

POLICY ISSUE
(Notation Vote)

August 16, 2017

SECY-17-0081

FOR: The Commissioners

FROM: Victor M. McCree
Executive Director for Operations

SUBJECT: STATUS AND RESOLUTION OF ISSUES ASSOCIATED WITH THE
TRANSFER OF SIX DECOMMISSIONING URANIUM MILL SITES TO
THE STATE OF WYOMING

PURPOSE:

The purpose of this paper is to provide the Commission with options and a recommendation on handling the American Nuclear Corporation (ANC) site in Gas Hills, Wyoming. This paper also provides the status of the State of Wyoming's (Wyoming's) application for a limited 274b. Agreement to assume regulatory authority over a subcategory of source material related to milling activities and the management and disposal of Section 11e.(2) byproduct material. This paper informs the Commission that Wyoming is willing to revise its application to assume regulatory authority over five of the six Uranium Mill Tailings Radiation Control Act (UMTRCA) Title II sites contingent on the State and the U.S. Nuclear Regulatory Commission (NRC) developing a Memorandum of Understanding (MOU) to efficiently and effectively facilitate the completion of the decommissioning process for the five sites. The sixth UMTRCA site is the ANC site.

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SUMMARY:

This paper describes the Wyoming draft application package's deviation from the Commission's approved approach in Staff Requirements Memorandum (SRM)-SECY-16-0084, "Wyoming's Proposal for a Limited Agreement to only Regulate Milling Facilities' Source Material and 11e.(2) Byproduct Material" (Agencywide Document Access and Management System (ADAMS) Accession No. ML16216A534) by requesting that the NRC retain regulatory authority over six UMTRCA Title II sites. In SRM-SECY-16-0084, the Commission approved a proposal for a limited Section 274b. Atomic Energy Act of 1954, as amended, (AEA)¹ Agreement with Wyoming that would allow Wyoming to assume, and the NRC to discontinue, regulatory authority over the subcategory of source material involved in the extraction and concentration of uranium and thorium milling² and the management and disposal of byproduct material as defined in 11e.(2) of the AEA.³ On October 26, 2016, Wyoming provided a draft application that requested a limited 274b. Agreement where the NRC would retain regulatory authority for six UMTRCA Title II sites. These sites are: 1) Anadarko Bear Creek, Powder River Basin; 2) Pathfinder, Lucky Mc, Gas Hills; 3) Umetco Minerals Corporation, Gas Hills; 4) Western Nuclear Inc., Split Rock, Jeffrey City; 5) Exxon Mobile, Highlands, Converse County (the five sites); and 6) American Nuclear Corporation, Gas Hills.

Excluding these six UMTRCA Title II sites deviates from the approach approved by the Commission in SRM-SECY-16-0084. The staff has subsequently worked with Wyoming and identified a path forward; the State would assume regulatory authority over five of the sites, contingent on the development of an MOU between NRC and Wyoming. However, Wyoming has indicated it is still opposed to assuming regulatory authority over the ANC site because the licensee is insolvent. To address Wyoming's proposed exclusion of the ANC site from the limited Agreement, staff has identified two options and provides a recommendation for Commission consideration in this paper.

BACKGROUND:

In SRM-SECY-16-0084, the Commission approved an approach for a limited Agreement with Wyoming in accordance with Section 274b. of the AEA that would allow the State to assume, and the NRC to discontinue, regulatory authority over the subcategory of source material involved in the extraction or concentration of uranium or thorium milling and the management and disposal of byproduct material as defined in 11e.(2) of the AEA.³ As approved by the Commission, the Agreement would allow Wyoming to assume regulatory authority over uranium recovery activities including heap leach, conventional mills, in-situ recovery facilities, and facilities with 11e.(2) byproduct material involved (or formerly involved) with milling activities including UMTRCA Title II sites. This Agreement would not permit concurrent (i.e., simultaneous State and Federal) regulation of the same category or subcategory of material or the same activity. This approach, approval of a limited 274b. Agreement related to a subcategory of material, is consistent with the approach used by the Commission in previous

¹ 42 U.S.C. § 2021(b).

² Subsequent to SRM-SECY-16-0084, the staff and Wyoming changed the phrasing to be "extraction or concentration of uranium or thorium" to be consistent with the wording in 11e.(2) and UMTRCA. The staff provided comments to the scope of the limited Agreement that are referenced in Wyoming statutory language for Wyoming Article 20. These comments were provided in a letter to Wyoming Department of Environmental Quality dated October 11, 2016 (ADAMS Accession No. ML16274A240). The revised language will be used throughout the rest of this document.

³ 42 U.S.C. § 2014(e).

Agreements (SECY-99-123 and SRM-SECY-99-123, "Oklahoma Agreement State Negotiations: State Proposal to Limit Scope of Agreement" (ADAMS Accession Nos. ML992810133 and ML003752047).

On October 26, 2016, Wyoming submitted a draft application for NRC review. In the draft application, Wyoming proposed a limited 274b. Agreement where the NRC would retain regulatory authority for six decommissioning uranium mill sites licensed under Title II of UMTRCA. This proposal is inconsistent with the approach approved by the Commission in SRM-SECY-16-0084 because the draft application would specifically exclude from the Agreement six decommissioning UMTRCA Title II sites that fall under the subcategory of the management and disposal of byproduct material as defined in 11e.(2) of the AEA. As a result, under the draft application both Wyoming and the NRC would have concurrent regulatory authority over different sites within the same subcategory of materials and activities.

UMTRCA Title II Sites and Decommissioning Process

UMTRCA became law in 1978 and consists of two programs: Title I addresses former uranium processing sites that were largely abandoned (the U.S. Department of Energy (DOE) was assigned responsibility for the cleanup and long-term care of these sites with NRC oversight), and Title II applies to uranium recovery sites that were licensed in 1978 or later. Under UMTRCA Title II, operating uranium mill sites were licensed by the NRC or an Agreement State that assumed authority for 11e.(2) byproduct materials under its limited Agreement with the NRC. There are currently six Agreement States that have 11e.(2) authority: Colorado, Illinois, Ohio, Texas, Utah, and Washington.

NRC Licensees

After the NRC approves an NRC licensee's completion of site reclamation and decommissioning activities at an UMTRCA Title II site, the NRC contacts the DOE to develop a Long-Term Surveillance Plan and estimate of the Long-Term Care Fee for the site. The DOE then submits both documents to the NRC for review. The NRC confers with DOE and the licensee during this review process. However, the NRC has the sole authority to set the Long-Term Care Fee, which is implemented as a licensing action.⁴ When the NRC has determined that the Long-Term Surveillance Plan is adequate and the Long-Term Care Fee is sufficient and appropriate, the licensee deposits the Long-Term Care Fee funds with the U.S. Treasury. The NRC can then accept the Long-Term Surveillance Plan and terminate the UMTRCA Title II site license. The DOE or the State then becomes responsible for the long-term care and maintenance of the site under a general license pursuant to Title 10 of the *Code of Federal Regulation* (10 CFR) 40.28, "General license for custody and long-term care of uranium or thorium byproduct materials disposal sites."

Agreement State Licensees

The process after an Agreement State licensee completes reclamation and decommissioning activities for an UMTRCA Title II site is slightly different. In this case, the Agreement State licensee submits a report to the Agreement State after completing reclamation and

⁴ Guidance for reviewing Long-Term Surveillance Plans and on the license termination process can be found in NUREG-1620, Rev. 1, "Standard Review Plan for the Review of a Reclamation Plan for Mill Tailings Sites under Title II of the Uranium Mill Tailings Radiation Control Act of 1978."

decommissioning activities at the site. The Agreement State reviews the submission and provides the bases for its findings in a Completion Review Report that all site reclamation and decommissioning have been completed. The Agreement State provides this report to the NRC. The NRC reviews the Completion Review Report and, if found sufficient, uses the Completion Review Report to support the NRC's determination that the licensee has met all applicable standards and requirements in accordance with AEA Section 274c.⁵ Once the NRC approves the Completion Review Report, the process parallels the one described above for NRC licensees except that the Agreement State terminates the license prior to DOE or the State taking responsibility for the site under an NRC general license pursuant to 10 CFR 40.28.

DISCUSSION:

Partial Resolution for the Deviation from SRM-SECY-16-0084

Since receiving the draft application, staff has worked to identify and resolve the underlying issues regarding Wyoming's deviation from SRM-SECY-16-0084, with the goal that Wyoming would revise its final application to include the six UMTRCA Title II sites in its regulatory authority under the 274b. Agreement. As a result of this work, NRC staff and Wyoming have identified a path forward for Wyoming to include five of the six sites in its regulatory authority in its final application: Anadarko Bear Creek; Pathfinder, Lucky Mc; Umetco Minerals Corporation; Western Nuclear Inc., Split Rock; and Exxon Mobile, Highlands.

To address Wyoming's concerns regarding certainty that the NRC will accept prior work conducted under the NRC license, the staff proposes to develop a MOU with Wyoming to delineate specific actions that the NRC and the State would take to verify completion of the decommissioning at the five sites. The MOU will eliminate the need for Wyoming to provide bases in its Completion Review Reports for all regulatory actions completed by the NRC prior to the implementation of the limited Agreement. With this approach, neither Wyoming nor the five site licensees will be required to expend resources on providing justifications for actions that were completed when the licenses were under NRC jurisdiction. This will allow Wyoming to efficiently complete the regulatory process to terminate each facility's license and transfer it to the DOE for custodial care. The use of the MOU is viewed by staff as an effective mechanism to facilitate the completion of the UMTRCA decommissioning process for the five sites. However, Wyoming has indicated it is still opposed to assuming regulatory authority for the ANC site, because the licensee's insolvency could obligate the State to find funding for the reclamation and decommissioning of the site which is currently subject to a Confirmatory Order.⁶

⁵ AEA Section 274c.(4): The Commission shall also retain authority under any such agreement to make a determination that all applicable standards and requirements have been met prior to termination of a license for byproduct material, as defined in Section 11e.(2).

⁶ In a letter dated April 18, 2017 (ADAMS Accession No. ML17108A731), Wyoming indicated that if the Commission finds that Wyoming should assume responsibility for the ANC site, the Commission should also find the NRC responsible for providing all funding, after exhaustion of the original financial assurance bond, necessary to finish reclamation and decommissioning so that the site can be transferred to the DOE.

The ANC Site

Background

The ANC site is a former uranium mill that operated from 1960 through 1982. It is currently regulated by the NRC under Title II of UMTRCA. In 1984, ANC obtained NRC approval of its original uranium mill tailings reclamation-and-closure plan and established a reclamation performance bond based on that plan. In 1986, ANC implemented a seasonal (summer months) ground water remediation system to address mill tailings seepage into the underlying aquifer. In 1990, the NRC requested that ANC reevaluate its 1984 closure plan based on the NRC 1990 Staff Technical Position (STP) *Design of Erosion Protection Covers for Stabilization of Uranium Mill Tailings Sites* (ADAMS Accession No. ML17221A221). The 1990 STP recommended several enhancements to meet the 200 to 1,000 years UMTRCA-cover-stability criteria, including a rock cover for erosion protection on the top of the radon barrier and rock placement for diversion channels around the tailings ponds. In response, ANC submitted a revised plan in 1992, and NRC staff responded with comments in March 1994. On May 9, 1994, ANC announced that it was discontinuing operations and going out of business due to financial insolvency (ADAMS Accession No. ML071580050). At that time, the ANC surety reclamation performance bond totaled \$3,242,207 with an additional \$1,667,606 in available qualified reimbursement under Title X of the Energy Policy Act of 1992.⁷ However, these funds did not reflect the cost associated with ANC's revised 1992 reclamation-and-closure plan, and did not include any costs related to remediation of ground water contamination originating from tailings-related seepage.

On July 21, 1994, the Wyoming Department of Environmental Quality (WDEQ) informed the NRC that WDEQ was prepared to complete reclamation at the ANC site and that WDEQ had initiated bond forfeiture proceedings with certified letters sent to ANC (ADAMS Accession No. ML071580059). On October 5, 1994, Wyoming took control of the reclamation bond and available Title X funds. Although ANC was financially insolvent, its license was not transferred or terminated.⁸ Wyoming subsequently initiated reclamation activities in 1995 (ADAMS Accession No. ML071580063). On October 15, 1996, Wyoming accepted a Confirmatory Order from the NRC covering the ANC site reclamation (ADAMS Accession No. ML071520354). Of particular note, the Confirmatory Order states that "the NRC shall not require the WDEQ to perform or pay for any reclamation, remediation, monitoring, or surveillance, the cost of which would exceed the amount of money available to WDEQ from ANC's forfeited reclamation performance bond and any subsequent reimbursements from the Department of Energy pursuant to Title X..." The Confirmatory Order also explicitly states that "when notified in writing that all bond money and Title X money has been exhausted, the NRC will terminate this order."

Since 1995, Wyoming completed an interim cover on Tailings Pond #1, the capping and reclamation of Tailings Pond #2, and ongoing ground water monitoring and remediation. However, a significant amount of reclamation work remains incomplete including a final cover on Tailings Pond #1, repair of the cover on Tailings Pond #2, construction of diversion channels and rock aprons, and addressing ground water issues.

⁷ Energy Policy Act of 1992, Title X—Remedial Action and Uranium Revitalization, Subtitle A—Remedial Action at Active Processing Sites allows for Federal reimbursement of certain remedial action costs attributable to byproduct material generated as an incident of sales to the United States.

⁸ Currently, an ANC board member owns the ANC property in Gas Hills, Wyoming, and interacts with the Wyoming Department of Environmental Quality.

During a February 2012 meeting with Wyoming (held prior to Wyoming's letter of intent to become an Agreement State) in Cheyenne, Wyoming, several ANC site decommissioning topics were discussed, including the fact that insufficient decommissioning funds were available to complete decommissioning at the ANC site consistent with NRC's regulations. Wyoming requested guidance from NRC staff on how best to manage the remaining funds. In 2014, NRC staff estimated that the remaining reclamation work at the ANC site will cost approximately \$16.3 million (2014 dollars) (ADAMS Accession No. ML14343A159). In 2016, Wyoming, using slightly different assumptions, estimated that the remaining reclamation work would cost between \$13.8 (2016 dollars) and \$17.7 million (2026 dollars) (ADAMS Accession No. ML16237A011). Staff has continued to work with Wyoming to evaluate options for completing decommissioning at the ANC site, including determining the best use of the remaining decommissioning funds and exploring options for obtaining the additional funding necessary to complete the site decommissioning. Currently, approximately \$700,000 remains for ANC decommissioning activities. At the request of Wyoming, the Confirmatory Order was revised to allow WDEQ to use the remaining decommissioning funds to stabilize the site until the decision is made on how best to complete the decommissioning (ADAMS Accession No. ML16354B554). Although ANC has been a financially insolvent entity since 1994 and is not a viable licensee, it still holds the license for the site.

Options

Provided below are two options to address the regulatory authority for the ANC site with respect to the proposed Wyoming Agreement: Option 1—Wyoming Assumes Regulatory Authority over the ANC Site, and Option 2—NRC Retains Regulatory Authority over the ANC Site.

Option 1—Wyoming Assumes Regulatory Authority over the ANC Site.

Under this option, Wyoming would not specifically exclude the ANC site in its final application to become an Agreement State. With one exception related to common defense and security considerations,⁹ the Commission's policy has been to reject requests by States or individual licensees for 274b. Agreements where the NRC would retain authority for an individual license (or group of licenses) within a larger set of licenses that are contained in a category or subcategory of source material or byproduct material. In "traditional" 274b. Agreements, States assume regulatory authority for all licenses that include source material, byproduct material, or special nuclear material in quantities not sufficient to form a critical mass. The Commission has, however, entered into limited Agreements with some States where subcategories within these broader material categories have been used. These limited Agreements have allowed States to enter into more specific 274b. Agreements tailored to a State's needs. Under a limited Agreement, the State assumes regulatory authority for all licenses in the subcategory (or the NRC retains regulatory authority over all licenses in a subcategory) which avoids concurrent jurisdiction over the subcategory of material. Provided below are examples of the agency's historical position concerning requests by Agreement States (the States of Oklahoma and Utah), requesting a group of sites or an individual site, respectively, be excluded from its 274b. Agreements. In addition, individual licensees in the States of Illinois, Massachusetts, and New Jersey have requested to be excluded from their respective State's 274b. Agreements.

⁹ The Commission issued an Order retaining the Allied Chemical facility in Metropolis, Illinois (a uranium conversion facility), for common defense and security considerations as part of the approval of the Illinois Agreement. See *Federal Register*, "State of Illinois; Staff Assessment of Proposed Agreement between the NRC and the State of Illinois; Republication" (52 FR 2309, January 21, 1987).

In 1995, Oklahoma filed a draft application for a typical 274b. Agreement requesting regulatory authority over source, byproduct, and special nuclear material under a critical mass, but specifically requested the exclusion of five major facilities undergoing complex decommissioning. In recommendations to the Commission on Oklahoma's proposal, the NRC staff asserted that the Oklahoma proposed Agreement would be inappropriate from a policy perspective and it could be inconsistent with the Commission's authority under the AEA (SECY-97-087, "Oklahoma Agreement State Negotiations: State Requests that Major Facilities Undergoing Site Decommissioning not be Relinquished to State" (ADAMS Accession No. ML992930004)). The staff provided the Commission a general approach for handling requests for limited Agreements consistent with Section 274a.(3) of the AEA. Under this approach, the staff would consider whether the proposed Agreement would jeopardize "an orderly regulatory pattern between the NRC and Agreement States."¹⁰ The NRC staff proposed that the NRC would not reserve authority over a single license or group of licenses unless those licenses clearly constituted a single category of material or class of activity where the NRC could reserve authority without undue confusion to the regulated community or burden to NRC resources, and could be applied logically, and consistently to existing and future licensees over time. In 1997, the Commission agreed with the staff's recommendation to deny the Oklahoma request and also agreed with the staff's general approach for handling requests for limited Agreements (SRM-SECY-97-087, "Oklahoma Agreement State Negotiations: State Requests that Major Facilities Undergoing Site Decommissioning not be Relinquished to State" (ADAMS Accession No. ML003752408)). Subsequently, in 1999, the Commission approved an Agreement allowing Oklahoma to assume regulatory authority over a defined subcategory of source material¹¹ (i.e., depleted uranium), 11e.(1) byproduct, and special nuclear material in quantities not sufficient to form a critical mass. The NRC retained regulatory authority over the other subcategories of source material, byproduct, and special nuclear material in the State. Since the five complex decommissioning sites did not contain depleted uranium, the NRC continued to retain authority over these sites (SECY-99-123 and SRM SECY-99-123).

In 1999, Utah inquired about the possibility of amending its 274b. Agreement to assume authority over 11e.(2) byproduct material in order to regulate uranium recovery operations. At that time, the Atlas Mineral Corporation (Atlas) license was regulated by the NRC as an UMTRCA Title II site located in Moab, Utah. The Atlas uranium mill had ceased operations in 1984 and decommissioning activities had been conducted at the site between 1988 and 1995. The Atlas decommissioning plan was to reclaim the mill tailings pile for permanent disposal at the mill site. Because the site was located along the Colorado River and some tailings-related contamination was seeping into the river, various individuals and organizations mounted significant opposition to reclamation of the tailings on site. Opponents argued that the only safe and environmentally appropriate remediation would be to move the tailings to another location. In September 1998, partly as a result of the costs attributable to defending its remediation proposal, Atlas filed for chapter 11 bankruptcy protection before the decommissioning plan was approved and decommissioning activities had been completed. Due to the financial condition of Atlas, Utah sought to exclude the Atlas license from the scope of the amended 274b. Agreement. In November 1999, the NRC staff informed Utah that the Commission "did not have the discretion to retain jurisdiction" (ADAMS Accession No. ML993260022) over an individual licensee that possesses material falling under the State's authority as outlined in the State's proposed amendment to the 274b. Agreement. The staff indicated that the financial condition or

¹⁰ 42 U.S.C. § 2021(a)(3).

¹¹ "Source material used to take advantage of the density and high-mass property where the use of the specifically licensed source material is subordinate to the primary specifically licensed use of either 11e.(1) byproduct material or special nuclear material" (SECY-99-123 and SRM SECY-99-123).

bankruptcy status of the licensee had no bearing on whether the State would regulate the radiological health and safety aspects of the facility. However, due in part to significant opposition to the onsite remedy and the bankrupt financial status of Atlas, the Atlas site was transferred to the DOE as part of the Floyd D. Spence National Defense Authorization Act of Fiscal Year 2001 as an UMTRCA Title I site. As a result, the Atlas license was not transferred to Utah as part of the 2004 amendment to the Utah Agreement.

There are three examples where NRC licensees have opposed their transfer as part of a Section 274b. Agreement. In 1989, Kerr-McGee disagreed with its inclusion in the State of Illinois' proposed 274b. Agreement. In 1996, Texas Instruments resisted its site's inclusion in the Commonwealth of Massachusetts' (Massachusetts') proposal to enter into a 274b. Agreement. Finally in 2008, Shieldalloy argued against its site's inclusion in the State of New Jersey's proposed 274b. Agreement. In all three examples, the sites were in the decommissioning phase and the licensees argued that the transfer of their license to the State would be disruptive. In the cases of Kerr-McGee and Shieldalloy, both licensees disputed their transfer, but ultimately, the transfer of their licenses to their respective Agreement State programs was upheld by the Commission. In the Texas Instruments example, site decommissioning under NRC regulatory authority was completed just prior to the implementation of the Massachusetts Agreement and the NRC terminated the license, thus negating the need to transfer the license to Massachusetts.

Based on the prior approaches taken by the Commission on transferring an entire group of licensees in a category or subcategory of material or activity to an Agreement State, the staff summarizes the following advantages and disadvantages for Wyoming assuming regulatory authority over the ANC site.

Advantages: For 30 years, the Commission has approved 274b. Agreements where the State's authority is tied to a category or subcategory of source, byproduct, or special nuclear material or a class of licensed activity for these materials. This position has been examined by the Commission in a number of cases, both from the perspective of State and licensee requests. It is a clear, well-thought-out regulatory position that avoids regulatory confusion (i.e., the concurrent regulation by the NRC and an Agreement State of the same type of 274b. Agreement materials or activities in the same jurisdiction). Wyoming has provided an application for an Agreement requesting regulatory authority over a subcategory of source material involved in the extraction and concentration of uranium and thorium milling and the management and disposal of byproduct material as defined in 11e.(2) of the AEA. The ANC site falls within that subcategory. Excluding the ANC site from the Agreement conflicts with past Commission direction where the exclusion of material from an Agreement necessitates identifying discrete categories of material or classes of licensed activity that: (1) can be reserved to NRC authority without undue confusion to the regulated community or burden to NRC resources; and (2) can be applied logically, and consistently to existing and future licensees over time. As such, Wyoming's proposal is inconsistent with current Commission policy and numerous prior Commission decisions concerning the NRC maintaining regulatory authority for an individual license or group of licenses within the category or subcategory of source material of byproduct material addressed in the Agreement.

Disadvantages: Wyoming has consistently expressed opposition to the transfer of the ANC site because of the licensee's financial insolvency. The State believes that if it assumes regulatory authority over the site, the State will need to raise funds for ANC's decommissioning (e.g., through a general appropriation or fees levied against viable uranium mill facilities) or find

another viable source (e.g., U.S. Congress).¹² ANC, as the current licensee, remains legally responsible for reclamation and decommissioning costs associated with site closure. However, because ANC has been financially insolvent since 1994, it may be necessary, but not legally required, for the regulatory authority to identify funding sources to complete reclamation and decommissioning.

The question of the NRC maintaining regulatory authority for an individual license or group of licenses within the category or subcategory of source material or byproduct material addressed in a 274b. Agreement has been examined on a number of occasions (as discussed above). With the exception of the Utah request, none of the examples are analogous to the current situation with ANC because they involved financially viable sites. In the case of Utah's request, the Atlas site was never transferred to Utah, rather DOE took control of the site under Congressional authorization prior to the effective date of Utah's amended Agreement. As a result, the potential consequences of the NRC relinquishing regulatory authority of an UMTRCA Title II site with significantly deficient decommissioning funds to a State that did not want to assume responsibility for finding funding for a site were never realized.

Option 2—NRC Maintains Regulatory Authority for the ANC Site

Under this option, the NRC would retain regulatory authority for the ANC site. As discussed in the Background section of this paper, the current Confirmatory Order with Wyoming establishes conditions under which Wyoming can use the existing ANC reclamation performance bond and available Title X funds to reclaim and decommission the ANC site. Under the Confirmatory Order, Wyoming is not required to perform or pay for any "reclamation, remediation, monitoring, or surveillance" beyond the funds available through the original ANC reclamation performance bond and Title X. In addition, the Confirmatory Order states that once the available reclamation and decommissioning funds are exhausted, the Confirmatory Order will be terminated.

At the time that the Confirmatory Order was issued, docketed correspondence from ANC indicated that ANC was not financially viable (ADAMS Accession No. ML082470215). It was this fact and Wyoming's willingness to manage the available reclamation performance funds that led to the development and implementation of the Confirmatory Order. It was also understood at the time by both Wyoming and NRC staff that there were insufficient available funds to complete reclamation and decommissioning at the ANC site (ADAMS Accession No. ML082470215). The reclamation performance bond was based on ANC's 1984 reclamation-and-closure plan and did not reflect the enhancements specified in the NRC's 1990 STP. Wyoming addressed this issue in the Confirmatory Order by having a limit placed on its financial responsibility for the ANC site. Both conditions (no viable licensee and insufficient reclamation and decommissioning funds) are still true today.

Since 1996, the Confirmatory Order has served as the administrative tool to ensure health and safety was protected and the decommissioning work continued with the available funds. Wyoming's position is that after the Confirmatory Order is terminated, the regulatory authority

¹² In a letter dated April 18, 2017 (ADAMS Accession No. ML17108A731), Wyoming indicated that if the Commission finds that Wyoming should assume responsibility for the ANC site, the Commission should also find the NRC responsible for providing all funding, after exhaustion of the original financial assurance bond, necessary to finish reclamation and decommissioning so that the site can be transferred to the DOE.

for the site becomes the primary responsible party to find funds to complete reclamation and decommissioning because there is no financially viable licensee.

The case of formerly licensed sites/former licensees with insufficient resources to complete decommissioning located in Agreement States is relevant to the present discussion and has previously been addressed by the Commission. In 1997, the NRC staff informed Agreement States that their programs were responsible for any radioactive material remaining at sites in an Agreement State, including material originally licensed by the NRC or the Atomic Energy Commission (AEC) (formerly NRC-licensed sites), where the license was terminated prior to the State becoming an Agreement State (SECY-98-011, "Potential Funding Assistance for Agreement States for Closure of formerly Terminated NRC Licenses" (ADAMS Accession No. ML992910094)). The NRC staff surveyed the Agreement States to determine the extent of contamination at these formerly NRC-licensed sites. Although Agreement State responses were incomplete, it was clear that in some cases, the formerly NRC-licensed sites or responsible parties could not be found or had insufficient funds to remediate the site. Staff estimated that \$3 to \$4 million of unfunded remedial costs were associated with the formerly NRC-licensed sites and recommended that the NRC provide assistance to the Agreement States through a grant program (SECY-98-273, "Potential Funding Assistance for Agreement States for Closure of Formerly Terminated NRC Licenses" (ADAMS Accession No. ML17129A509)). The Commission responded in SRM-SECY-98-273, "Potential Funding Assistance for Agreement States for Closure of Formerly Terminated NRC Licenses" (ADAMS Accession No. ML003750910), by approving staff's recommendation to pursue a separate appropriation to establish a fund for use by Agreement States through grants to assist in the remediation of formerly NRC-licensed sites when the original owner or successor could not be found or had insufficient funds to complete site remediation. Subsequently, a grant program was established in January 2001 with a total funding of \$3.3 million¹³ to support Agreement States in closing outstanding formerly NRC-licensed sites (*Federal Register*, "Financial Assistance (Grants) to Support Agreement States in Closing Sites Formerly Licensed by the NRC" (66 FR 8814, February 2, 2001, ADAMS Accession No. ML010740450)). With the completion of Agreement State activities funded by the grant program and submission of the last final reports in 2007, the program was terminated.

In SRM-SECY-98-273, in addition to addressing the issue of formerly NRC-licensed sites with insufficient resources to complete decommissioning, the Commission directed staff to evaluate possible approaches for returning formerly NRC-licensed sites to NRC jurisdiction, if desired by the State. In response, staff prepared SECY-99-278 "NRC/Agreement State Jurisdiction for Formerly Licensed Sites" (ADAMS Accession No. ML17129A511) that presented three alternatives: 1) amend the Atomic Energy Act to allow the NRC to retain the formerly NRC-licensed sites that were terminated by the NRC; 2) amend existing Agreements for the NRC to retain a subclass of formerly NRC-licensed sites that were terminated by the NRC; or 3) have the Agreement States continue to maintain jurisdiction over the formerly NRC-licensed sites that were terminated by the NRC, with the NRC continuing to provide technical assistance. The staff recommended and the Commission agreed in SRM-SECY-99-278, "NRC/Agreement State Jurisdiction for Formerly Licensed Sites" (ADAMS Accession No. ML003681116) to continue with alternative 3, the technical assistance alternative. This decision was consistent with the Commission's previous decision to establish the grant program in SRM-SECY-98-273.

¹³ The FY 2001 funding appropriation was \$1,650,000.000. The FY 2002 proposed ceiling was \$1,650,000.000.

Although the Commission considered the return of financially challenged decommissioning sites (i.e., bankrupt or insolvent) back from the Agreement States, no States proposed the return of any sites to the NRC.

Based on the prior approaches taken by the Commission on the formerly NRC-licensed site program, the staff summarizes the following advantages and disadvantages for NRC maintaining regulatory authority over the ANC site.

Advantages: The NRC maintaining regulatory authority for the ANC site would be consistent with the unique relationship the NRC has maintained with Wyoming during the 21 years the State has managed the ANC reclamation and decommissioning funds. Since the 1996 Confirmatory Order, Wyoming has managed the ANC site activities using ANC's forfeited reclamation performance bond and reimbursements from the DOE pursuant to Title X. However, a condition in the Confirmatory Order specifies that once those funds are exhausted, Wyoming's role in the ANC site reclamation and decommissioning activities will end. Wyoming seeks to continue this unique relationship by specifically requesting to exclude the ANC site in its draft application and subsequent discussions with the NRC staff. The NRC retaining regulatory authority over the ANC site is consistent with the intent of the 1996 Confirmatory Order.

In SECY-99-278, the staff's position for maintaining assistance to the Agreement States for the formerly NRC-licensed sites (the selected alternative) emphasized the importance of facilitating the cleanup of the formerly NRC-licensed sites without requiring a resolution of jurisdiction issues, and that remediation and final resolution of problem sites should be achieved on a case-by-case basis. ANC is a financially insolvent licensee and has not been a viable entity since 1994; there are significant costs associated with completing site reclamation and decommissioning activities at the ANC site (estimated to be \$16.3 to \$17.7 million). By not transferring ANC to Wyoming, the NRC could continue to pursue additional funding to complete remediation and decommissioning on the ANC site and the focus of NRC's (and Wyoming's) efforts would be consistent with the Commission's decision regarding formerly NRC-licensed sites expressed in SRM-SECY-99-278. Staff is examining various options for providing resources to complete the decommissioning of the ANC site and plans to provide the Commission further details in an upcoming paper.

Disadvantages: As discussed in Option 1, the NRC retaining regulatory authority for the ANC site would be inconsistent with 30 years of NRC policy, where Agreement States have assumed regulatory authority for all licenses within the category or subcategory of material or activities addressed in the 274b. Agreement.

In addition, the NRC retaining regulatory authority for the ANC site may lead other Agreement States to request that the NRC take regulatory authority over their financially insolvent UMTRCA Title II sites now, or in the future. For example, the Intercontinental Energy Corporation site in Texas is a former in-situ uranium recovery facility regulated by the Texas Commission on Environmental Quality under an Agreement with the NRC. That licensee has abandoned two of the three sites on the license without completing decommissioning. Texas is now involved in legal proceedings with several parties regarding the best course of action to address the incomplete decommissioning of the sites. For the Intercontinental Energy Corporation site, this site has been regulated by the State of Texas since construction began in 1977. Another example is the Sweeney Mill (also known as the Marion Mill) located in Boulder County, Colorado, which started operations in 1936 processing tungsten ores and, later, thorium ores. The material processed at the Sweeney Mill required a source material license from the AEC,

and later from the State of Colorado after it became an Agreement State in 1968. Sweeney Mill continued to operate until 1984. Decommissioning of the site was not completed when the licensee was declared insolvent in 2007. For the Sweeney Mill, operations and later decommissioning activities were regulated by the State of Colorado after the site transfer, from the AEC, and the licensee subsequently became insolvent.

COMMITMENT:

Staff is examining various options for providing resources to complete the decommissioning of the ANC site and plans to provide the Commission further details in an upcoming paper.

RECOMMENDATION:

The NRC staff recommends that the Commission approve Option 2: for the NRC to retain regulatory authority over the ANC site. ANC is a financially insolvent licensee and has not existed as a viable entity since 1994. There are significant costs associated with completing site reclamation and decommissioning activities at the ANC site (estimated to be \$16.3 to \$17.7 million). Given the provisions in the 1996 Confirmatory Order and Wyoming's good faith efforts to date to remediate the site, requiring Wyoming to take regulatory authority for the ANC site is not consistent with the unique relationship between the NRC and Wyoming at this site. The NRC retaining regulatory authority is also consistent with the intent behind the Confirmatory Order and past NRC approaches where the Commission was open to providing funds to survey and remediate formerly NRC-licensed sites (with no viable licensee or owner) that were transferred to an Agreement State. Transfer of the ANC site to Wyoming as part of the limited Agreement would set a new precedent of transferring a partially remediated uranium mill site with a significant financial liability and no viable licensee to one of our Agreement State partners. Further, because the final disposition of the ANC site will be with the DOE, the NRC should retain regulatory authority of the ANC site until it can negotiate transfer of the site to the DOE. This would provide for a more orderly transfer of the site to DOE's long-term care.

RESOURCES:

In SECY-16-0084, the staff informed the Commission that the creation of a subcategory of source material that is only involved with milling activities would not cause a burden on the NRC resources since it allows Wyoming to enter into an Agreement to assume sole regulatory authority for licensing milling activities and regulation of 11e.(2) byproduct material in the State. No additional resources beyond those already budgeted will be required to support either option.

COORDINATION:

The Office of General Counsel (OGC) has reviewed the options presented in this paper, and has no legal objection to the proposed options.

OGC believes that under the Commission's current policy, Option 1 would require Wyoming to propose a limited Agreement based on a category or subcategory of material or an activity. Under this approach, the Agreement State program would be implemented so as not to permit concurrent (i.e., simultaneous State and Federal) regulation of the same category or subcategory of material or the same activity. Therefore, under this approach, a 274b Agreement may not carve out specific sites by name, except for common defense and security reasons under Section 274m.

Unless Wyoming defines a sufficiently narrow category or subcategory of material or activity, the NRC could not retain regulatory authority over any of the six decommissioning sites.

However, should the Commission adopt the approach outlined in the staff's Option 2, there is no legal prohibition on adopting a policy change to allow the NRC to retain authority over the ANC site. Although the NRC has never signed a 274b. Agreement that excludes sites by name, except in the case of common defense and security, the unique circumstances surrounding this site could provide sufficient justification for the Commission to approve an agreement with Wyoming where the NRC retains jurisdiction over the ANC site. Provided the final 274b. Agreement meets the adequacy and compatibility requirements in 274d, there is no legal prohibition on adopting the staff's recommended approach.

/RA/

Victor M. McCree
Executive Director
for Operations

SUBJECT: STATUS AND RESOLUTION OF ISSUES ASSOCIATED WITH THE TRANSFER OF SIX DECOMMISSIONING URANIUM MILL SITES TO THE STATE OF WYOMING, DATED AUGUST 16, 2017.

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