Enclosure 1

Verification that BIA has permanently ceased the injection or disposal of waste fluids at the facility (Paragraph I.17); and provide a copy of the written certification, required by Paragraph I.17.c.

Status: Complete (Cease Disposal - Paragraphs I.17a, I.17b, and I.17c)

Paragraphs 17a, 17b, and 17c: Cease Disposal - Complete

- BIA WRO fax to BIA ENA, dated June 20, 1995: BIA WRO instructs Agency personnel to: (1) cease using the drain that leads to the dry well; and (2) not to discharge any chemicals from the Facility.

- BIA Letter to EPA, dated June 21, 1995: BIA communicates to EPA conformance with Paragraph 17 of the subject order. The letter communicates that BIA ENA staff have been directed to (1) cease any discharge to the facility floor drain; and (2) cease any discharge of fluids onto unlined dirt areas of the facility. This letter continues to say that there in only one drain line that leads to the former well located west of the facility.

Enclosure 2

Copies of all Work Plans submitted pursuant to Paragraphs II.18 and II.19 and II.E.40 of the Order.

Status: Complete (Facility Work Plan - Paragraphs II.18 and II.19)
Incomplete (Site Characterization – Paragraph II.E.39)
Incomplete (Site Remediation - Paragraph II.E.40)

Paragraphs 18 and 19: Work Plan - Complete

The "Roads Shop Facility Work Plan", Bureau of Reclamation, dated October 22, 1998 was developed to respond to the requirement to develop a Facility Work Plan (Paragraphs 18 through 20). This plan also responded to requirements associated with Paragraphs 24, 28, 30-33, and 39. The objectives of the Facility Work Plan are to (1) acquire information and data to characterize the nature and extent of contamination originating from the Facility; (2) implement interim remedial actions; (3) identify the sources of soil and groundwater contamination; and (4) evaluate drinking water wells #1, #2, and #3.

The Facility Work Plan addresses the storage and disposal of hazardous materials historically used at the Facility, the operation of a 16,000-gallon heating oil storage tank and associated distribution pipeline, aboveground and underground storage tanks, and the drinking water wells.

From the date of the AOC, several work plans and the corresponding reports, and related correspondence have been completed and implemented from 1995 to 2007 to investigate and/or monitor petroleum and pesticide releases to soils and groundwater. Key plans are provided below with key reports and correspondence and information provided in all the enclosures.

- "Work Plan and Health and Safety Plan for the Characterization, Packaging, and Labeling of Materials in Building 332 and the Roads Shop Area in Owyhee, Nevada", prepared by MSE, Inc., dated April 14, 1995.
- BIA Letter to EPA, dated May 21, 1997 regarding status of the approval of the Work Plan.
- BIA Letter to EPA, dated October 6, 1997 regarding status of Roads Shop Facility Work Plan Implementation.
- "Roads Shop Facility Background and Study Rationale", Bureau of Reclamation, dated July 1996.
- "Roads Shop Facility Work Plan", Bureau of Reclamation, dated October 22, 1998.

- "Site Characterization Work Plan", SECOR, dated July 13, 1999.
- "Work Plan, Pilot Testing Presumptive Remediation Technologies", SECOR, dated November 2005
- "Work Plan for Monitoring Well Installation and Abandonment and Semi-Annual Groundwater Monitoring, Sampling, and Reporting", SECOR, dated September 5, 2007.

Paragraph 39: Site Characterization – Incomplete

Paragraph 39 requires the development of a plan to delineate the boundaries of the groundwater contamination and the extent of soil contamination. Although BIA believes that this requirement has been substantially met, the BIA plans: (1) additional pesticide and dioxin sampling and analyses in the former Roads Facility Yard; and (2) additional soil borings to either confirm the extent of contamination or evaluate the source of that contamination. Further information regarding characterization and remedial planning work is found below.

Paragraph 40: Site Remediation - Incomplete

Paragraph 40 requires the development of a cleanup and remediation work plan for the Site.

The latest work plan describing remedial alternatives is found in the report, "Report of Remedial Action Alternatives for Petroleum-Impacted Soil and Groundwater", SECOR, dated July 2004.

Work plans are planned to be developed to comply with the outstanding provisions of this paragraph as well as Paragraphs 39, 44 and 45.

The initial work plans will support the collection of additional data and information needs to complete the characterization of compounds of interest in soils and shallow groundwater. This work will support the extent of soil contamination and support the development of long term remedial plans for the groundwater. These plans will involve: (1) the installation of additional monitoring wells; (2) the implementation of soil borings; (3) sampling and analyses; and (4) short term groundwater monitoring.

Once the characterization work is completed, a remedial work plan will be developed. Associated with the development of the remedial options, remedial cleanup goals will be established. These goals will be established through coordination with EPA and the Tribe.

Enclosure 3

A description of all characterization and sampling work performed at the Facility pursuant to the Order, including location of samples and lab(s) used to analyze the samples, and provide copies of the report(s) with the results of sampling performed pursuant to the Order (Paragraphs Il.A.22, II.A.24, II.A.25, and, II.B.29-31 covering injection wells, storage areas, and the 16,000 gallon tank and pipeline).

Status: Complete (Close Disposal Well - Paragraphs II.A.22, II.A.24, and II.A.25)
Status: Complete (16,000-gallon Storage Tank and Pipeline - Paragraphs II.B.29, II.B.30, and II.B.31)

Paragraphs 22, 24, and 25: Close Disposal Well - Complete

The requirements to characterize and close the injection disposal well, to complete the disposal of the impacted contents, and to address impacts to surrounding soils have been completed.

The EPA letter, dated January 17, 2007 to BIA, WRO confirms the closure of the Facility shallow injection well. Supporting documents include:

- "Subsurface Investigative Report", SECOR, dated May 1. 2000: Field work and analyses conducted to address the investigation requirements of the AOC to include investigation of the disposal well.

- "Additional Road Shop Soil Investigation", SECOR, dated November 2004: Characterization of surficial soils along the drain line.

- SECOR Letter Report to EPA, dated July 21, 2005: SECOR provides documentation supporting the investigation and removal of the disposal well and drain line as required by Paragraphs 21 through 27 of the AOC.

- EPA Letter to BIA, dated January 17, 2007: EPA confirms and approves the shallow injection well formerly used for the disposal of motor vehicle waste at the BIA Roads Shop as "permanently abandoned".

Paragraphs 29, 30 and 31: 16,000-gallon Storage Tank and Pipeline - Complete

The 16,000-gallon heating oil tank was removed and disposed of in 2000. The two-inch diameter heating oil pipeline was abandoned in 1985 and removed during subsequent investigations of contamination in the area of the pipeline. From 1985 to 2009, subsurface soils

in the area of the pipeline were investigated and removed. Locations of petroleum contaminated soils (PCS) that could not be excavated due to the presence of utilities, structures, or roadways have been identified and documented. The BIA has met the requirements of Paragraphs 29, 30, and 31. Work performed associated with the subsurface investigation and removal of the tank and PCS is found in the below listed reports:

- "Sampling Results for the Bureau of Indian Affairs, Roads Shop Fuel Oil Pipeline on the Duck Valley Indian Reservation", MSE, Inc., undated: This work was performed in 1998 and involved the initial site characterization of petroleum releases from the heating oil line system.

- "Subsurface Investigative Report", SECOR, dated May 1. 2000: Field work and analyses conducted to address the investigation requirements of the AOC to include characterization of subsurface soils, and removal of the heating oil line and PCS.

- "Groundwater Impact Assessment of Former BIA Road Shop on Owyhee Drinking Water Wells", SRK Consulting, dated May 2000: This work involved the removal of underground and aboveground storage tanks to include the removal of the 16,000-gallon heating oil aboveground storage tank. The work also involved the characterization of groundwater and subsurface soils.

- "Report of Findings from Soil Excavation and Groundwater Monitoring", SECOR, dated January 2, 2003: This work involved the removal of PCS as well as investigative work characterizing the extent of petroleum contamination in the subsurface soils and groundwater.

Enclosure 4

A description of all work, including but not limited to remediation work, performed pursuant to the Order to identify and address contamination. Such work should have included identification and closure of disposal wells (Paragraphs I.A.21-23, I.A.26), testing of the 16,000 gallon storage tank and pipeline (Paragraph II.B.28-29), identification and removal of waste drums or other storage containers (Paragraphs II.E.41-42), identification and remediation of standing pools of sludge and/or other contaminants (Paragraph II.E.42), and identification and remediation of subsurface soils and/or groundwater contamination (Paragraphs 11.E.43-45).

Status: Complete (Close Disposal Well - Paragraphs I.A.21, I.A.22, I.A.23 and I.A.26)
Status: Complete (16,000-gallon Storage Tank and Pipeline - Paragraphs II.B.28 and II.B.30)
Status: Complete (Site Remediation – Paragraphs II.E.41, II.E.42, and II.E.43)
Status: Incomplete (Site Remediation – Paragraphs II.E.44 and II.E.45)

Paragraphs 21, 22, 23 and 26: Close Disposal Well - Complete

Paragraphs 21, 22, and 23 required the characterization and proper closure of the "disposal well," identification and closure of any other such wells, disposal of impacted contents, and addressing impacts to surrounding soils. All field work, characterization sampling and abandonment procedures have been completed.

Characterization of drain sump contents and hazardous materials stored at the Roads Shop Facility was conducted and documented through the report, "Characterization Packaging and Labeling of Materials in Owyhee, Nevada", MSE Inc., dated July 18, 1995.

Paragraph 26 requires the removal or sealing of the disposal well and disposal line. The SECOR Letter Report to EPA, dated July 21, 2005.

Documents provided in Enclosure 1 provide the necessary documentation to support completion of Paragraphs 21, 22, 23, and 26. The 2007 EPA letter to BIA (Enclosure 1) confirms the closure of BIA's injection well as required by Paragraphs 21 through 27.

Paragraphs 28 and 29: 16,000-gallon Storage Tank and Pipeline - Complete

Paragraph 28 required testing the integrity of the 16,000-gallon heating oil tank and pipeline. Paragraph 29 required information regarding the contents of the 16,000-gallon tank and piping if they are still in use.

The 16,000-gallon heating oil tank was removed from the distribution pipeline in 1985 but was still in use from 1985 to 2000 as the BIA heating fuel storage receiving location. Heating oil #2

was stored in the tank and was transported to individual buildings from the heating fuel storage receiving location. Since the cause of the release was due to the heating oil line and since there was no evidence of releases from the heating oil tank, no testing was conducted of the tank. The 16,000-gallon heating oil tank was removed and disposed of by SRK in 2000.

Since it was evident that the heating oil line was leaking and that the line required removal, no tests occurred with the heating oil line.

Paragraphs 41 and 42: Site Remediation - Complete

Paragraphs 41 and 42 require the development of a work plan to provide for the proper storage and/or disposal of all the drums at the facility. Proper disposal of all hazardous materials stored in drums and containers that were stored at the Facility has occurred. Characterization of all hazardous materials stored occurred during the characterization of drain sump contents as described above.

Paragraph 43: Site Remediation - Complete

Paragraph 43 requires removal and disposal of all standing pools of sludge and/or other contaminants and surface soils that are detectably contaminated in all areas of the Facility.

Enclosure 3 provides documentation supporting the removal of petroleum contaminated soils in the area of the heating oil line and disposal well. Additionally, during the characterization and cleanup of surficial petroleum staining of soils at the Roads Shop Facility in 1999 (see "Subsurface Investigation Report", SECOR, dated May 1, 2000 (see Enclosure 3)), pesticide contaminated soils were observed in the area of the Roads Stop Storage Bays. Reports documenting the work involved with the characterization and cleanup of pesticide contaminated soils is provided as follows:

- SECOR Letter Report to BIA, dated September 29, 1999: Report summarizes characterization activities and the removal of PCS and pesticide contaminated soils from surface soils located in the Roads Shop Yard.

- "Phase One Site Characterization Report", SECOR, dated November 3, 1999: Pesticide characterization and removal of surficial soils from the Facility.

- "Phase Two Site Characterization Report", SECOR, dated February 24, 2000: Additional pesticide characterization of surficial soils at the Facility.

- "Additional Road Shop Soil Investigation", SECOR, dated November 2004: Characterization of surficial soils in the Roads Shop Yard for pesticides, dioxins, and furans.

- SECOR Letter Report to BIA, dated December 23, 2004: Additional analyses of samples with detectable levels of 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) identified in the SECOR November 2004 report were further analyzed to indicate that sample location RSB-2 for 2,3,7,8-TCDD is 6.11 picograms per gram (pg/g) which is below industrial standards at 16 pg/g and above residential standards at 3.9 pg/g.

Paragraphs 44 and 45: Site Remediation - Incomplete

Paragraphs 44 and 45 require appropriate remediation of subsurface soils and/or groundwater on and off site originating from the Facility. A work plan needs to be developed to study the feasibility of groundwater remedial alternatives associated with releases from the heating oil pipeline.

Current groundwater conditions indicate that petroleum concentrations do not exceed existing standards.

Enclosure 5

Provision of complete responses to the required information about the construction and operation of Water Wells # 1-3, updated to the present, as required by Paragraphs ll.D.35- 36.

Status: Complete (Site Characterization - Paragraphs II.D.35 and II.D.36)

Paragraphs 35 and 36: Site Characterization - Complete

AOC Paragraphs 35 and 36 require that specific information regarding construction and operation of Wells #1, #2, and #3 be provided. Adequate information regarding these wells has been provided through past assessment activities. Reports providing information concerning well construction and operation include:

- "A Study of the Source of Contamination in Potable Water Wells in the Community of Owyhee, Nevada", BIA, November 1994: Provides available historical drinking water well operation information for Wells #1, #2, and #3.

- Associated Earth Sciences, Inc. Letter Report to BIA: Analyses of Wells #1, #2, and #3 through geophysical logging to obtain well construction and geological information.

- "Summary Report, Well Installation, Abandonment and Monitoring Activities October 2007 to May 2009", dated December 16, 2009: Provides information on the abandonment of Wells #1, #2, and #3. Wells #1, #2, and #3 were plugged and abandoned on September 26, 2008.

Enclosure 6

Provision of complete responses to required information about the hydrogeology of the aquifer and the formation underlying the Facility and Drinking Water Well #1 -3, updated to the present, as required by Paragraphs II.D.37-38.

Status: Complete (Site Characterization – Paragraphs II.D.37 and II.D.38)

Paragraphs 37 and 38: Site Characterization - Complete

AOC Paragraphs 37 and 38 require that specific hydrogeology information for the aquifer and formation underlying the Facility and the water supply wells be conducted. The intent of these requirements is to investigate the risk of impact to the aquifer and the supply wells, which were the source of drinking water to the community. These wells were abandoned in 2008. Continued monitoring of the groundwater has occurred of the shallow aquifer.

BIA has developed information regarding the horizontal gradient and flow direction of the shallow aquifer. Numerous geologic cross sections and well logs have been developed and the groundwater gradient and flow direction have been defined by the network of wells installed throughout the site. Our current consultant, Akana, has recommended a review of existing information regarding the presence and magnitude of any vertical gradients which might result in downward migration of contaminants and the development of additional hydrogeological cross sections. Reports supporting completion of these requirements include:

- "Subsurface Investigative Report", SECOR, dated May 1. 2000 (see Enclosure 3): Provides regional geology and hydrogeology. Additional provides site-specific geologic information and geologic cross sections, focusing on the pipeline routes that were the subject of sampling and removal actions. Provides groundwater elevations, site stratigraphy, hydraulic conductivity, permeability and porosity.

- "Groundwater Impact Assessment of Former BIA Road Shop on Owyhee Drinking Water Wells", SRK Consulting, dated May 2000: The work involved the characterization of groundwater and subsurface soils. Provides detailed information on shallow aquifer lithology, shallow groundwater levels, groundwater gradients, and groundwater flow direction.

- "Summary Report, Well Installation, Abandonment and Monitoring Activities October 2007 to May 2009", dated December 16, 2009 (see Enclosure 5): Provides hydrologic and geologic information through well logs of monitoring wells at the Site.

Enclosure 7

Description of all sampling and work performed at the Drinking Water Wells #1-3 located at the Facility, including providing all well sample results since January 1, 2006 (Paragraph II.C.32), identification and location of all monitoring wells installed, including but not limited to Water Wells # 1-3, along (with) copies of the lab results of any samples taken from those wells during this time frame (Paragraph II.C.33-34).

Status: Complete (Sample Drinking Water Wells – Paragraphs II.C.32, II.C.33 and II.C.34)

Paragraphs 32, 33 and 34: Sample Drinking Water Wells - Complete

Wells #1, #2, and #3 were abandoned on September 26, 2008. Sampling and analyses of Wells #1 and #2 for petroleum contamination began in 1988 and continued through their closure in 2008. Sampling of Well #3 began in 1995. Sampling and analyses of these three wells was conducted by both BIA and EPA. Due to the screening of Well #1 from the shallow aquifer to the deep aquifer, Well #1 was determined to be the pathway of the petroleum contamination in both Wells #1 and #2. Well #3 never exhibited contamination for either petroleum or pesticides.

A network of wells has been installed to define petroleum contamination of the groundwater. Well installation has occurred in the area of the heating oil pipeline and the disposal well. Associated with the installation of these wells, soil samples have been collected. Additionally, over time some monitoring wells have been abandoned. Although monitoring events have occurred since 2009, the report, "Summary Report, Well Installation, Abandonment and Monitoring Activities October 2007 to May 2009", dated December 16, 2009" (Enclosure 5) best describes the monitoring well network. Additional documents providing groundwater quality information with the drinking water wells and/or monitoring wells include:

- "Subsurface Investigative Report", SECOR, dated May 1. 2000: Field work and analyses conducted to address the investigation requirements of the AOC to include characterization of groundwater conditions (Enclosure 3).

- "Groundwater Impact Assessment of Former BIA Road Shop on Owyhee Drinking Water Wells", SRK Consulting, dated May 2000 (Enclosure 3): The work involved characterization of groundwater.

- "Groundwater Monitoring Results", SECOR, dated December 2004: Provides groundwater monitoring results and groundwater petroleum plume delineation.

- "Groundwater Monitoring Results", SECOR, dated February 2005: Provides groundwater monitoring results and groundwater petroleum plume delineation.

- "Groundwater Monitoring Results", SECOR, dated July 2005: Provides groundwater monitoring results and groundwater petroleum plume delineation.