

Department of Environmental Quality Land Quality Division

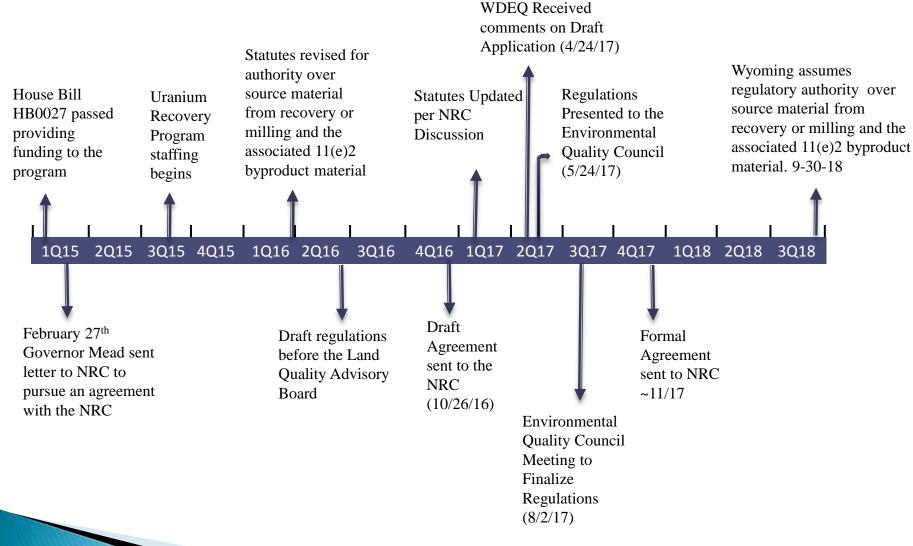


Organization of Agreement States Lessons Learned

August 21, 2019

Ryan Schierman, Program Manager WYDEQ/LQD

Timeline





Wyoming 38th Agreement State



WYOMING

| Projected Standup vs Actual Standup (14 licenses) | | | | | | | | |
|---|-------------|------------|---------------|--|--|--|--|--|
| | Projected* | Actual | Difference | | | | | |
| Time | 5 to 6 Yrs. | 3.6 Yrs.** | 1.4- 2.4 Yrs. | | | | | |
| Cost | \$4.2 M | ~\$ 1.7 M | ~2.5 M | | | | | |
| Pay Back for 13 years Standup | | 5 Yrs.*** | 8 Yrs. | | | | | |

*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



Agreement States



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



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Regulations/Statutes

Statutes

9/13/15 (DEQ)| 9-28-15 (ML15266A385) 11-19-15 (ML15324A391) 12-8-15 (ML16162A149) 6-8-16 (ML16162A136) 9-26-16 (ML16011A129) 10/11/16 (ML16274A240) 1-18-17 (ML17019A228) 6-18-17 (NRC) 1-30-18 (ML18032466)

Chapter 1 General Provision

1-11-16 (ML16014A133) 3-15-16 (ML16034A488) 3-29-16 (ML 16095A093) 4-5-16 (ML16097A348) 6-25-16 (ML16095A091)

10 CFR 20

1-11-16 (ML16014A133) 3-15-16 (ML16035A488) 10-3-16 (ML16123A034)

Draft Application (107 Comments)

10-20-16 (ML16300A294) 3-15-17 (ML17065A219) 4-20-17 (ML17065A219) 6-8-17 (DEQ) 6-6-17 (ML17193A406) 6-17-17 (ML17278A525) 6-22-17 (ML17278A525) 8-16-17 (ML17241A115) 12-20-17 (ML18019A031) 1-8-18 (ML18023A743) 1-18-17 (ML17019A228) 1-30-18 (ML18032466) 3-1-18 (ML18032A830) 3-2-18 (DEQ)

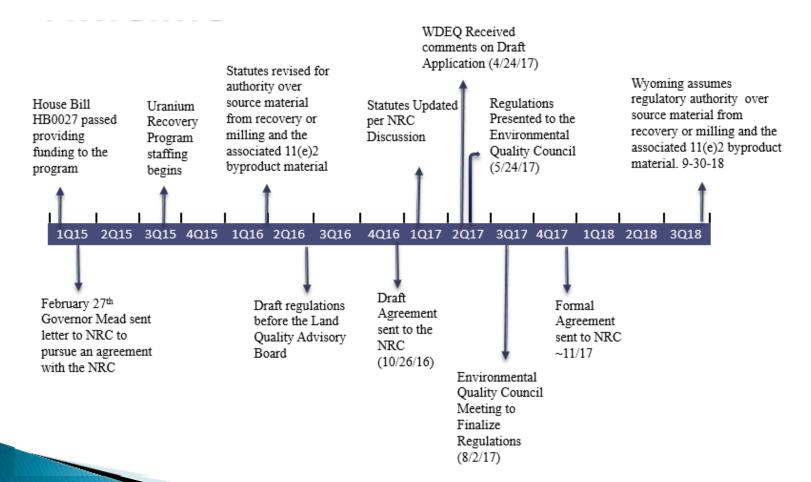
(a) Any reference in these rules to requirements, or procedures contained in 10 C.F.R., Part 20, Sections 20.1001 through 20.2402 shall constitute the full adoption by reference of that part and subparts as they appear in 10 C.F.R., revised as of January 1, 2017, including any notes and appendices therein, unless expressly provided otherwise in these rules. These rules do not include any later amendments or editions of the incorporated matter.

(b) The following 10 C.F.R. sections, as of January 1, 2017, are excluded from these rules and are not incorporated by reference: 20.1001, 20.1002, 20.1003, 20.1004(a), 20.1005, 20.1006, 20.1007, 20.1008, 20.1009, 20.1206, 20.1301(c), 20.1401, 20.1402, 20.1403, 20.1404, 20.1405, 20.1406(b), 20.1601(f), 20.1903(b), 20.1903(d), 20.1905(g), 20.2003(b), 20.2104 (b), 20.2105, 20.2203(c), 20.2204, 20.2206(a)(1), 20.2206(a)(3), 20.2206(a)(4), 20.2206(a)(5), 20.2401, 20.2402, and Appendix D.



Lesson Learned Number 2 Timing is Everything







Lesson Learned Number 3 Employees and Training Critical



WYOMING

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



Lesson Learned Number 4 Be Careful, Small Items May Become Larger

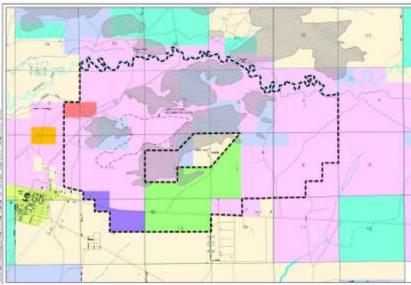


• W.S. § 35-11-2004(c)

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





Lesson Learned Number 4 Be Careful, Small Items May Become Larger



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

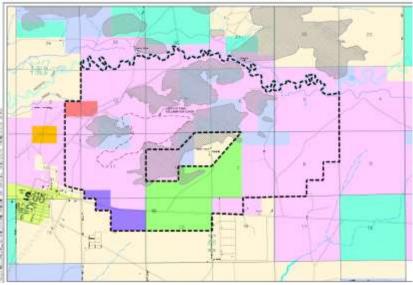


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Lesson Learned Number 5 If Possible Don't Start Fom Scratch



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



WYOMING

| WYOMING | MIDASGoToPermit | : | | | | | | | | | |
|---|---------------------------------------|---|----------------------------------|--|-----------|-------------------|--|--|--|--|--|
| Applications Divisi | ons Functions V | | | | | | | | | | |
| Recently Modified | Permit Information Permit Number: PTO | 802 pe | ermit Status | Active Company: ST | RATA F | NERGY INC Distric | t: 3 County: Cl | rook Mineral: Uranium Facility Pho | | | |
| MIDAS Go To TFN | | mber: PT0802 Permit Status: Active Company: STRATA ENERGY INC District: 3 County: Crook Mineral: Uranium Facility Phote: 307-686-4066 | | | | | | | | | |
| Go To Permit | Permit Info | Documents Current Filter: None | | | | | | | | | |
| Data Query | Annual Reports | | | | | | | | | | |
| Administration Application Review | Bond Releases Bonds for Mine | Upload New Document | | | | | | | | | |
| Permit Application (Admin) | Contacts | H + 1 + H = Page size: 50 - | | | | | | | | | |
| Libraries | Correspondence Forfeiture | Edit | Remove | View Document | History | Report Type | Date Received + | Description | | | |
| Shared Documents | Inspection | | | | | All | T | T | | | |
| Epermit Documents Letter Templates Electronic Media | er Templates Licenses | 1 | × | PT802_QUARTERLY_ 1AUGUST2019.pdf | Q | Quarterly | 08/01/2019 | Second Quarter 2019 Report WDEQ-LQD Permit to Mine No. 802 and WDEQ-URP Materials License WYSUA-1601 | | | |
| General Correspondence Guidance Documents Records Management Documents Division Services Renewals Reports | 1 | × | PT802_QUARTERLY_ 3MAY2019.pdf | Q | Quarterly | 05/03/2019 | First Quarter 2019; this quarterly report also includes a low pH FLT section (TFN 6 4/334 approved 11/6/18) that addresses the status of FLT implementation and associated monitoring as described in Section 7.1 of Mine Plan Addendum MP-4. | | | | |
| MIDAS Management Certified Mail Cards Uranium Title II Sites | TFN (Applications) Transfers | | × | PT802_ALARA_26Mar ch2019.pdf | Q | Alara | 03/26/2019 | Source Materials License Number SUA- 1601 2018 Annual Report; 2018 Annual ALARA Audit Report | | | |
| NRC Historical Documents | Company | 1 | × | PT802_SEMI ANNUAL EFFLUENT_4March20 | Q | Semi-Annual | 03/04/2019 | July - December 2018 Semi-Annual Effluent Report | | | |



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 oversite 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