

November 28, 2011

MEMORANDUM TO: Kevin Hsueh, Chief
Environmental Review Branch-B
Environmental Protection
and Performance Assessment Directorate
Division of Waste Management
and Environmental Protection
Office of Federal and State Materials
and Environmental Management Programs

FROM: Alan Bjornsen, Project Manager */RA/*
Environmental Review Branch-B
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Office of Federal and State Materials
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SUBJECT: SITE VISIT AND INFORMATION GATHERING MEETINGS-
SUMMARY REPORT FOR THE PROPOSED ROSS *IN-SITU*
RECOVERY PROJECT (DOCKET NO. 040-09091)

During the week of August 21, 2011, the U.S. Nuclear Regulatory Commission (NRC) staff and its contractors conducted a site visit at the proposed Strata Energy Inc. (Strata) Ross *In-Situ* Recovery (ISR) Project (Ross Project) site. The NRC team also met with various local, State, and Federal agencies as well as other interested stakeholders in Wyoming. The purpose of the various meetings was to gather information to be considered in the NRC's Supplemental Environmental Impact Statement (SEIS) for the proposed Ross Project. Enclosed is a summary and list of participants for each meeting.

Enclosure: Meeting Summary

CONTACT: Alan Bjornsen, DWMEP/FSME
(301) 415-1195

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(301) 415-1195

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OFC	DWMEP	DWMEP	DWMEP	OGC	DWMEP	DWMEP
NAME	JMoore	ABjornsen	AWalker-Smith	MMarsh	KHsueh	ABjornsen
DATE	10/25/11	10/26/11	10/27/11	11/22/11	11/23/11	11/28/11

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**Site Visit to the Proposed Ross *In-Situ* Recovery Project Site,
Crook County, Wyoming, and Meetings with Federal, State, County Agencies, and Local
Organizations**

August 22, 2011- August 26, 2011

Introduction:

Strata Energy Inc. (Strata) submitted a combined source-material and byproduct material license application to the U.S. Nuclear Regulatory Commission (NRC) for the proposed Ross *In-Situ* Recovery (ISR) Project (Ross Project) on January 4, 2011. The license application included both an Environmental Report (ER) and a Technical Report (TR). If a license is issued by NRC, Strata would conduct ISR operations at the proposed Ross Project site. By Task Order 1 of Contract No. NRC-41-10-014, the Attenuation Environmental Company and its subcontractors (AEC Team) is assisting NRC staff in reviewing Strata's license application documents, evaluating potential environmental impacts of the proposed action and alternatives, and developing a Supplemental Environmental Impact Statement (SEIS) in accordance with NRC environmental protection regulations at 10 CFR Part 51.

From August 22, 2011 through August 26, 2011, U.S. Nuclear Regulatory Commission (NRC) and AEC Team members conducted an information gathering trip that included a site visit to the proposed Ross Project site on August 22, 2011. The purpose of the site visit was for the NRC and AEC Team members to see firsthand the proposed project site and to clarify the contents of the ER and TR with the applicant. Several representatives of Federal and State agencies with permitting responsibilities for the proposed Ross Project as well as County officials also participated in the site visit. During this week, NRC and AEC Team members also met with the following Federal and State of Wyoming agencies: U.S. Bureau of Land Management (BLM); Wyoming Department of Environmental Quality (WDEQ); Wyoming Department of Environment and Natural Resources (DENR); Wyoming Game and Fish Department (WGFD); and the National Park Service (NPS). In addition, meetings were held with the following county agencies and local organizations: Powder River Basin Resource Council (PRBRC), City of Moorcroft First Responders, Crook County Officials and Staff, and Crook County School District #1. At these meetings, NRC and AEC Team members gathered information pertaining to the proposed Ross Project from the members of these agencies and organizations that should be considered in NRC's environmental review. This report summarizes information gathered during the trip.

Enclosure

**Visit to Strata Energy's Proposed Ross In-Situ Uranium Recovery Site
Near Oshoto, Crook County, Wyoming
August 22, 2011**

Site Visit Participants:

Mr. Alan Bjornsen, NRC
Ms. Johari Moore, NRC
Ms. Doris Minor, AEC Team
Dr. Kathryn Johnson, AEC Team
Dr. Tony Burgess, AEC Team
Ms. Lauren Evans, AEC Team
Mr. Miles Bennett, Wyoming Department of Environmental Quality/Land Quality Division
Mr. John Berry, Senior Biologist, WWC Engineering
Ms. Melissa Butcher, pb Communications & Strategic Solutions
Mr. Mike Butcher, Administrative Financial Manager, Strata Energy
Ms. Susan Child, Wyoming Office of State Lands
Mr. Richard L. Currit, Senior Archeologist, Wyoming State Historic Preservation Office
Mr. David Ferguson, GCM Services
Mr. Jack Fritz, Senior Environmental Engineer, WWC Engineering
Mr. Robert Gilbert, Manager, Crook County Weed & Pest
Mr. Harold Kemp, Wyoming Office of State Lands
Ms. Amanda Losch, Wyoming Game and Fish Department
Ms. Heather O'Brien, Wyoming Game and Fish Department
Mr. James Rexford, Councilperson, City of Moorcroft
Mr. David Risley, Field Project Manager, Strata Energy
Mr. Mark Rogaczewski, Wyoming Department of Environmental Quality/Land Quality Division
Mr. Ben Schiffer, Project Manager, WWC Engineering
Mr. Bud Stewart, Wyoming Game and Fish Department

On August 22, 2011, the site visit was guided by Mr. Schiffer of WWC Engineering (WWC), Strata's contractor for license-application development. During the approximately four hours of the site visit, the group made approximately eight stops to view certain important areas of the overall Ross Project site. These areas included the following:

- An overlook of an alternate site, to the north, considered for the location of the Central Processing Plan (CPP) ("Alternative 3" of the ER).
- An area where the following features could be viewed:
 - Devils Tower National Monument due east
 - The Missouri Buttes to the east-northeast
 - The Oshoto Reservoir to the south-southeast
- The location of the 12-18 multi-well cluster used for the aquifer test discussed in the ER and TR.
- The meteorological station northwest of the Ross Project site.

- A surface-water monitoring station, No. SW3, on Deadman Creek.
- The site of the former Nubeth Joint Venture.
- A surface-water monitoring station, No. SW2, on the Little Missouri River.
- BLM-owned land overlooking the proposed 44-acre location for the CPP.
- Cultural-resource areas.

Follow-up actions: None.

Documents Received: None.

**Meeting with Wyoming Department of Environmental Quality
Sheridan, Wyoming, Field Office
August 23, 2011**

Meeting Participants:

Mr. Alan Bjornsen, NRC
Ms. Johari Moore, NRC
Ms. Doris Minor, AEC Team
Dr. Kathryn Johnson, AEC Team
Dr. Tony Burgess, AEC Team
Ms. Lauren Evans, AEC Team
Mr. Miles Bennett, Natural Resources Analyst, WDEQ/LQD
Mr. Jim Eisenhauer, WYPDES Program, WDEQ/WQD
Mr. Don Fischer, Senior Project Geologist, WDEQ/WQD
Mr. Mark Rogaczewski, District 3 Supervisor, WDEQ/LQD
Mr. Tanner Shatto, District Engineer, WDEQ/AQD
Ms. Carrie Steinhorst, WDEQ/WQD
Mr. Craig Toal, WYPDES Program, WDEQ/WQD

The U.S. Nuclear Regulatory Commission (NRC) staff and Attenuation Environmental Company and its subcontractors (AEC Team) met with WDEQ staff in Sheridan on the morning of August 23, 2011. The WDEQ staff who participated is listed above; they represented several divisions on the WDEQ including the Land Quality Division (LQD), the Water Quality Division (WQD), and the Air Quality Division (AQD). The WQD was represented by both surface-water and ground-water staff. The discussion included an explanation of technical ISR processes as well as the permitting process and also included a discussion of the proposed action and potential environmental impacts.

The AQD staff indicated the status of Strata's application for an air-quality permit. The LQD and WQD staff discussed the various permits and other notifications that will be required of Strata, including the "Permit to Mine" application; WYPDES permits; a Class III UIC permit, which is imbedded in the Permit to Mine; the "Aquifer Reclassification Request" and "Drilling Notifications"; and, potentially, a "Land Application" permit.

With respect to the permits above, it was noted that the Permit to Mine application is a public document, but is not available electronically from WDEQ (which only has hard-copy), while UIC, storm water-, and waste water-discharge permits and permit applications are online at <http://deq.state.wy.us/wqd/>.

The concerns raised at this meeting include the following:

- The proposed location of the Central Processing Plant (CPP) and also perhaps the north, alternative location of the CPP is in a drainage area.
- The proximity of the evaporation ponds with respect to the shallow groundwater.
- Fugitive dust, such as that created by both construction and the increased vehicular traffic.
- Drill-rig and electrical-generator emissions.

Follow-Up Action Items:

- The AEC Team will investigate the public availability of all of the permits and permit applications submitted by Strata as well as from other ISR projects that may serve as examples of permits that may be requested by Strata in the future.
- The AEC Team will contact the Wyoming State Engineer's Office (SEO) to learn of the information available in its Cheyenne office.

Documents Received:

Strata Energy Inc., *Isopach of Confining Unit Below Ore Zone* from Ross ISR Project/Permit to Mine Application, Appendix D5.4-4, submitted to Wyoming Department of Environmental Quality, January 2011.

**Meeting with Wyoming Department of Game and Fish
Sheridan, Wyoming, Regional Office
August 23, 2011**

Meeting Participants:

Mr. Alan Bjornsen, NRC
Ms. Johari Moore, NRC
Ms. Doris Minor, AEC Team
Dr. Kathryn Johnson, AEC Team
Dr. Tony Burgess, AEC Team
Ms. Lauren Evans, AEC Team
Ms. Mary Flanderka, WGFD (Telephone)
Mr. Scott Gamo, WGFD (Telephone)
Mr. Joe Gilbert, Regional Wildlife Supervisor, WGFD
Ms. Lynn Jahnke, Wildlife Management Coordinator, WGFD
Ms. Amanda Losch, Staff Biologist, WGFD
Ms. Heather O'Brien, Biologist, WGFD
Mr. Bud Stewart, Energy Development Biologist, WGFD

On August 23, 2011, the U.S. Nuclear Regulatory Commission (NRC) staff and Attenuation Environmental Company and its subcontractors (AEC Team) met with Wyoming Game and Fish Department (WGFD) in Sheridan. NRC staff presented a general description of the proposed Ross Project. The WGFD personnel discussed some of the regulatory aspects over which they have some purview. These areas of purview include terrestrial, aquatic (including amphibian and reptile), and non-migratory bird habitats. However, WGFD staff indicated that WGFD has no formal process whereby it can issue permits (although some of its requirements can be attached to a Permit to Mine).

The specific concerns expressed by the WGFD staff are as follows:

- The use of very large evaporation ponds and their water quality.
- The impacts on water fowl and to big game, which would be attracted to the ponds and are thus sensitive to the ponds' water quality. It was suggested that Strata's design consider at least two fences: one around the entire site and one around just the ponds. It was also suggested that Strata's design consider an escape ramp for those wildlife that do make it into the ponds. Finally, it was suggested that Strata's design consider netting; however, there is a concern that birds and bats might become entangled in the netting.
- The Northern Leopard frog and the Swift fox may be present in the area.
- There are at least two sage grouse leaks identified to the south of the Ross Site.
- The Barber Site may fall within a core sage grouse buffer area.

- Power lines and poles can provide additional perches for raptors and other birds, which then puts these birds at risk of electrocution. Also, power lines can be struck by flying game birds, which then injures or kills them. Spikes may be used to discourage perching and/or visible markers (balls) could be placed on the lines themselves.
- Above ground pipes/conduits/lines that might be used by Strata at the Ross Site.
- Long-term monitoring of invasive weed species. Because of the increased truck traffic, it is potentially likely that locally foreign seeds could be brought into the area.
- Sagebrush, which is advocated by the WGFD as amenable habitat, should be included in any reclamation seed mixture used at the Ross Site. Any proposed reclamation mix should comply with the County Conservation District requirements.
- Road kill due to increased vehicular traffic. With the increased traffic would come increased mortality to local animal species. A “Traffic Management Plan” and decreased speed limits would mitigate some road kills, as would Strata’s encouraging carpooling by its operations personnel.

The WGFD staff indicated that the lists to rely on for important species are, in general order of importance:

- U.S. Fish and Wildlife Service (FWS) Threatened and Endangered Species
- U.S. FWS Candidate Species
- U.S. Bureau of Land Management (BLM) Sensitive Species
- WGFD Species of Greatest Conservation Need (as outlined in its 2011 *State Wildlife Action Plan*).

Follow-Up Action Items:

- The AEC Team will review Executive Order 2011-5.
- The AEC Team will contact the FWS (Ecological Services in its Cheyenne Office) regarding the block clearance for ferrets and will review the BLM’s Sensitive Species list and related information.
- WGFD will review the southern area of the Ross Site as well as the Barber Site, if possible, for respective habitats.
- WGFD will check for other leaks and/or other Executive Order sites within the Lance District, if provided a shape file.
- WGFD will investigate whether any additional wildlife surveys have been performed since that by Strata, or if any information has changed.

Documents Received: None.

**Meeting with Powder River Basin Resource Council
Sheridan, Wyoming
August 23, 2011**

Meeting Participants:

Mr. Alan Bjornsen, NRC
Ms. Johari Moore, NRC
Ms. Doris Minor, AEC Team
Dr. Kathryn Johnson, AEC Team
Dr. Tony Burgess, AEC Team
Ms. Shannon Anderson, Attorney, PRBRC
Mr. Jim Jones, Member and Nearby Resident to the proposed Ross Project site, PRBRC
(via Telephone)
Mr. Kevin Lind, Director, PRBRC

The U.S. Nuclear Regulatory Commission (NRC) staff and Attenuation Environmental Company and its subcontractors (AZC Team) met with the Powder River Basin Resource Council (PRBRC) to hear its concerns regarding Strata's proposed Ross Project. PRBRC members indicated that PRBRC has been following the resurgence of uranium recovery, especially ISR, for the last four to five years.

The concerns shared by the PRBRC members during the meeting included the following:

- Strata is a "junior company" that is new to the United States (US) in general and this area of Wyoming in particular.
- If the former Nubeth Joint Venture failed, how is it that Strata's Ross Project will be successful?
- The cumulative impacts of nearby oil and gas wells and also other ISR facilities should be carefully considered.
- Past environmental mistakes (e.g., legacy issues) at other mining operations should not be repeated.
- The reservoir on the Ross Project site should be protected due to its importance to bird species.
- A full environmental analysis should be done "up front," so that all satellites are considered, rather than the license being amended later without any additional National Environmental Policy Act (NEPA) review.
- Existing boreholes should be abandoned properly, including those that may not be easy to locate. Otherwise, there could be cross-contamination of aquifers.
- The excursions that have been known to occur at other ISR facilities should be mitigated by the ISR design at the Ross Project.
- The headwaters of the Little Missouri River should be protected.

- The “one-hundred” landowners in the Lance District should be protected and their concerns should be addressed, including water quality and aquifer depletion.
- Will recharge water be oxygenated?
- The Ross Project should be decommissioned such that water-quality parameters can be restored to pre-mining levels (which, the PRBRC noted, has not happened at any ISR facility).
- Restoration should occur above and below the surface.
- An adequate period of time should be allowed for site monitoring (i.e., greater than six months or a year) after site closure because oxygenation and leaching continues.
- Wyoming Department of Environmental Quality (WDEQ) and the NRC should be staffed appropriately so as to yield an immediate response to an urgent situation or violation. The nearest NRC inspector is in Texas.
- The NRC should incorporate stringent license conditions for mitigation and monitoring of the Ross Project.
- The increased vehicular traffic, especially on D Road, and the resulting increase in generated dust should be fully considered.
- The nearest town with first responders is Moorcroft and it does not have a so-called “hazmat team.” Thus, Gillette may provide the nearest first responders for significant situations. The Moorcroft fire department is comprised of volunteers.
- First responders should be provided sufficient and effective training to ensure their competency.
- There could be a potential for wildfires at the site due to the oil and gas operations.
- The Ross Project site contains some State lands and related recreational uses (e.g. hunting, fishing, and grazing) and these may be lost.
- Excavation and drilling can introduce and/or spread noxious weeds in the area.
- The *Reclamation Plan* should receive the attention it requires.
- The long-term effects of the use of waste water for irrigation should be identified and considered. At Smith Ranch irrigation is performed with waste water. The long term impacts of this activity are unknown. Therefore, this activity should not be allowed until more studies are completed.
- The low temperatures in the winter at the Ross Project should be considered with respect to their impact on underground pipes.
- The drawdown of the local aquifer should be evaluated, and drawdown and/or contamination of local water wells should be assessed, so that local residents do not lose the use of their wells.

- The timing for reseeding must be accurate in order to ensure that a growing season is not missed. Hay fields are required for cattle and must be regenerated.
- All wastewater disposal options are possibly faulty.
- Although the Ross Project area may seem sparsely populated, it in fact is quite dense by Wyoming standards.

Follow-Up Action Items: None.

Documents Received: None.

**Meeting with Wyoming Department of Environmental Quality
Casper, Wyoming, Field Office
August 24, 2011**

Meeting Participants:

Mr. Alan Bjornsen, NRC
Ms. Johari Moore, NRC
Ms. Doris Minor, AEC Team
Dr. Kathryn Johnson, AEC Team
Dr. Tony Burgess, AEC Team
Mr. Dale Anderson, WDEQ/Solid Waste (via Telephone)
Ms. Karen Farley, Northeast District Supervisor, WDEQ/WQD
Mr. Dennis Lamb, CBM Group Supervisor, WDEQ/WQD
Mr. Jason Vreeland, WDEQ

On August 24, 2011, the U.S. Nuclear Regulatory Commission (NRC) staff and Attenuation Environmental Company and its subcontractors (AEC Team) met with Wyoming Department of Environmental Quality (WDEQ) staff in its Casper, Wyoming field office. Represented were the Water Quality Division (WQD) and the Solid and Hazardous Waste Division (by telephone). After a brief introduction of the proposed Ross Project and the Supplemental Environmental Impact Statement (SEIS) process by NRC staff, the WDEQ staff was asked about any concerns they might have regarding the proposed Ross Project.

The WQD staff elaborated upon some of the permitting information that the group received from the Sheridan Field Office. Specifically, the permitting process for land application of waste water was discussed as was the permitting of drinking-water wells (Fox Hills, Wasatch, and Fort Union). It was noted that the standards for land application of waste water are generally lower than those for discharge into diluting water bodies. These standards are developed on a site-by-site basis, according to WDEQ. Further, WDEQ staff reiterated that the 60 pCi/l radium standard relates to temporary discharges only and that clean-up standards are more stringent – 30 pCi/l.

Based upon some WDEQ staff's experience with coal bed methane (CBM) facilities as well as experience in the oil and gas industries, it was noted that the primary concerns for land application are sodium and the sodium adsorption ratio (SAR). It was indicated that clay sand may not be a good barrier for evaporation ponds due to the fact that too much water can escape before the leak detection system is triggered. WDEQ staff noted that two Class I re-injection wells have been operating for a "long while" in the Minnelusa Formation. WDEQ staff also noted that "no one" generally goes into the Deadwood Formation because there are usually acceptable formations above it.

The NRC staff and AEC Team members were referred to the State Engineer's Office (SEO) in Cheyenne for the majority of existent well logs. WDEQ in Casper does have some well logs, but they are only related to drinking-water wells.

Regarding solid waste management, WDEQ staff indicated that, in Wyoming, the state permits landfills, not the counties. Also in Wyoming, construction debris may be disposed of (i.e., co-mingled with) municipal or county land-filled solid waste. For on-site landfills, there is a Memorandum of Understanding (MOU) between the Solid and Hazardous Waste Division and the Land Quality Division. For the Ross Project, the nearest landfill is that operated by the City of Moorcroft. The next nearest is in Sundance, which is currently being closed and a transfer station is being built. The next closest landfill would be in Campbell County.

WDEQ staff noted that the Moorcroft landfill was permitted as 160 acres, although only 10 acres have been used thus far (in the last 10 to 15 years). Thus, there is great capacity at the Moorcroft landfill.

Follow-Up Action Item:

WDEQ will forward to AEC the link mentioned regarding a WDEQ guidance document.

Documents Received: None.

**Meeting with U.S. Bureau of Land Management
Newcastle, Wyoming
August 24, 2011**

Meeting Participants:

Mr. Alan Bjornsen, NRC
Ms. Johari Moore, NRC
Ms. Doris Minor, AEC Team
Dr. Kathryn Johnson, AEC Team
Dr. Tony Burgess, AEC Team
Mr. James Bashor, Geologist, BLM
Mr. Rick Miller, Field Manager, BLM
Dr. Alice Tratebus, Archeologist, BLM

On August 24, 2011, the U.S. Nuclear Regulatory Commission (NRC) staff and Attenuation Environmental Company and its subcontractors (AEC Team) met with U.S. Bureau of Land Management (BLM) personnel in their office in Newcastle, Wyoming. BLM is a “cooperating agency” with the NRC for the Supplemental Environmental Impact Statement (SEIS). After NRC staff summarized the meeting’s purpose and goals, BLM staff explained that Strata have submitted a “Plan of Operations” to BLM under its authority at Title 43 CFR Part 3809.

BLM indicated that the disturbance that will be created by the Ross Project is likely to be similar to that created by coal bed methane (CBM) facilities, where “pods” are similar to the ponds proposed by Strata, but are most often much larger than those proposed by Strata.

BLM familiarized the NRC staff and the AEC Team members with the Plan of Operations review process, including some of the comments and the concerns of commentors the BLM has received (these comments will be made public). BLM is aware of concerns in the following areas:

- Potential contamination of ground water, due to normal operations and excursions.
- Impacts to air quality and surface water.
- The integrity of the well casings if underground pipes will be buried given the location of the frost line.
- Increased truck traffic.
- Unplugged boreholes.

Follow-Up Action Items:

- BLM will provide Strata’s Plan of Operations to the NRC.
- BLM will provide a panoramic photograph from the base of Devils Tower to the NRC.

Documents Received: None.

**Meeting with City of Moorcroft First Responders
Moorcroft, Wyoming
August 25, 2011**

Meeting Participants:

Mr. Alan Bjornsen, NRC
Ms. Johari Moore, NRC
Ms. Doris Minor, AEC Team
Dr. Kathryn Johnson, AEC Team
Dr. Tony Burgess, AEC Team
Ms. Dorothy Baron, Moorcroft Ambulance Service
Mr. Dan Blakeman, Operations Officer, City of Moorcroft
Mr. Doug Leis, Moorcroft Fire Department
Mr. Ed Robinson, Moorcroft Police Department and Emergency Medical Services
Mr. Jim Rexford, Planning Committee and Moorcroft City Council

On the morning of August 25, 2011, the U.S. Nuclear Regulatory Commission (NRC) staff and Attenuation Environmental Company and its subcontractors (AEC Team) met with several first responders based in/near Moorcroft, Wyoming. NRC staff first introduced the proposed Ross Project; some of the first responders had already been made aware of the proposed project by Strata.

The first responders indicated that the City of Moorcroft has several fire fighting-related trucks and that the Moorcroft Fire Department consists of all volunteers (approximately 20 volunteers); thus, some time is needed to respond to emergencies. It was estimated that approximately 30 to 40 minutes would be required to mobilize to Oshoto (including the Moorcroft Hazmat truck). For the Hazmat truck in Gillette, which is more robustly equipped and staffed, the response time would be approximately one to one and one-half hours. Gillette also has a Homeland Security force and a Bomb Squad. Nearby Campbell County also provides reciprocal "mutual aid."

It was noted that the nearest hospital is approximately 30 miles away, in Gillette, Wyoming, and that Sundance, Wyoming, also has a hospital. Moorcroft itself has a medical clinic which is staffed by one doctor five days a week, approximately eight hours a day. Lifeline (a helicopter service) is also available out of Rapid City, South Dakota. It was also noted that the Crook County Sheriff's Office (which would serve the Ross Project site) is understaffed, but that Moorcroft has its own Police Department.

Regarding waste disposal: 1) the Sundance land fill is due to close soon and a transfer station is being built; and 2) the County inspects septic systems <2 Kgal/day, while the State permits septic systems >2 Kgal/day.

The County has a socioeconomic study that is about 5 or 6 years old. The County has also a land use plan on its web site. Schools in the area are administered by the School Facilities Administration of Wyoming (SFAW).

The following concerns were expressed during this meeting:

- It will be important for Strata to indicate to the first responders in Moorcroft the truck routes it will be using so as to ensure vigilance along those roads.
- The Moorcroft Hazmat truck is currently under-equipped and will need to be updated for the possible hazards involved with ISR operations.
- Training will be needed in the following areas: fire-fighting strategies, radiation protection, and hazmat response.

Follow-Up Action Item:

NRC staff will send the link to the Ross Project application on its electronic reading room system (ADAMS) to staff that requested the document.

Documents Received: None.

**Meeting with Crook County Officials and Staff
Sundance, Wyoming
August 25, 2011**

Meeting Participants:

Mr. Alan Bjornsen, NRC
Ms. Johari Moore, NRC
Ms. Doris Minor, AEC Team
Dr. Kathryn Johnson, AEC Team
Dr. Tony Burgess, AEC Team
Mr. Tom Adams, Sheriff, Crook County Sheriff's Office
Mr. Joseph M. Baron, County and Prosecuting Attorney, Crook County
Mr. Morgan Ellsbury, Crook County Road & Bridge
Mr. Wayne Garmen, Crook County Natural Resource District
Mr. Jim Geis, Crook County Natural Resource District
Mr. Robert Gilbert, Manager, Crook County Weed & Pest
Mr. John Hadley, Crook County Commissioner
Ms. Jinx Hilty, Crook County Natural Resource District
Ms. Mary Kuhl, Treasurer, Crook County
Mr. Tim Lyons, Administrator, Crook County Growth & Development
Ms. Sarah D. Mason, Crook County Natural Resource District
Mr. James Pridgeon, Crook County Emergency Management

On the morning of August 25, 2011, the U.S. Nuclear Regulatory Commission (NRC) staff and Attenuation Environmental Company and its subcontractors (AEC Team) met with several representatives and staff of Crook County, Wyoming. The participants are listed above. County staff had several questions at the outset of the meeting, including the following:

- Did the NRC or AEC Team members know there was a pending Total Maximum Daily Load (TMDL) due to aquifer impairment on the Belle Fourche River? The TMDL addresses pathogens, ammonia, and chloride.
- What is the chloride load from dust-suppression chemicals?
- What is the level of radioactivity of the yellow-cake shipments?
- How will waste water be managed?
- Since only about one to two percent of the total waste water will be disposed by deep-well injection, what are the disposal methods for the remaining waste water?

As these questions were asked, it became clear that there was confusion regarding the exact location of the proposed Ross Project site. The NRC staff and the AEC Team members clarified that the Ross Project site does not drain to the Belle Fourche River, but rather to the Little Missouri River. There was also confusion regarding the reservoir on site, which some meeting participants understood to be the Keyhole Reservoir—but, in fact, it is the Oshoto Reservoir. Once these clarifications were made, the meeting proceeded as a forum for the

various Crook County organizations that were represented in the meeting to express their concerns. These concerns included the following:

- The level of radioactivity. “Any measurable radioactivity” yields a “hazmat situation.” Thus, the level of radioactivity will dictate first-response efforts.
- The chloride load that may be released.
- The transportation impacts of the Proposed Action. This concern regards both the yellow-cake shipments as well as the operations work force that will need to commute to the site.
- If the Barber Site is one of the final Alternatives in the Supplemental Environmental Impact Statement (SEIS) then there would be concerns regarding the pending TMDL on the Belle Fourche River watershed.
- The quality of ground water. The County personnel had questions regarding the assurances it would receive that the other local aquifers will not be impacted.
- The issuance of the “permits” for exploratory boreholes is not a public process; thus, related information cannot be retrieved by County personnel.
- The “capping” of old boreholes and the locations of new boreholes. In particular, there are concerns about the number of concrete-bearing trucks that will travel County roads during borehole management.
- The restoration of ground-water quality to “baseline levels,” which has never been accomplished by an ISR project.
- The competition for water from the oil and gas industries. The water usage for enhanced oil recovery (EOR) and horizontal drilling was specifically mentioned.
- The cumulative impact of oil and gas wells in the “industrial area” within which the Ross Project would be located.
- Jurisdictional issues. For example, if the Crook County Sheriff officers were at Devils Tower or in Colony, then the local police would have jurisdiction to handle a particular situation in Moorcroft.
- NRC’s “policing power.” Would there be continued oversight by the NRC as operations begin?
- Bonding and financial assurance requirements. Some County personnel were aware that Wyoming Department of Environmental Quality requires bonds in conjunction with many of its permits, but were unaware of the NRC’s financial assurance requirements. Could Strata “walk away” from the Site, leaving the County or the State responsible for clean-up?
- The identification of other agencies that may have regulatory authority over the Ross Site, such as the Mine Safety and Health Administration (MSHA) and/or the Occupational Health and Safety Administration (OSHA).

- Water quality, including where the “baseline” values are taken and from which formation the ground water will be taken. It was pointed out that, although one formation might not be used for drinking water, it may be used for stock-watering purposes.
- The NRC’s Safety Evaluation Report (SER), unlike the SEIS, is not made available for public comment.
- The City of Moorcroft’s drinking-water well field is near the Ross Project and Gillette’s water line (which is currently under proposal to widen to a 36-inch line from the existing 30-inch line) runs parallel to “the D Road.” The drinking-water wells are located in the Madison Formation.
- The management of “municipal” solid waste at the proposed Ross Project. Will there be extra garbage trucks or will there be dedicated trucks for the Ross Project? The State has jurisdiction over landfills.
- Weeds, including leafy spurge. Truck traffic could bring noxious weeds and seeds into Crook County. The respective landowners are responsible for ensuring that noxious weeds do not propagate on their lands. Strata might, through lease agreements, take on this responsibility. Strata should consider preparing a Noxious Weed Plan.
- Roles and responsibilities for accident management and/or spill containment/clean-up.
- Magnitude and types of transportation accidents. Specifically, those involving drums of yellow-cake.
- The County Sheriff’s Office has only two (or, sometimes, even just one) officer on duty at any given time. In a worst-case scenario (probably during the winter) the County officer might require an hour to an hour and one-half to arrive on the scene of an accident.
- The Gillette Hazmat first responders might have an extended response time.
- Hijacking of trucks.
- Rare Element Resources is constructing a new lithium mining facility near Warren Peak in Crook County (approximately 12 miles north of Sundance). The mine is scheduled to be operational in 2015. This project is named “Bear Lodge.” Although the project is currently drilling only exploratory boreholes, if this project comes to fruition, its impacts and those of the Ross Project should be studied as cumulative effects. There is also on-going oil and gas development in Crook County.
- It was noted that there is no land-use zoning in Crook County. There is, however, a “Land Use Plan” available on the County’s website (<http://www.crookcounty.wy.gov>).
- Local governments are specifically prohibited from regulating mineral development in Wyoming. Thus, Crook County has not taken an official stand on the Ross Project nor expressed specific concerns.
- Any septic field with a capacity greater than 2,000 gallons would be regulated, permitted, and inspected by the WDEQ. A “Permit to Construct” application will need to be filed with WDEQ by Strata if it intends to have a private septic system and, if that system is

less than the 2,000-gallon capacity, WDEQ would forward the application to the County.

- Local residential construction has declined substantially in Crook County with the current national recession. The local unemployment rate is 6.2 percent. The NRC staff and AEC Team members were referred to the State's Department of Workforce Services website.
- The pipes to be used at the Ross Site should be surveyed to ensure that they can be located by developments in the future.
- Requirements for site reclamation. For example, will all buildings be deconstructed after the facility ceases operation?

Follow-Up Action Items:

- AEC Team members will locate maps that indicate the Moorcroft well field as well as Gillette's and its water line from the State Engineer's Officer (SEO).
- AEC Team members will obtain a copy of the pending Total Maximum Daily Load (TMDL) on the Belle Fourche River watershed.
- AEC Team members will locate the "Land Use Plan" on the Crook County website.
- County staff will send or email the "Development Report" to NRC staff and AEC Team members.

Documents Received:

Analysis by Mr. Joseph Baron, not dated, "Can the county develop and implement an *In-situ* Mining Permit System in Crook County, Wyoming?"

Ecosystem Research Group, *Revised Final Draft of Dry Fork Station Power Facility/Impacts to Crook County and Towns*, May 10, 2006. (Referred to as the "*Traffic Report*" during the meeting above.)

Greencore Pipeline Company L.L.C., *Greencore CO₂ Pipeline Project/Noxious Weed Plan*, December 2010.

Letter to Strata Energy from Mr. Joseph Baron, Crook County and Prosecuting Attorney, dated March 21, 2011, "Consideration for Road Agreement with Strata."

Memorandum of Understanding between Strata Energy Inc. and the County of Crook, dated April 6, 2011, "For Improvement and Maintenance of Crook County Roads Providing Access to the Ross ISR Project."

Missouri River Watershed Coalition and the Center for Invasive Plan Management (Montana State University), *Protecting Wildlife Habitat/Sportsman's Guide to Noxious Weeds*, 2010.

**Meeting with Crook County School District #1
Sundance, Wyoming
August 25, 2011**

Meeting Participants:

Mr. Alan Bjornsen, NRC
Ms. Johari Moore, NRC
Ms. Doris Minor, AEC Team
Dr. Kathryn Johnson, AEC Team
Dr. Tony Burgess, AEC Team
Ms. Jan Steele, Crook County School District #1

On the afternoon of August 25, 2011, U.S. Nuclear Regulatory Commission (NRC) staff and Attenuation Environmental Company and its subcontractors (AEC Team) met briefly with the Crook County School District #1 in Sundance, Crook County, Wyoming. Crook County School District #1 provided the NRC staff and AEC Team members with a map of school-bus routes, and duplicated the portion of this map that covers the Ross Site. It appears that one student is picked up by a school bus on D Road and one student is picked up in Oshoto.

Follow-Up Action Items: None.

Documents Received:

Map of school-bus routes near the proposed Ross Project.

**Meeting with National Park Service
Devils Tower, Wyoming
August 25, 2011**

Meeting Participants:

Mr. Alan Bjornsen, NRC
Ms. Johari Moore, NRC
Ms. Doris Minor, AEC Team
Dr. Kathryn Johnson, AEC Team
Dr. Tony Burgess, AEC Team
Mr. Drew D. Gilmour, Chief Park Ranger, National Park Service, U.S. Department of the Interior
Ms. Angela J. Wetz, Chief of Resources, National Park Service, U.S. Department of the Interior

On the afternoon of August 25, 2011, the U.S. Nuclear Regulatory Commission (NRC) staff and Attenuation Environmental Company and its subcontractors (AEC Team) met with two representatives of the National Park Service (NPS). NPS staff indicated that Devils Tower is also called "Bear Lodge," especially by the local Tribes. NPS staff also indicated that approximately 5,000 to 6,000 permits to climb the National Monument are granted each year. There is no record of anyone climbing the Tower before 1895. Also, tourist and military helicopters fly near the monument.

With respect to the Tribes that use the monument, NPS staff specified that they use the base of the Tower and that all cultural activities take place at the foot of the monument. In general, these activities take place less than twelve times a year, although NPS staff often observes Native Americans praying at the Tower's base as individuals or in small groups. The month of June is an important month for the Tribes at Devils Tower, and the Park Service asks for a voluntary cessation of climbing the Monument during that month.

The concerns regarding the proposed Ross Project that the NPS staff discussed included the following:

- Any lights used at the Ross Site could mar the night-sky viewshed. As a mitigation technique, NPS staff suggested that Strata use "down lighting" (i.e., light fixtures whose light is focused downward and are protected from above by a barrier).
- Potential impacts to ground-water quality.
- The noise from the Ross Site might carry and disturb either Tribal activities and/or recreational use.

NPS staff also stated that the practice bombing range north of Devils Tower, which is operated by Ellsworth Air Force Base, is currently the subject of a National Environmental Policy Act (NEPA) review. (Air Force aircraft "buzz" the Tower frequently, although there is a voluntary "no fly zone" over the Monument.) NPS staff provided the NRC with an electronic copy of the Draft Environmental Impact Statement (DEIS) for the U.S. Air Force Powder River Training Complex and indicated that some sort of macro-invertebrate surveying will be conducted in this area.

Follow-Up Action Items:

NPS staff will provide NRC staff and AEC Team members photographs showing the due-west view from the top of the Devils Tower.

Documents Received:

U.S. Air Force Powder River Training Complex Ellsworth Air Force Base, South Dakota Draft Environmental Impact Statement, August 2010 (CD copy)

(<http://www.acplanning.org/documents/PRTC/PRTC%20Draft%20EIS.pdf>)