Message

**From**: Leverock.Anthony@azdeq.gov [Leverock.Anthony@azdeq.gov]
**Sent**: 7/19/2017 8:36:15 PM
**To**: Kuziomko, Joseph [kuziomko.joseph@epa.gov]
**CC**: Shuster, Kenneth [Shuster.Kenneth@epa.gov]; Pena-Molina, Ana [pena-molina.ana@epa.gov]; Kohler, Amanda [Kohler.Amanda@epa.gov]; Diana Deming [Deming.Diana@azdeq.gov]; Terry Baer [Baer.Terry@azdeq.gov]; Thomas.Robin@azdeq.gov
**Subject**: RE: ORCR Project regarding OB/OD sites in Arizona
**Attachments**: Survey on OBOD - Region 9 - Arizona.docx

**Flag**: Follow up

Joseph --

Here is the attachment ☺

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**Anthony Leverock**
**Associate Engineer**
**Hazardous Waste Unit**
**Waste Programs Division**
**602-771-4160**
acl@azdeq.gov

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**From:** Anthony C. Leverock
**Sent:** Wednesday, July 19, 2017 1:35 PM
**To:** 'Kuziomko, Joseph' <kuziomko.joseph@epa.gov>
**Cc:** Shuster, Kenneth <Shuster.Kenneth@epa.gov>; Pena-Molina, Ana <pena-molina.ana@epa.gov>; Kohler, Amanda <Kohler.Amanda@epa.gov>; Diana Deming <Deming.Diana@azdeq.gov>; Terry Baer <Baer.Terry@azdeq.gov>; Robin A. Thomas <Thomas.Robin@azdeq.gov>
**Subject:** RE: ORCR Project regarding OB/OD sites in Arizona

Joseph --

Attached is Arizona's response to your 7/17 inquiry regarding OBOD sites. Additional information is available in ADEQ's physical files for all the sites listed in the attachment. Please contact me for more detail if a file review will be performed. Also, Electronic information is available for:

- Camp Navajo, AZ7 213 820 635, closure (workplan and report);
- Nammo Talley, AZD 020 132 802, closure, (closure is not complete, no closure report);
- Yuma Proving Ground – Muggins Mountain, AZ5 213 820 991, corrective action (RFI report and CMS workplan). Remedy is not complete, and each submittal must be updated in 2019 due to the recent discovery of additional UXO found on the surface near the site;

No cost information is available electronically or in hard copy for any of the sites listed on the attachment.

I hope this response is helpful

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**Anthony Leverock**
**Associate Engineer**

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**From:** Kuziomko, Joseph [mailto:kuziomko.joseph@epa.gov]
**Sent:** Monday, July 17, 2017 9:56 AM
**To:** Terry Baer <Baer.Terry@azdeq.gov>; Diana Deming <Deming.Diana@azdeq.gov>; Anthony C. Leverock <Leverock.Anthony@azdeq.gov>; Diana Deming <Deming.Diana@azdeq.gov>; Anthony C. Leverock <Leverock.Anthony@azdeq.gov>
**Cc:** Shuster, Kenneth <Shuster.Kenneth@epa.gov>; Pena-Molina, Ana <pena-molina.ana@epa.gov>; Kohler, Amanda <Kohler.Amanda@epa.gov>
**Subject:** ORCR Project regarding OB/OD sites in Arizona

I am writing to seek information on the closure status of the Open Burn/Open Detonation (OB/OD) units listed below to assist ORCR in a new project to assess closure of OB/OD units. With this information, EPA will be able to identify, evaluate, and document procedures, techniques, and criteria to assess, clean up, and close OB/OD units/sites in a standardized manner.

EPA has been documenting soil and ground water contamination from OB/OD units and the costs to clean them up. Given the inordinate extent of contamination and costs of clean-up that have been reported, we are now seeking to learn more about the monitoring, clean-up procedures, successes, and costs of these efforts. There is currently no national guidance on procedures to assess, monitor, and clean up OB/OD sites, nor metrics to achieve clean closure of OB/OD units. We are requesting information on the clean closure (CC) of OB/OD sites to assist us.

Please first verify the following codes for your facilities in Arizona.

| **Region 9** | | | | | | | |
|---|---|---|---|---|---|---|---|
| Arizona | | | | | | | |
| FACILITY_ID | FACILITY_NAME | UNIT_NAME | UNITs | UNIT_DETAIL_SEQ | legal status | operating status | EFFECTIVE_DATE |
| AZ4570024055 | DAVIS-MONTHAN AFB | EOD RANGE | 4 | 4 | IS | CC | 20040830 |
| AZ4570024139 | MUNITIONS TREATMENT RANGE, UNIT 8, BARRY M. GOLDWATER RANGE | OBOD1 | 1 | 6 | IS | CC | 20000321 |
| AZ4570024139 | MUNITIONS TREATMENT RANGE, UNIT 8, BARRY M. GOLDWATER RANGE | MCAS BURN TRENCHES | 2 | 3 | IS | CC | 20010806 |
| AZ8170024493 | MARINE CORPS AIR STATION YUMA | OPEN BURN TRENCHES | 2 | 2 | IS | CC | 20030218 |
| AZD008399263 | APACHE NITROGEN PRODUCTS INC | OBOD1 | 1 | 3 | IS | CC | 19970821 |
| AZD980638290 | UNIDYNAMICS/PHOENIX INC (WHITE TANKS) | OBOD1 | 1 | 3 | IT | CC | 19990831 |
| AZ4570024139 | MUNITIONS TREATMENT RANGE, UNIT 8, BARRY M. GOLDWATER RANGE | MUNITIONS BURIAL P | 3 | 5 | PC | CP | 20060630 |
| AZ5213820991 | U.S. ARMY GARRISON YUMA PROVING GROUND | MUGGINS MTN OB/OD | 4 | 1 | IS | IN | 20020814 |
| AZ7213820635 | CAMP NAVAJO, ARIZONA ARMY NATIONAL GUARD | OBOD1 | 3 | 1 | IS | IN | 19940408 |
| AZD020132502 | NAMMO TALLEY, INC. | OBOD1 | 1 | 2 | IS | IN | 20080210 |

**Questions:**
We have a number of questions we hope you can answer regarding your clean closed/closing sites. The operating status of the facilities will determine which sets of questions are to be answered. We understand that some of this data may be difficult to find but we would really appreciate if you could dig it up for us as it will help us move forward with this project and eventually help EPA update OB/OD closing procedures.

**Clean Closed (CC) Facilities' questions:**

1. Did these sites complete clean closure or are they still in the process of seeking to clean close?
2. Did the state officially certify/approve the unit(s) Clean Closed (CC)?
3. What was the volume of waste disposed, frequency (e.g., daily, weekly, monthly, periodically), and years of operation?
4. Was it OB or OD or both?
5. What sampling procedures were used to identify the extent of the contamination, including kick-out and fallout (e.g., geophysical techniques used to identify buried munitions and fragments; trenching; grid, spokes, meandering way, visual, or random sampling of soil/for kick-out; depth; until no more found; and ground water monitoring)?
6. Were components of the unit removed (e.g., any platforms, pans, pads, and liners)?
7. What clean-up procedures and techniques were used to clean up the contaminants (e.g., excavation, soil sifting)?
8. What data was recorded and metrics used to evaluate the extent and levels of contamination?
9. What criteria was used to certify clean closure (e.g., EPA action levels)?
10. What was the total cost to achieve Clean Closed (CC) status?

**Post Closure (PC, CP) Facilities' questions:**

1. Why was Post-Closure Permit (PC) or Closed with Waste in Place (CP) status given (e.g., soil and/or ground water contamination)?
2. What was the volume of waste disposed, frequency (e.g., daily, weekly, monthly, periodically), and years of operation?
3. Was it OB or OD or both?
4. What sampling procedures were used to identify the extent of the contamination, including kick-out and fallout (e.g., geophysical techniques used to identify buried munitions and fragments; trenching; grid, spokes, meandering way, visual, or random sampling of soil/for kickout; depth; until no more found; and ground water monitoring)?
5. Were components of the unit removed (e.g., any platforms, pans, pads, and liners)?
6. What clean-up procedures and techniques were used to clean up the contaminants (e.g., excavation, soil sifting)?
7. What data was recorded and metrics used to evaluate the extent and levels of contamination?
8. What criteria was used to determine that clean closure could not be achieved (e.g., EPA action levels)?
9. What was the total cost to achieve closed status?

**Inactive/Closing, but Not Yet RCRA Closed (IN) and Corrective Action and Superfund (CA, SF) Facilities' questions:**

1. Are these units seeking to clean close?
2. If so, what criteria is being used to attempt clean closure (e.g., EPA action levels)?
3. What was the volume of waste disposed, frequency (e.g., daily, weekly, monthly, periodically), and years of operation?
4. Was it OB or OD or both?
5. What sampling procedures are being used to identify the extent of the contamination, including kick-out and fallout (e.g., geophysical techniques used to identify buried munitions and fragments; trenching; grid, spokes, meandering way, visual, or random sampling of soil/for kick-out; depth; until no more found; and ground water monitoring)?
6. Were components of the unit removed (e.g., any platforms, pans, pads, and liners)?
7. What clean-up procedures and techniques are being used to clean up the contaminants (e.g., excavation, soil sifting)?

8. What data is being recorded and metrics being used to evaluate the extent and levels of contamination?
9. What is the total cost to date to remediate the site?

We plan to have a contractor gather this information on a select number of sites from the states. The purpose of this current effort is to gather information on the status of cleanup at these sites to help us identify which sites have the best information for our contractor to follow up with. Thus, for this effort, we seek answers to questions 1-4 and the last question in each set, and for the remaining questions we seek whether or not good information exists to answer these questions. We hope to receive this information by July 31st. Thank you for taking time to assist us with this project. If you have any questions, please feel free to reach out to us. Any information that you may be able to provide will be helpful in our project.

Sincerely,

Joseph Kuziomko
703-347-8168

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