Organization of Agreement States
Lessons Learned

August 21, 2019

Ryan Schierman, Program Manager WYDEQ/LQD
House Bill HB0027 passed providing funding to the program.

Uranium Recovery Program staffing begins.

Statutes revised for authority over source material from recovery or milling and the associated 11(e)2 byproduct material.

Statutes Updated per NRC Discussion.

WDEQ Received comments on Draft Application (4/24/17).

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February 27th Governor Mead sent letter to NRC to pursue an agreement with the NRC.

Draft regulations before the Land Quality Advisory Board.

Draft Agreement sent to the NRC (10/26/16).

Formal Agreement sent to NRC ~11/17.

Environmental Quality Council Meeting to Finalize Regulations (8/2/17).

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## Wyoming 38th Agreement State

<table>
<thead>
<tr>
<th></th>
<th>Projected*</th>
<th>Actual</th>
<th>Difference</th>
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<tbody>
<tr>
<td><strong>Time</strong></td>
<td>5 to 6 Yrs.</td>
<td>3.6 Yrs.**</td>
<td>1.4– 2.4 Yrs.</td>
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<tr>
<td><strong>Cost</strong></td>
<td>$4.2 M</td>
<td>~$ 1.7 M</td>
<td>~2.5 M</td>
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<tr>
<td><strong>Pay Back for Standup</strong></td>
<td>13 years</td>
<td>5 Yrs.***</td>
<td>8 Yrs.</td>
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*Projected estimates based on information presented at the October 9, 2014 Wyoming Joint Minerals and Economic Development Committee
** Time calculated from letter of intent sent by Governor Mead on February 27, 2015
***Based on 3 FTE of LQD
Wyoming Licenses (106)

1. Cameco- Smith Ranch ISR SUA-1548 (operating)
2. Uranium One- Willow Creek SUA-1341 (operating)
3. Ur Energy/Lost Creek- Lost Creek ISR SUA-1598 (operating)
4. Uranerz-Nichols Ranch ISR SUA-1597 (operating)
5. Strata Energy-Ross ISR SUA-1601 (operating)
6. Kennecott- Sweetwater Conventional SUA-1350 (Standby)
7. Uranium One Moore Ranch SUA-1596 (not constructed)
8. AUC Reno Creek SUA-1602 (not constructed)
9. Anadarko, Bear Creek SUA-1310 (Decommissioning)
10. Exxon Mobil Highlands SUA-1139 (Decommissioning)
11. Pathfinder Lucky MC SUA-672 (Decommissioning)
12. Pathfinder Shirley Basin SUA-442 (Active)
13. Umetco Gas Hills East SUA-648 (Decommissioning)
14. Western Nuclear, Split Rock SUA-56 (Decommissioning)
Lesson Learned Number 1  
Don’t Be Unique; If You are Unique NRC Will Work With You

SECY–97–087 Partial Agreement  
5 Separate Commission Papers  
- SECY–16–0084 (6–5–16)  
- SECY–17–0081–ANC (8–6–17)  

Regulations/Statutes  

Regulatory authority over the possession and use of source material involved in the extraction or concentration of uranium or thorium in source material and ores at milling facilities, and the management and disposal of byproduct material as defined in Section 11e.(2) of the Atomic Energy Act
Lesson Learned Number 1
Don’t Be Unique; If You are Unique NRC Will Work With You

SECY–97–087 Partial Agreement
5 Separate Commission Papers
  ◦ SECY–16–0084 (6–5–16)
  ◦ SECY–17–0081–ANC (8–16–17)

Regulations/Statutes
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Regulations/Statutes

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<th>Statutes</th>
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<tr>
<td>9/13/15 (DEQ)</td>
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<tr>
<td>9–28–15 (ML15266A385)</td>
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<td>11–19–15 (ML15324A391)</td>
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<td>12–8–15 (ML16162A149)</td>
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<td>9–26–16 (ML16011A129)</td>
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<td>10–11–16 (ML16274A240)</td>
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<td>6–18–17 (NRC)</td>
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<td>3–15–16 (ML16034A488)</td>
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<td>3–29–16 (ML16095A093)</td>
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<td>4–5–16 (ML16097A348)</td>
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<td>6–25–16 (ML16095A091)</td>
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<td>3–15–16 (ML16035A488)</td>
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<td>10–3–16 (ML16123A034)</td>
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<th>Draft Application (107 Comments)</th>
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<td>10–20–16 (ML16300A294)</td>
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<td>3–15–17 (ML17065A219)</td>
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<td>4–20–17 (ML17062A2962)</td>
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<td>6–6–17 (ML17193A406)</td>
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<td>6–17–17 (ML17278A525)</td>
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<td>8–16–17 (ML17241A119)</td>
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<td>3–1–18 (ML18032A830)</td>
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<td>3–2–18 (DEQ)</td>
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(a) Any reference in these rules to requirements, or procedures contained in 10 C.F.R., Part 20, Sections 20.1001 through 20.2402 shall constitute the full adoption by reference of that part and subparts as they appear in 10 C.F.R., revised as of January 1, 2017, including any notes and appendices therein, unless expressly provided otherwise in these rules. These rules do not include any later amendments or editions of the incorporated matter.

Lesson Learned Number 2
Timing is Everything

- **House Bill HB0027** passed providing funding to the program
- **Uranium Recovery Program staffing** begins
- **Statutes revised for authority over source material from recovery or milling and the associated 11(e)2 byproduct material**
- **WDEQ Received comments on Draft Application (4/24/17)**
- **Statutes Updated per NRC Discussion**
- **Regulations Presented to the Environmental Quality Council (5/24/17)**
- **Wyoming assumes regulatory authority over source material from recovery or milling and the associated 11(e)2 byproduct material. 9-30-18**

- **February 27th** Governor Mead sent letter to NRC to pursue an agreement with the NRC
- **Draft regulations before the Land Quality Advisory Board**
- **Draft Agreement sent to the NRC (10/26/16)**
- **Formal Agreement sent to NRC ~11/17**
- **Environmental Quality Council Meeting to Finalize Regulations (8/2/17)**
Lesson Learned Number 3
Employees and Training Critical

10 Full Time Employees (FTE)
- Ryan Schierman Program Manager
- David Adams CHP, Health Physicist
- Reid Brown, Hydrologist/Geochemist
- Brandi O’Brien Health Physicist
- Alan Thompson PG, Geologist
- Emily Werner, Administrative
- Kelly Shaw Assistant Attorney
- (3) FTE already in LQD

- Over 2400 hours of formal training to meet NRC equivalent credentials.
- Hundreds of hours spent on NRC inspection accompaniments
W.S. § 35–11–2004(c)

Prior to terminating a byproduct material license the department shall ensure the ownership of a disposal site and the byproduct material resulting from licensed activity are transferred to

(i) The state of Wyoming
(ii) The federal government if the state declines to acquire the site, the byproduct material, or both the site and byproduct material
Article VIII A

1. This Agreement will terminate without further NRC action if the State does not amend Wyoming Statute Section 35–11–2004(c) to be compatible with Section 83b.(1)(A) of the Act by the end of the 2019 Wyoming legislative session. Upon passage of a revised Wyoming Statute Section 35–11–2004(c) that the NRC finds compatible with Section 83b.(1)(A) of the Act, this paragraph expires and is no longer part of the Agreement.
Lesson Learned Number 4 Be Careful, Small Items May Become Larger

- W.S. § 35–11–2004(c)

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Lesson Learned Number 5
If Possible Don’t Start From Scratch

WDEQ/LQD
• Records Department
• Secretaries
• Equipment
• Software (MODFLOW/ARCGIS)
• Policy/Procedures
• Expertise
• Incident/Allegation Database
• Accounting
Lesson Learned Number 5
If Possible don’t start from scratch
Lesson Learned Number 6  
Support From Congress Helps

The Agreement had the support of Senator Barrasso, Enzi, and Representative Cheney

Senator Barrasso—Chairman of Senate Committee on Environment and Public Works

- 3–21–18 EPW oversight hearing of NRC, Senator Barrasso stressed importance of Agreement with Wyoming by 9–30–18
- 12–13–17 EPW oversight hearing of NRC– Senator Barrasso stressed importance of Agreement with Wyoming by 9–30–18
- 6–13–17 EPW nominating hearing for NRC commissioner nominees asked for commitment to giving Wyoming’s application a fair and timely consideration
Questions