

APPENDICES

RELATED TO THE

PROGRAMMATIC AGREEMENT

AMONG

U.S. NUCLEAR REGULATORY COMMISSION

U.S. BUREAU OF LAND MANAGEMENT

SOUTH DAKOTA STATE HISTORIC PRESERVATION OFFICE

POWERTECH (USA), INC.

AND

ADVISORY COUNCIL ON HISTORIC PRESERVATION

REGARDING THE

DEWEY BURDOCK IN-SITU RECOVERY PROJECT

LOCATED IN CUSTER AND FALL RIVER COUNTIES

SOUTH DAKOTA

DRAFT Appendix A – Federal Actions, Undertaking, and Area of Potential Effects

Federal Actions

On August 10, 2009, Powertech (USA), Inc. (Powertech) submitted an application for an U.S. Nuclear Regulatory Commission (NRC) source material license to construct and operate an In-Situ Recovery (ISR) facility at the proposed Dewey-Burdock ISR Project site and to conduct aquifer restoration, site decommissioning, and reclamation activities. Based on the application, the NRC's federal decision is to either grant or deny the license.

The Atomic Energy Act of 1954, as amended, authorizes the NRC to issue licenses, either as a general or specific license, to qualified applicants for the receipt, possession and use of byproduct and source materials resulting from the removal of uranium ore from its place of deposit in nature. An NRC specific license is issued to a commercial uranium or thorium ISR facility pursuant to the NRC implementing regulations in Title 10 of the Code of Federal Regulations (10 CFR) Part 40.

The U.S. Bureau of Land Management (BLM) manages public lands in accordance with the Federal Land Policy and Management Act of 1976. BLM manages 97 ha [240 ac] of land within the proposed Dewey-Burdock ISR Project area. The applicant controls the locatable mineral rights on this land through Federal Lode Claims and secures access to mineral rights through the terms of the General Mining Act of 1872. Under 43 CFR Subpart 3809, BLM is required to review the environmental impacts of federal actions to assure that there is no "unnecessary or undue degradation of public lands." BLM has requested to be, and is acting as, a cooperating agency with NRC to evaluate the impacts of the Plan of Operations for the proposed Dewey-Burdock ISR Project in accordance with the National Memorandum of Understanding between the two agencies.

Undertaking: Project Location and Proposed Activities

The proposed Dewey-Burdock ISR Project is located within the Great Plains physiographic province on the edge of the Black Hills uplift. The proposed project area covers 4,282 ha [10,580 ac] and is composed of two contiguous areas: the Burdock area and the Dewey area (Figure 1.0). The Burdock area is located in the following townships and ranges: (i) Township 7 South, Range 1 East, Sections 1, 2, 3, 10, 11, 12, and portions of Sections 14 and 15 and (ii) Township 6 South, Range 1 East, Sections 34, 35, and portions of Section 27. The Dewey area is located in the following townships and ranges: (i) Township 7 South, Range 1 East, Section 5 and portions of Section 4 and (ii) Township 6 South, Range 1 East, Sections 29, 30, and 32, and portions of Sections 20, 21, 28, 31, and 33. Approximately 4,185 ha [10,340 ac] of the proposed project area are in the hands of private landowners, while approximately 97 ha [240 ac] are U.S. Government lands managed by the BLM (Powertech, 2009a,b).

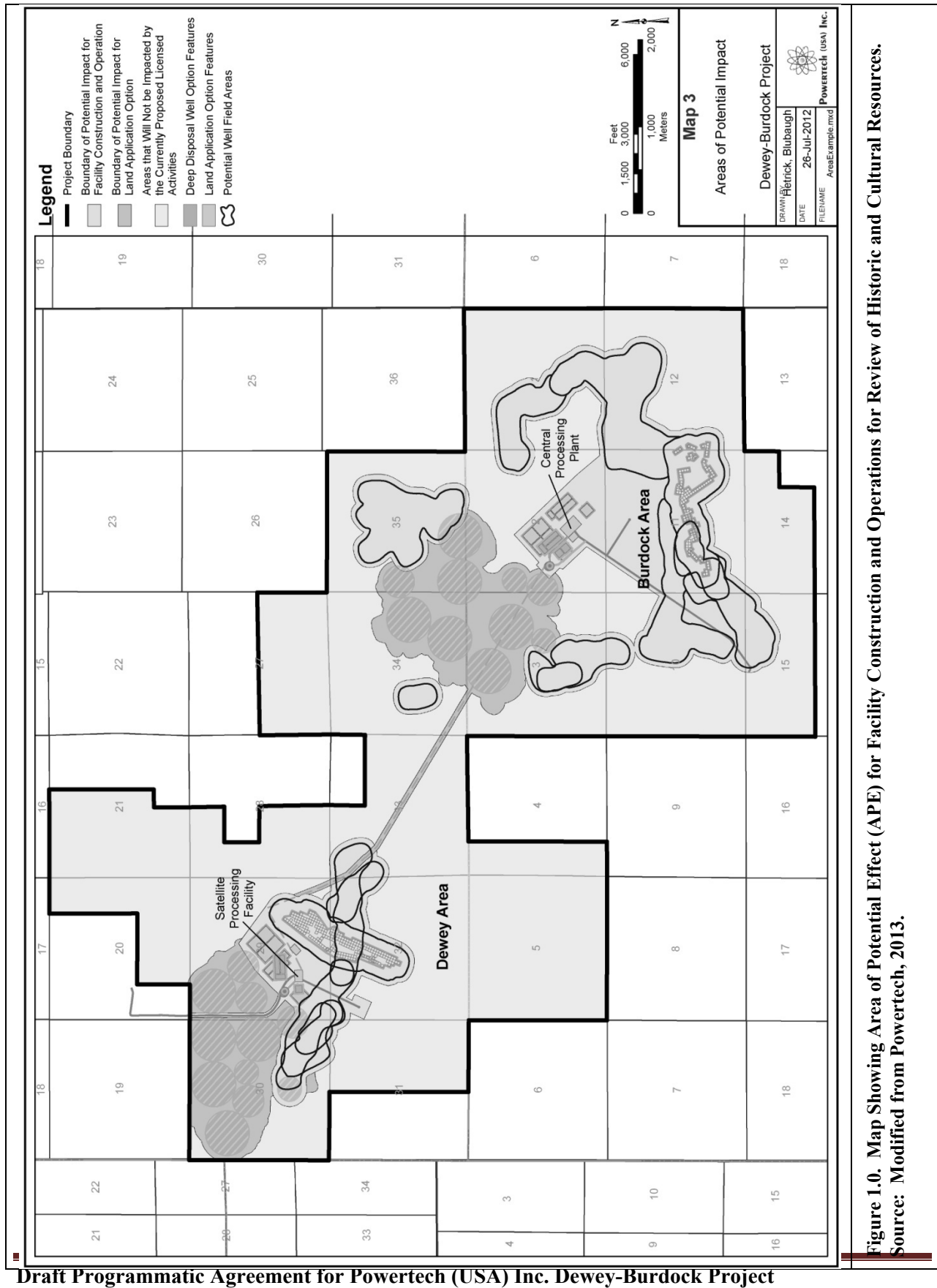
The applicant's proposed project will include processing facilities and sequentially developed wellfields sited in two contiguous areas: the Burdock area and the Dewey area. As uranium recovery activities cease at a wellfield, the area will be restored and reclaimed while a new wellfield and its supporting infrastructure is developed. Under the applicant's proposal, ISR methods will be used to extract uranium from sandstone-hosted uranium orebodies in the Fall River Formation and the Chilson Member of the Lakota Formation that make up the Inyan Kara Group. The extracted uranium will be loaded onto ion exchange (IX) resin at a central processing plant in the Burdock area and a satellite facility in the Dewey area. All processing of the uranium-loaded IX resin, precipitation, drying, and packaging of the final "yellowcake" product, will take place at the Burdock central processing plant.

Project Area of Potential Effects

The area of potential effect (APE) for the review of effects on historic properties at the proposed Dewey-Burdock ISR Project is the area that may be directly or indirectly impacted by the construction, operation, aquifer restoration, and decommissioning of the proposed project. The APE for the proposed Dewey-Burdock ISR Project coincides with the extent of potential ground disturbance resulting from proposed facility construction and operational activities. The introduction of new visual, auditory, or other sensory elements also has the potential to diminish the integrity of historic properties in the project area.

The extent of the APE for facility construction and operations will depend on the disposal option used at the proposed project to dispose of liquid waste. The applicant plans to dispose of liquid wastes generated during uranium recovery operations through deep injection wells, land application, or a combination of both methods. The APE for facility construction and operations for all the liquid waste disposal options totals 1,067 ha [2,637 ac] (Figure 1.0). This area includes a 969 ha [2,394 ac] buffer zone surrounding 98.3 ha [243 ac] of projected areas for the plant facilities, wellfields, ponds, roads, and pipelines. If land application is used for liquid waste disposal, the APE for facility construction and operations will include an additional maximum area of approximately 506 ha [1,250 ac] surrounding proposed land application areas (Figure 1.0).

The extent of the APE for visual impacts (indirect effects) includes areas within a 4.8 km [3 mi] radius of the central processing plant in the Burdock area and the satellite processing facility in the Dewey area (see Figure 1.0). The central processing plant and satellite processing facility will be the tallest buildings constructed at the proposed Dewey-Burdock ISR Project site. Based on proposed locations of the central processing plant and the satellite processing facility, the APE for visual impacts will extend a maximum of 2.33 km [1.45 mi] from the eastern project boundary in the Burdock area and a maximum of 2.7 km [1.7 mi] from the western project boundary in the Dewey area (see Figure 1.0).



DRAFT Appendix B – Cultural Resource Identification and Consultation Efforts

1. Level III Archeological Investigations

The NRC staff reviewed Level III cultural resource investigations and evaluative testing reports prepared by the Archaeology Laboratory, Augustana College (ALAC) on behalf of the applicant for the proposed Dewey-Burdock ISR Project (Kruse, et al., 2008; Palmer and Kruse, 2008; Palmer 2008, 2009, 2012). The investigations included an archival and historic review of available sources, a search of ARC-maintained records and collections, and review of published field reports. A review of available data shows that six surveys have been conducted within the project boundary of the proposed Dewey-Burdock site (Kruse, et al., 2008). A total of 57 archaeological sites were previously recorded within the proposed project area (Kruse, et al., 2008).

Recent field investigations were conducted by pedestrian surveys of 4,173 ha [10,311 ac] between April and August 2007 and an additional 526 ha [1,300 ac] between July and September 2008 of the proposed project area. The 2007 and 2008 field investigations included evaluative testing at 43 sites. In 2011, evaluative testing was conducted at 20 unevaluated sites located within the project boundary to provide data for recommendation on National Register of Historic Places (NRHP) eligibility (Palmer and Kruse, 2012). The results of the evaluative testing determined that one site, 39FA1941, is recommended eligible for listing in the NRHP and 19 sites were recommended ineligible for listing in the NRHP (Palmer and Kruse, 2012). Results of the Level III cultural resource investigations are presented in the following sections.

Archaeological Sites

NRC reviewed site data on over 200 archaeological sites recorded within the proposed project area. During the field investigation, a number of small, individual sites were combined into larger, single sites. One hundred forty-nine (149) sites were determined ineligible for listing in the NRHP when measured against the evaluative criteria found in 36 CFR 60.4. Seventy-nine (79) of these sites are isolated finds consisting of a single tool or few [n<10] items with no possibility of cultural materials or remains within buried horizons; may be aboriginal or historic; are not eligible by definition [SD ARC, 2006]); or lack physical integrity and context. Approximately 140 of these mostly prehistoric sites are located on highly disturbed and eroded landforms and have little potential to possess intact, significant buried cultural deposits.

Fifteen (15) archaeological sites, including two containing cairns and burials, have been recommended as eligible for listing in the NRHP. South Dakota State Historic Preservation Office (SD SHPO) has previously concurred with the sites recommended eligible to the NRHP under one or more criteria of eligibility in Table 1-1 (SD SHPO, 2012). The archaeological sites recommended for listing in NRHP are discussed below.

Table 1-1. List of Archaeological Sites Within the Proposed Project Area Recommended Eligible for Listing in the NRHP*

Historic Property (Site Number, Structure Identification, or Historic District)	Description	NRHP Determination
39CU0271	Native American and Archaic artifact scatter and occupation site on a ridge slope with a cairn feature	Eligible, Criterion D
39CU0577	Native American/Euroamerican Occupation site; artifact scatter	Eligible, Criterion D
39CU0584	Native American occupation site and burial on a ridge slope	Eligible, Criterion D
39CU2735	Archaic- Prehistoric occupation site	Eligible, Criterion D
39CU0578	Native American/Euroamerican Dump and occupation site on a ridge slope	Eligible, Criterion D
39CU0586	Native American and Late Archaic occupation site on a ridge crest	Eligible, Criterion D
39CU0588	Native American occupation site on a ridge crest	Eligible, Criterion D
39CU2733	Native American hearth and artifact scatter on a ridge slope	Eligible, Criterion D
39CU2738	Native American occupation site on a ridge crest	Eligible, Criterion D
39CU0590	Native American artifact scatter on a ridge saddle	Eligible, Criterion D
39CU0593	Native American and Euroamerican occupation and artifact scatter on a hill slope	Eligible, Criterion D
39CU3592	Native American artifact scatter and hearth site	Eligible, Criterion D
39FA1941	Native American artifact scatter and hearth site	Eligible, Criterion D
39CU2000	Historic Railroad	Eligible, Criteria A and C
39FA2000	Historic Railroad	Eligible, Criteria A and C
Sources: Kruse, et al. (2008); Palmer and Kruse (2008, 2012); Palmer (2009) *Recommended eligible by ALAC and NRC. SD SHPO has concurred with these recommendations (SD SHPO, 2012).		

2. Tribal Cultural Survey Results

In December 2012, the NRC staff advised all consulting tribes that the Dewey-Burdock site would be open for interested tribes to conduct on-the-ground surveys in the spring of 2013.¹

On February 8, 2013, the NRC staff contacted 23 tribes interested in the proposed Dewey-Burdock ISR Project and invited the 23 tribes to participate in a field survey of the project area for the purpose of identifying properties of religious and cultural significance to tribes. In the spring of 2013, the Dewey-Burdock project site was made available for each consulting tribe to conduct a field identification survey for any historic properties that may have traditional, religious or cultural significance to the tribe. The NRC invited interested tribes to investigate any areas within the 4,282 ha [10,580 ac] Dewey-Burdock license area during the month of April 2013. Financial support was offered for as many as three representatives from each tribe and each tribe was invited to develop and implement its own survey methodology. Tribes were asked to respond to NRC no later than March 12, 2013.

Seven tribes participated in the field survey at the proposed Dewey-Burdock site. These tribes included the Northern Arapaho Tribe, Northern Cheyenne Tribe, Turtle Mountain Band of Chippewa Indians, Crow Creek Sioux Tribe, Cheyenne and Arapaho Tribes of Oklahoma, Crow Nation, and Santee Sioux Tribe. The NRC staff received detailed written reports with NRHP eligibility recommendations from three of the seven tribes who participated in the tribal cultural survey (Northern Arapaho Tribe, Northern

¹ Letter to Tribal Leaders Responding to Comments Received regarding Tribal Survey, Dewey-Burdock ISR project. (December 14, 2013) (ADAMS Accession No. ML12335A175)

Cheyenne Tribe, Cheyenne and Arapaho Tribes of Oklahoma). The Crow Nation provided the NRC staff with a copy of field notes identifying several sites of interest to that tribe. A detailed list of sites identified during the tribal cultural survey with management recommendations is included below in Table 1.0. The survey reports prepared by tribes along with maps recording the location of the discoveries identified during the tribal cultural survey are on file at NRC and at each of the respective tribal offices.

The tribal survey teams identified new artifact discoveries or cultural features of interest to tribes at 24 previously reported archaeological sites as well as 47 other locations representing as many as 71 tribal sites. A number of the 47 new discoveries identified by tribes are situated near the boundaries of known archaeological sites and could reasonably be considered part of those sites if the current archaeological site boundaries were expanded to include them. Other new discoveries occur in close proximity to one another and may be culturally related.

Most of the new discoveries identified in the tribal cultural surveys are summarized as individual tribal sites. When tribes indicated cultural relationships exist between new discovered features and known archaeological sites or between groups of individual tribal cultural features, this information is provided in the summary Table 1.0.

Tribal Review of Previously Reported Archaeological Sites

Tribal survey teams recorded 81 cultural features within the boundaries of 24 known archaeological sites. Some of the cultural features recorded by tribal survey teams correspond to features identified in the archaeological surveys; however, many represent new discoveries. Tribes provided specific recommendations for four (4) archaeological sites that were investigated without identifying new cultural features.

Tribal Sites: New Discoveries

A total of 47 new discoveries were recorded as a result of the tribal cultural survey. Forty-four (44) of the 47 new discoveries are individual tribal sites or cultural features and were assigned individual survey numbers. Three tribal sites represent cultural features within a single site. For example, 11 GPS readings were taken to record the location of individual stones that make up a single stone feature (TS080-TS089, TS098). Five associated tribal features (TS007-TS011) make up another tribal site. Another cultural feature assigned duplicate survey numbers (TS041 and TS042).

Twelve (12) of the 47 newly discovered cultural features were identified outside the license boundary. These features include five (5) discoveries on private land (TS024, TS061, TS062, TS075, TS079), five (5) discoveries on BLM property (TS125, TS126, TS127, TS128, TS129), and two discoveries on U.S. Forest Service (USFS) property (TS106, TS107). Sites TS107 and TS125 were identified as possible gravesites. TS106 and TS107 were recommended eligible for listing in the NRHP under criteria A and C. No eligibility recommendations were provided for the other 10 cultural features or sites. Thirty-five (35) of the 47 new discoveries were identified within the project's license boundary. Ten (10) of these tribal sites were recommended as NRHP- eligible under one or more eligibility criteria. TS002, TS118, and TS120 were recommended as eligible under Criterion A. TS145 is recommended as eligible under Criterion D. TS007-011 is recommended as eligible under Criteria A and D. TS040, TS041-TS042, TS047, and TS080-T089, TS098 are recommended as eligible under Criteria A and C. TS006, a gravesite, is recommended as eligible under Criteria A, C, and D.

NRHP recommendations were not provided for 25 of the 35 new discoveries recorded within the project license boundary (TS003, TS005, TS023, TS028, TS030, TS036, TS037, TS048, TS049, TS050, TS051,

TS052, TS063, TS064, TS065, TS066, TS090, TS091, TS092, TS093, TS094, TS095, TS097, TS131, and TS144). These features include isolated artifact finds, animal bone concentrations, stone circles, cairns, and possible fasting sites. TS023, TS048, TS049, TS050, and TS131 were identified during the field survey as possible gravesites. The NRC recommends avoidance of these sites because these sites may contain human remains, even though tribes may not consider these locations eligible for listing in the NRHP.

3. Visual Effects Assessment (indirect effects)

In consultation with the South Dakota State Historic Preservation Officer (SD SHPO) and other consulting parties, the NRC staff completed an assessment of the project's potential to have visual impacts on historic properties (i.e., properties of any type listed in or considered eligible for listing in the NRHP). This assessment considered whether the construction of the central processing plant and satellite facility would create a visual effect on historic properties. The purpose of the study was to assess whether the introduction of new visual changes in the form of new processing facilities could have potential to diminish those aspects of integrity that qualify historic properties for inclusion in the NRHP. NRC's assessment considered potential visual effects on the integrity of each property's location, design, setting, materials, workmanship, feeling, or association in accordance with the Section 106 regulations at 36 CFR 800.5(a)(1). Setting, feeling, and association are generally those aspects of integrity considered most sensitive to visual intrusions and these aspects of integrity are most likely to contribute to the historic significance of historic properties considered eligible under criteria A, B, or C. Integrity of setting is not often considered a contributing characteristic for properties considered eligible only on the basis of their historic information content (i.e., Criterion D).

NRC's assessment of visual effects included historic properties situated within a 4.8 km [3-mi] radius of the tallest or most prominent building within each processing facility. This assessment therefore includes historic properties located within the license boundary as well as those near and outside the license boundary. The 4.8 km [3 mi] radius was selected based on: (i) consultation with the SD SHPO, (ii) consultation with BLM, and (iii) a previous assessment done for the Dakota, Minnesota, and Eastern Railroad's (DM&E) Powder River Basin Expansion project (HDR Inc., 2009). Due to the proposed project's close proximity to the state of Wyoming, the NRC staff also consulted with the Wyoming State Historic Preservation Office (WY SHPO) to determine whether reviewing properties located within a 4.8 km [3 mi] radius of the processing facilities would be acceptable for purposes of reviewing potential impacts to significant cultural and historical properties in this portion of the state of Wyoming. The WY SHPO staff agreed with NRC's proposed research approach (WY SHPO, 2013).

For the evaluation of potential visual effects to historic properties in South Dakota, the NRC staff compiled a list of 31 historic properties that are either listed on the NRHP or considered eligible for listing on the NRHP under criteria A and/or C. No historic properties within the project area appear to qualify as significant under Criterion B, and historic properties considered eligible for the NRHP solely under Criterion D were not evaluated for potential visual effects because aspects of integrity most likely to be affected by visual changes, i.e., setting, feeling, and association, are not necessary to convey the significance of those property types as sources of important historic information. This group of 31 historic properties includes one NRHP-listed historic district, the Edna and Ernest Young Ranch (90000949) also known as the Bakewell Ranch (CU00000050). The Young Ranch historic district includes several contributing ranch buildings including the principal residence. A nearby homestead district, known as the Richardson Homestead (CU00000052), is considered not eligible but includes one individually eligible log barn (CU02500002). Other NRHP-eligible properties include one historic bridge (Beaver Creek Bridge, FA00000111), and 28 sites that include 19 archaeological sites and 9 tribal sites.

Only one historic property located outside the license boundary was included in this review. The Beaver Creek Bridge (Structure FA00000111) is located southwest of the project boundary but falls within the 4.8 km [3 mi] radius for the central processing plant. Two rock art sites in Fall River County (39FA2530, 39FA2531) fell just outside the 4.8 km [3 mi] range for the central processing plant. No other NRHP-listed or eligible properties were identified outside the license boundary. Table 1.0 summarized identified sites impact determination.

A review of NRHP listings for the State of Wyoming and state inventory records on file at the Wyoming Cultural Records Office at the University of Wyoming, Laramie, Wyoming revealed that one NRHP-eligible property was located within a 4.8 km [3 mi] radius of the proposed satellite facility in Wyoming. However, because the environmental setting of this property is not considered to be among the characteristics that contribute to its cultural and historical significance, this property was not included in the line-of-sight (LOS) study and NRC has determined that no further consultation with the Wyoming SHPO is warranted for this project.

4. Tribal Consultation

The federal government and the State of South Dakota recognize the sovereignty of federally recognized Native American tribes. Pursuant to NHPA Section 106, federal agencies are required to undertake consultation and coordination with each tribal government that may have an interest in a proposed federal action. Consultation with the tribes that have heritage interest in the proposed Dewey-Burdock ISR Project is ongoing. Executive Order 13175 (November 2000), *“Consultation and Coordination with Indian Tribal Governments,”* excludes from the requirements of the order, “independent regulatory agencies, as defined in 44 U.S.C. §3502(5).” However, according to Section 8, “Independent regulatory agencies are encouraged to comply with the provisions of this order.” Although the NRC is explicitly exempt from the Order, the Commission remains committed to its spirit. The agency has demonstrated a commitment to achieving the Order’s objectives by implementing a case-by-case approach to interactions with Native American tribes. NRC’s case-by-case approach allows both NRC and the tribes to initiate outreach and communication with one another.

As part of its obligations under Section 106 of the NHPA and the regulations at 36 C.F.R. §800.2(c)(2)(B)(ii)(A), NRC must provide Indian tribes “a reasonable opportunity to identify its concerns about historic properties, advise on the identification and evaluation of historic properties and evaluation of historic properties, including those of religious and cultural importance, articulate its views on the undertaking’s effects on such properties, and participate in the resolution of adverse effects.”

The NRC staff formally initiated the Section 106 consultation process for the proposed Dewey-Burdock ISR Project by contacting tribal governments by letter dated March 19, 2010.

The SD SHPO identified 20 Native American tribes that might attach historic, cultural, and religious significance to historic properties within the proposed Dewey-Burdock ISR Project area. The NRC staff contacted the 20 tribal governments by letters dated March 19, 2010; September 10, 2010; and March 4, 2011. The NRC staff invited the tribes to participate as consulting parties in the NHPA Section 106 process and requested assistance in identifying tribal historic sites or cultural resources that may be affected by the proposed action. Specifically, the NRC staff solicited information regarding properties of religious and cultural significance to tribes. The tribes contacted initially were:

- Cheyenne River Sioux Tribe—South Dakota
- Crow Creek Sioux Tribe—South Dakota
- Flandreau Santee Sioux Tribe—South Dakota

- Lower Brule Sioux Tribe—South Dakota
- Oglala Sioux Tribe—South Dakota
- Rosebud Sioux Tribe—South Dakota
- Sisseton Wahpeton Sioux Tribe—South Dakota
- Standing Rock Sioux Tribe—South Dakota
- Yankton Sioux—South Dakota
- Three Affiliated Tribes (Mandan, Hidasta, and Arikara Nation)—North Dakota
- Turtle Mountain Band of Chippewa—North Dakota
- Spirit Lake Tribe—North Dakota
- Lower Sioux Indian Community—Minnesota
- Fort Peck Assiniboine and Sioux—Montana
- Northern Cheyenne Tribe—Montana
- Northern Arapaho Tribe—Wyoming
- Eastern Shoshone Tribe—Wyoming
- Santee Sioux Tribe—Nebraska
- Ponca Tribe—Nebraska
- Crow Tribe—Montana

The NRC staff contacted the Cheyenne and Arapaho, Pawnee, and Omaha tribes in February 2013, after it was brought to the attention of the NRC that these tribes also had historical and cultural links to the proposed project area.

By letter dated April 7, 2010, the Turtle Mountain Band of Chippewa–North Dakota responded to NRC and stated that the proposed project would not have an effect on historic properties of importance to the Turtle Mountain Band of Chippewa Indians. The Tribal Historic Preservation Officer (THPO) also stated that “determination of No Historic Properties Affected is granted for the project to proceed”).

The NRC staff continued its efforts to engage in consultation with tribes that might be affected by the proposed action with follow-up telephone calls and by sending emails to further gather information related to identification efforts and coordinate meetings.

On September 10, 2010, the NRC staff sent another letter inviting the tribes to participate in consultation to help facilitate the identification of areas on the proposed Dewey-Burdock site that the tribes believe have traditional religious or cultural significance. The NRC staff also followed up with phone calls and emails to ensure tribal officials received this correspondence.

By letter dated September 20, 2010, Mr. Perry “No Tears” Brady of the Three Affiliated Tribes (Mandan, Hidatsa, and Arikara Nations–North Dakota) responded that the tribe had determined there would be no adverse effects on historic or cultural resources important to the Mandan, Hidatsa, and Arikara Nations within the proposed project area.

The Sisseton Wahpeton Oyate, Rosebud Sioux Tribe, Lower Brule Sioux Tribe, and Yankton Sioux Tribe, responded by letters dated November 2, 2010; November 7, 2010; November 15, 2010; and December 3, 2010, respectively, expressing interest in becoming consulting parties to the proposed project (Sisseton Wahpeton Oyate, 2010; Rosebud Sioux Tribe, 2010; Lower Brule Sioux Tribe, 2010; Yankton Sioux Tribe, 2010). The Sisseton Wahpeton Oyate and Rosebud Sioux THPOs recommended that NRC undertake group consulting, whereby a number of tribal representatives would participate in a meeting, possibly hosted by the Oglala Sioux Tribe. The Yankton Sioux Tribe THPO requested

face-to-face consultation and expressed concerns regarding protection of traditional cultural properties (TCPs) within the project area. While the term TCP does not appear in the NHPA or its implementing regulations, the tribes apply this term to historic properties of religious and cultural significance to Indian tribes that may be affected by an undertaking. The NRC uses the term in this context.

By letter dated January 31, 2011, the Oglala Sioux Tribe THPO accepted the invitation to participate as a consulting party and stated that the proposed Dewey-Burdock Project represents a substantial potential threat to the preservation of cultural and historic resources of the Oglala Sioux Tribe. The THPO also stated that the proposed project site is located within an area of which Sioux Tribes, along with the Cheyenne, Arapahoe, Crow, and Arikara Tribes, possess intimate cultural knowledge. The THPO stated that impacts resulting from the proposed project include not only site-specific physical impacts, but intangible impacts to the integrity of the area from cultural, historical, spiritual, and religious perspectives. The letter also requested NRC's assistance in facilitating a site visit and regional meeting to provide all affected tribes an opportunity to review and identify the cultural and historic resources at stake.

Mr. Hubert B. Two Leggins (Crow Tribal Cultural Resource Director/Renewable Resource Supervisor) of the Crow Tribe of Montana responded by email dated March 9, 2011, indicating that the Dewey-Burdock Project area has religious and cultural significance to the Crow Tribe. Mr. Two Leggins accepted the invitation for formal consultation and stated that the Crow Tribe wanted to be a consulting party.

By letter dated May 12, 2011, the NRC staff invited THPOs and/or Cultural Resources Officers to an informal information gathering meeting on June 8, 2011, at the Prairie Winds Casino and Hotel on the Pine Ridge Reservation in South Dakota. The purpose of the meeting was to help NRC identify tribal historic sites and cultural resources that may be affected by actions associated with the proposed Dewey-Burdock ISR Project and with the Crow Butte North Trend and Crow Butte license renewal ISR projects in Nebraska. Representatives of six tribes (Oglala Sioux, Standing Rock Sioux, Flandreau-Santee Sioux, Sisseton-Wahpeton Oyate, Cheyenne River Sioux, and Rosebud Sioux) attended. BLM and SD SHPO staff also attended.

During the June 8, 2011, meeting, tribal officials expressed concerns about the identification and preservation of historic properties of traditional religious and cultural importance to tribes at the proposed Dewey-Burdock and Crow Butte sites. Tribal officials stated that historic and cultural resource studies of the sites should be conducted with tribal involvement. The SD SHPO stated that Tribal representatives would need access to the Dewey-Burdock site to assist in identification of historic properties. A transcript of this meeting is available through the NRC Agencywide Documents Access and Management System database on the NRC website (<http://www.nrc.gov/reading-rm/adams.html>).

In conjunction with the June 8, 2011, information gathering meeting, the applicant hosted a visit to the Dewey-Burdock ISR Project site on June 9, 2011. Tribal officials, the NRC staff, BLM, SD SHPO, and South Dakota Historical Society Archaeological Research Center (ARC) staff interacted with the applicant's personnel and archaeologists from Archaeology Laboratory of Augustana College during the site visit. The Level III cultural resource evaluations at the site were conducted by the Archaeology Laboratory of Augustana College. The Dewey-Burdock site visits included a presentation of the proposed project identifying the location of facilities and wellfields. Augustana College staff provided an overview of the results of archaeological and cultural evaluations. At the conclusion of the presentations, participants toured the proposed Dewey-Burdock ISR Project site stopping at several locations to view and investigate cultural and historic features identified during the Level III cultural resource evaluations, including stone circles and rock alignments.

To facilitate the identification of possible historic properties of importance to Native American tribes within the APE, the NRC began efforts to open the Dewey-Burdock site to tribal representatives for a survey. On August 12, 2011, the NRC staff sent a letter requesting the applicant submit a written plan for acquiring information on historic properties within the APE.

On October 28, 2011, the NRC staff sent a letter to the tribes stating that the staff had requested the applicant undertake studies and surveys to provide information on properties of traditional religious and cultural importance to tribes at the proposed Dewey-Burdock site, as is permissible under 36 CFR 800.2(c)(4). The letter informed the tribes that the applicant had engaged the services of SRI Foundation (SRI) of Rio Rancho, New Mexico, to collect information concerning historic properties that may be located in the proposed project area. The letter also informed the tribes that NRC had authorized SRI, acting on behalf of the applicant, to contact tribes to obtain information. The letter stated further that NRC would remain legally responsible for all findings and determinations and for maintaining government-to-government relationships with the involved tribes.

By letter dated January 19, 2012, the NRC staff invited the THPOs to a tribal consultation on February 14–15, 2012, at the Ramkota Best Western Hotel in Rapid City, South Dakota. The purpose of the meeting was to hear the views of interested tribes about the general types and descriptions of historic properties of religious and cultural significance that may be affected by the proposed project and how these properties can be identified and evaluated as part of the ongoing consultations under Section 106 of NHPA. The meeting was attended by officials from 13 tribes (Cheyenne River Sioux, Crow Creek Sioux, Crow Tribe of Montana, Eastern Shoshone, Fort Peak Assiniboine Sioux, Northern Arapaho, Northern Cheyenne, Oglala Sioux, Rosebud Sioux, Yankton Sioux, Sisseton-Wahpeton Sioux, Santee Sioux Nation, and Standing Rock Sioux). In addition to applicant, SRI, and NRC staffs, BLM and U.S. Environmental Protection Agency (EPA) Region 8 staffs were also in attendance.

During the February 14–15, 2012 meeting, the tribes provided the following information to the NRC and BLM staffs: (i) the tribes expressed an interest in developing a confidentiality agreement before submitting any traditional cultural studies to NRC; (ii) tribal representatives stated that the purpose of any future meetings be made clearer to ensure that tribal participants have appropriate levels of decision-making authority; (iii) tribal representatives volunteered to develop project-specific statements of work (SOWs) to conduct traditional religious and cultural properties studies for the proposed Dewey-Burdock Project; and (iv) tribal representatives requested another meeting during March 14–15, 2012 to review draft SOWs the tribes and the applicants prepared for each of the three projects.

Scheduling conflicts of many tribal representatives, led to the cancellation of the March 14–15, 2012 meeting. The NRC staff transmitted the applicant's SOW for the Dewey-Burdock project to the THPOs for review and consideration by letter dated March 9, 2012. The NRC staff proposed to host a conference call to discuss the proposed SOW in April 2012. On April 5, 2012, the NRC staff sent a letter inviting the tribes to participate in a teleconference on April 24, 2012, to discuss the applicant's SOW to identify historic properties.

On April 24, 2012, the NRC staff held a teleconference with staff from Powertech, Cameco, SRI, SD SHPO, EPA Region 8, BLM, and the Northern Cheyenne, Oglala Sioux, Rosebud Sioux, Northern Arapaho, Sisseton-Wahpeton, Standing Rock Sioux, Yankton Sioux, and Cheyenne and Arapaho tribes. The consulting parties discussed the following aspects of the applicant's SOW: (i) adequacy of compensation for tribal officials conducting the field work, (ii) confidentiality of information gathered by the tribes, (iii) amount of acreage to be covered during fieldwork, and (iv) tribal involvement in making eligibility determinations.

A plan for accomplishing the tribal survey was discussed at the April 24, 2012, teleconference: (i) tribal representatives would continue to develop a draft tribal SOW; (ii) tribes would hold an intertribal teleconference to discuss a draft tribal SOW; (iii) tribes would provide a copy of a draft SOW to the NRC, once it was approved by all tribal officials; (iv) NRC would distribute a draft tribal SOW to consulting parties (applicant, BLM, EPA, SD SHPO); (v) NRC would arrange another meeting with consulting parties to finalize an SOW, agreeable to the parties, for the identification of potential historic properties; (vi) the applicant would schedule fieldwork for a historic property survey at the proposed Dewey-Burdock site; (vii) tribes would write preliminary and final reports for submission to the NRC to provide tribal views on effects of the undertaking on such properties; and (viii) NRC would assess effects on properties under NHPA and develop an impact determination pursuant to NEPA based on information provided by the tribes. The tribes also requested that two tribal representatives be provided access to conduct a reconnaissance visit to the Dewey-Burdock license area, for the purpose of securing information that would enable the tribes to complete a detailed proposed SOW for the project area. The applicant agreed to the request, and the Dewey-Burdock Project tribal reconnaissance visit took place on Saturday, May 26, 2012.

On June 19, 2012, the tribes provided the NRC staff with a preliminary tribal SOW for identifying properties of religious and cultural significance at the Dewey-Burdock ISR Project site. Subsequently, NRC staff held teleconferences on August 9, 2012, and August 21, 2012, to solicit additional details on the SOWs prepared by the applicant and tribes. Representatives of the tribes and staff from the NRC, Powertech, SRI, SD SHPO, EPA Region 8, and BLM attended these teleconferences. Discussions centered on: (i) defining the areas of potential effects (direct and indirect) that would be included in the proposed surveys, (ii) the need to provide survey cost estimates, and (iii) the need to provide a survey schedule that met the NRC licensing review schedule and completion of its scheduled NEPA review. The participating tribes requested an opportunity to revise the applicant's proposed SOW for completing a tribal survey for the Dewey-Burdock ISR Project. During the August 21, 2012, teleconference, the NRC staff agreed to meet with tribal representatives in Bismarck, North Dakota on September 5, 2012 to develop a revised SOW for completion of a field survey in the fall of 2012.

The applicant informed the NRC by letter dated August 29, 2012, that it was unable to reach an agreement with the tribes on a SOW and it would be unable to provide information to the NRC on properties of religious and cultural significance to the tribes that may be affected by the proposed Dewey-Burdock ISR Project. The applicant indicated that additional efforts on its part to negotiate a mutually acceptable SOW are unlikely to be productive. The applicant, however, committed to support efforts to complete identification of historic properties by offering financial assistance to tribal representatives to carry out fieldwork and reporting activities. The applicant committed to working with NRC and BLM to provide access for tribal representatives to the project area to carry out work agreed to by the tribes.

On September 5, 2012, the NRC staff met with representatives of the Yankton Sioux, Sisseton-Wahpeton Oyate Sioux, Rosebud Sioux, Standing Rock Sioux, Northern Cheyenne, Oglala Sioux, and Crow Nation tribes at the Kelly Inn in Bismarck, North Dakota. During this meeting, participants discussed how to proceed with development of a SOW to identify religious and cultural properties within the APE. The APE is the area in which properties of cultural significance may be affected by the undertaking, including direct effects (such as destruction, damage, or alteration of all or part of a property) and indirect effects (such as visual, audible, and atmospheric changes that affect the character or setting of a property). All parties agreed a survey was necessary for historic property identification. All parties also agreed further consultation was needed to develop a SOW that focused survey efforts on the identification of properties directly and indirectly affected by the proposed project. The area of potential indirect effect could include properties that are well beyond the proposed license area. In addition, the parties acknowledged the need

for a Programmatic Agreement (PA) for any future disturbances outside of areas directly affected by the proposed project.

By letter dated September 18, 2012, the NRC staff asked participants in the September 5, 2012, meeting in Bismarck, North Dakota to designate a preferred contractor to submit a proposal for a survey on their behalf. The NRC staff requested that a cost estimate based on the area of direct effect that may be disturbed during the initial phase of the Dewey-Burdock ISR Project be included in the proposal. The letter included the NRC staff response to four NHPA-related concerns the tribes raised at the September 5, 2012, meeting in Bismarck, North Dakota. The letter stated: (i) the NRC agrees that a PA will need to be developed to address the phased identification and evaluation of historic properties; (ii) the NRC will continue to consult with BLM, SD SHPO, and the tribes on all issues arising under Section 106 of the NHPA, including potential indirect effects; and (iii) the NRC intends to keep survey information confidential to the fullest extent allowed by law.

On September 27, 2012, NRC received a proposal and cost estimate from the tribes for a traditional cultural properties survey for the proposed Dewey-Burdock Project. The proposal and cost estimate were prepared by Makoche Wowapi/Mentz-Wilson Consultants, LLP, the contractor selected by tribes to complete the cultural resources survey of the proposed project. By letter dated October 4, 2012, NRC transmitted the tribe's proposal and cost estimate to the applicant for review and comment.

The NRC informed the tribes by letter dated October 12, 2012 of the significant differences between the Makoche Wowapi/Mentz-Wilson Consultants, LLP proposal and the applicant's proposal set out in its letter dated August 29, 2012. The NRC indicated that resolving these differences would not support completion of a field survey at the Dewey-Burdock site in the fall 2012. The NRC requested that the tribes provide their ideas on alternative methods for identifying potential properties of traditional religious and cultural importance to the tribes. The NRC suggested that alternative methods might include opening the site to interested tribal specialists over a period of several weeks with payment for survey costs made to individual tribes or seeking ethnohistoric and ethnographic information from tribal specialists in interviews at tribal headquarters.

From October 15 to October 20, 2012, the NRC staff received letters and email from the Standing Rock Sioux Tribe, the Sisseton-Wahpeton Oyate, the Rosebud Sioux Tribe, and the Yankton Sioux Tribe opposing the NRC's request for alternative survey approaches. These tribes maintained that the only level of effort sufficient for identifying historic properties would be an on-the-ground, 100 percent survey of the entire license boundary by tribal personnel from participating tribes.

On October 19, 2012, the NRC received a response from the Three Affiliated Tribes and the Turtle Mountain Band of Chippawa Indians Tribe who in collaboration with Kadramas, Lee, & Jackson (KLJ), a private consulting firm from North Dakota, proposed to complete an alternative field survey of the project's 1,067 ha [2,637 ac] APE for ground disturbance. The proposal included investigation of previously recorded archaeological sites, use of light detection and ranging mapping technology to locate potential rock alignments, cairns, and other stone features, and systematic pedestrian survey of the project area. The level of effort presented in the KLJ proposal was reasonable and appropriate to the project area and estimated costs were in line with the range of survey costs obtained for other tribal surveys identified by the staff for other projects.

The NRC staff confirmed that the proposed KLJ survey effort would be led by two THPOs and one former THPO employed by KLJ. In addition, the KLJ survey effort welcomed participation of other tribes. For these reasons, the NRC endorsed the level of effort represented by the KLJ proposal and recommended that the applicant consider contracting with KLJ to lead the survey effort at the Dewey-

Burdock site. To ensure all interested tribes would have the opportunity to participate in the survey, the NRC staff requested that the applicant provide additional financial support for representatives from other tribes. The applicant agreed to provide financial support for one representative for each interested tribe. Additional tribal representatives would also be allowed to participate, but without compensation.

On October 31, 2012, the NRC sent a letter to the THPOs endorsing the KLJ survey approach. The letter invited all consulting tribes to participate in the survey with paid compensation for one representative per tribe. The KLJ survey proposal provided each participating tribe an independent opportunity to identify historic properties, to gather relevant information, and to provide independent recommendations regarding the NRHP eligibility of properties of traditional religious and cultural importance to the tribes.

The NRC staff received written responses from the Standing Rock Sioux Tribe, Rosebud Sioux Tribe, Oglala Sioux Tribe, Sisseton-Wahpeton Oyate, and Yankton Sioux Tribe objecting to the proposed survey. The tribes stated that the NRC's endorsement of the KLJ proposal ignored information previously provided by the tribes. Specifically, the tribes argued that: (i) the field survey must include the entire project area, not just the area directly affected by the proposed project; (ii) the field survey must be conducted by qualified tribal representatives, not archaeologists; and (iii) survey approaches based on predictive modeling are not appropriate for identifying tribal sites. The tribes further asserted that the NRC was not consulting in good faith because it was ignoring information provided by consulting tribes, and because the Three Affiliated Tribes and the Turtle Mountain Band of Chippewa Indians had advised the NRC the project was unlikely to affect places of significance to them.

On December 6, 2012, the KLJ withdrew its survey proposal by telephone. On December 17, 2012, KLJ withdrew its TCP survey proposal in writing.

On December 14, 2012, the NRC staff responded to the objections raised by the tribes to the KLJ survey proposal in a letter. The letter informed all consulting parties that KLJ would not conduct the survey and that the NRC intended to move forward with an alternative field survey approach. The NRC postponed further efforts to undertake a field survey until Spring 2013. The NRC reiterated its intention to develop a PA and invited all interested consulting parties to provide information relevant to the development of a PA.

On February 8, 2013, the NRC staff invited 23 tribes, including the Cheyenne and Arapaho, Pawnee, and Omaha, to participate in a field survey in the Spring of 2013. The letter proposed April 1 to May 1, 2013, as dates for the survey, described procedures for site access, and identified the compensation for survey participation. Tribal representatives were encouraged to focus survey efforts on portions of the proposed license area that would be physically disturbed by the project; participants were permitted access to the entire project boundary within the allowable time. The applicant would provide compensation for per diem and mileage expenses for a maximum of three tribal representatives from each participating tribe. In addition, an unconditional grant of \$10,000 for each participating tribe was to be provided. At the completion of the field survey a field survey report would be submitted to the NRC. The report would include: (i) a discussion of the areas examined; (ii) a description of each individual property examined; (iii) a NRHP evaluation of each individual property examined; (iv) any recommendation concerning criteria of eligibility for previously reported archaeological site within the license area visited during the field survey; and (v) recommendations for appropriate avoidance buffers or possible mitigation measures should any of the properties recommended as eligible be adversely affected by the proposed project. Tribes interested in participating in the survey were advised to respond by March 12, 2013.

On February 20, 2013, the NRC staff received a letter from the Standing Rock Sioux Tribe in response to the NRC letter of February 8, 2013. The Standing Rock Sioux Tribe objected to the survey approach and

asserted that the NRC was not consulting in good faith because it was ignoring information provided by consulting tribes. In its letter, the tribe offered comments regarding the Section 106 process being conducted for the proposed Dewey-Burdock ISR Project.

On March 22, 2013, the Oglala Sioux Tribe responded by letter to the NRC letter dated February 8, 2013. The Oglala Sioux Tribe objected to the terms of the survey proposal and indicated the proposed April 1, 2013 date for the start of the field survey did not allow sufficient time for formal authorization from its Tribal Council and constituents. The tribe expressed its concerns over the scope of the work methodology, its view that the funds allocated for the survey were insufficient, that the NRC lacked cultural sensitivity on these issues, and that the NRC was not addressing fully the direct and indirect effects on cultural resources and burial grounds, and the protection of intellectual property generated during the survey. The Oglala Sioux tribe also demanded that formal government-to-government consultation be conducted rather than the existing NHPA Section 106 consultation.

On April 1, 2013, survey work to identify traditional properties of religious and cultural significance to the tribes at the Dewey-Burdock site began. Seven tribes participated in the field survey; these were the Northern Cheyenne, Northern Arapaho, Crow Nation, Crow Creek Sioux, Cheyenne and Arapaho of Oklahoma, Santee Sioux, and Turtle Mountain Band of Chippawa Indians. Survey work was suspended on April 9, 2013, due to inclement weather. Survey work resumed on April 29, 2013, and was extended through May 24, 2013, for a total survey period spanning 36 calendar days.

On April 24, 2013, the NRC staff formally invited the ACHP to become an active consulting party in the Section 106 process for the proposed Dewey-Burdock ISR Project. The NRC provided ACHP with a summary and chronology of the Section 106 consultation efforts for the proposed project.

On May 23, 2013, the NRC staff hosted a government-to-government meeting concerning licensing actions associated with proposed uranium recovery projects under NRC licensing review. The NRC invited over 30 tribes currently in consultation on uranium recovery projects to this meeting with NRC management. The government-to-government meeting sought the input of tribal leaders, or a designee on issues of mutual interest concerning uranium recovery projects. The NRC organized the meeting in response to the requests for a formal government-to-government meeting made by many THPOs. THPO's from the Cheyenne River Sioux, Northern Cheyenne, Yankton Sioux, Standing Rock Sioux, and Sisseton Wahpeton tribes attending this meeting. The meeting was held at the Ramkota Hotel and Conference Center in Rapid City, South Dakota.

Between June 24 and July 25, 2013, the Cheyenne and Arapaho, Northern Arapaho, and Northern Cheyenne tribes submitted survey reports to the NRC. The NRC staff also received field notes from the Crow Tribe, although the reports did not contain eligibility recommendations for identified sites. The Cheyenne and Arapaho Tribes survey report, dated June 24, 2013, documented sites of religious and cultural significance identified during site surveys conducted by tribal representatives on April 23 to 25, 2013, and April 30 to May 2, 2013. The report included NRHP eligibility recommendations and recommended mitigation measures for each identified site. The Northern Arapaho survey report documented sites identified during surveys conducted on April 29 to May 9, 2013. The report included NRHP eligibility recommendations and recommended mitigation including area of importance, no surface activity, areas to remain accessible to the Northern Arapaho Tribe, and areas to be avoided by equipment disturbance and pedestrian traffic. The Northern Cheyenne Tribe report, dated July 25, 2013, summarized survey methods and provided survey results and NHPA-eligibility recommendations. Tribal Cultural Heritage Forms for ten cultural properties identified or investigated during the survey were included. The forms provide specific NHPA-eligibility recommendations and identify the eligibility criteria on which the Tribe relies.

Since 2010, the NRC staff has had three face-to-face meetings and three teleconferences with Tribal representatives, and we have exchanged many emails, letters, and telephone calls as summarized above.

The NRC staff will continue to consult with BLM, SD SHPO, and the tribes on all issues arising under Section 106 of the NHPA. The NRC staff will also consult with ACHP as necessary.

The NRC staff has invited the above twenty three (23) tribes to participate actively in the development of this Programmatic Agreement and has provided opportunities for the tribes to review and comment on the successive drafts of the PA.

Table 1.0: NRHP determination has been attached as a separate document due to its size.

DRAFT Appendix C – Reporting Criteria for the Monitoring Plan

- a) On or before January 1 of each year, unless the consulting parties agree in writing that the terms of this PA have been fulfilled, Powertech shall prepare and provide a report to the NRC detailing how the applicable terms of the PA are being implemented.
- b) Upon acceptance, Powertech shall provide this annual report to the all consulting parties.
- c) The Parties may provide comments on the report to Powertech within 30 days of receipt, and Powertech will distribute all comments to the Parties.
- d) Powertech shall coordinate a meeting or conference call with all consulting parties within 60 days after providing the annual report for the first five (5) years, and every third year thereafter, if the PA remains in effect, unless the Parties agree to another timeframe. The purpose is to review implementation and achieved outcomes of the terms of this PA and to discuss the annual report, as needed.

DRAFT Appendix D – Treatment of Human Remains

In the event of an inadvertent discovery of human remains or funerary objects, the following steps shall be taken pursuant to South Dakota Codified Law Chapter 34-27-25, 34-27-28, 34-27-31:

a) The **On-site manager/Contractor** shall immediately halt construction activities within a 150 foot radius from the point of discovery (protection zone) and implement measures to protect the discovery from looting and vandalism. Construction activities may continue outside this protection zone. No digging, collecting or moving human remains or other items shall occur in the protection zone after the initial discovery. Protection measures may include the following.

- 1) Flag the buffer zone around the find spot.
- 2) Keep workers, press, and curiosity seekers away from the find spot.
- 3) Tarp the find spot.
- 4) Prohibit photography of the find unless requested by an agency official.
- 5) Have an individual stay at the location to prevent further disturbance until a law enforcement officer arrives.

b) The **On-site manager/Contractor** shall notify local law enforcement, the **U.S. Nuclear Regulatory Commission (NRC) or U.S. Bureau of Land Management (BLM) (on BLM land)**, and the South Dakota State Archaeologist (State Archaeologist) within forty-eight (48) hours of notification by the On-site manager / Contractor.

c) The **NRC or BLM** shall notify the South Dakota State Historic Preservation Office (SHPO), Indian tribes, and other consulting parties within forty-eight (48) hours of the discovery.

d) If local law enforcement determines that the remains are not associated with a crime, the **NRC or BLM (on BLM land)** shall determine if it is prudent and feasible to avoid disturbing the remains. If the **NRC or BLM** in consultation with the **Powertech** determines that disturbance cannot be avoided, the **NRC or BLM** shall consult with the State Archaeologist, SHPO, Indian tribes and other consulting parties to determine acceptable procedures for the removal, treatment and disposition of the burial or remains. The **NRC or BLM** shall ensure that the **Powertech** implements the plan for removal, treatment and disposition of the burial or remains as authorized by the South Dakota State Archaeologist.

e) The **NRC or BLM (on BLM land)** shall notify the **Powertech** that they may resume construction activities in the protection zone upon completion of the plan authorized by the State Archaeologist.

Contact Information:

James K. Haug, State Archaeologist
South Dakota State Historical Society
Archaeological Research Center
PO Box 1257
Rapid City, SD 57709
(605) 394-1936

Katie Lamie, Title?
South Dakota State Historical Society
Archaeological Research Center
PO Box 1257
Rapid City, SD 57709
(605) 394-1936

Paige Olson, Review and Compliance Coordinator
South Dakota State Historical Society
State Historic Preservation Office
900 Governors Drive
Pierre, SD 57501
(605) 773-3458

Amy Rubingh, Review and Compliance Archaeologist
South Dakota State Historical Society
State Historic Preservation Office
900 Governors Drive
Pierre, SD 57501
(605) 773-3458

Federal Agency Contact

Haimanot Yilma
Nuclear Regulatory Commission
11545 Rockville Pike
Rockville, MD 20852
301-415-8029
Haimanot.yilma@nrc.gov

Brenda Shierts, Archaeologist
Bureau of Land Management
BLM-South Dakota Field Office
310 Roundup Street
Belle Fourche, SD 57717
605-723-8712
bshierts@blm.gov