

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



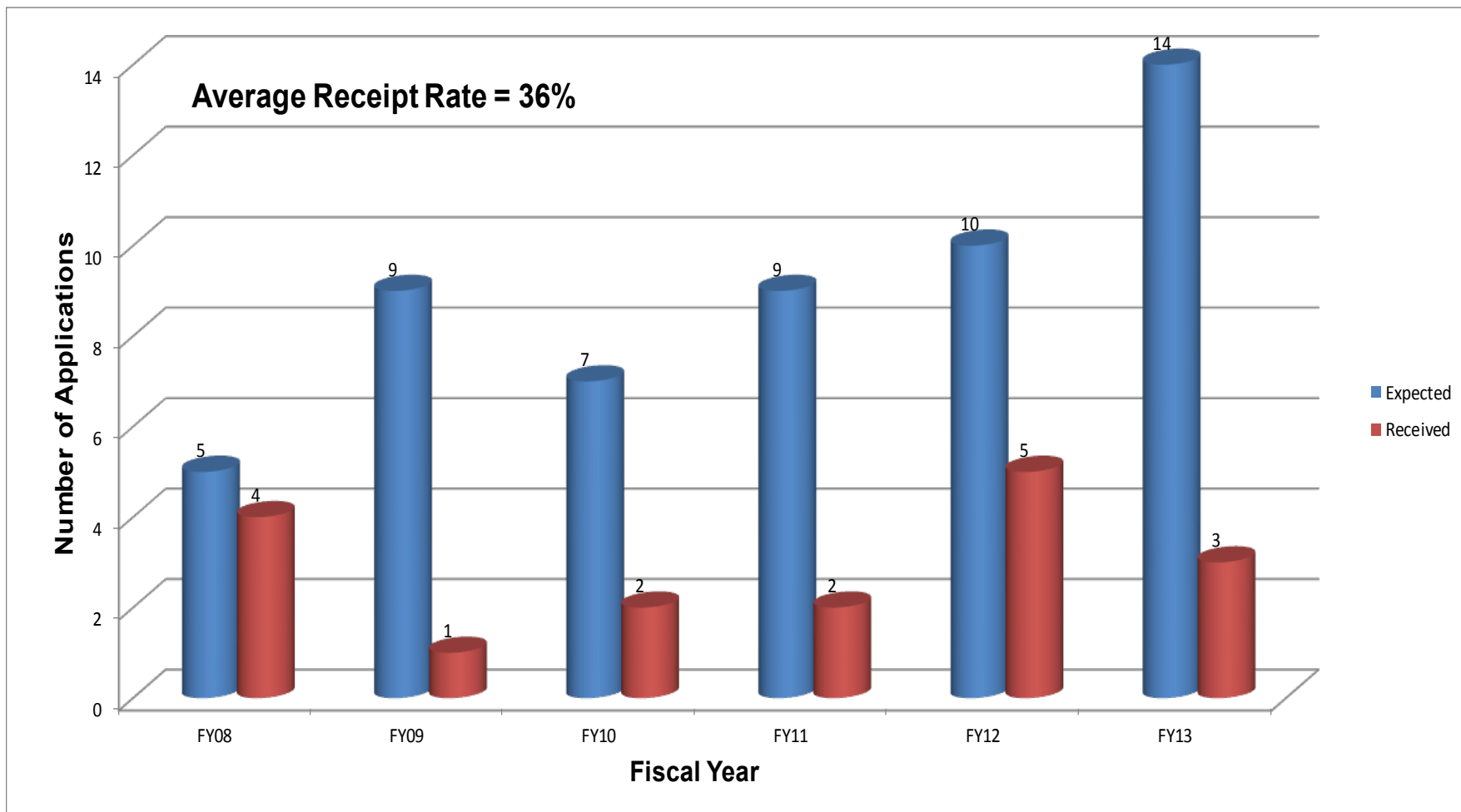
- **Accomplishments Since Previous Workshop**
 - Issued 1 license renewal
 - Issued 1 expansion amendment
 - Completed SERs for 1 license renewal, and 2 new licenses
 - Completed 2 draft SEISs
- **Current Activities**
 - Reviewing 9 licensing actions
 - 3 expansions, 3 new licenses, and 3 license renewals
- **Future Activities**
 - Workload increasing
 - Potential for a maximum of 3 hearings to start in FY 13

Priorities

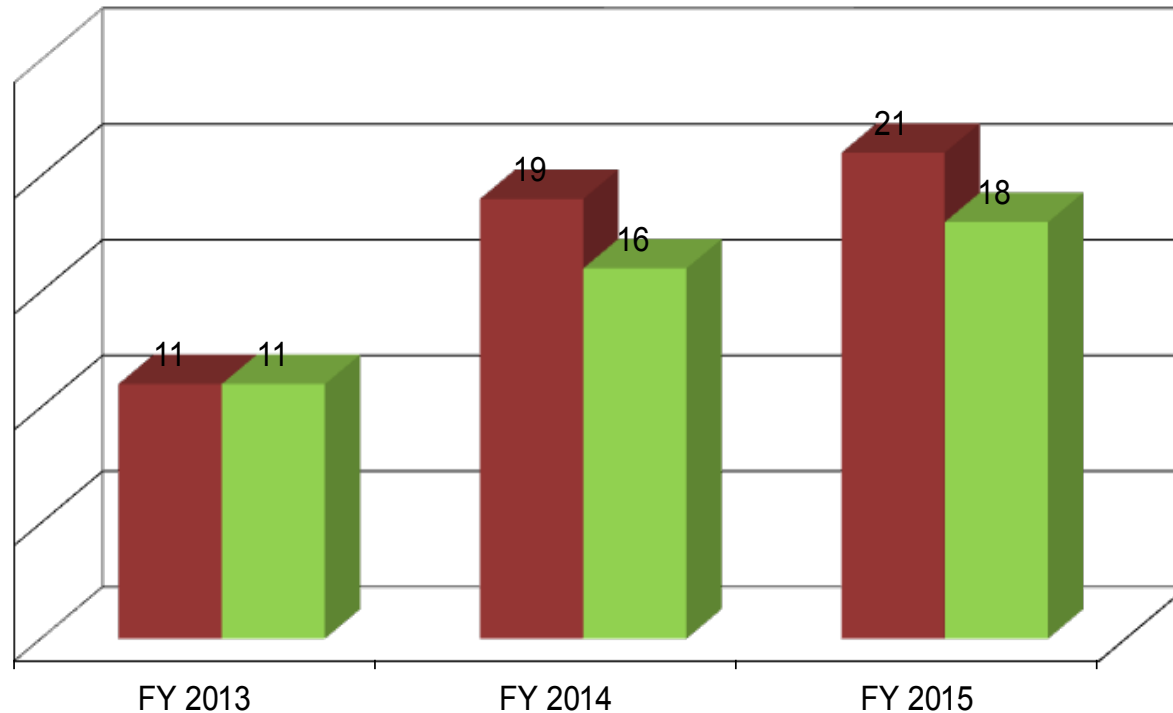
- **Priorities- Safety**
 - **Licensed sites**
 - **New facility/expansion reviews**
 - **guidance**
- **Perform safety and environmental reviews in parallel**
- **Major licensing reviews performed in order of acceptance**
- **License renewals same priority as licensed site actions**



Historic Application Receipt Rates



Projections for Workload Scenarios



■ 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

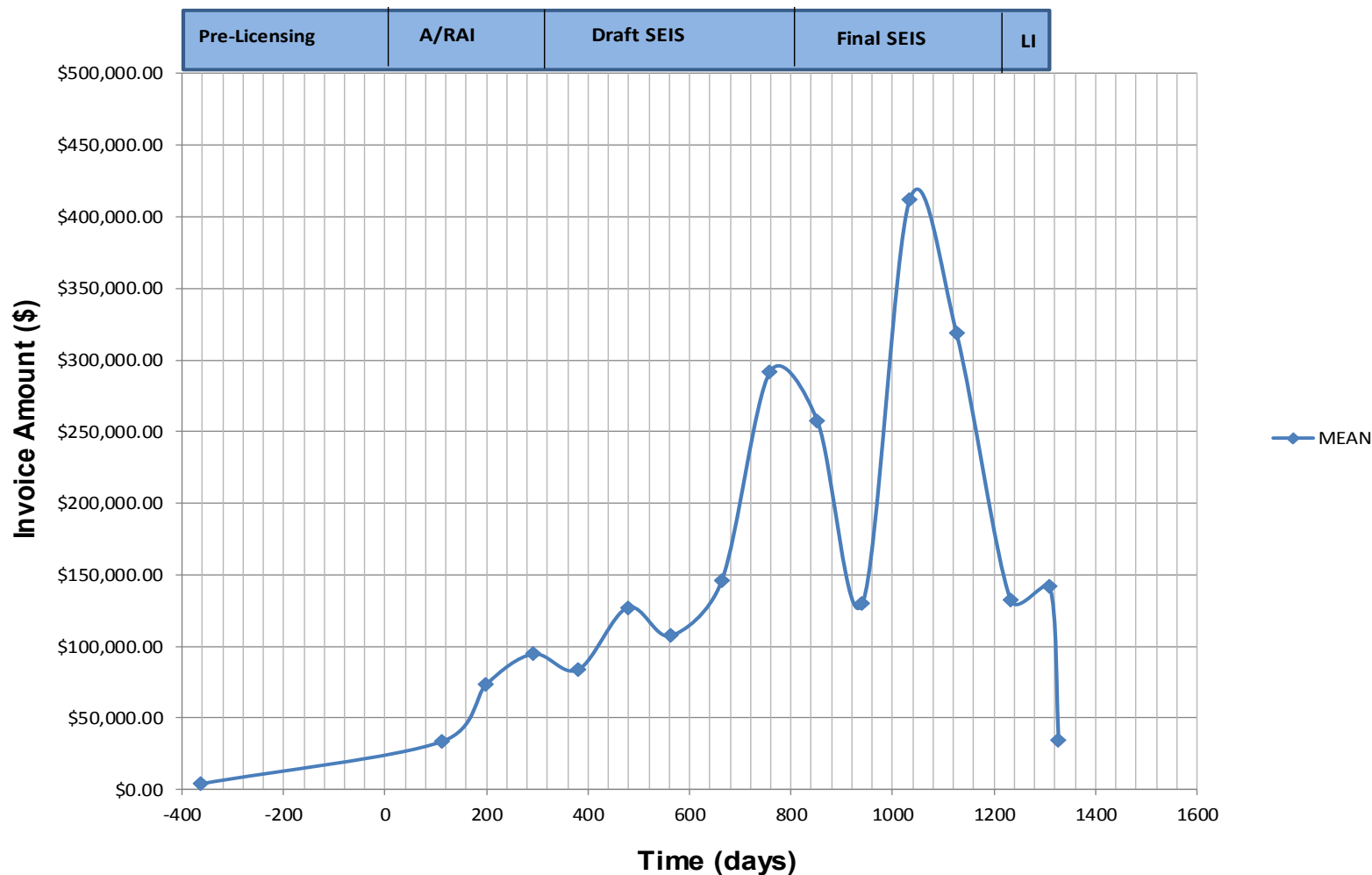
- **Project name, location and submission date**
- **Site work completed and future work planned**
- **Signed by corporate officer**
- **Industry history – ~40% submission rate in any given year**
- **Early and accurate letters of intent**

Budget

- **Based on letters of intent**
- **Formulation starts 2 years in advance**
- **Assumes the 40% submission history**
- **Staff capacity – 8 to 10 major licensing actions at any given time**
- **FY15 major licensing load – all carryover except 1 renewal application**
- **Licensed site actions increasing**



Update Cost Information



Current Mean - ~\$2600K

Section 106 Consultation

- **Completed 4 Section 106 reviews since March 2010**
- **8 reviews currently under way**
- **Plan to complete 3 reviews in FY 13 and 5 in FY 14**
- **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**

Summary

- **Significant staff accomplishments since previous NMA**
- **More resources required to manage existing licensees in the future**
- **Letters of intent – important, but more accuracy is needed.**
- **Section 106 Consultation process is improving**



Uranium Recovery Safety Staff



Uranium Recovery Licensing Branch

- Bill von Till, Chief
- Stephen J. Cohen, Team Leader
- Ron Linton, Sr. Hydrogeologist/PM
- Ron Burrows, Health Physicist/PM
- Elise Striz, Hydrogeologist
- Douglas Mandeville, Geotechnical Engineer/PM
- Betty Garrett, Licensing Assistant
- James Webb, Health Physicist/PM
- Tom Lancaster, Hydrogeologist/PM
- John Saxton, Hydrogeologist/PM

Other Division Staff

- John Buckley, PM
- Chad Glenn, PM
- Varughese Kurian, Health Physicist
- Tanya Oxenberg, Health Physicist
- Gary Comfort, PM

Environmental Review Staff



Kevin Hsueh, 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
- Daniel Mussatti, 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	John Buckley	Kellee Jamerson

Project Managers - Licenses

Cameco Crow Butte –	Ron Burrows
Cameco Smith Ranch -	Doug Mandeville
Hydro Resources Crownpoint -	Ron Linton
Uranium One Willow Creek -	Ron Linton
Lost Creek -	John Saxton
Uranium One Moore Ranch -	Doug Mandeville
Uranerz Nichols Ranch -	Ron Linton
Kennecott Sweetwater -	James Webb



Major Licensing Actions

License Renewals	Expansions	New Facilities
Cameco – Crow Butte Resources¹	Cameco – Crow Butte North Trend²	Powertech – Dewey Burdock^{1,3}
Uranium One – Willow Creek (completed)	Uranium One – Ludeman²	Strata – Ross^{1,3}
Cameco – Smith Ranch	Cameco – Crow Butte, Marsland	AUC - Reno Creek
Hydro Resources, Inc., - Crownpoint	Lost Creek – Dryer Expansion⁴	

Notes:

1 – issued final safety evaluation report

2 – issued request for additional information

3 – issued draft Supplemental Environmental Impact Statement

4 – issued final Environmental Assessment

Ongoing Licensing Actions

New Additional Operating Sites since 2010

- Willow Creek
- Lost Creek - construction
- Nichols Ranch - construction

Operating Site Licensing Actions

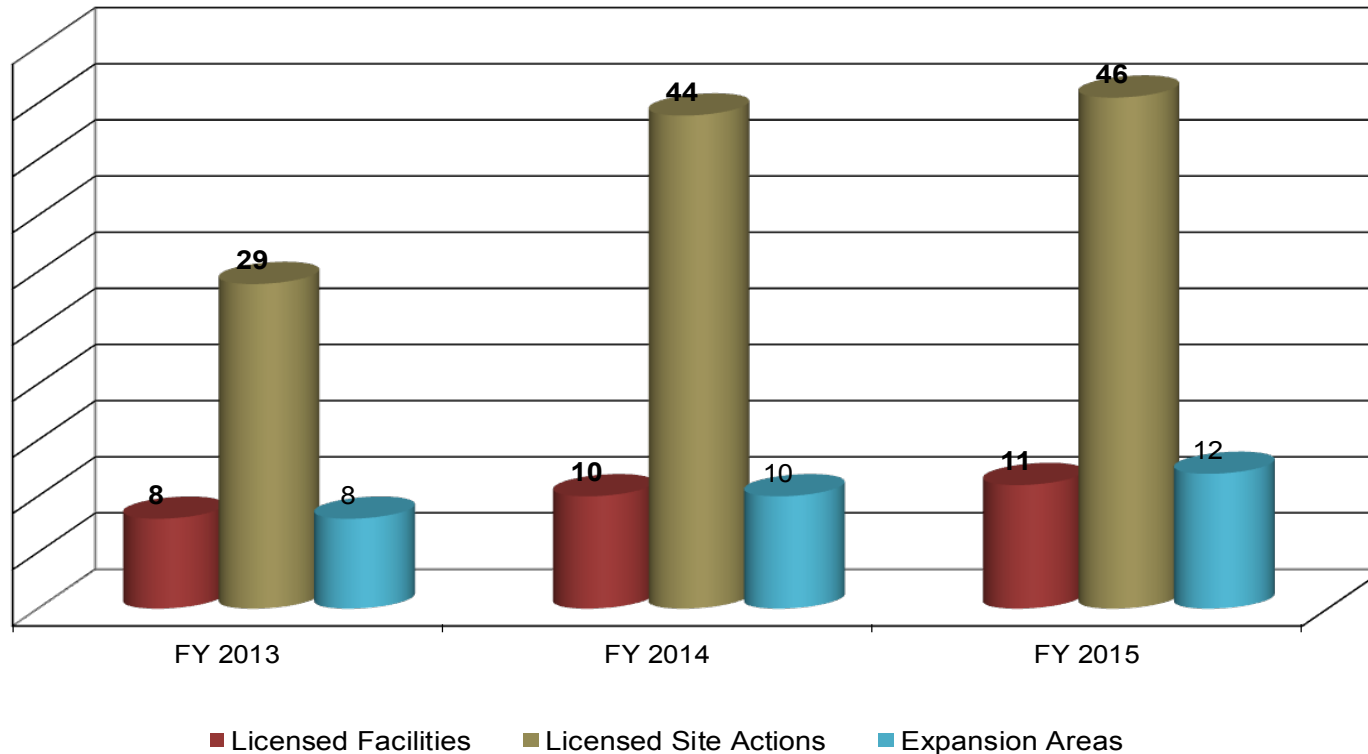
- License renewals
- Expansions
- Other actions

Oversight and Inspection

- Priority
- Increasing



Future Workload Details



This chart assumes a 2.5 year review period for renewal, new facility, and expansion reviews.

Licensed site actions are highly variable in scope and duration.

Major Uranium Recovery Licensing Applications

Company	Site Under Consideration (1)	Design	Estimated Application Date	Date Accepted	State	Status	Letter of Intent
Fiscal 2007 Applications							
Cameco (Crow Butte Resources)	North Trend	ISR - Expansion	Received June 2007	08/28/2007	NE	Draft License Issued	None
Fiscal 2009 Applications							
Powertech Uranium Corporation	Dewey Burdock	ISR - New	Resubmitted 8/09	Oct-09	SD	SER Completed - 3/13	01/26/07
Fiscal 2011 Applications							
Strata Energy, Inc.	Ross	ISR - New	Rec. January 2011	Jun-11	WY	SER Completed - 2/13	01/08/10
Fiscal 2012 Applications							
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	Complete in 4/13	01/06/10
Cameco (Crow Butte Resources)	Marsland	ISR - Expansion	Rec. June 2012	Oct-12	NE	Tech Review Ongoing	11/09/10
Fiscal 2013 Applications							
AUC LLC	Reno Creek	ISR - New	Rec. 10/05/2012		WY	Acc. Review started 3/13	11/03/10
Lost Creek ISR, LLC	Lost Creek	KIM-Horizon Exp.	Apr-13		WY		03/29/12
Uranium One	Jab and Antelope	ISR - New	Rec. 07/08, Resume FY 13		WY	Rev. Curtailed App. Req.	05/31/07
Cameco (Crow Butte Resources)	Three Crow	ISR - Expansion	Rec. 08/10, Resubmit FY13		NE	Application Withdrawn	01/11/10
Uranium One	Allemand-Ross	ISR-Expansion	TBD**		WY		10/08/10
Fiscal 2014 Applications							
Lost Creek ISR, LLC	LC East	ISR-Expansion	Oct-13		WY		06/27/12
Energy Fuels	Sheep Mountain	Heap Leach - New	Dec-13		WY	Pre-Sub Audit 10/11	01/30/13
Strathmore Minerals Corporation	Gas Hills	Heap Leach - New	Dec-13		WY		01/23/13
Strathmore Minerals Corporation	Pena Ranch	Conv. - New	Dec-13		NM	Pre-Sub Audit 12/12	01/17/13
Oregon Energy, LLC	Aurora Uranium Project	Conv. - New	Dec-13		OR		04/03/12
Uranerz Energy Corp.	Jane Dough	ISR-Expansion	Dec-13		WY		04/15/13
UR-Energy Corp.	Shirley Basin Project	ISR-Expansion	May-14		WY		08/30/12
Cameco (Power Resources, Inc.)	Ruby Ranch	ISR - Expansion	FY 14		WY		10/30/12
Uranium Resources, Inc.	Juan Tafoya	Conv. - New	FY 14		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
Other Major Licensing Actions							
Cameco (Crow Butte Resources)	Crawford, NE	ISR - Lic. Renew.	Received Dec. 2007		NE	SER Completed - 12/12	
Cameco (Power Resources, Inc.)	Smith Ranch/Highland	ISR - Lic. Renew.	Feb-12	Jul-12	WY	Tech Review Ongoing	
Hydro Resources, Inc.	Crownpoint	ISR - Lic. Renew.	Received 3/19/13		NM	Acceptance Review	
Kennecott Uranium	Sweetwater Mill	Conv - Lic. Renew.	Oct-14		WY		
Rare Element Resources	Bull Hill Project	Source Material	May-13		WY		10/18/12
Cameco (Power Resources, Inc.)	Ruth	ISR - Ops Plan	FY 2022		WY		09/09/10
No. of New Facility Applications =						11	
No. of Restart/Expansion Applications =						11	
No. of Other Actions						6	
Total No. of Licensing Actions**						28	

** Total does not include any projects where the application date is listed as TBD.

(1) Light red shading indicates a site that contains land administered by the Bureau of Land Management.

Guidance Updates

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

Guidance Updates (cont'd.)

- **Regulatory Guide 8.30**
- **Consolidating/Updating UR Decommissioning Guidance**
 - **Guidance for Conventional, Heap Leach, and ISR Facilities**
 - **Envisioned as a new Volume 4 to NUREG-1757**



QUESTIONS ?

