

# Status of the Uranium Recovery Program

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Division of Waste Management and  
Environmental Protection

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# Status of Licensing Actions



- **Accomplishments Since Previous Workshop**
  - Issued Powertech license and Final SEIS
  - Issued Strata license and Final SEIS
  - Crow Butte License renewal almost complete
  - Approval for operations – Lost Creek ISR
  - Approval for operations – Uranerz Nichols Ranch
- **Current Activities**
  - Reviewing 7 licensing actions
    - 3 expansions, 1 new license, and 3 license renewals
- **Future Activities**
  - Workload increasing – operating sites
  - Two major hearings underway and two coming in late FY14 – FY15

# Areas of Interest

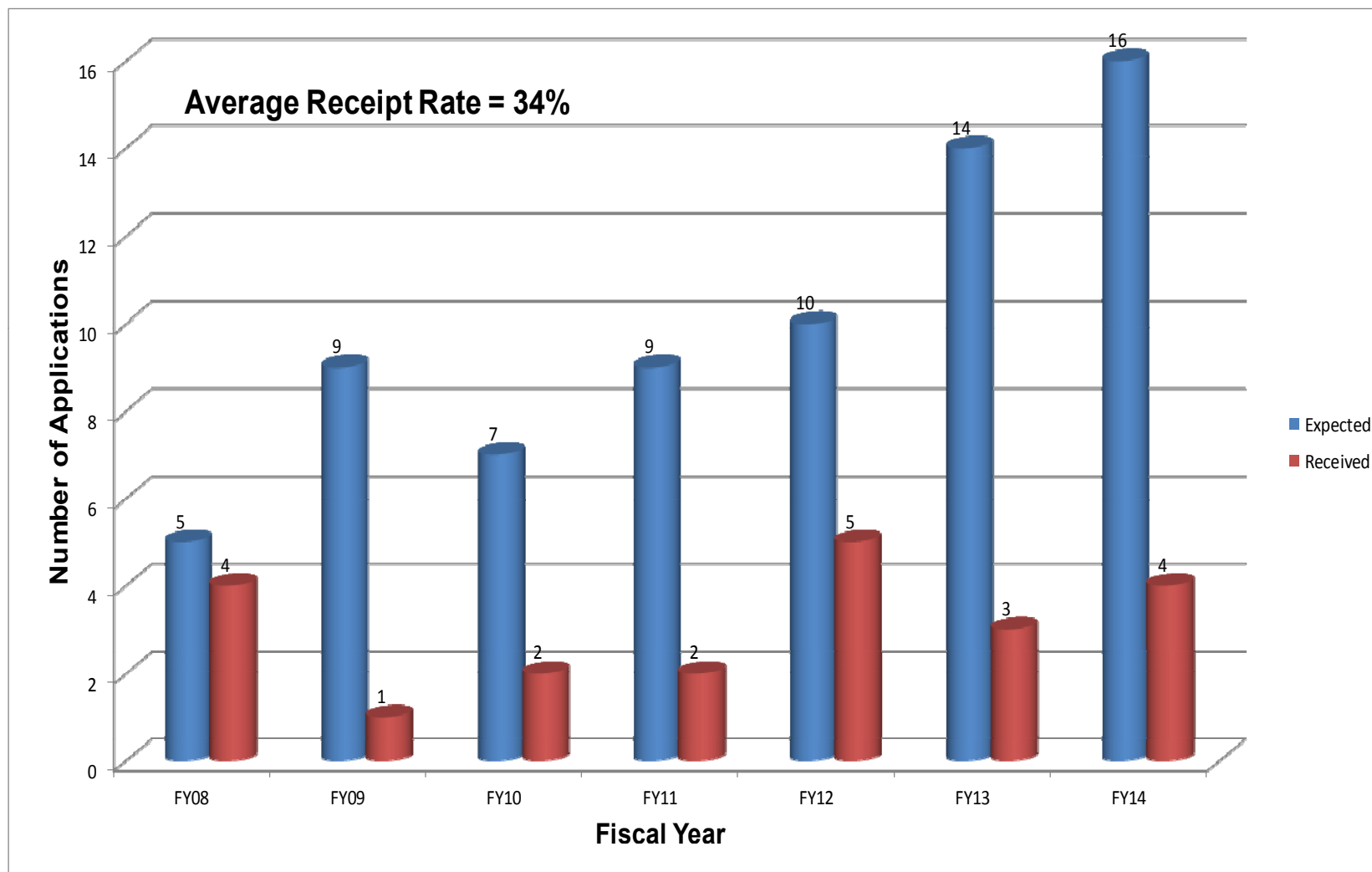


- **Radon**
- **Section 106 Consultation**
- **Licensing Actions**

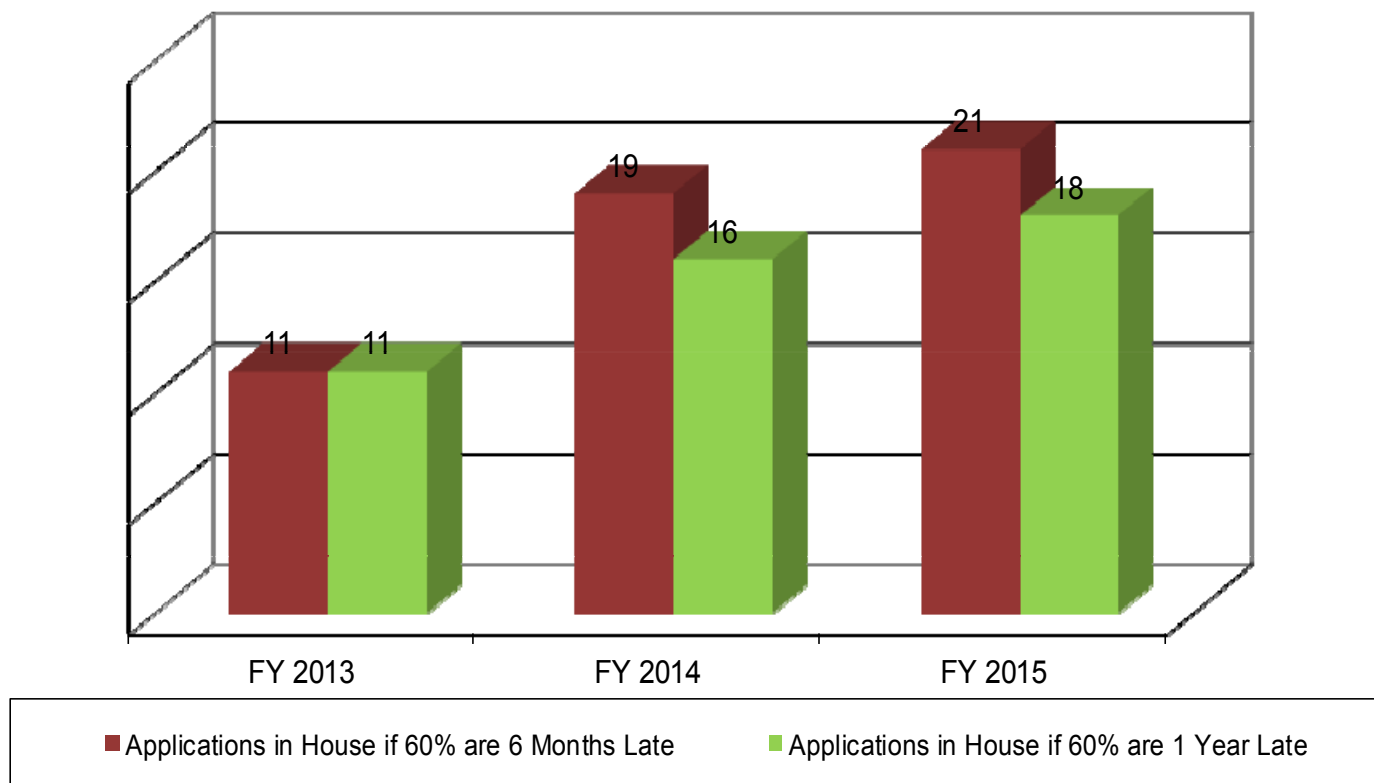
# Priorities

- **Priorities- Safety**
  - **Licensed sites**
  - **New facility/expansion reviews**
  - **Guidance**
- **Perform safety and environmental reviews in parallel**
- **Major licensing reviews performed in order of acceptance**
- **License renewals, Section 106 Programmatic Agreement activities same priority as licensed site actions**

# Historic Application Receipt Rates

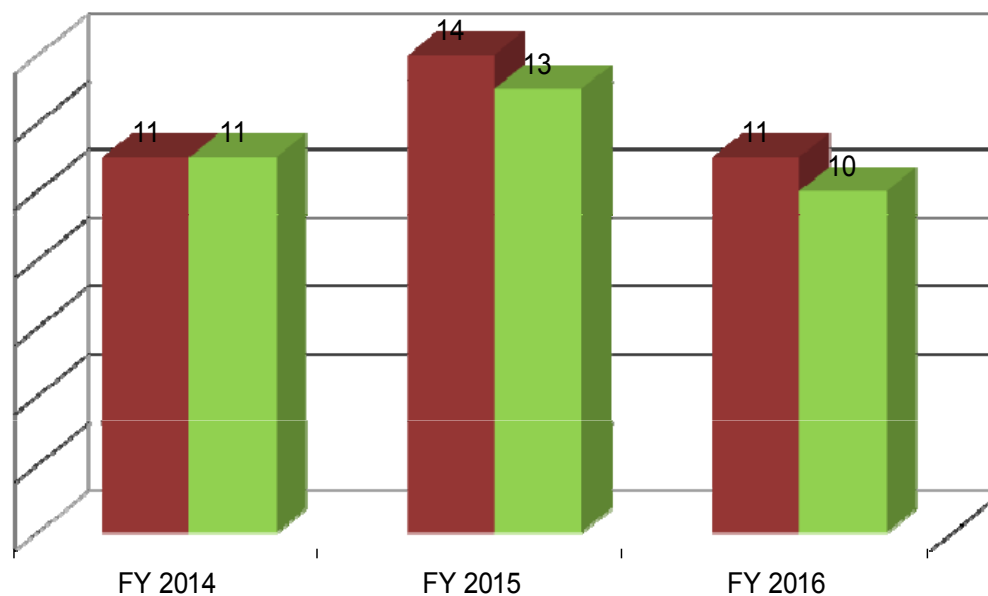


# Projections for Workload Scenarios - 2013



Applications in House includes items being worked on and anticipated letters of intent.

# Projections for Workload Scenarios - 2014



■ Applications in House if 60% are 6 Months Late

■ Applications in House if 60% are 1 Year Late

Applications in House includes items being worked on and anticipated letters of intent.

# Letters of Intent

- **Project name, location and submission date**
- **Site work completed and future work planned**
- **Signed by corporate officer**
- **Industry history – ~34% submission rate in any given year**
- **Early and accurate letters of intent**



# Budget

- **Based on letters of intent**
- **Formulation starts 2 years in advance**
- **Assumes the ~34% submission history**
- **Staff capacity – 4 to 6 major licensing actions at any given time**
- **FY15 major licensing load – all carryover except 1 renewal application**
- **Operating site inspections and amendments increasing**

# Section 106 Consultation

- **Completed 4 Section 106 reviews since previous workshop**
- **7 reviews currently under way**
- **Improvements**
  - **Proactive coordination with State Agencies and Advisory Council on Historic Preservation**
  - **Increased Tribal outreach**
  - **Earlier engagement of stakeholders**
  - **Using experts to support our review**
  - **Developing uranium recovery guidance**
  - **Open site approach**

# **NMA Issues**

- **Fee Billing**
  - Process on level of detail provided in May 29, 2014 letter
- **Pre-licensing Construction**
  - Need to understand concerns
- **Structure and Focus of Reviews**
  - April 2014 meeting
- **Agency Resources**
  - Efficiency in review process
- **Guidance**
  - Development schedule
- **EPA Rulemakings**
  - Subpart W draft rule out for comment
  - 40 CFR 192 in development, scope of conforming rule
- **Section 106**
  - Draft guidance, staff open to efficiency ideas

# Hearings

- **Five current reviews have a hearing component (Powertech, Strata, Crow Butte license renewal, Crow Butte North Trend, Crow Butte Marsland)**
- **Hearing activities on-going with one action (Powertech)**
- **Anticipate increased hearing related activities later this year**

# Summary



- **Significant staff accomplishments since previous NMA**
- **Shift of staff resources to operating sites**
- **Section 106 Consultation process is improving**

# Bill von Till



- **Resources: Uranium Recovery Staff**
- **Operations: Operating sites increasing, shift from licensing to oversight**
  - **Priority is operating sites - Safety**
- **Present Licensing: Major licensing actions**
- **Communication: After licensing and before operation**
- **Planning: Future applications**
- **Oil and Gas Considerations**
- **Guidance: lower priority - status**

# Uranium Recovery Safety Staff



## Uranium Recovery Licensing Branch

- Bill von Till, Chief
- Amy Snyder, Team Leader
- Ron Linton, Sr. Hydrogeologist/PM
- Ron Burrows, Health Physicist/PM
- Elise Striz, Hydrogeologist
- Douglas Mandeville, Geotechnical Engineer/PM
- Sarah Acten, Licensing Assistant
- James Webb, Health Physicist/PM
- Tom Lancaster, Hydrogeologist/PM
- John Saxton, Hydrogeologist/PM
- Jose Valdez, Hydrogeologist/PM

## Other Division Staff

- Chad Glenn, PM
- Varughese Kurian, Health Physicist
- Gary Comfort, reviews
- On Temporary Assignment
  - Ed Stutzcage, Health Physicist
  - Zach Gran, Health Physicist

# Environmental Review Staff



## Kevin Hsueh, Branch Chief

- Alan Bjornsen, PM
- Jill Caverly, Sr. PM
- Diana Diaz-Toro, PM
- John Fringer, PM
- Nathan Goodman, PM
- Kellee Jamerson, PM
- Stephen Lemont, Sr. PM
- Asimios Malliakos, PM
- Johari Moore, PM
- James Park, PM
- Mirabelle Shoemaker, PM
- Jean Trefethen, PM
- Ashley Waldron, PM
- Antoinette Walker-Smith, Licensing Assistant
- Haimanot Yilma, PM



# Project Managers - Projects



Project	Safety PM	Environmental PM
AUC Reno Creek	Chad Glenn	Jill Caverly
Cameco North Trend	Ron Burrows	Nate Goodman
Cameco Crow Butte LR	Ron Burrows	Nate Goodman
Cameco Smith Ranch LR	Doug Mandeville	James Park
Cameco Marsland	Tom Lancaster	Mirabelle Shoemaker
HRI Crownpoint LR	Ron Linton	James Park
Powertech Dewey-Burdock	Ron Burrows	Haimanot Yilma
Strata Ross	John Saxton	Johari Moore
Uranium One Ludeman	Elise Striz	Kellee Jamerson

# Operating Sites



**Cameco - Smith Ranch ISR**

**Cameco - Crow Butte ISR**

**Uranium One - Willow Creek ISR**

**Ur Energy/Lost Creek – Lost Creek ISR**

**Uranerz – Nichols Ranch ISR**

**Kennecott Sweetwater – Standby –  
Conventional Mill**

# Project Managers - Licenses



**Cameco Crow Butte –**

**Ron Burrows**

**Cameco Smith Ranch -**

**Doug Mandeville**

**Uranium One Willow Creek - Ron Linton/Jose Valdez**

**Lost Creek -**

**John Saxton**

**Uranerz Nichols Ranch -**

**Ron Linton**

**Kennecott Sweetwater -**

**James Webb**

**Hydro Resources Crownpoint - Ron Linton**

**Uranium One Moore Ranch - Doug Mandeville**

# Major Licensing Actions

License Renewals	Expansions	New Facilities
Cameco – Crow Butte Resources <sup>1</sup>	Cameco – Crow Butte North Trend <sup>1</sup>	AUC - Reno Creek <sup>2</sup>
Cameco – Smith Ranch <sup>2</sup>	Uranium One – Ludeman	
Hydro Resources, Inc., - Crownpoint	Cameco – Crow Butte, Marsland	
	Uranerz – Jane Dough <sup>3</sup>	

**Notes:**

1 – issued final safety evaluation report

2 – issued request for additional information

3 – received, start of acceptance review pending

# Post Licensing/Prior to Operation

- Open issues resolved prior to license issuance
- Pre-operation license conditions
- Agreement/understanding of license conditions prior to issuance of a license
- Meeting after license issuance regarding license conditions
- Timely licensee submittals for NRC for approval prior to scheduling pre-operational inspection
- Pre-operational inspection

Updated 05/28/2014

Major Uranium Recovery Licensing Applications							
Company	Site Under Consideration	Design	Estimated Application Date	Date Accepted	State	Status	Letter of Intent
<b>Fiscal 2007 Applications</b>							
Cameco (Crow Butte)	North Trend	ISR - Expansion	Received June 2007	08/28/2007	NE	SER Completed - 7/13	None
<b>Fiscal 2009 Applications</b>							
Powertech Uranium Corporation	Dewey Burdock	ISR - New	Resubmitted 8/09	Oct-09	SD	Completed 4/14	01/26/07
<b>Fiscal 2011 Applications</b>							
Strata Energy, Inc.	Ross	ISR - New	Rec. January 2011	Jun-11	WY	Completed - 4/14	01/08/10
<b>Fiscal 2012 Applications</b>							
Uranium One	Ludeman	ISR - Expansion	Rec. December 2011	May-12	WY	RAIs Issued	11/28/11
Lost Creek ISR, LLC	Lost Creek	Dryer-Expansion	Rec. January 2012	Mar-12	WY	Completed in 4/13	01/06/10
Cameco (Crow Butte)	Marsland	ISR - Expansion	Rec. June 2012	Oct-12	NE	Tech Review Ongoing	11/09/10
<b>Fiscal 2013 Applications</b>							
AUC LLC	Reno Creek	ISR - New	Rec. 10/05/2012	Jun-13	WY	RAI issued 2/14	11/03/10
<b>Fiscal 2014 Applications</b>							
Uranerz Energy Corp.	Jane Dough	ISR-Expansion	Received May-14		WY		04/15/13
Lost Creek ISR, LLC	LC East	ISR-Expansion	Jul-14		WY		06/27/12**
Lost Creek ISR, LLC	Lost Creek	KM-Horizon Exp.	Jul-14		WY		07/24/2013***
Cameco (Smith Ranch-Highland)	Brown Ranch Tract 1	ISR-Expansion	Sep-14		WY		06/24/13***
Cameco (Crow Butte)	Three Crow	ISR - Expansion	Rec. 08/10, Resubmit Nov-14		NE	Application Withdrawn	01/11/10*
Uranium Resources, Inc.	Juan Tafoya	Conv. - New	FY14		NM		03/02/12
Rio Grande Resources	Mt. Taylor	Conv. - New	FY14		NM		10/29/12
The Bootheel Project LLC	Bootheel	ISR-New (resin)	FY14		WY		08/09/10
UR-Energy Corp.	Lost Soldier	ISR - Expansion	FY14		WY		11/01/10
<b>Fiscal 2015 Applications</b>							
Cameco (Smith Ranch-Highland)	Ruby Ranch	ISR - Expansion	Mar-15		WY		06/24/13
UR-Energy Corp.	Shirley Basin Project	ISR - Expansion	Jul-15		WY		08/30/12
<b>Fiscal 2016 Applications</b>							
Uranium One	Irigaray Expansion	ISR - Expansion	Dec-15		WY		05/31/13
Cameco (Smith Ranch-Highland)	Shirley Basin	ISR - Expansion	Dec-15		WY		06/24/13
Uranium One	Allemand Ross	ISR - Expansion	FY16		WY		05/31/13
<b>Other Major Licensing Actions</b>							
Cameco (Crow Butte)	Crawford, NE	ISR - Lic. Renew.	Received Dec. 2007		NE	SER Completed - 12/12	
Cameco (Smith Ranch-Highland)	Smith Ranch/Highland	ISR - Lic. Renew.	Received 02/2012	Jul-12	WY	Tech Review Ongoing	
Hydro Resources, Inc.	Crownpoint	ISR - Lic. Renew.	Received 3/19/13		NM	Tech Review Ongoing	
Kennecott Uranium	Sweetwater Mill	Conv - Lic. Renew.	Oct-14		WY		
Rare Element Resources, Inc.	Bear Lodge Project	Source Material-New	Aug-14		WY		10/18/12****
Cameco (Smith Ranch-Highland)	Ruth	ISR - Ops Plan	FY22		WY		09/09/10
No. of New Facility Applications =						7	
No. of Restart/Expansion Applications =						15	
No. of Other Applications =						5	
<b>Total No. of Licensing Actions</b>						<b>27</b>	



# Oil and Gas Considerations Powder River Basin



# Guidance Updates

- **Interim Staff Guidance FSME-ISG-01 - Evaluations of Uranium Recovery facility Surveys of Radon and Radon Progeny in Air and Demonstrations of Compliance with 10 CFR Part 20.1301**
- **Standard Review Plan for Conventional Mills and Heap Leach Facilities**
- **Revision of NUREG-1569 – On Hold Pending EPA Final Rule on 40 CFR 192**
- **Groundwater Data Consolidation**
- **Regulatory Guide 3.51**
- **Regulatory Guide 3.59**
- **Regulatory Guide 4.14**
- **Regulatory Guide 8.30**



# QUESTIONS ?