Mid-Pacific Region Lahontan Basin Area Office

Project Name: Old Lahontan Power Plant Breaker Replacement

CEC Number: LO-2013-1032

Cost Authority: 14XR0680A4 RX191240993230000

Date: 1/2/2014

Exclusion Category: 516 DM 14.5 D.1 – Maintenance, Rehabilitation, and replacement of existing facilities which may involve a minor change in size, location, and/or operation.

Nature of Action: Due to a Power Review of Operations and Maintenance at the old Lahontan Power Plant, a Category 1 recommendation was made to correct a deficiency where immediate and responsive action is required to ensure electrical, safety, and operational integrity of the facility. LBAO's action is to require the operation and maintenance contractor, the Truckee-Carson Irrigation District (District), to replace the existing oil circuit breakers, to complete an electrical arc-flash study, and to complete an electrical safety plan for the Old Lahontan hydroelectric facility.

The existing main circuit breaker is a 7.2KV rated circuit breaker manufactured in 1950. This breaker is a manual close with electric shunt trip. The breaker could not be de-energized to test or obtain the nameplate information. Problems with the breaker include the close proximity of the exposed copper bus to the back side of the access door. Also, due to the manual close requirement of the breaker, the operator must stand directly in front of the breaker to close the breaker. This exposes the operator to the direct arc flash energy available from the system while operating the breaker handle. Additionally, the existing Westinghouse CO overcurrent relays do not have any instantaneous overcurrent protection to reduce exposure to the operator or switchgear.

The recommendation is to replace the existing main circuit breaker and overcurrent protective devices with a new high speed vacuum contactor and replace the existing CO overcurrent relays with a new modern overcurrent and arc-flash detection relay. The new equipment would provide high speed circuit interruption and protection for both the operator and plant switchgear.

The outer housing (cabinets), including wooden handles will remain as original and will not be modified in any way. All upgrades of breaker equipment will be performed inside the electrical cabinets housing the existing breakers, with no outside modifications to the breaker handles.

Timeline: As soon as possible. Present arc-flash calculations show an arc-flash occurrence would produce over 40 cals/sq cm which is enough energy to not only severely burn the operator of the breaker, but also create an explosion that could kill the operator and damage the electrical equipment in the cabinet.

Location: SE¼, Section 33, T.19N, R26E, M.D.M., Churchill County, Nevada. The electrical

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breakers are located in the Old Lahontan Power Plant. A map of the Old Lahontan Power Plant is attached and marked as 'Exhibit A".

Evaluation of Criteria for Categorical Exclusion 1. This action would have a significant effect on the quality of the human environment. (40 ✓ No ☐ Uncertain ☐ Yes CFR 1502.3). 2. This action would have highly controversial environmental effects or involve unresolved V No conflicts concerning alternative uses of ☐ Uncertain ☐ Yes available resources [NEPA Section 102(2) (E) and 43 CFR 46.215 (c)]. 3. This action will have significant impacts on V No ☐ Uncertain ☐ Yes public health or safety (43 CFR 46.215(a)). 4. This action would have significant impacts on such natural resources and unique geographical characteristics as historic or cultural resources: parks, recreation and refuge lands; wilderness areas; wild or scenic rivers; national natural No. landmarks; sole or principle drinking water ☐ Uncertain ☐ Yes aguifers; prime farmlands; wetlands (E.O. 11990); floodplains (E.O. 11988); national monuments; migratory birds; and other ecologically significant or critical areas (43 CFR 46.215 (b)). 5. The action would have highly uncertain and potentially significant environmental effects or No No □ Uncertain □ Yes involve unique or unknown environmental risk (43 CFR 46.215 (d)). 6. This action would establish a precedent for future actions or represent a decision in ✓ No principle about future actions with potentially ☐ Uncertain ☐ Yes significant environmental effects (43 CFR 46.215 (e)). 7. This action would have a direct relationship to other actions with individually insignificant ✓ No ☐ Uncertain ☐ Yes but cumulatively significant environmental effects (43 CFR 46.215 (f)). This action would have significant impacts on 8. properties listed, or eligible for listing, on the National Register of Historic Places as ✓ No ☐ Uncertain ☐ Yes determined by the bureau (in coordination with a Reclamation cultural resources professional, RM LND 02-01 D(1)(a)) (43 CFR 46.215 (g)).

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| 9. | This action would have significant impacts on species listed, or proposed to be listed, on the List of Endangered or Threatened Species, or have significant impacts on designated Critical Habitat for these species (43 CFR 46.215 (h)). | ☑ No | ☐ Uncertain | ☐ Yes |
|-----|--|------|-------------|-------|
| 10. | This action would violate a Federal, State, local, or tribal law or requirement imposed for protection of the environment (43 CFR 46.215 (i)). | ☑ No | ☐ Uncertain | ☐ Yes |
| 11. | This action would affect ITAs (to be completed by Reclamation official responsible for ITAs) (512 DM 2, Policy Memorandum dated December 15, 1993). | ☑ No | ☐ Uncertain | ☐ Yes |
| 12. | This action would have a disproportionately high and adverse effect on low income or minority populations (E.O. 12898) (43 CFR 46.215 (j)). | ☑ No | ☐ Uncertain | ☐ Yes |
| 13. | This action would limit access to and ceremonial use of Indian sacred sites on Federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites (E.O. 13007, 43 CFR 46.215 (k), and 512 DM 3). | ☑ No | ☐ Uncertain | ☐ Yes |
| 14. | This action would contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species (Federal Noxious Weed Control Act, E.O. 13112, and 43 CFR 46.215 (l)). | ☑ No | ☐ Uncertain | ☐ Yes |

Environmental commitments, explanation, and/or remarks:

See the attached correspondence from the Mid-Pacific Region Cultural Resources Division regarding concurrence with Item 8 (cultural resources), and from Patricia Rivera regarding Item 13 (Indian Trust Assets).

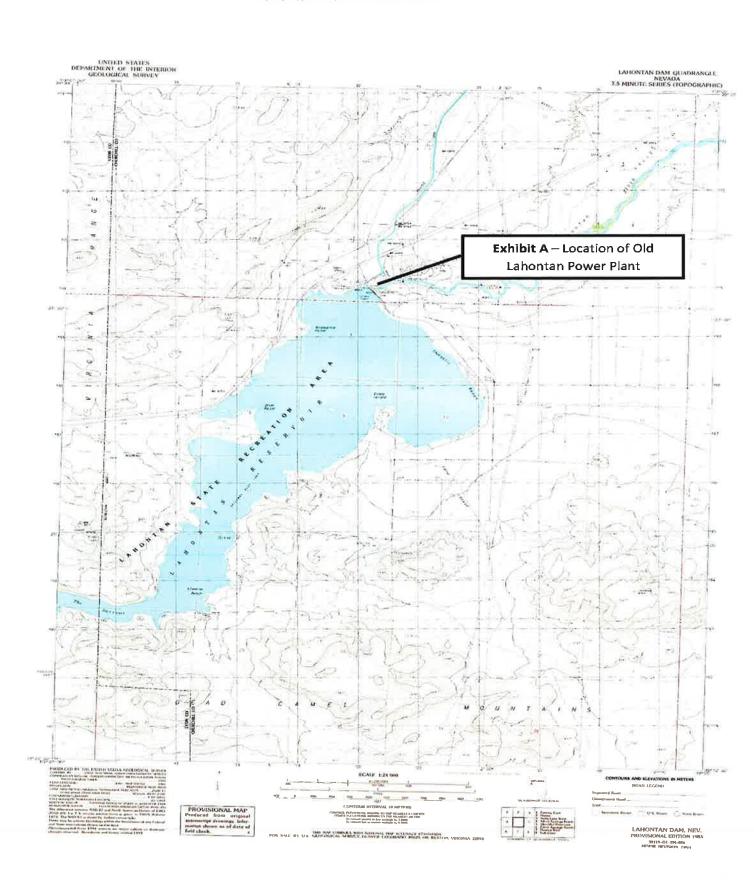
Reclamation concludes that a Biological Evaluation, Under Section 7 of the Endangered Species Act, is not required for this action. Reclamation determines that this Federal action would have no effect on Threatened or Endangered species.

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| Prepared by: | Locke Hahne Manager, Operations & Maintenance Division | 1/2/2014 Date |
|--------------|--|------------------|
| Recommende | d: | 1-2-14 Date |
| Concurrence: | Robert Edwards Resource Division Manager | 1/6/2014 Date |
| Approved: | Terri Edwards | 1/7/2014 Date |

Deputy Area Manager

Mid-Pacific Region Lahontan Basin Area Office



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BUREAU OF RECLAMATION CATEGORICAL EXCLUSION CHECKLIST

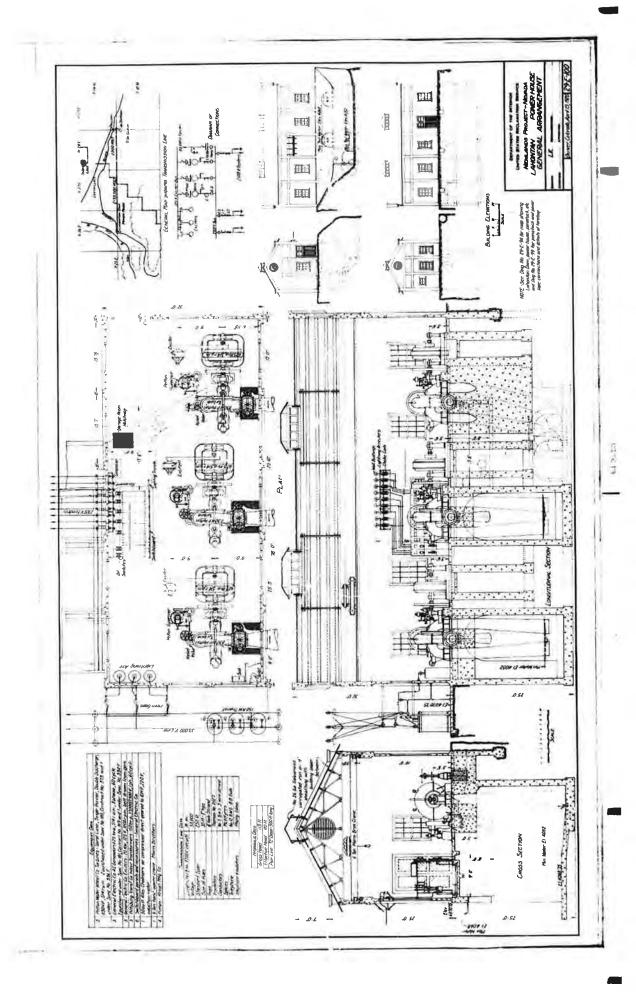
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Exhibit B - Old Lahontan Power Plant

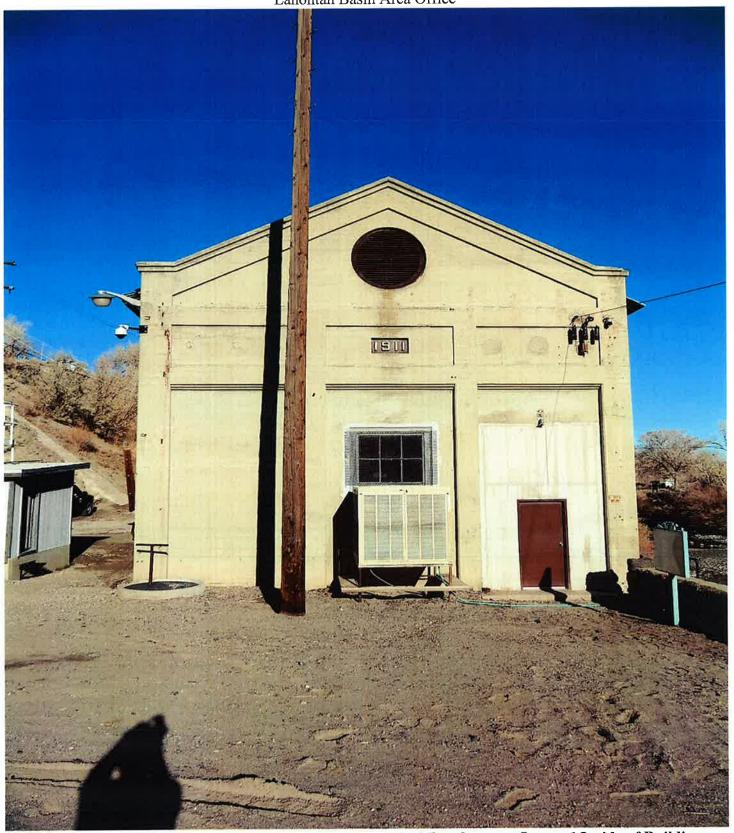




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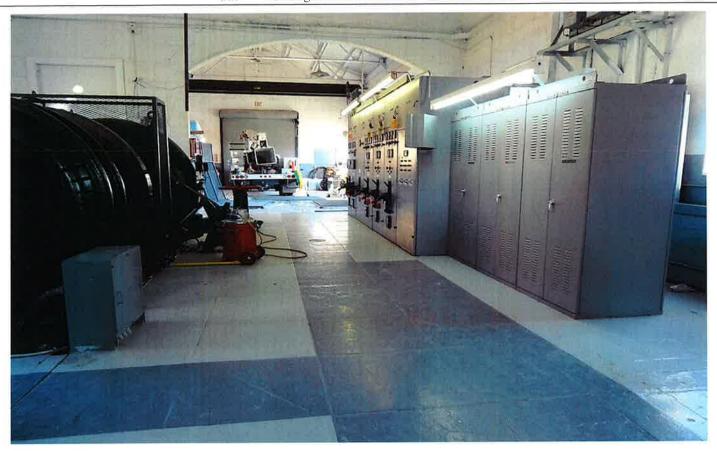


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Old Lahontan Power Plant - Cabinets Housing Electrical Breakers are Located Inside of Building.

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Cabinets that House Electrical Breakers Requiring Replacement

CULTURAL RESOURCE COMPLIANCE Division of Environmental Affairs Cultural Resources Branch

MP-153 Tracking Number: 14-LBAO-057

Project Name: Old Lahontan Power Plant Breaker Replacement

NEPA Document: CEC LO-2013-1032

NEPA Contact: Julia Long, Natural Resource Specialist

MP 153 Cultural Resources Reviewer: Mark Carper, Archaeologist

Date: 12/30/2013

Reclamation is proposing to require the operation and maintenance contractor, the Truckee-Carson Irrigation district, to replace the existing oil circuit breakers, to complete an electrical arc-flash study, and to complete and electrical safety plan for the Old Lahontan hydroelectric facility. This is the type of undertaking that does not have the potential to cause effects to historic properties, should such historic properties be present, pursuant to the National Historic Preservation Act (NHPA) Section 106 regulations codified at 36 CFR Part 800.3(a)(1).

The project entails replacing the existing main circuit breaker, a 7.2KV rated circuit breaker manufactured in 1950, and overcurrent protective devices with a new high speed vacuum contactor and replaces the existing CO overcurrent relays with a new modern overcurrent and arc-flash detection relay. All upgrades of breaker equipment will be performed inside the existing electrical cabinets housing the existing breakers, with no outside modifications to the housing or breaker handles.

After reviewing the materials submitted by LBAO, I concur with the CEC Item 8 in LO-2013-1031 which states that this proposed action would not have significant impacts on properties listed, or eligible for listing, on the National Register of Historic Places as determined by Reclamation. With this determination, Reclamation has no further NHPA Section 106 obligations. This memorandum is intended to convey the completion of the NHPA Section 106 process for this undertaking. Please retain a copy in the administrative record for this action. Should changes be made to this project, additional NHPA Section 106 review, possibly including consultation with the State Historic Preservation Officer, may be necessary. Thank you for providing the opportunity to comment.

CC: Cultural Resources Branch (MP-153), Anastasia Leigh – Regional Environmental Officer (MP-150)



Long, Julia <jlong@usbr.gov>

Re: ITA review of Old Lahontan Power Plant Breaker Replacement CEC

1 message

RIVERA, PATRICIA <privera@usbr.gov> Thu, Dec 26, 2013 at 6:02 PM

To: "Long, Julia" <jlong@usbr.gov>

Cc: Mary Williams <marywilliams@usbr.gov>, Kristi Seabrook

<kseabrook@usbr.gov>

Julia.

I reviewed the proposed action to correct a deficiency where immediate and responsive action is required to ensure electrical, safety, and operational integrity of the old Lahontan Power Plant. This action is due to to a Power Review of Operations and Maintenance. A Category 1 recommendation was made to facility. LBAO's action is to require the operation and maintenance contractor, the Truckee-Carson Irrigation District (District), to replace the existing oil circuit breakers, to complete an electrical arcflash study, and to complete an electrical safety plan for the Old Lahontan hydroelectric facility.

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Also, due to the manual close requirement of the breaker, the operator must stand directly in front of the breaker to close the breaker. This exposes the operator to the direct arc flash energy available from the system while operating the breaker handle. Additionally, the existing Westinghouse CO overcurrent relays do not have any instantaneous overcurrent protection to reduce exposure to the operator or switchgear.

The recommendation is to replace the existing main circuit breaker and overcurrent protective devices with a new high speed vacuum contactor and replace the existing CO overcurrent relays with a new modern overcurrent and arcflash detection relay. The new equipment would provide high speed circuit interruption and protection for both the operator and plant switchgear.

The outer housing (cabinets), including wooden handles will remain as original and will not be modified in any way. All upgrades of breaker equipment will be performed inside the electrical cabinets housing the existing breakers, with no outside modifications to the breaker handles.

The proposed action does not have a potential to impact Indian Trust Assets.

Patricia Rivera Native American Affairs Program Manager US Bureau of Reclamation Mid-Pacific Region