

DATE: July 15, 2016
TO: Dave Emme, Administrator
FROM: Christine Andres, Chief, Bureau of Federal Facilities
SUBJECT: Quarterly Reports: January 1, 2016 to June 30, 2016

FEDERAL FACILITY AGREEMENT AND CONSENT ORDER

(FFACO) QUARTERLY REPORTS

Industrial Sites Activity

At the end of June 2016, there were 1958 Corrective Action Sites (CASs) (out of 1970 total) that have been closed, with two CASs in Corrective Action Unit (CAU) 114 and four CASs in CAU 575, all in various stages of active investigation, and six CASs in CAU 572 held for future work.

Soils Activity Sites

At the end of June 2016, there were 115 CASs (out of a total of 143) that have been closed, with 29 in various stages of active investigation.

During these past two quarters, the Nevada Division of Environmental Protection's Bureau of Federal Facilities (NDEP and/or BFF) staff reviewed FFACO documents and related correspondence, participated in project evaluations, and attended comment and technical issue resolution meetings with the National Nuclear Security Administration/Nevada Field Office (NNSA/NFO) personnel related to CAU closures. Meetings were also held with personnel from the BFF's environmental support contract, Stoller Newport News Nuclear (SN3). BFF staff developed tasking documents for SN3, participated in technical training sessions and comment integration meetings with SN3 personnel.

Document Reviews:

DRAFT SOILS ACTIVITY QUALITY ASSURANCE PLAN (SOILS QAP) – BFF staff completed review of the Draft Soils QAP, Rev. 1, and submitted comments to be addressed in the final document.

CAU 573 – Alpha Contaminated Sites, Nevada National Security Site (NNS), Nevada – BFF staff reviewed the Draft Corrective Action Decision Document/Corrective Action Plan (CADD/CAP) and submitted comments to be addressed in the final document.

CAU 573 – Alpha Contaminated Sites, NNS, Nevada – BFF staff reviewed and approved the Final CADD/CAP after all comments had been satisfactorily addressed.

CAU 413 – Clean Slate II – BFF staff reviewed the Draft Corrective Action Implementation Plan (CAIP) and submitted comments to be addressed in the final document.

CAU 568 – Area 3 Plutonium Dispersion Sites, NNSA, Nevada – BFF staff reviewed the Draft CAP and submitted comments to be addressed in the final document.

Meetings:

Draft Soils QAP, Rev 1 - BFF staff participated in a meeting with SN3 to review and integrate BFF and SN3 comments.

CAU 541 -- Small Boy - BFF staff attended a comment resolution meeting at NNSA/NFO to discuss BFF comments submitted on the Draft CADD/Closure Report (CR).

CAU 413 -- Clean Slate II - BFF staff attended three comment resolution meetings at NNSA/NFO to discuss NDEP comments submitted on the Draft CAIP and participated in a meeting with SN3 to review and integrate BFF and SN3 comments on the Draft CAIP. The final CAIP was then reviewed and approved by BFF staff.

CAU 568 -- Area 3 Plutonium Dispersion Sites - BFF staff participated in a meeting with SN3 to review and integrate BFF and SN3 comments on the Draft CAP.

CAU 411 – Double Tracks Plutonium Dispersion (Nellis) - BFF staff reviewed the Draft CR and participated in a meeting with SN3 to review and integrate BFF and SN3 comments on the Draft CR. Following this meeting, BFF staff submitted the integrated comments on the Draft CR to NNSA/NFO. Following a comment resolution meeting with NNSA/NFO to discuss comments, BFF staff reviewed and approved the final comment responses for the CR.

CAU 568 – Area 3 Plutonium Dispersion Sites - BFF staff submitted comments on the Draft CAP and participated in a meeting with NNSA/NFO to resolve NDEP comments. The Final CAP was subsequently reviewed and approved.

CAU 414 – Clean Slate III - BFF participated in a Data Quality Objectives (DQO) meeting for this CAU at NNSA/NFO.

CAU 576 – Miscellaneous Radiological Sites and Debris - BFF staff reviewed and approved a NNSA/NFO request to establish this new CAU in Appendix III of the FFACO. The CAU will consist of six (6) CASs. Deadlines for CAIP, CADD, and CAP documents were also established. A DQO meeting for CAU 576 was attended.

BFF staff and the Chief participated in meetings with NNSA/NFO to discuss overall Soils Activity deadlines, due dates, and associated scheduling issues related to NDEP review of FFACO documents, as well as, general progress on all Soils sites.

Document Preparation:

BFF Contract #15-029, with contractor Stoller Newport News Nuclear (SN3), was officially extended until May 31, 2017.

Staff prepared and sent four tasking letters to SN3 for FFACO document review and participation in comment integration and response meetings. Documents reviewed and commented on by SN3 for BFF included: Draft CAIP for CAU 413 – Clean Slate II; Draft CR for CAU 411 –

Double Tracks; Draft CAP for CAU 568 – Area 3 Plutonium Dispersal; and, Final CR for CAU 411 – Double Tracks Plutonium Dispersion (Nellis). Invoices were processed when received.

With the BFF Chief, BFF staff reviewed and prepared a letter to NNSA/NFO for the Soils Activity, highlighting concerns around deadlines, overlapping document review due dates, and related scheduling issues associated with BFF review of FFACO documents.

Site Visits:

BFF staff traveled to the NNSS to inspect the following CASs which are part of the newly established CAU 576:

- 02-99-12 – U-2af (Kennebec) Surface Rad-Chem piping;
- 09-99-09 – U-9its u24 (Avens-Alkermes) Surface Contaminated Flex Line;
- 09-99-08 – U-9x (Allegheny) Subsurface Rad-Chem Piping

During this visit, staff also inspected corrective work being conducted at CAU 573 – Hamilton/GMX.

Underground Test Area (UGTA) Activity

There are five (5) UGTA CAUs, all of which are in various stages of active investigation or model evaluation.

During this quarter, BFF staff participated in the process of document review, project evaluation, meetings and/or site visits for all five (5) of the CAUs in the following ways:

Document Reviews and Letters:

CAU 97 – Yucca Flat – In the attempt of the NNSA/NFO to finalize the “Response to External Peer Review Team Report for Corrective Action Unit 97: Yucca Flat/Climax Mine, Nevada National Security Site, Nye County, Nevada” document, BFF staff participated in: (1) a review of material from the Yucca Flat’s modeling team’s suggested approaches to addressing the External Peer Review’s comments; (2) an early February 2016 presentation by NNSA/NFO and their contractors to NDEP on comment responses to the External Peer Review’s Recommendations; (3) conference calls with the NNSA/NFO UGTA Activity Lead to discuss progress on the Yucca Flat CAU and the comment responses; (4) a review of additional material in preparation for the Response Document; (5) an all-day meeting that included presentations by the NNSA/NFO contractors on the content of the Response Document, discussions and questions concerning this content and preliminary suggestions for improvement of the document; (6) submitted summary comments on the Response Document, and (7) attended a discussion with NNSA/NFO and contractor staff on the Response Document and path forward for moving to the CADD/CAP stage of the FFACO UGTA Strategy Flowchart. Staff also reviewed the field reports on the drilling of Wells ER-2-2, ER-3-3 and ER-4-1.

CAU 98 – Frenchman Flat – BFF staff received, reviewed, commented on and approved the Final Well Specific Fluid Management Strategy for UGTA Wells ER-5-3 and ER-5-3-2, as well as, the UGTA Frenchman Flat CAU Annual Closure Monitoring Report Outline. The Frenchman Flat Closure Report, Rev. 1 was received at the end of June and is undergoing review. A

meeting between the NNSA/NFO and United States Air Force in regards to the closure of this CAU was attended by staff.

CAU 99 – Rainier Mesa/Shoshone Mountain (RM/SM) – BFF staff met with the NNSA/NFO UGTA Activity Lead to discuss progress on the Rainier Mesa/Shoshone Mountain CAU activities.

CAU 101/102 – Pahute Mesa – As time allowed, staff continued reviewing various approaches to modeling fractures and faults that may be used in modeling this CAU, as well as, documentation for an overall possible modeling approach for use on this CAU.

Site Visits:

Staff observed drilling activities at various wells in Yucca Flat throughout these two quarters. Applicable fluid management strategy letters were reviewed and approved as necessary.

Nevada Off-Sites

There are four (4) Nevada Off-Sites CAUs, two (2) Surface CAUs (CAU 416 and 417) and two (2) Subsurface CAUs (CAU 443 and 447). CAU 416 has been clean-closed. CAU 417 is in Post-Closure Monitoring. CAU 443 is in the Closure Stage. CAU 447 is in the Corrective Action Decision Document/Corrective Action Plan Stage and is undergoing further site evaluation.

During this quarter, BFF staff participated in the process of document review, project evaluation, conference calls and/or meetings for two (2) of the active CAUs:

Document Reviews:

CAU 443 – Central Nevada Test Area (CNTA), Subsurface – BFF staff reviewed the Draft CR for this CAU and submitted comments to the Department of Energy/Office of Legacy Management (DOE/OLM). A response-to-comments was reviewed by BFF staff and several minor follow-up comments were submitted. BFF staff approved the Final CR after the follow-up comments were satisfactorily addressed.

CAU 447 – Project Shoal Area (PSA), Subsurface – BFF staff reviewed the Draft 2015 Shoal Groundwater Monitoring Report and submitted comments to the DOE/OLM. BFF staff reviewed the responses-to-comments on the draft report. The Final 2015 Shoal Groundwater Monitoring report was received, reviewed and accepted. The 2016 Sampling Plan for the Shoal Site was also received, reviewed and accepted by BFF staff.

Conference Calls:

BFF staff participated in two (2) conference calls with the DOE/OLM project manager and contractor staff to discuss project progress and schedules.

Site Visits:

Staff observed well development and water sampling activities at the PSA site.

Miscellaneous:

The chief attended the Division Staff Meeting in Carson City on January 11, February 8, March 21, April 4, May 16 and June 6, 2016. While in Carson City for the meetings, various other bureau business was conducted.

The bureau chief and/or supervisor attended: (1) three (3) Nevada Site-Specific Board Meetings held in (NNSAB) Beatty, NV and Las Vegas, NV; (2) the annual FFACO meeting with NNSA/NFO personnel; (3) Division budget training in Carson City; (4) a tour of specific areas of the NNSS with the Deputy Administrator and NNSA/NFO personnel; (5) a meeting with the NNSAB chair and vice-chair; (6) budget discussions with NNSA/NFO personnel and/or the Deputy Administrator; and, (7) the semi-annual meeting of the National Governor's Association Federal Facility Task Force, which was held in Henderson, NV.

The Bureau is participating in a pilot program for establishing an e-Records system for the Agency. BFF staff met to discuss the UGTA document categories needed for this e-Records system.

FFACO Milestone Deadlines were established for Fiscal Years 2016-2018.

Training

BFF staff participated in a training session on radionuclide decay provided by SN3.

BFF staff participated in the annual NNSA/NFO-provided OSHA Hazwoper 4-Hour Refresher Course after completing 4 hours of web-based training in advance of the classroom course.

BFF staff participated in a security briefing provided by NNSA/NFO.

BFF staff completed Nevada Information Security Awareness Training.

Staff attended the annual Las Vegas office Safety Training meeting.

Staff attended a presentation on the Northgate Drone Geophysical Mapping System.

Staff participated in two GoldSim webinars, one on Optimization and Sensitivity Analysis and one on Modeling Scenarios.

Agreement in Principle (AIP) Functional Areas Summary

1. On-Site Discharges

Water Pollution Control

Document Reviews:

Water Pollution Control Permit GNEV 93001 – Bureau of Federal Facilities (BFF) staff reviewed the October 1 through December 31, 2015 and January 1 through March 31, 2016, Quarterly Discharge Monitoring Reports (QMRs). With the temporary waiver from the use of the calculated flow limit for the DAF sewage lagoon system as a permit limit, granted by the BFF in the first quarter of SFY 16, the facilities at the Nevada National Security Site (NNSS) are in compliance with the current permit.

BFF Staff met with National Nuclear Security Administration/Nevada Field Office (NNSA/NFO) personnel and their contractor concerning errors identified in the Water Pollution Control Permit GNEV 93001. NAC 445A.263(4) allowed BFF to make these editorial changes and convey a revised copy of the Permit to the NNSA/NFO.

Water Pollution Control Permit GNEV 96021 – BFF staff reviewed the QMRs for October 1 through December 31, 2015, ER 12-1 Groundwater Sampling Summary Monitoring Report for 2015, the Annual E-tunnel Waste Water Disposal System QMRs, and the January 1 through March 31, 2016, QMR for the Permit and sent letters stating they were compliant. However, BFF did notice that there is a downward trend in the pH of the discharge water over the last year and requested NNSA/NFO personnel investigate possible causes for this trend.

Meetings:

BFF staff attended the quarterly Water Meetings held in January and April, 2016.

Site Visits:

BFF staff, NNSA/NFO and Navarro personnel inspected the E-Tunnel discharge sampling and field measurements on May 19, 2016. They identified problems in the pH method and discovered that the contractor personnel had recently replaced the pH standards. BFF staff requested that the contractor review and revise their method and investigate whether or not the previous standards may have caused the downward trend in pH over the last year.

Spills

The Nevada Division of Environmental Protection (NDEP) sent letters to the NNSA/NFO requesting corrective action for, and/or closing of, spills described in Spill Report Nos. 150729-02, 151114-02, 160128-03, and 160524-05.

2. Ground Water Monitoring

There was no activity in this category during this quarter.

3. Air Quality Monitoring

There was no activity in this category during this quarter.

4. Low Level and Mixed Low Level Waste Oversight

Document Preparation:

BFF Contract #15-028, with contractor Stoller Newport News Nuclear (SN3), was extended until May 31, 2017.

Conference Calls:

Staff participated in weekly Waste Acceptance Review Panel (WARP) meetings in person and/or via teleconference. Review panel meetings were held on January 6, 13, 20, 27; February 3, 10, 17, 24; March 2, 9, 16, 23, 30; April 6, 13, 20, 27; May 4, 11, 18, 25; and June 1, 8, 15, 22, 29, 2016. Review panel members discussed waste profile comments and waste-specific compliance issues for generator-submitted low-level and mixed low-level radioactive waste profiles as they pertain to Nevada National Security Site Waste Acceptance Criteria (NSSWAC), Rev. 10a. As applicable, BFF staff reviewed and provided comments on low-level radioactive waste and mixed waste profiles (for compliance with NNSWAC, Rev. 10a) and reviewed all comment responses submitted by the currently-approved Low-Level Waste and Mixed Low-Level Waste generators.

BFF staff participated in a call with NNSA/NFO personnel, Waste Acceptance Review Panel members, and personnel from the Advanced Mixed Waste Treatment Plant in Idaho about “squeezants.”

Meetings:

Introductory training on Department of Energy (DOE) created radiological waste acceptance program data sharing website, SHAREPOINT, was provided by NNSA/NFO contractor personnel.

A kick-off meeting for Revision 11 of the NNSWAC was attended by staff.

Under BFF Contract #15-028, Contractor SN3 provided professional development training to BFF staff on March 29, 2016. Discussion focused on the Chart of Radiological Nuclides, and various radioactive decay methods.

Site Visits/Radioactive Waste Generator Facility Evaluations:

BFF staff completed radiological survey tasks under Contract #15-028 on January 21, February 24, March 30, April 27, May 25 and June 23, 2016 at the Area 5 Radiological Waste Management Site (RWMS) at the NNS with SN3. Incoming waste shipments were observed, required documentation for random shipments was verified, real-time data for incoming waste packages and outgoing waste transportation vehicles were collected.

Staff participated in a radioactive waste generator facility preparatory meeting and evaluation at the Lawrence Livermore National Laboratory in Livermore, California; the Paducah Gaseous Diffusion Plant in Paducah, Kentucky; the Portsmouth Gaseous Diffusion Plant in Piketon, Ohio; the Permafrix facility in Gainesville, Florida; Pantex in Amarillo, Texas; Nuclear Fuel Services in Erwin, Tennessee; BWTX facility in Paducah, Kentucky; Sandia National Laboratory in Albuquerque, New Mexico; Brookhaven National Laboratory in Upton, New York; and BWTX facility in Piketon, Ohio.

Nuclear Fuel Services, Inc., Erwin, TN - BFF staff observed the repackaging and macroencapsulation of three (3) NFS drums that had been shipped to the NNSS with improper waste characterization. Staff is also working on a path forward for a cargo container that was shipped from NFS to the NNSS with possible hazardous liquids, a prohibited item under the NNSSWAC.

5. Waste Management

Document Review:

The Bureau issued a Class I permit modification for permit SW 532 to add three additional low-level/asbestos waste disposal cells to the permit after review of the modification request.

Staff also reviewed: (1) a request to properly dispose of beryllium in the U10c landfill; (2) the Area 6 & 9 Annual Solid Waste Disposal Site (SWDS) Report for the NNSS for the period of January 1, 2015 through December 31, 2015; (3) the Area 23 Semi-Annual Solid Waste Disposal Site (SWDS) Report for the NNSS for the period of July 1, 2015 through December 31, 2015; (4) the fourth quarter asbestos acceptance report for Area 5; (5) Bimonthly Progress Report for Revegetation at CAU 111: Area 5 WMD Retired Mixed Waste Pits; (6) the Annual Report for the NNSS Area 5 Solid Waste Disposal for Calendar Year (CY) 2015, Permit SW532; (7) the Annual Summary/Waste Minimization Report, Calendar Year 2015, RCRA Permit for a Hazardous Waste Management Facility Permit Number NEV HW0101; (8) a Post-Closure Report for Closed RCRA CAUs, NNSS, NV, for FY 2015 (Oct 2014 - Sept 2015); (9) the Annual Report for the NNSS Area 5 Asbestos received under Permit SW 532 and Permit NEV HW0101 for Calendar Year (CY) 2015; (10) the Final Post-Closure Inspection Report for the Tonopah Test Range, NV, for Calendar Year 2015; (11) a 2015 Data Report: Groundwater Monitoring Program Area 5 RWMS; (12) letters detailing repairs from inadvertent intrusions into two use restrictions on the NNSS; (13) the Annual Soil Moisture Monitoring Reports for the NNSS Area 6 Hydrocarbon and Area 9 U10C Landfills; (14) a Record of Technical Change (ROTC) for Soils CAUs 90, 91, 92, 110, 111 and 112; (15) the Completion Report for the RCRA Emergency Permit for Treatment of Blasting Caps in Area 27 on the NNSS; (16) approved Landfill Permit Number SW 13 097; and, (17) updates on the Potential Intrusions and Inspections after Significant Precipitation at the NNSS.

Emergency Permits:

The Bureau issued an emergency permit to treat Unexploded Ordnance (UXO) which consisted of approximately 400 blasting caps in a 7 cubic foot box within Area 27.

Finding of Alleged Violations (FOAV):

The NNSA/NFO agreed to a \$20,000.00 cash settlement, supplemented with an NDEP approved Supplemental Environmental Project (SEP), for RCRA violations related to ten (10) drums stored on a 90-day satellite accumulation area pad at the NNSA that self-ignited in June 2015.. The \$20,000.00 cash settlement was paid in March. The USDOE/NNSA/NFO will implement the SEP by funding the purchase of a chemical detection/identification instrument (Thermo Scientific Gemini S-1 or equivalent) for identifying unknown solid and liquid chemicals and materials presenting an explosive concern. The NNSA/NFO is presently in the process of procuring this instrumentation.

Meetings and Conference Calls:

NEV HW0101 Permit Modification – Several meetings and conference calls were held with DOE personnel to discuss the planned Class III permit modification request. NDEP staff were also given a tour of the Area 5 RWMS as part of the permit modification process. Much regulatory research and a number of internal meetings were also completed for this permit modification.

Waste Management Symposium – BFF staff attended the 2016 Global Waste Management Symposium in Phoenix, AZ. Individual meetings were held with DOE, NNSA/NFO and State of Nevada personnel during the week of the Symposium to discuss waste topics that involve the NNSA.

Area 5 Groundwater/Sampling Plan – Several meetings were held with NNSA/NFO personnel to discuss the current sampling plan and well locations.

CAU 107 and CAU 374 – BFF staff attended a meeting to discuss a path forward at both CAUs at the request of the NNSA/NFO.

Site Inspections:

Annual Solid Waste Disposal Site (SWDS) Inspection – BFF staff conducted a second follow-up inspection on January 5, 2016, to verify all corrective actions, noted after a first follow-up inspection on November 3, 2015, had been implemented. All the corrective actions were found to be sufficient.

RCRA Quarterly Post-Closure Monitoring (PCM) Inspections – BFF staff prepared for, and conducted, quarterly post-closure monitoring inspections for closed RCRA permitted sites on the NNSA and Tonopah Test Range/Nevada Test and Training Range.

Compliance Evaluation Inspection (CEI) - BFF staff prepared for, and conducted a CEI inspection on April 25 and 26, 2016. The NNSA/NFO was found compliant with the conditions of the NEV HW0101 Permit. The CEI report was completed and sent to US EPA Region 9 and NNSA/NFO on June 2, 2016.

6. Major Program Proposals

There was no activity in this category during this quarter.

7. Historic Preservation

Funding has been provided to the SHPO for historic reviews at DOE and/or the NNSS during the year.

8. Environmental Monitoring Program and Report

There was no activity in this category during this quarter.

9. Sampling

No sampling activities were conducted by the Bureau during this quarter

10. Safe Drinking Water

Meetings:

BFF staff attended the quarterly Water Meeting held on April 7, 2016.

Fiscal Analysis:

Estimate of personnel resources used (FTE or hours)

The bureau of Federal Facilities is made up of a Bureau Chief, two supervisors, six technical staff and an administrative assistant. Currently, one supervisor and one sanitary engineer position are vacant. The AIP grant funds activities for each of these individuals. For the quarter, that represents approximately 4.5 FTEs based on a review of grant related activities.

Total expenditures for each task area

A total of approximately \$278,170 was spent during these two quarters for AIP work. This is the most current figure available at this time and includes personnel, operating, information services, DOE and DOE oversight and purchasing costs.

Comparison of estimate to budgeted expenses:

Expenses this quarter were within the legislatively-approved spending limits.

Miscellaneous:

The bureau chief and/or supervisor attended two NNSA/NFO's Low-Level Waste Stakeholder's Forum in Pahrump, NV and Las Vegas, NV and a PIO-focused Table Top Exercise for a LLW emergency.

The chief attended the Division Staff Meeting in Carson City on January 11, February 8, March 21, April 4, May 16 and June 6, 2016. While in Carson City for the meetings, various other bureau business was conducted.

The bureau chief and/or supervisor attended three (3) Nevada Site-Specific Board Meetings held in (NNSAB) Beatty, NV and Las Vegas, NV, the annual FFACO meeting with NNSA/NFO personnel, Division budget training in Carson City, participated in budget discussions with NNSA/NFO personnel and/or the Deputy Administrator, toured specific areas of the NNSS with the Deputy Administrator and NNSA/NFO personnel, met with the NNSAB chair and vice-chair, and participated in the semi-annual meeting of the National Governor's Association Federal Facility Task Force.

The Bureau is participating in a pilot program for establishing an e-Records system for the Agency. BFF staff met to discuss the UGTA document categories needed for this e-Records system.

Training:

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BFF staff participated in the annual NNSA/NFO-provided OSHA Hazwoper 4-Hour Refresher Course after completing 4 hours of web-based training in advance of the classroom course.

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