's in paint.
  - a. BIA position: BIA remains concerned with the risks and management requirements for PCB's in paint.
  - b. BIA recommends not transferring buildings at FWDA until paints have been sampled for the presence of PCB's.
  - c. Army should be responsible for sampling, future monitoring requirements and disposal of PCB's in paints in the future if paints are removed or if buildings are demolished.
  - d. This is an issue that will be recorded as needing to be resolved prior to transfer of any parcel at FWDA that has painted buildings located on that parcel.
3. Bldg. 542/600 Workplan Comments:
  - a. Page 2-1; 1<sup>st</sup> paragraph: FWDA location is 8 or 11 miles east of Gallup. Be consistent with other documents. FWDA location is 134 miles west of ABQ.
  - b. Page 2-1; 3<sup>rd</sup> paragraph: add reference that the TNT leaching beds were unlined.
  - c. Page 2-2; 3<sup>rd</sup> paragraph: Clarify if lateral & vertical extent of groundwater contamination from the TNT leaching beds have been determined. Previous reports and discussions have indicated that they have not.
  - d. Paragraph 2.3.1.2: Wipe samples should be taken from chips & cracks in the concrete in the stained area.
  - e. Paragraph 2.3.1.3: Wipe samples should be taken from chips & cracks in the concrete in the stained area.



- f. Paragraph 2.3.1.4: Include dimensions of cesspool in narrative.
- g. Paragraph 2.3.1.4; 3<sup>rd</sup> paragraph in this section: Describe what other regulations apply.
- h. Paragraph 2.3.1.4; Describe what will happen if sample analysis results come up problematic.
- i. Paragraph 2.3.1.6: Same comments as in f,g,h, above.
- j. Paragraph 2.3.2.2: Same comments as in f,g,h, above.
- k. Paragraph 2.3.2.4: Same comment as in h above.
- l. Arroyo fallout general comment: Same comment as in h above.
- m. Page 2-11: Change landfill name to the Red Rock landfill.
- n. Figure 2-6: Include well ID#'s on the figure so that you can cross-reference the location from the ID#'s shown in Table 2-2.
- o. Section 3.0: Clarify if there is a planned future release of the RI/FS report.

4. Appendix A.

- a. Mark had revised Appendix A with Army comments and had sent out this version on 16 Oct 00.
- b. Some revisions needed to be discussed before Mark would make all of the Army revisions.
- c. Agreed to defer additional discussion of Appendix A to the next conference call.

5. Parcels 6 & 22.

- a. Tom will provide a draft summary of the discussion of environmental issues for Parcels 6 & 22 for review in the next conference call.

6. Parcels 15 & 17.

- a. The group agreed to begin discussion of issues related to Parcels 15 & 17 in the next conference call.
- b. The UXO clearance report for Functional Test Range 2/3 should be reviewed prior to the conference call.
- c. For those that do not have a copy of that report, please contact Larry Fisher for a copy.

7. Harris & Harper Meeting 3 & 4 Nov.

- a. This meeting is still planned for 3 & 4 Nov.
- b. Larry will contact PMC to make sure that all arrangements for travel expenses have been taken care of.
- c. Each organization needs to notify Rose with their list of attendees.

8. Next conference call is planned for 9 November 00, at 9:00 am Mountain Time.

9. Next conference call agenda:

- a. Parcel 6 & 22 Environmental Issue Summary.
- b. Appendix A.
- c. Parcel 15 & 17 Environmental Issues

Tom Turner



Fort Wingate Depot Activity  
Gallup, New Mexico

AOC	Media	Site Type	Site Id	Parameter	Depth	VALUE (ug/g)	Sump Location	Site Condition	Industrial Screening Level
Former Ammunition Maintenance	CSO	PLUG	FAMSO02	Arsenic	0.5	2.960000		Paved	2.300000
Former Ammunition Maintenance	CSO	PLUG	FAMSO02	Benzo[A]anthracene	0.5	10.000000		Paved	2.000000
Former Ammunition Maintenance	CSO	PLUG	FAMSO02	Benzo[A]pyrene	0.5	11.000000		Paved	0.200000
Former Ammunition Maintenance	CSO	PLUG	FAMSO02	Benzo[B]fluoranthene	0.5	7.100000		Paved	2.000000
Former Ammunition Maintenance	CSO	PLUG	FAMSO02	Benzo[G,H,I]perylene	0.5	8.100000		Paved	1.980000
Former Ammunition Maintenance	CSO	PLUG	FAMSO02	Dibenz[A,H]anthracene	0.5	6.600000		Paved	0.200000
Former Ammunition Maintenance	CSO	PLUG	FAMSO02	Indeno[1,2,3-C,D]pyrene	0.5	7.700000		Paved	2.000000
Former Ammunition Maintenance	CSO	PLUG	FAMSO03	Benzo[A]anthracene	0.5	11.000000		Paved	2.000000
Former Ammunition Maintenance	CSO	PLUG	FAMSO03	Benzo[A]pyrene	0.5	11.000000		Paved	0.200000
Former Ammunition Maintenance	CSO	PLUG	FAMSO03	Benzo[B]fluoranthene	0.5	6.100000		Paved	2.000000
Former Ammunition Maintenance	CSO	PLUG	FAMSO03	Benzo[G,H,I]perylene	0.5	9.500000		Paved	1.980000
Former Ammunition Maintenance	CSO	PLUG	FAMSO03	Dibenz[A,H]anthracene	0.5	7.400000		Paved	0.200000
Former Ammunition Maintenance	CSO	PLUG	FAMSO03	Indeno[1,2,3-C,D]pyrene	0.5	8.800000		Paved	2.000000
Former Ammunition Maintenance	CSO	PLUG	FAMSO04	Benzo[A]anthracene	0.5	11.000000		Paved	2.000000
Former Ammunition Maintenance	CSO	PLUG	FAMSO04	Benzo[A]pyrene	0.5	11.000000		Paved	0.200000
Former Ammunition Maintenance	CSO	PLUG	FAMSO04	Benzo[B]fluoranthene	0.5	6.400000		Paved	2.000000
Former Ammunition Maintenance	CSO	PLUG	FAMSO04	Benzo[G,H,I]perylene	0.5	7.900000		Paved	1.980000
Former Ammunition Maintenance	CSO	PLUG	FAMSO04	Dibenz[A,H]anthracene	0.5	5.800000		Paved	0.200000
Former Ammunition Maintenance	CSO	PLUG	FAMSO04	Indeno[1,2,3-C,D]pyrene	0.5	7.800000		Paved	2.000000
Former Ammunition Maintenance	CSO	PLUG	FAMSO05	Benzo[A]anthracene	0.0	13.000000		Paved	2.000000
Former Ammunition Maintenance	CSO	PLUG	FAMSO05	Benzo[A]pyrene	0.0	13.000000		Paved	0.200000
Former Ammunition Maintenance	CSO	PLUG	FAMSO05	Benzo[B]fluoranthene	0.0	7.800000		Paved	2.000000
Former Ammunition Maintenance	CSO	PLUG	FAMSO05	Benzo[G,H,I]perylene	0.0	9.000000		Paved	1.980000
Former Ammunition Maintenance	CSO	PLUG	FAMSO05	Dibenz[A,H]anthracene	0.0	7.200000		Paved	0.200000
Former Ammunition Maintenance	CSO	PLUG	FAMSO05	Indeno[1,2,3-C,D]pyrene	0.0	9.000000		Paved	2.000000
Former Deactivation Furnace	CSO	BORE	DFD01-1	Arsenic	1.0	2.850000		Not Paved	2.300000
Pesticide Storage Building	CSE	SUMP	PSBSE01	DDD	0.0	38.000000	inside	Other	14.160000
Pesticide Storage Building	CSE	SUMP	PSBSE01	DDE	0.0	19.000000	inside	Other	9.990000
Pesticide Storage Building	CSE	SUMP	PSBSE01	Dieldrin	0.0	0.137000	inside	Other	0.109000
Pesticide Storage Building	CSO	PLUG	PSBSO03	Chlordane	0.5	19.000000		Other	8.600000

*Samples from beneath asphalt which have now been covered by asphalt*

*Exposure pathway is eliminated*



# Facsimile

**PMC Environmental**

**To:** Larry Fisher/Tom Turner  
Dwayne Ford

**835 Springdale Drive  
Suite 201  
Exton, PA 19341  
(610) 280-5000  
(610) 280-5050 (fax)**

**Company:** Tooele Army Depot  
USACE Ft. Worth

**Fax number:** (435) 833-2839  
(817) 978-2991

**From:** Eric Kammerer

**Subject:** FWDA Conference Call, Parcels 6 and 22

**Date:** 2 August 2000

**Number of pages:** 2 including cover sheet



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Attached is a summary table for the sample results for AOCs within Parcels 6 and 22 that exceed industrial screening criteria. We figured this would be easier to discuss than the tables from the RI/FS.

Talk to y'all shortly. Thanks!

cc: M.J. Stell  
File

**Tom Turner**

**From:** Carl.D.Ford@swf.usace.army.mil  
**Sent:** Wednesday, 13 January, 1999 09:39  
**To:** fisherl@tooele-emh2.army.mil; turnert@tooele-emh2.army.mil  
**Cc:** Steve.W.Smith@swf.usace.army.mil; Ruben.C.Rosales@swf.usace.army.mil  
**Subject:** Asbestos abatement

Larry and Tom,

At the IPR you asked a question about whether the asbestos abatement design we had done included all of the buildings or just the ones scheduled for abatement this year. The answer is a little of both (a typical answer for a Fort Wingate project, wouldn't you say?).

In FY99, there were 7 buildings scheduled for abatement: Bldgs 515, 527, 537, 539, 541, 542, and 601. We knew we were programmed to receive \$205K for the abatement in April 99. Using the design criteria you provided us (remove only friable ACM, don't replace with functionally equivalent material) two of these buildings will require no abatement (541 and 542).

There are 4 buildings currently scheduled for remediation in FY00:

Bldgs 2, 5, 8, 18. To optimize our programmed amount in FY99, we substituted two of the buildings scheduled for FY00 into the FY99 effort (Bldgs 2 and 18). We were trying to get as close to our programmed \$205K without "busting" it and including those two buildings put us right at our \$205K after fully loading the project. So there are two buildings remaining for FY00 (or now it appears in FY01): Bldgs. 5 and 8.

These remaining two buildings were not included in the design because the contracting vehicle we're using requires the entire "package" to be awarded. If we had included the other two buildings, we would have exceeded our programmed amount for this year. We could easily add the remaining two buildings to the design if we can get the additional money needed to award the two extra buildings in April along with the rest of the package. Our estimate is that \$70K would be needed to fund the abatement this FY (which is considerably less than the \$120K programmed for FY00 for the abatement). That might be a good thing to 'round out' reprogramming of the Exp. Waste Rem. / TNT Pits money (AMS code 4S11). Out of the \$200K we had received for that project, we would reprogram \$65K onto BRAC-ER Prog. Mgmt Support (AMS 7S01); \$56K to cultural resources (AMS code 6136000, I think); and \$70K for asbestos abatement (AMS code 4R21) for a total of \$191K reprogrammed.

Please let me know what you'd like to do and give me a call if you have any questions.

Thanks,  
Dwayne

3000 DEFENSE PENTAGON  
WASHINGTON DC 20301-3000

ACQUISITION AND  
OCT 1994  
TECHNOLOGY

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MEMORANDUM FOR ASSISTANT SECRETARY OF THE ARMY  
(INSTALLATIONS, LOGISTICS & ENVIRONMENT)  
ASSISTANT SECRETARY OF THE NAVY  
(INSTALLATIONS & ENVIRONMENT)  
ASSISTANT SECRETARY OF THE AIR FORCE  
(MANPOWER, RESERVE AFFAIRS, INSTALLATIONS  
& ENVIRONMENT)  
DIRECTOR, DEFENSE LOGISTICS AGENCY

SUBJECT: Asbestos, Lead Paint and Radon Policies at BRAC  
Properties

The purpose of this memorandum is to request that you implement the attached Department of Defense (DoD) policies on asbestos, lead paint and radon at base realignment and closure (BRAC) properties.

As you may recall, these policies were drafted and accepted within the Defense Environmental Security Council (DESC) structure. During its May 6, 1994, meeting the DESC accepted the draft DoD policy on radon at BRAC properties.. At that meeting, the draft policies on asbestos and lead paint were referred to the Environment, Safety and Occupational Health Policy Board (ESOBPB) for revision and acceptance. During its May 10, 1994, meeting the ESOBPB accepted the revised draft DoD policies on asbestos and lead paint at BRAC properties.

Subsequent to DESC and ESOBPB action, these policies were coordinated formally with the Assistant Secretary of Defense (Economic Security) and the Office of the Deputy General Counsel (Acquisition & Logistics). If there are any questions concerning this request, please contact Ed Dyckman, DESC Executive Secretary at 703-697-9107.

Gary D. Vest  
Principal Assistant Deputy Under Secretary  
of Defense (Environmental Security)

Attachments

DOD POLICY ON ASBESTOS  
AT BASE REALIGNMENT AND CLOSURE PROPERTIES

Department of Defense (DoD) policy with regard to asbestos-containing material (ACM) is to manage ACM in a manner protective of human health and the environment, and to comply with all applicable Federal, State, and local laws and regulations governing ACM hazards. Therefore, unless it is determined by competent authority that the ACM in the property does pose a threat to human health at the time of transfer, all property containing ACM will be conveyed, leased, or otherwise disposed of as is through the Base Realignment and Closure (BRAC) process.

Prior to property disposal, all available information on the existence, extent, and condition of ACM shall be incorporated



into the Environmental Baseline Survey (EBS) report or other appropriate document to be provided to the transferee. The survey report or document shall include:

- reasonably available information on the type, location, and condition of asbestos in any building or improvement on the property;
- any results of testing for asbestos;
- a description of any asbestos control measures taken for the property;
- any available information on costs or time necessary to remove all or any portion of the remaining ACM however, special studies or tests to obtain this material are not required;
- and
- results of a site-specific update of the asbestos inventory performed to revalidate the condition of ACM.

Asbestos-containing material shall be remedied prior to property disposal only if it is of a type and condition that is not in compliance with applicable laws, regulations, and standards, or if it poses a threat to human health at the time of transfer of the property. This remediation should be accomplished by the active Service organization, by the Service disposal agent, or by the transferee under a negotiated requirement of the contract for sale or lease. The remediation discussed above will not be required when the buildings are scheduled for demolition by the transferee; the transfer document prohibits occupation of the buildings prior to the demolition; and the transferee assumes responsibility for the management of any ACM in accordance with applicable laws.

#### DOD POLICY ON LEAD-BASED PAINT AT BASE REALIGNMENT AND CLOSURE PROPERTIES

Department of Defense (DoD) policy with regard to lead-based paint (LBP) is to manage LBP in a manner protective of human health and the environment, and to comply with all applicable Federal, State, and local laws and regulations governing LBP hazards. The Federal requirements for residential structures/dwellings with LBP on Base Realignment and Closure (BRAC) properties differ, depending on: (1) the date of property transfer; and (2) the date of construction of the residential housing being transferred.

DoD policy is to manage LBP at BRAC installations in accordance with either 24 CFR 35 or P.L. 102-550, at the Service's discretion, until January 1, 1995; and, thereafter, solely in accordance with P.L. 102-550. Residential structures/dwellings are as defined in the applicable regulation and any regulation issued pursuant thereto. The Military Components may apply this policy to any other structures they deem appropriate.

On January 1, 1995, and thereafter, the provisions of the Residential Lead-Based Paint Hazard Reduction Act of 1992 (Title X of P.L. 102-550) concerning the transfer of Federal property for residential use take effect. These provisions, codified at (in pertinent part) 42 U.S.C. 4822, 4851-4856, and 15 U.S.C. 2688, are applicable to target housing, which is housing constructed prior to 1978, with limited exceptions for housing for the elderly or persons with disabilities or any 0-bedroom dwelling.

Target housing constructed after 1960 and before 1978 must be inspected for LBP and LBP hazards. The results of the inspection must be provided to prospective purchasers or transferees of BRAC property, identifying the presence of LBP and hazards on a surface-by-surface basis. There is no Federal hazard abatement requirement for such property. In addition, prospective transferees must be provided a lead hazard information pamphlet and the contract for sale or lease must include a lead warning statement.

Target housing constructed before 1960 must be inspected for LBP and LBP hazards, and such hazards must be abated. The



results of the LBP inspection will be provided to prospective purchasers or transferees of BRAC property identifying the presence of LBP and LBP hazards on a surface-by-surface basis and a description of the abatement measures taken. In addition prospective transferees must be provided with a lead hazard information pamphlet and the contract for transfer must include a warning statement.

The inspection and abatement discussed above will not be required when the building is scheduled for demolition by the transferee and the transfer document prohibits occupation of the building prior to the demolition; the building is scheduled for non-residential use; or, if the building is scheduled for residential use, the transferee conducts renovation consistent with the regulatory requirements for the abatement of LBP hazards.

Effective January 1, 1995, DoD BRAC properties shall be transferred in accordance with any regulations implementing the Residential Lead-Based Paint Hazard Reduction Act of 1992. The Act also made Federal agencies subject to all Federal, State, interstate, and local substantive and procedural requirements respecting LBP and LBP hazards (see 15 U.S.C. 2688). Therefore, there may be more stringent local requirements applicable to Federal property transfers.

DOD POLICY ON RADON  
AT BASE REALIGNMENT AND CLOSURE PROPERTIES

In response to concerns with the potential health effects associated with radon exposure, and in accordance with the Indoor Radon Abatement provisions of Subchapter III of the Toxic Substances Control Act, 26 U.S.C. 2661 to 2671, the Department of Defense (DoD) conducted a study to determine radon levels in a representative sample of its buildings. In addition, as part of DoD's voluntary approach to reducing radon exposure, DoD has applied the Environmental Protection Agency (EPA) guidelines for residential structures with regard to remedial actions.

DoD policy is to ensure that any available and relevant radon assessment data pertaining to Base Realignment and Closure (BRAC) property being transferred shall be included in property transfer documents.

DoD policy is not to perform radon assessment and mitigation prior to transfer of BRAC property unless otherwise required by applicable law.

**GUIDANCE FOR  
LEAD-BASED PAINT HAZARD MANAGEMENT  
DURING TRANSFER OF ARMY REAL PROPERTY**

DAIM-FDF-FE

30 March 2000

1. Purpose. The purpose of this guidance is to:

a. Inform commanders of Army Major Commands (MACOMs) concerning requirements for management of lead-based paint hazards during transfer by sale of Army Real Property.

b. Supplement current Army policy and technical guidance contained in AR 420-70, AR 200-1, and Public Works Technical Bulletin 420-70-2.

c. Ensure that Army real property is transferred in a manner that is protective of human health and the environment, in compliance with Federal, state, and local requirements, and consistent with Department of Defense (DOD) policy.

d. Implement DoD Memorandum, subject: Lead-Based Paint Policy For Disposal Of Residential Real Property, dated 7 January 2000. The DOD policy adds the following requirements to current federal regulations:

(1) Abatement of soil-lead hazards in all residential real property constructed before 1978.

(2) Evaluation of the need for interim controls, abatement, or no action for concentrations of lead in bare soil between 400 ppm and 2000 ppm in non-play areas in residential real property.

(3) Abatement of lead-based paint hazards in child-occupied facilities that are located on residential real property and that will be reused as child-occupied facilities.

(4) Abatement of soil-lead hazards after residential real property has been demolished and redeveloped for residential use following transfer.

2. Applicability. This guidance is:

a. Applicable to Base Realignment and Closure (BRAC) and similar actions for the transfer by sale of Army "residential real property" that was constructed prior to 1978. For purposes of this guidance, "residential real property" includes both "residential property" as defined by 24 CFR 35.110 and "child-occupied facilities" as defined by 40 CFR 745.223. It also includes real property that is currently used for non-residential purposes, but for which there is a reasonable certainty that it will be reused as residential real property or as a child-occupied facility following transfer.

b. Not applicable to:

(1) Actions to transfer Army residential real property located outside the United States and its territories or to other federal agencies.

DAIM-FDF-FE



## Guidance For Lead-Based Paint Hazard Management During Transfer Of Army Real Property

(2) Residential real property included in transfer agreements executed prior to 30 March 2000.

(3) Actions to privatize management of Army housing. In such cases, MACOMs should consult with their legal offices and the Office of the Judge Advocate General, Environmental Law Division, to determine applicable requirements.

(4) Current active duty residential real property. MACOMs should address lead-based paint in current active duty residential real property in accordance with AR 420-70, Buildings and Structures, Public Works Technical Bulletin 420-70-2, Installation Lead Hazard Management, and AR 200-1, Environmental Protection and Enhancement.

(5) Transfer of non-residential real property, except where there is a reasonable certainty that the reuse after transfer will be for residential or child-occupied facility use.

(6) Leased property and other real property not subject to disposition.

(7) Residential real property not intended for residential occupancy or reuse as a child-occupied facility following transfer.

c. MACOMs and their installations that are confronted with other lead-based paint issues (such as applicability of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)) should request guidance from the Office of the Director of Environmental Programs (for active residential real property) or the Base Realignment and Closure Office (for BRAC actions) and the Office of the Judge Advocate General, Environmental Law Division (OTJAG, ELD).

### 3. References.

a. DUSD(ES) memorandum, subject: Lead-Based Paint Policy Guidance for Disposal of Residential Real Property, 7 January 2000, with attachment, Guidelines for DOD Residential Real Property – A Field Guide. A copy of the DoD Field Guide can be found at the following URL: <http://www.dtic.mil/envirodod/envdocs.html>.

b. AR 200-1, Environmental Protection and Enhancement, 21 February 1997, §4-6.

c. AR 420-70, Building and Structure, 10 October 1997, §3-3.

d. Public Works Technical Bulletin 420-70-2, Installation Lead Hazard Management, 20 February 1997.

e. Lead-Based Paint Poisoning Prevention Act, as amended by the Residential Lead-Based Paint Hazard Reduction Act of 1992 (Title X), 42 U.S.C.A. §4801, et seq.  
DAIM-FDF-FE

## Guidance For Lead-Based Paint Hazard Management During Transfer Of Army Real Property

- f. 40 CFR 745, Lead-Based Paint Poisoning Prevention in Certain Residential Structures, as amended.
- g. 24 CFR 35, Lead-Based Paint Poisoning Prevention in Certain Residential Structures, Final Rule, 15 September 1999, 64 FR 50140.
- h. US Environmental Protection Agency (EPA) Guidance on Identification of Lead-Based Paint Hazards, Notice, 11 September 1995, 60 FR 47248.
- i. Department of Housing and Urban Development (HUD) Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing, June 1995 Edition, revised September 1997.

### 4. Transfer of Army Real Property.

a. MACOMs should consult state and local law to determine if there are more stringent, generally applicable legal standards relating to lead-based paint. If so, those standards are to be followed.

b. MACOMs will perform the following actions:

(1) Perform a lead-based paint hazard risk assessment and a paint inspection before the closing of the sale to identify the presence of lead-based paint and lead-based paint hazards on a surface-by-surface basis. The results of the risk assessment and the paint inspection must be made available to prospective transferees. Therefore these activities should be performed prior to entering into negotiations with prospective transferees. Methods and standards for lead-based paint inspections and risk assessments are described in reference f., §745.227.

(a) A *lead-based paint hazard* is any condition that causes exposure to lead from dust-lead hazards, soil-lead hazards, or lead-based paint that is deteriorated or present in chewable surfaces, friction surfaces, or impact surfaces, and that would result in adverse human health effects. See APPENDIX B for additional information on lead-based paint hazards.

(b) A *potential soil-lead hazard* applies only to non-play areas in residential real property and is a concentration of lead in at least 9 square feet of bare soil that is greater than or equal to 400 parts per million (ppm) and less than 2000 ppm. See APPENDIX B for additional information on potential soil-lead hazards.

(c) A *risk assessment* is an on-site investigation to determine the existence, nature, severity, and location of lead-based paint hazards and includes a report by the certified individual or firm conducting the risk assessment explaining the results of the investigation and options for abating lead-based paint hazards and managing potential lead-based paint hazards. Interim controls



## Guidance For Lead-Based Paint Hazard Management During Transfer Of Army Real Property

are not permitted for lead-based paint hazards but are an option for controlling potential soil-lead hazards.

(d) A *paint inspection* is a surface-by-surface investigation to determine the presence of lead-based paint and the provision of a report explaining the results of the investigation.

(2) Disclose the known presence of lead-based paint and/or lead-based paint hazards to prospective purchasers and to transferees in accordance with the Disclosure Rule issued jointly by HUD (Subpart A of reference g.) and EPA (Subpart F of reference h.).

(3) Contractually arrange for the transferee to perform, as a condition of sale, abatement of lead-based paint hazards and all other requirements set forth in paragraph 4.c. of this guidance.

(a) MACOMs should describe with particularity the specific actions that the transferee is required to perform as a condition of the transfer.

(b) The delineation of responsibility for abatement of lead-based paint hazards must occur prior to signing of and be contained in a Memorandum of Agreement or contract for sale for transfer of the property.

(c) MACOMs should use the Army Model Language for Memorandums of Agreement (MOA), Findings of Suitability for Transfer (FOST), and Deeds (APPENDIX A) relating to lead-based paint for all real property transfers. MACOMs should consult with Army legal counsel to modify the model language to reflect agreement reached with the transferee and to determine, on a case-by-case basis, if the model language should be used in the deed, as well as in the MOA.

c. Transferees, as contractually required, should perform the Army's obligations required by 24 CFR 35, as amended by Final Rule dated 15 September 1999, and comply with the following additional requirements:

(1) Abate lead-based paint hazards prior to reoccupancy as residential real property. The abatement must begin within 12 months of the date of the risk assessment used for the identification of hazards. If more than 12 months have elapsed since the date of the risk assessment, the transferee should perform a new risk assessment.

(2) Abate soil-lead hazards in residential real property and in non-residential real property that is located in or adjacent to property intended with reasonable certainty for residential or child-occupied use following transfer.

(3) Address potential soil-lead hazards in or adjacent to residential non-play areas and determine appropriate actions—either abatement, interim controls, or no action. In evaluating each of these alternatives, the relative proximity of play areas, the potential for dust generation, the areal



## Guidance For Lead-Based Paint Hazard Management During Transfer Of Army Real Property

extent of bare soil available for exposure, the feasibility of any control options, and state and local requirements should be considered.

(4) Abate dust-lead and deteriorated lead-based paint hazards in residential real property constructed prior to 1960.

(5) Identify and abate soil-lead hazards in residential real property that is demolished and redeveloped for residential or child-occupied facility use following transfer. The transferee will abate soil-lead hazards prior to occupancy of redeveloped residential real property.

(6) Evaluate lead-based paint hazards in non-residential real property for which there is a reasonable certainty that the property will be converted for residential or child-occupied facility use after transfer. The transferee will abate lead-based paint hazards prior to occupancy of converted non-residential real property.

(7) Evaluate lead-based paint hazards in child-occupied facilities on residential real property that will be reused as child-occupied facilities after transfer. The transferee will abate lead-based paint hazards prior to reuse as a child-occupied facility.

(8) Send a copy of the clearance documentation to the Army to be retained in official records relating to the transfer.

5. Facilities, environmental, and medical questions relating to the interpretation of technical, procedural, or policy guidance should be referred to the Office of the Assistant Chief of Staff for Installation Management or the U.S. Army Center for Health Promotion and Preventive Medicine. Legal questions regarding whether a particular state or local law is applicable to the property transfer or regarding interpretation of proposed regulations, HUD Guidelines, or EPA guidance should be referred to the MACOM legal office or to the Office of the Judge Advocate General, Environmental Law Division.

## APPENDIX A

### **ARMY MODEL LANGUAGE FOR MEMORANDUMS OF AGREEMENT (MOA), FINDINGS OF SUITABILITY FOR TRANSFER (FOST), AND DEEDS**

MACOMs are instructed to use the following model language for both residential and non-residential real property transfers. The determination as to whether this language should be included in the deed, as well as the MOA, should be made on a case-by-case basis in consultation with Army legal counsel.

“Notice of the Presence of Lead Based Paint and Covenant Against the Use of the Property for Residential Purposes.”

A. The Grantee is hereby informed and does acknowledge that all buildings on the Property, which were constructed or rehabilitated prior to 1978, are presumed to contain lead-based paint. Lead from paint, paint chips, and dust can pose health hazards if not managed properly. Every purchaser of any interest in Residential Real Property on which a residential dwelling was built prior to 1978 is notified that such property may present exposure to lead from lead-based paint that may place young children at risk of developing lead poisoning. Lead poisoning in young children may produce permanent neurological damage, including learning disabilities, reduced intelligence quotient, behavioral problems, and impaired memory. Lead poisoning also poses a particular risk to pregnant women. The seller of any interest in residential real property is required to provide the buyer with any information on lead-based paint hazards from risk assessments or inspections in the seller's possession and notify the buyer of any known lead-based paint hazards. "Residential Real Property" means dwelling units, common areas, building exterior surfaces, and any surrounding land, including outbuildings, fences and play equipment affixed to the land, available for use by residents but not including land used for agricultural, commercial, industrial, or other non-residential purposes, and not including paint on the pavement of parking lots, garages, or roadways and buildings visited regularly by the same child, 6 years of age or under, on at least two different days within any week, including day-care centers, preschools and kindergarten classrooms.

B. Available information concerning known lead-based paint and/or lead-based paint hazards, the location of lead-based paint and/or lead-based paint hazards, and the condition of painted surfaces is contained in the Environmental Baseline Survey and (for residential properties) the lead-based paint inspection and risk assessment, which have been provided to the Grantee. All purchasers must receive the federally-approved pamphlet on lead poisoning prevention. The Grantee hereby acknowledges receipt of all of the information described in this subparagraph. Additionally, the following reports pertaining to lead-based paint and/or lead-based paint hazards have been provided to the Grantee. [List here any additional installation reports on LBP and/or LBP hazards.]

C. The Grantee acknowledges that it has received the opportunity to conduct its own risk assessment or inspection for the presence of lead-based paint and/or lead-based paint hazards prior to execution of this document.

D. The Grantee covenants and agrees that it shall not permit the occupancy or use of any buildings or structures on the Property as Residential Real Property, as defined in paragraph A, above,



without complying with this section and all applicable federal, state, and local laws and regulations pertaining to lead-based paint and/or lead-based paint hazards. Prior to permitting the occupancy of the Property where its use subsequent to sale is intended for residential habitation, the Grantee specifically agrees to perform, at its sole expense, the Army's abatement requirements under Title X of the Housing and Community Development Act of 1992 (Residential Lead-Based Paint Hazard Reduction Act of 1992) (hereinafter Title X).

The Grantee shall, after consideration of the guidelines and regulations established pursuant to Title X: (1) Perform a Risk Assessment if more than 12 months have elapsed since the date of the last Risk Assessment; (2) Comply with the joint HUD and EPA Disclosure Rule (24 CFR 35, Subpart H, 40 CFR 745, Subpart F), when applicable, by disclosing to prospective purchasers the known presence of lead-based paint and/or lead-based paint hazards as determined by previous risk assessments; (3) Abate lead dust and lead-based paint hazards in pre-1960 residential real property, as defined in paragraph A, above, in accordance with the procedures in 24 CFR 35; (4) Abate soil-lead hazards in pre-1978 residential real property, as defined in paragraph A, above, in accordance with the procedures in 24 CFR 35; (5) Abate lead-soil hazards following demolition and redevelopment of structures in areas that will be developed as residential real property; (6) Comply with the EPA lead-based paint work standards when conducting lead-based paint activities (40 CFR 745, Subpart L); (7) Perform the activities described in this paragraph within 12 months of the date of the lead-based paint risk assessment and prior to occupancy or use of the residential real property; and (8) Send a copy of the clearance documentation to the Grantor. In cases where a transfer MOA has already been executed as of [insert the date of the Army Guidance], the Grantee is responsible for conducting lead-based paint activities in accordance with the negotiated MOA transfer documents

In complying with these requirements, the Grantee covenants and agrees to be responsible for any abatement or remediation of lead-based paint or lead-based paint hazards on the Property found to be necessary as a result of the subsequent use of the property for residential purposes. The Grantee covenants and agrees to comply with solid or hazardous waste laws that may apply to any waste that may be generated during the course of lead-based paint abatement activities.

E. The Grantee further agrees to indemnify and hold harmless the Army, its officers, agents and employees, from and against all suits, claims, demands, or actions, liabilities, judgments, costs and attorney's fees arising out of, or in a manner predicated upon personal injury, death or property damage resulting from, related to, caused by or arising out of lead-based paint or lead-based paint hazards on the Property if used for residential purposes. [In the MOA add: This section and the obligations of the Grantee hereunder shall survive the expiration or termination of this MOA, and any conveyance of the Property to the Grantee. The Grantee's obligation hereunder shall apply whenever the United States of America incurs costs or liabilities for actions giving rise to liability under this section.]

F. The covenants, restrictions, and requirements of this Section \_\_\_ shall be binding upon the Grantee, its successors and assigns and all future owners and shall be deemed to run with the land. The Grantee on behalf of itself, its successors and assigns covenants that it will include and make legally binding, this Section \_\_\_ in all subsequent transfers, leases, or conveyance documents.”



APPENDIX B

**LEAD-BASED PAINT (LBP) HAZARD RECOGNITION**

Media	Location	LBP Hazard Recognition for TRANSFER of Army Residential Property	LBP Hazard Recognition for ACTIVE Army Residential Property
<b>PAINT</b>	Painted Surfaces	Lead-based paint is present on the painted surface and the painted surface is deteriorated.	Lead-based paint in poor condition (>10 ft <sup>2</sup> on exterior or > 2 ft <sup>2</sup> on interior components or > 10 % of total surface area of the component is deteriorated)
	Friction Surfaces	Lead-based paint is present on the friction surface, and lead-dust levels on the nearest horizontal surface underneath the friction surface exceed the dust-lead hazard standards, and the painted surface shows evidence of abrasion.	Lead-based paint in poor condition (> 10 % of total surface area of the component is deteriorated)
	Impact Surfaces	Lead-based paint is present on the impact surface, and paint on the impact surface is damaged or otherwise deteriorated, and the damaged paint is caused by impact of a related building component.	Lead-based paint in poor condition (> 10 % of total surface area of the component is deteriorated)
	Accessible (Chewable) Surfaces	Lead-based paint is present on the accessible surface and the surface shows evidence of teeth marks.	Lead-based paint in poor condition (> 10 % of total surface area of the component is deteriorated or evidence of teeth marks)
<b>DUST</b>	On carpeted and uncarpeted interior floors	≥ 40 µg/ft <sup>2</sup> for Risk assessment (≥ 25 µg/ft <sup>2</sup> for Lead Hazard Screen)	≥ 100 µg/ft <sup>2</sup> for Risk assessment (≥ 50 µg/ft <sup>2</sup> For Lead Hazard Screen)
	Interior Window Sills	≥ 250 µg/ft <sup>2</sup> for Risk assessment (≥ 125 µg/ft <sup>2</sup> for Lead Hazard Screen)	≥ 500 µg/ft <sup>2</sup> for Risk assessment (≥ 250 µg/ft <sup>2</sup> for Lead Hazard Screen)
	Window Troughs	N/A for Risk assessment (N/A for Lead Hazard Screen)	≥ 800 µg/ft <sup>2</sup> for Risk assessment (≥ 400 µg/ft <sup>2</sup> for Lead Hazard Screen)
<b>BARE SOIL</b> (> 9 Square feet)	Play Area	Abate if ≥ 400 ppm	Interim control(s) ≥ 400 ppm Abate if ≥ 5000 ppm
	Non Play Area	Abate if ≥ 2000 ppm	Interim control(s) ≥ 2000 ppm Abate if ≥ 5000 ppm
	Non Play Area	“Potential Soil-Lead Hazard” – Concentration between 400 ppm and 2000 ppm of lead in bare soil areas. Alternatives to address potential soil-lead hazards include interim controls, abatement, or no action, with selection dependent on the presence and likelihood of exposure of children.	No action required < 2000 ppm





ACQUISITION AND  
TECHNOLOGY

## OFFICE OF THE UNDER SECRETARY OF DEFENSE

3000 DEFENSE PENTAGON  
WASHINGTON DC 20301-3000

JAN. 07 2000

MEMORANDUM FOR ASSISTANT SECRETARY OF THE ARMY  
(INSTALLATIONS, LOGISTICS, AND ENVIRONMENT)  
ASSISTANT SECRETARY OF THE NAVY  
(INSTALLATIONS AND ENVIRONMENT)  
ASSISTANT SECRETARY OF THE AIR FORCE  
(MANPOWER, RESERVE AFFAIRS, INSTALLATIONS  
AND ENVIRONMENT)  
DIRECTOR, DEFENSE LOGISTICS AGENCY

SUBJECT: Lead-Based Paint Policy for Disposal of Residential Real Property

The Department of Defense (DoD) policy is to manage lead-based paint in a manner protective of human health and the environment and to comply with all applicable Federal, State, or local laws regulating lead-based paint and lead-based paint hazards.

The attached Field Guide is a joint DoD and Environmental Protection Agency (EPA) guidance document for use by DoD and EPA personnel in the evaluation and control of lead-based paint at DoD residential real property scheduled for disposition under the base realignment and closure (BRAC) program. Lead-based paint requirements are defined by Title X, the Residential Lead-Based Paint Hazard Reduction Act of 1992, which amended the Lead-Based Paint Poisoning Prevention Act (42 U.S.C, Section 4822) and its implementing regulations (under the EPA Toxic Substances Control Act (TSCA) Section 403 rule and the Department of Housing and Urban Development (HUD) Section 1013 rule). DoD will issue separate policy on lead-based paint requirements for transferring non-residential properties.

The Field Guide provides a general roadmap summarizing the requirements for the evaluation and control of lead-based paint hazards in target housing as defined by Title X and TSCA. In addition to existing Title X requirements, the Field Guide also specifies some actions that exceed Title X requirements. These actions represent DoD's desire to go beyond actions strictly required by law to ensure that activities taken in this regard are protective of human health and the environment. DoD policy is to:

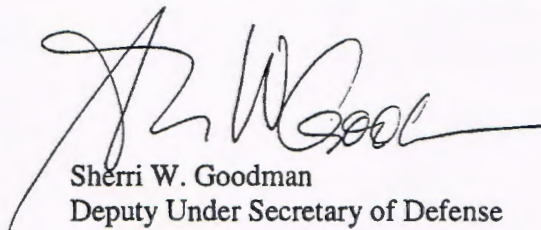
- Abate soil-lead surrounding housing constructed between 1960 and 1978 (Title X requires abatement of lead-based paint hazards in target housing constructed prior to 1960). The transfer agreement may require the purchaser to perform the abatement activities.
- Evaluate the need for interim controls, abatement, or no action for bare soil lead concentrations between 400 and 2000 ppm (excluding children's play areas) based on the findings of the lead-based paint inspection, risk assessment, and criteria contained in the Field Guide.



- Evaluate and abate lead-based paint hazards in structures reused as child-occupied facilities located on residential real property. Child-occupied facilities are day care centers, preschools, and kindergarten classrooms visited regularly by children under six years of age.
- Evaluate and abate soil-lead hazards for target housing demolished and redeveloped for residential use following transfer. Under Title X, residential dwellings that are demolished or not intended for occupancy after transfer do not require an inspection and risk assessment or lead-based paint control and hazard abatement. However, DoD requires that the terms of property transfer include a requirement for the transferee to evaluate and abate any soil-lead hazards prior to occupancy of any newly constructed dwelling units.

By adding these additional measures as a matter of policy, DoD believes it exceeds measures necessary to reduce potential lead exposures in children and will significantly contribute to the elimination of adverse effects in children from exposures to lead from lead-based paint in federally-owned target housing subject to disposition.

This lead-based paint policy supersedes the DoD 31 October 1994 lead-based paint policy attached to the PADUSD (ES) memorandum, Asbestos, Lead Paint, and Radon Policies at BRAC Properties. The asbestos and radon policies referenced in the memorandum remain in effect. Property transfer agreements executed under the previous policy are not required to meet these requirements. The effective date implementing these requirements is 30 March 2000.



Sherri W. Goodman  
Deputy Under Secretary of Defense  
(Environmental Security)

Attachment





# **Lead-Based Paint Guidelines for Disposal Of Department of Defense Residential Real Property - A Field Guide**

**Interim Final**

**December 1999**

## Notice

The policies set forth in this Field Guide are not intended, nor can they be relied upon, to create any rights enforceable in litigation with the United States.

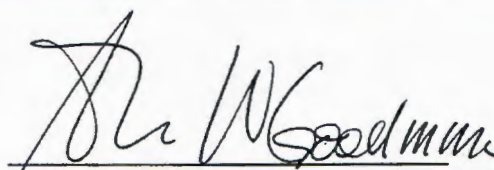
## Foreword

One of the federal government's most complex tasks involves ensuring compliance with varied and often conflicting environmental requirements in returning Department of Defense's excess infrastructure to productive use. An area of particular concern, the laws associated with lead-based paint in transferring federal properties, has the potential to delay this effort.

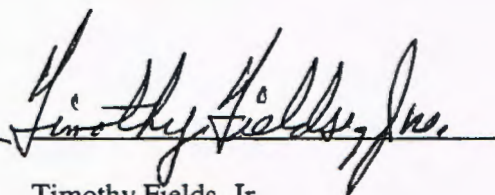
To achieve consistency in the application of the lead-based paint requirements while expediting the availability of property and eliminating possible delays in property transfers, the Department of Defense and United States Environmental Protection Agency, with the assistance of the General Services Administration and the Department of Housing and Urban Development have developed this joint interim final Field Guide. The Field Guide represents a common interpretation of lead-based paint requirements as well as our shared commitment to significantly reduce children's exposures to lead-based paint. Department of Defense and United States Environmental Protection Agency project managers involved in the transfer of residential real property will use the Field Guide as a framework for interpreting the applicable laws and regulations and additional policy requirements imposed by Department of Defense.

The Field Guide requirements are applicable to the transfer of residential real property (housing constructed prior to 1978 and child-occupied facilities), and do not apply to non-residential structures/property, residential real property not intended for residential occupancy or reuse as a child-occupied facility, leased property, or active military housing. This Field Guide is being issued as interim final guidance in that requirements relied upon were derived in part from proposed regulations, but should nonetheless be considered the applicable lead-based paint guidance for Department of Defense residential real property transfer until such time as it is amended upon promulgation of the rules.

The protection of children's health is one of our nation's highest priorities. The Field Guide contributes to the advancement of that priority as local communities begin to put excess Department of Defense facilities to productive uses.



Sherri W. Goodman  
Deputy Under Secretary of Defense  
(Environmental Security)  
Department of Defense



Timothy Fields, Jr.  
Assistant Administrator  
Office of Solid Waste and Emergency  
Response  
U.S. Environmental Protection Agency



**Tom Turner**

**From:** Tom Turner  
**Sent:** Wednesday, 27 September, 2000 09:09  
**To:** 'Bill Walker - BIA'; 'Brian Lloyd - BLM'; 'Dwayne Ford - Ft Worth COE'; 'Eugenia Quintana - Navajo Nation'; 'Larry Fisher'; 'Mark Blakeslee - BLM'; 'Pablo Padilla - Pueblo of Zuni'; 'Rose Duwyenie - BIA'; 'Tim Matthews - OSC'  
**Subject:** PCB in Paint reference



PCB's in paint.doc

As we discussed in our conference call on 21 Sep. The attached file is the summary of the proposed rule for management of PCB in paint. The file also includes references where the rule can be found. Please review prior to our next conference call on 5 October.

To access a copy of the proposed rule, try this website:

[http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=2000\\_register&docid=fr06ap00-14.pdf](http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=2000_register&docid=fr06ap00-14.pdf)

The Army position regarding PCB in paint is:

1. A federal to federal transfer of property does not represent "Distribution in Commerce" of PCB's. Distribution in commerce of PCB's is not allowed under the present rule (June 29, 1998 Federal Register); try this website: <http://www.epa.gov/fedrgstr/EPA-TOX/1998/June/Day-29/t170480.htm> ; but will be allowed once the proposed rule (April 6, 2000 Federal Register) is promulgated.
2. Buildings at FWDA have the potential to have PCB's in the paint, but have not been sampled to verify that they do or do not.
3. The Army is not planning to perform any additional sampling of the paint on the buildings at FWDA. This is also at the recommendation of EPA Region VI, as the determination that there are PCB's in the paint could delay the near term transfer of property at FWDA while the argument over "Distribution in commerce" under the present rule, is resolved.
4. The future owner/operator of the buildings at FWDA will be responsible for meeting the compliance requirements for PCB in paint described in the proposed rule (April 6, 2000 Federal Register).

I think that it is important to note that the buildings currently in use by TPL as production facilities (Bldgs 528, 536, 537, and 542) have been recently upgraded and look like they meet the requirements of the proposed rule.

Tom Turner

PCB's in paint.

Proposed rule:

Federal Register: December 6, 1994

40 CFR Part 761

Disposal of Polychlorinated Biphenyls;

Federal Register: April 6, 2000

40 CFR Part 761

Use Authorization for, and Distribution in Commerce of, Non-liquid Polychlorinated Biphenyls, Notice of Availability; Partial Reopening of Comment Period; Extension of Comment Period

#### SUMMARY:

PCB's in paint formulations constitute a use of PCB's that is not authorized by present regulations.

EPA proposed in regulation 40 CFR 761.30 (q) to authorize the use and distribution in commerce of non-liquid materials which contain PCB's at any concentration, in use prior to July 2, 1979, for the remainder of their useful life, where monitoring indicates that the migration of PCB's from the material does not pose an unreasonable risk of injury. Under the proposed authorization, the PCB-containing materials must remain intact and in place in their existing application and location unless they are being removed for disposal.

Such PCB materials currently in use that exhibit significant PCB migration, as discussed in proposed Section 761.30(q)(1)(iii), (iv), or (v), would not be in compliance with this authorization and would be required to be removed, contained by means of encapsulation (either with an epoxy-based or equivalent paint or sealant,....

#### 40 CFR Part 761.30 Authorizations

(q). Pre-TSCA uses of PCB's. Non-liquid materials that contain PCB's at any concentration (including....paints...) in use prior to July 2, 1979, are authorized for use and distribution in commerce provided they remain intact and in place in their existing application and location for the remainder of their useful life and subject to the following use conditions:

(i)(A): The owner/operator shall provide written notification to the EPA Regional Administrator that a pre-TSCA use has been discovered.

(B): Post the Mark ML as defined in Section 761.45(a) near the PCB-containing material.

(C): Make available information concerning the identity of the PCB's and any associated health risk to employees or requestors.

(ii): The PCB-containing material shall remain intact and in place in its' existing application unless it is being removed for disposal.



(iii): Existing uses of such PCB materials exhibiting environmental releases above  $0.001\text{mg}/\text{m}^3$  for a 10-hour workday, 40-hour work week, or as measured by workplace air monitoring, or surface levels as measured by a standard wipe test of exterior accessible areas in excess of 10 micrograms/100 square centimeters, shall be removed or contained.

(iv): Air monitoring activities shall be conducted quarterly for the first year and then annually thereafter, and results recorded until the material is removed from service.

(v): Standard wipe sampling of exterior surfaces shall be conducted quarterly for the first year and then annually thereafter, and the results recorded until the material is removed from service.

(vi): Records of measurements, inspections, and maintenance shall be maintained for review in a central location for a period of 3 years after the PCB material has been removed.

(vii): Within 24 hours of a measurement above the levels specified in paragraphs (iii), (iv), or (v), the owner/operator shall:

(A): Provide written notice to EPA Regional Administrator

(B): Initiate corrective actions.

(viii): All PCB materials with a concentration of 50 ppm or greater, shall be handled, stored, and disposed of in accordance with the PCB storage requirements of section 761.65 and the disposal requirements of section 761.60 or 761.62.

April 6, 1994 Federal Register 59FR62788

761.30(q) Pre-TSCA uses of PCBs. Non-liquid materials that contain PCBs at any concentration (including, but not limited to, gaskets, plastics, plasticizers, fluorescent light ballast potting material, electrical cable (except oil-filled cable as described in paragraph (m) of this section), dried paints, small rubber parts, roofing and siding materials, insulation, caulking, waterproofing compounds, ceiling tile coatings, and adhesive tape) in use prior to July 2, 1979, are authorized for use and distribution in commerce provided they remain intact and in place in their existing application and location for the remainder of their useful life, subject to the conditions in paragraph (q)(1) of this section. Failure to provide documentary evidence that substantiates the historical use of such **PCB** materials as required in paragraph (q)(1)(i)(A) of this section may result in the rejection of such claims by the Regional Administrator. (1) Use conditions. (i) The owner or operator of such **PCB**-containing material shall: (A) Provide a written notification by [insert date 30 days from effective date of the final rule] or within 30 days of discovery, to the Regional Administrator for the Region in which the material is located, that a pre-TSCA **PCB** use has been discovered. Each notification shall include the location of the material, a description of the use, an estimate of the amount of material in use (e.g., number, square footage, pounds), **PCB** concentration, expected useful life of the material, condition of the material (e.g., potential for exposure) and any additional information that may be useful to the Regional Administrator. Documentary evidence that establishes the historical use of such materials shall also be included in the notification. (B) Post the Mark ML, as defined in Sec. 761.45(a), in a prominent location near the **PCB**-containing material as a warning of the presence and location of PCBs. (C) Make available to any potentially exposed employee or, upon request, to any other potentially exposed individual, information concerning the identity of the PCBs and any health risk associated therewith. (ii) The **PCB**-containing material shall remain intact and in place in its existing application unless it is being removed for disposal. (iii) Existing uses of such **PCB** materials exhibiting environmental releases above 0.001 mg/m<sup>3</sup> for a 10-hour workday, 40-hour workweek, or as measured by workplace air monitoring using National Institute of Occupational Safety and Health (NIOSH) Method 5503 sampling at a rate of 1 liter per minute for 480 continuous minutes, or surface levels as measured by a standard wipe test defined in Sec. 761.123, of exterior accessible areas in excess of 10 micrograms/100 square centimeters (10  $\mu\text{g}/100\text{cm}^2$ ) shall be removed or contained. (iv) Air monitoring activities shall be conducted quarterly for the first year and then annually thereafter, and results recorded until the material is removed from service. Results indicating **PCB** levels above 0.001 milligram per cubic meter of air (mg/m<sup>3</sup>) for a 10-hour workday, 40-hour workweek shall require containment through either a modification in the release controls, encapsulation, or the immediate removal of the **PCB** material. If encapsulation has been chosen as the containment option, the sampling and air monitoring procedures shall also include an inspection for damage to the encapsulation. Any deterioration of the encapsulation shall be repaired and documented. (v) Standard wipe sampling (as defined in Sec. 761.123) of exterior surfaces shall be conducted quarterly for the first year and then annually thereafter, and the results recorded until the material is removed from service. Results indicating **PCB** levels above 10 micrograms per 100 square centimeter (10  $\mu\text{g}/100\text{cm}^2$ ) shall require containment through either a modification in the



release controls, encapsulation, or the immediate removal of the **PCB** material. If encapsulation has been chosen as the containment option, the sampling and air monitoring procedures shall also include an inspection for damage to the encapsulation. Any deterioration of the encapsulation shall be repaired and documented. (vi) Records of measurements, inspections, and maintenance shall be maintained for review by Agency officials in a central location for a period of 3 years after the **PCB** material has been removed. (vii) Within 24 hours of a measurement above the levels specified in paragraphs (q)(1)(iii), (q)(1)(iv), or (q)(1)(v) of this section, the owner or operator of the **PCB**-Contaminated item shall: (A) Provide written notice, either by facsimile machine or overnight mail delivery service, to the Regional Administrator for the Region in which the material is located as to the nature and extent of the migration and the steps that will be taken to remove or contain the PCBs and ensure compliance. (B) Initiate action to remove the PCBs or to contain the PCBs by means of encapsulation (either with an epoxy-based or equivalent paint or a sealant) or with release controls in which a continual release is collected in a closed container and displaces only the air in the container (i.e., leak collection system) to ensure personnel are protected from dermal and inhalation exposures.

Dec 10, 1999 Federal Register; 64FR69358

<bullet> If the bulk sample contains PCBs, but the wipe sample does not contain detectable levels of PCBs, then the PCBs have not significantly migrated from the material onto the surface. If there are no PCBs present on the surface, then it is assumed that no significant releases of PCBs to air are occurring. Therefore, air sampling would not be necessary. In[[Page 69362]]this situation, there would most likely be a low risk of exposure to PCBs, since PCBs are being released from the material at a low or non-existent rate. EPA could most likely authorize this use without some or all of the conditions listed in the proposal (see 59 FR 62857). <bullet> If the bulk sample contains PCBs that are migrating out onto the surface, then the wipe sample will be expected to contain PCBs. Likewise, if the PCBs are being released from the surface into the air, then the air sample will be expected to contain PCBs. Note that the air sample will most likely contain PCBs at more dilute concentrations than those in the surface levels. EPA may or may not authorize this use, depending on the risk of exposure to PCBs. <bullet> If neither the bulk nor the wipe sample contains PCBs, but the air sample does contain PCBs, then the PCBs are most likely from a source other than the material being tested. EPA cannot use these data to support a use authorization. <bullet> If there are no PCBs in the bulk sample, but the wipe sample contains PCBs, then the PCBs are most likely from a spill rather than from the material being tested. EPA cannot use these data to support a use authorization. The following chart provides a summary of the criteria that EPA will use to authorize the use of certain non-liquid PCBs.

Table 2.--Criteria for Authorizing the Use of NLPCBs -----

	Bulk Sample	Wipe Sample
Air Sample Possible Result -----	Contains PCBs	No PCBs
-----	No PCBs	No PCBs or data are not available
-----	released; possible authorization for use -----	PCBs
-----	Contains PCBs	Contains PCBs
PCBs Contains PCBs PCBs are being released from the material; use authorization depends on risk levels -----	No PCBs	No PCBs
-----	Contains PCBs	PCBs
-----	No PCBs	PCBs
PCBs -----	May or may not contain PCBs	due to a spill

-----



April 6, 2000 Federal Register; 65FR65536

Use Authorization for, and Distribution in Commerce of, Non-liquid Polychlorinated Biphenyls, Notice of Availability; Partial Reopening of Comment Period; Extension of Comment Period AGENCY: Environmental Protection Agency (EPA). ACTION:

Proposed rule; extension of comment period. -----

-----SUMMARY: EPA is extending the comment period for the proposed rule which published in the Federal Register of December 10, 1999. That action solicited additional information on the use and concentration of polychlorinated biphenyls (PCBs) found in certain non-liquid **PCB** (NLPCB) applications. It also announced the availability, for comment, of data that were submitted to EPA after the comment period closed for the December 6, 1994 proposal. In addition to authorizing certain NLPCB uses, the proposed provision (Sec. 761.30(q)) would have required compliance with several conditions (e.g., notification, marking, air monitoring and standard wipe tests, remediation, repair and/or removal, reporting and recordkeeping requirements). EPA is extending the 120-day data submission period, as well as the 90-day comment period on existing and new data submissions. In response to a request for more time to develop the requested data, EPA is extending the comment periods to obtain data that may support an authorization which would require few, if any, conditions but is protective of health and the environment. DATES: Data submissions, identified by docket control number OPPTS-66009G, must be received on or before October 10, 2000. Comments on any of the data submissions and/or relevant docket materials, identified by docket control number OPPTS-66009G, must be received on or before January 10, 2001.



# EPA

## Region 9 Perchlorate Update

U.S. ENVIRONMENTAL PROTECTION AGENCY • REGION 9 • 75 HAWTHORNE STREET • SAN FRANCISCO, CA • JUNE 1999

**T**he U.S. Environmental Protection Agency (EPA) has been working in partnership with states, federal agencies, tribes, water suppliers and the private sector to address a recently discovered threat to water supplies from a component of solid rocket fuel and other sources. The Interagency Perchlorate Steering Committee (IPSC) is co-chaired by the EPA and the Department of Defense (DoD) and is comprised of representatives from 19 state, federal, and tribal agencies.

### Background

Perchlorate originates as a contaminant in the environment from the solids salts of ammonium, potassium, or sodium perchlorate. The perchlorate part of these salts are quite soluble in water. The resultant anion ( $\text{ClO}_4^-$ ) is very mobile in aqueous systems. It can persist for many decades under typical groundwater and surface water conditions, because of its resistance to react with other available constituents.

Ammonium perchlorate is manufactured for use as the oxidizer component and primary ingredient in solid propellant for rockets, missiles, and fireworks.

Large-scale production began in the United States in the mid-1940s. Because of its shelf life, it must be periodically washed out of the country's missile and rocket inventory and replaced with a fresh supply. Thus, large volumes of the compound have been disposed of since the 1940s in Nevada, California, Utah, and likely other states. Perchlorate salts are used on a large scale as a component of air bag inflators. Ammonium perchlorate is used in the manufacture of matches and in analytical chemistry.

Other uses of perchlorate salts include their use in nuclear reactors and electronic tubes, as additives in lubricating oils, in tanning and finishing leather, as a fixer for fabrics and dyes, in electroplating, in aluminum refining, in rubber manufacture, and in the production of paints and enamels. Chemical fertilizer also has been reported to be a potential source of perchlorate contamination.

The EPA had established a provisional reference dose (RfD) range based on assessments of existing information in 1992 and revised in 1995. By applying the standard default body weight (70 kg) and water consumption level (2 L/day), the resulting provisional clean-up action levels would range from 4-18 parts per billion (ppb).

Prior to April 1997, perchlorate could not be detected at concentrations below 100 ppb. Many uncertainties remained about its toxicity, about how to remove it from water, or how extensive a problem perchlorate might pose to water supplies. In April 1997, the California Department of Health Services (CA DHS) developed a new analytical method to detect low levels of perchlorate (4 ppb) in water. Within the last two years, this chemical has been found in the water supplies of over 15 million people in CA, NV and AZ and in surface or groundwater throughout the United States (AR, IA, IN, KS, MD, NM, NY, PA, TX, UT, WV).

Perchlorate is of concern because of:

- 1) Potential health effects at low concentrations;
- 2) the possibility that perchlorate may be widespread in the environment;
- 3) the expense of removing perchlorate from water and soil; and
- 4) the effects that perchlorate may have on ecosystems.

Research has been carried out at an accelerated pace to better understand the human health effects of perchlorate, examine possible ecological impacts, refine analytical methods, develop treatment technologies, and increase occurrence data, while keeping stakeholders informed and involved.

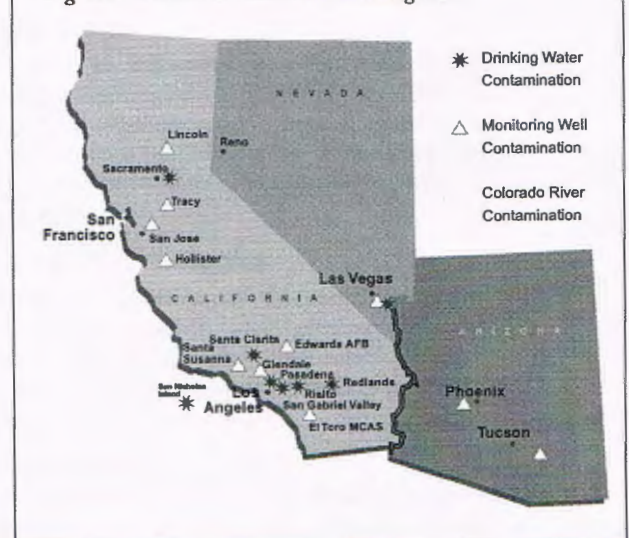
### Toxicology

The EPA held an external peer review of the document titled "Perchlorate Environmental Contamination: Toxicology Review and Risk Characterization" on February 10-11, 1999 in

San Bernardino, CA which was open to the public. The external review document (ERD), was developed by the EPA's Office of Research and Development, National Center for Environmental Assessment (ORD/NCEA). The ERD presented an updated human health risk assessment as well as a screening-level ecological assessment to newly performed studies on the toxicity of perchlorate. The updated human health risk assessment model harmonizes non-cancer and cancer approaches to derive a single oral risk benchmark for perchlorate. The proposed revised oral human health risk benchmark is 0.0009 mg/kg-day. The proposed revised oral risk benchmark is an estimate of the amount of perchlorate, which when ingested daily over a lifetime is anticipated to be without adverse health effects (both non-cancer and cancer) to humans, including sensitive subpopulations. Finalizing the oral risk benchmark requires completion of additional toxicology studies and further evaluation of toxicology results.

The EPA has committed to another external peer review as part of the process to more completely and accurately characterize the human and ecological risks associated with perchlorate contamination. In the next assessment, NCEA will address comments

Figure 1: Perchlorate Occurrences in EPA Region 9





fold UF (US EPA, 1995). In its 1995 report, US EPA acknowledged unanswered questions about perchlorate's chronic effects, citing concern about fatal bone marrow effects at doses ranging from 6 to 14 mg/kg/day.

Comparisons of drinking water concentrations derived from US EPA's RfDs with concentrations corresponding to toxicologic endpoints are presented in Table 2.

Table 1. Comparison of various parameters from US EPA's evaluations of perchlorate.

	US EPA (1992)	US EPA (1995)
No observed adverse effect level (NOAEL) (mg/kg/day)	0.14	0.14
Factor to account for use of a study of short duration, instead of a long-term "chronic" study	10	10
Factor to account for the protection of sensitive individuals, e.g., those with low iodine diets or with genetically impaired iodide accumulation systems in the thyroid	10	10
Factor to account for deficiencies in the data available on the effects of perchlorate	10	3-10
Uncertainty Factor (UF) (product of the above three factors, e.g., 10 x 10 x 10)	1,000	300-1,000
Provisional Reference Dose (RfD) (= NOAEL/UF) (mg/kg/day)	0.0001	0.0001-0.0005
Corresponding drinking water concentration, assuming 2 liters/day and 70-kg body weight	4 µg/L	4-18 µg/L

Table 2. Drinking water concentrations that would result in thyroid effects or bone marrow effects, compared to concentrations derived from US EPA's Reference Doses.

	4 µg/L	18 µg/L
Relative to thyroid effects <sup>1</sup>	12,000	2,700
Relative to fatal bone marrow effects <sup>2</sup>	52,500-122,500	11,700-27,200

<sup>1</sup> Perchlorate above 1.4 mg/kg/day was reported to have adverse effects on the thyroid. In drinking water, this corresponds to 49,000 µg/L (= 1,400 micrograms/kg/day x 70 kg body weight / 2 L/day)

<sup>2</sup> Perchlorate at 6-14 mg/kg/day was reported to result in fatal bone marrow effects in Graves' disease patients treated for 2 months or longer. In drinking water, this corresponds to 210,000-490,000 µg/L (= 6,000-14,000 micrograms/kg/day x 70 kg / 2 L/day)

## References

Stanbury, J.B. and J.B. Wyngaarden, 1952. Effect of perchlorate on the human thyroid gland. *Metabolism* 1: 533-539

US EPA, 1992, Provisional Non-cancer and Cancer Toxicity Values for Potassium Perchlorate (CASRN 7778-74-7) (Aerojet General Corp./CA), Memorandum from Joan S. Dollarhide, Superfund Health Risk Technical Support Center, Environmental Criteria and Assessment Office, Office of Research and Development, to Dan Stralka, US EPA Region IX.

US EPA, 1995, Correspondence from Joan S. Dollarhide, National Center for Environmental Assessment, Office of Research and Development, to Mike Girrard, Chairman, Perchlorate Study Group.

US EPA, 1998, ***Perchlorate Environmental Contamination: Toxicological Review and Risk Characterization Based on Emerging Information***, External Review Draft, NCEA-1-0503, National Center for Environmental Assessment, December 31, 1998.





# **FORT WINGATE DEPOT ACTIVITY GALLUP, NM UNEXPLODED ORDNANCE (UXO) SURVEY REPORT**

**Prepared for:**

**U.S. ARMY ENVIRONMENTAL CENTER  
ABERDEEN PROVING GROUND, MARYLAND 21010**

**Prepared by:**

**ENVIRONMENTAL RESOURCES MANAGEMENT, INC.  
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**Requests for this document must be referred to:  
Commander, U. S. Army Environmental Center,  
Aberdeen Proving Ground, MD 21010; or  
Commander, Tooele Army Depot, Tooele, UT 84074**

**DECEMBER 1994**

**Job No.: 00306**



### 3.0 SUMMARY OF SITE ACTIVITIES

#### 3.1 WORK PLAN

A Work Plan for the UXO support activities was prepared by UXB entitled "Work Plan for UXO Support Services at Fort Wingate, New Mexico, November 1992" (Work Plan). This Work Plan was included as Appendix 11.1 to the Final Fort Wingate Depot Activity Supplemental Health and Safety Plan, ELIN A008, dated 18 December 1992, prepared by ERM. A copy of this Work Plan has been provided as Appendix A of this Survey Report.

#### 3.2 SITE BACKGROUND RESEARCH, INVESTIGATIONS, AND INTERVIEWS WITH PAST AND CURRENT FWDA EMPLOYEES

UXB upon site mobilization, conducted a review of available on-site records and maps and located and interviewed available past and current FWDA employees potentially familiar with historic operations at the facility involving the handling and disposal of UXO. In many instances these interviews resulted in the identification of potential or suspect areas. Documentation of the significant personnel interviews with former FWDA employees are included as Appendix B. In addition, to support the background investigation efforts, historical aerial photographs of the installation were reviewed and a helicopter flyover was performed.

The significant findings of the site background research efforts and the interviews are summarized below:

- The boundary configuration of FTR 2/3 was modified based on maps found on-site that depicted the apparent test range firing pattern. The UXO survey was modified to reflect the revised boundary.
- The performance of a bomb burial storage test at the FWDA, apparently conducted in the late 1940's/1950's in the general area of Igloo Block B was identified through records uncovered by UXB and vaguely remembered in several interviews. This area was incorporated into the site survey efforts.
- The incinerator (supposedly used for document incineration) located near the Sewage Treatment Plant was reportedly used to burn 20mm and 40mm projectiles, boosters, and primers. This area was incorporated into the site survey efforts.
- An area in the vicinity of the Deactivation Furnace located to the south between the east-west road and the railroad tracks south of the



This allowed several additional areas of potential concern identified during the performance of on-site activities to be included in the UXO survey efforts. The findings and results of the UXO surveys and GPS coordinates of identified areas of concern and boundaries were then incorporated into the installation maps and figures prepared as part of the Remedial Investigation/Feasibility Study (RI/FS) Report for the FWDA.

The following areas were initially identified for UXO survey activities:

- Functional Test Ranges (FTRs) 1 and 2/3; surface and subsurface - 0 to 6 inch surveys, and
- Open Burning and Detonation Area; surface and subsurface - 0 to 6 inch surveys.

The following areas were identified for UXO escort and avoidance surveys during the performance of field investigation activities:

- Group C Disposal Area;
- Former TNT Washout Building (Building 503);
- Former TNT Washout Tank;
- Old Burning Ground and Demolition Landfill Area, and
- Old Demolition Area.

The following additional areas were included in the UXO survey activities:

- Sewage Treatment Plant - in the vicinity of the document incinerator; surface and subsurface - 0 to 6 inch survey;
- Deactivation Furnace Area; surface and subsurface - 0 to 6 inch survey;
- Arroyo located within Fenced-Up Horse Valley believed to be associated with the Old Burning Ground/Demolition Ground Area; surface and subsurface - 0 to 6 inch survey;
- Various dump piles and drainage ditches; surface and subsurface - 0 to 6 inch surveys, and
- Igloo Block B Reported Bomb Burial Area; surface magnetometer survey in an attempt to located the reported burial area(s).

In addition, the alleged location of buried missile engines at the former Ballistic Missile Testing (BMT) Site, located within the delineated Southern Properties was investigated. The location was assumably marked by two (2) concrete "tombstones". Two (2) trenches were excavated in the area of the tombstones with a backhoe to a depth of 4 to 5 feet, and to a length of



0.8 acres. In support of the sampling activities, one (1) live ordnance item was identified, removed, and transported to the staging area within the OB/OD Area.

- **Deactivation Furnace Area**

A visual UXO survey was performed in the Deactivation Furnace Area to establish boundaries around the suspected ordnance contaminated area. The survey area was estimated to encompass approximately 4.5 acres. A total of 47 live ordnance items and 1436 empty ordnance items were removed to the staging area. In a smaller area encompassing approximately 0.25 acres, a total of 2,128 ordnance items were located and removed to the staging area. It is suspected that there is more live ordnance buried below the surface.

- **Sewage Treatment Plant - Document Incinerator**

During the performance of survey efforts in the vicinity of the document incinerator, 20mm and 40mm projectiles were identified at depths below 6-inches from the surface. 7,928 live items were removed during the performance of the 0 to 6 inch survey efforts. It is suspected that there is more live ordnance buried below the surface.

- **Reported Bomb Burial Area**

A survey was performed of locations within Igloo Block B, identified as potentially relating to the reported bomb burial testing program. The potential locations were based upon discussions with former FWDA personnel, the inspection of historical aerial photographs, and a visual helicopter flyover of the installation. 55 revetment areas within Igloo Block B were surveyed. No evidence of buried ordnance was identified.

### 3.5.5

#### *Disposition of Recovered UXO/Current Site Status*

Army EOD support for the UXO items identified and recovered from the entire installation survey program was provided by the 52D Ordnance Group, Fort Gillem, GA over four (4) separate mobilizations occurring from May through December 1993. The identified BIPs were treated in-place and the accumulated UXO items were treated utilizing three (3) existing detonation craters within the Current OB/OD Area.

UXO related scrap was removed from the survey grids and stockpiled by UXB personnel for final certification by the Army and disposal by the DRMO. UXO related scrap was inspected and determined to be free of explosives by the Senior UXO Supervisor. A letter signed by the UXB Project Manager, Mr. Tom Yancey, certifying that on December 17, 1993 the UXO related scrap, stockpiled on the FWDA for disposal by the