

# 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

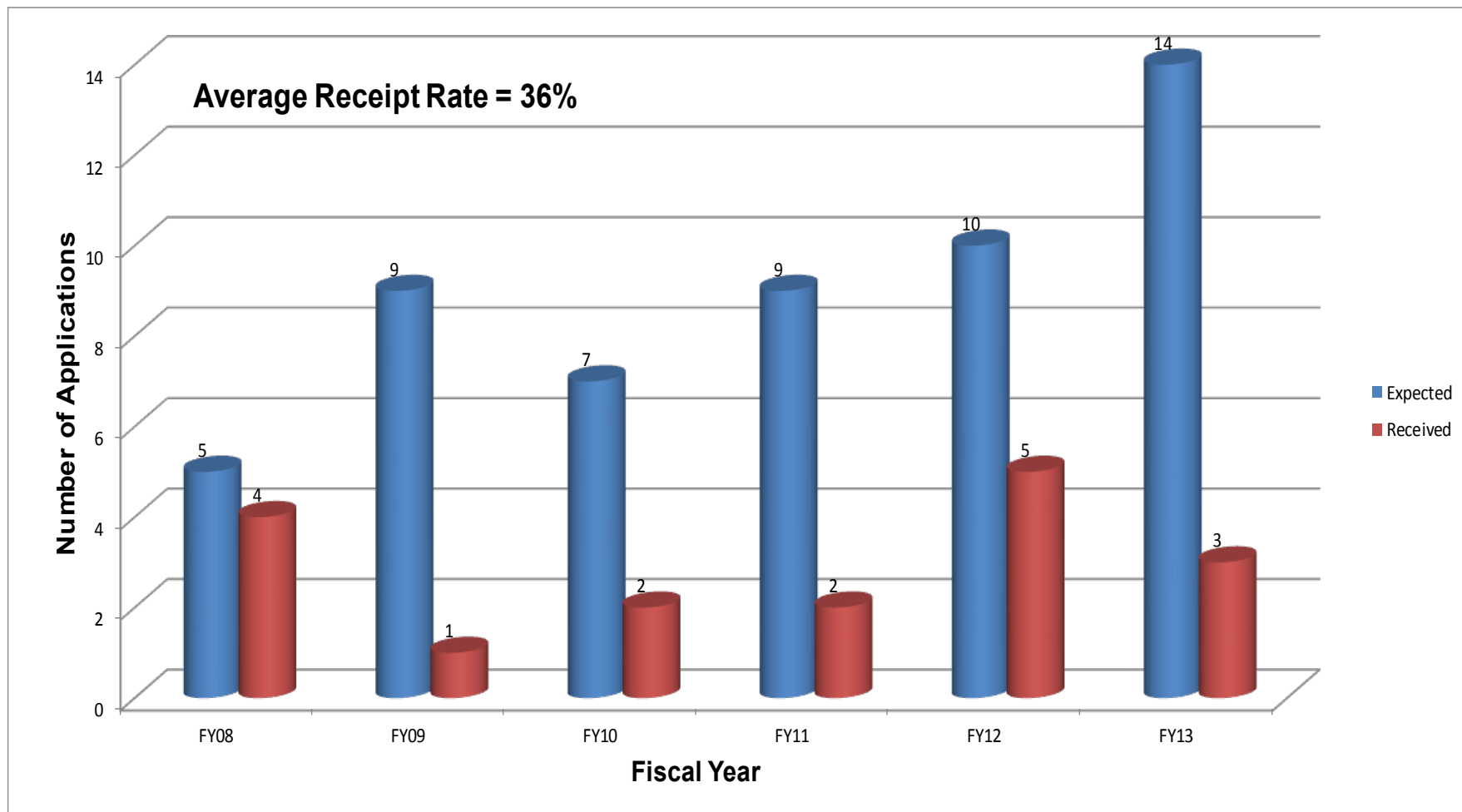


# Priorities

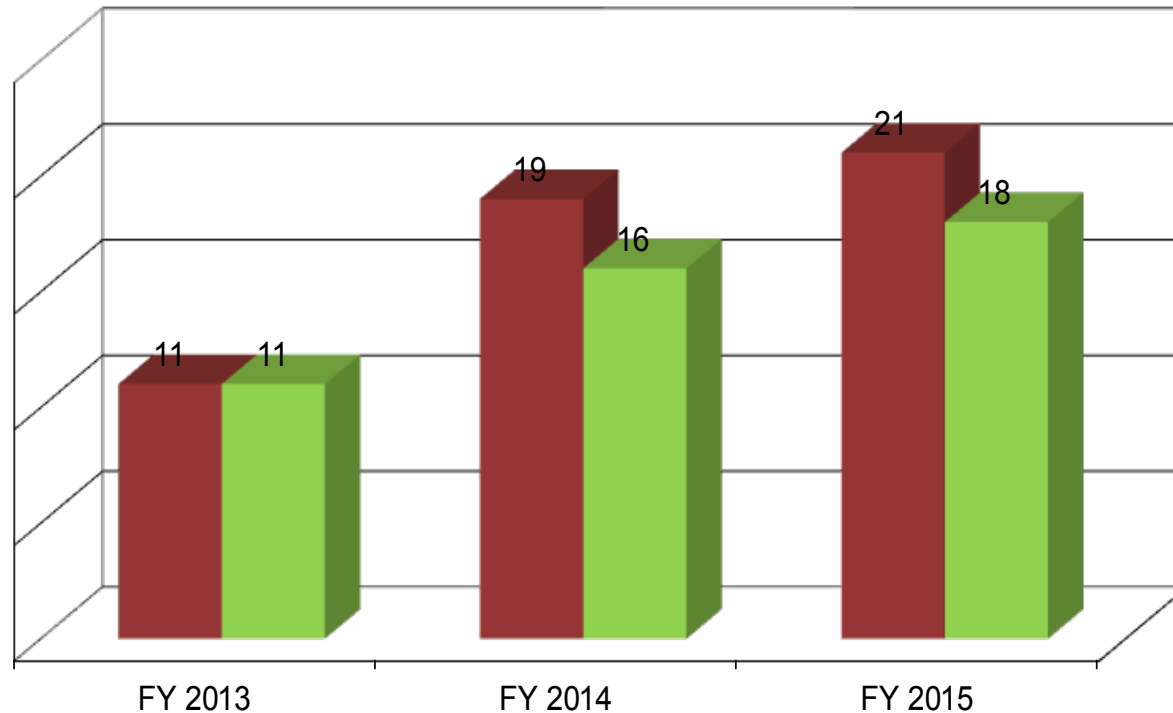
- **Priorities- Safety**
  - Licensed sites
  - New facility/expansion reviews
  - guidance
- **Perform safety and environmental reviews in parallel**
- **Major licensing reviews performed in order of acceptance**
- **License renewals same priority as licensed site actions**



# 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**

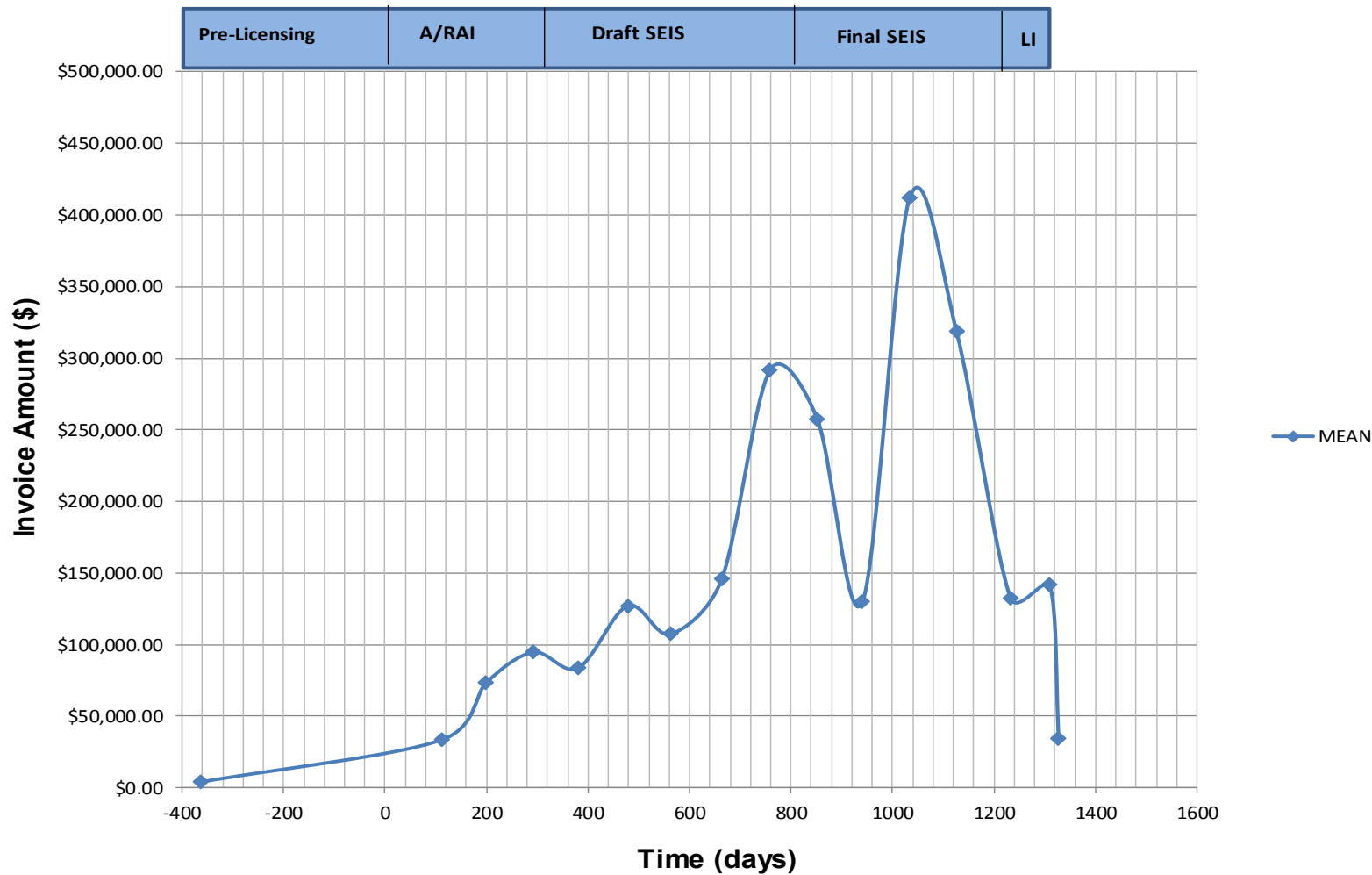


# Budget

- **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

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

# Project Managers - Licenses

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



# Major Licensing Actions

<b>License Renewals</b>	<b>Expansions</b>	<b>New Facilities</b>
<b>Cameco – Crow Butte Resources<sup>1</sup></b>	<b>Cameco – Crow Butte North Trend<sup>2</sup></b>	<b>Powertech – Dewey Burdock<sup>1,3</sup></b>
<b>Uranium One – Willow Creek (completed)</b>	<b>Uranium One – Ludeman<sup>2</sup></b>	<b>Strata – Ross<sup>1,3</sup></b>
<b>Cameco – Smith Ranch</b>	<b>Cameco – Crow Butte, Marsland</b>	<b>AUC - Reno Creek</b>
<b>Hydro Resources, Inc., - Crownpoint</b>	<b>Lost Creek – Dryer Expansion<sup>4</sup></b>	

**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

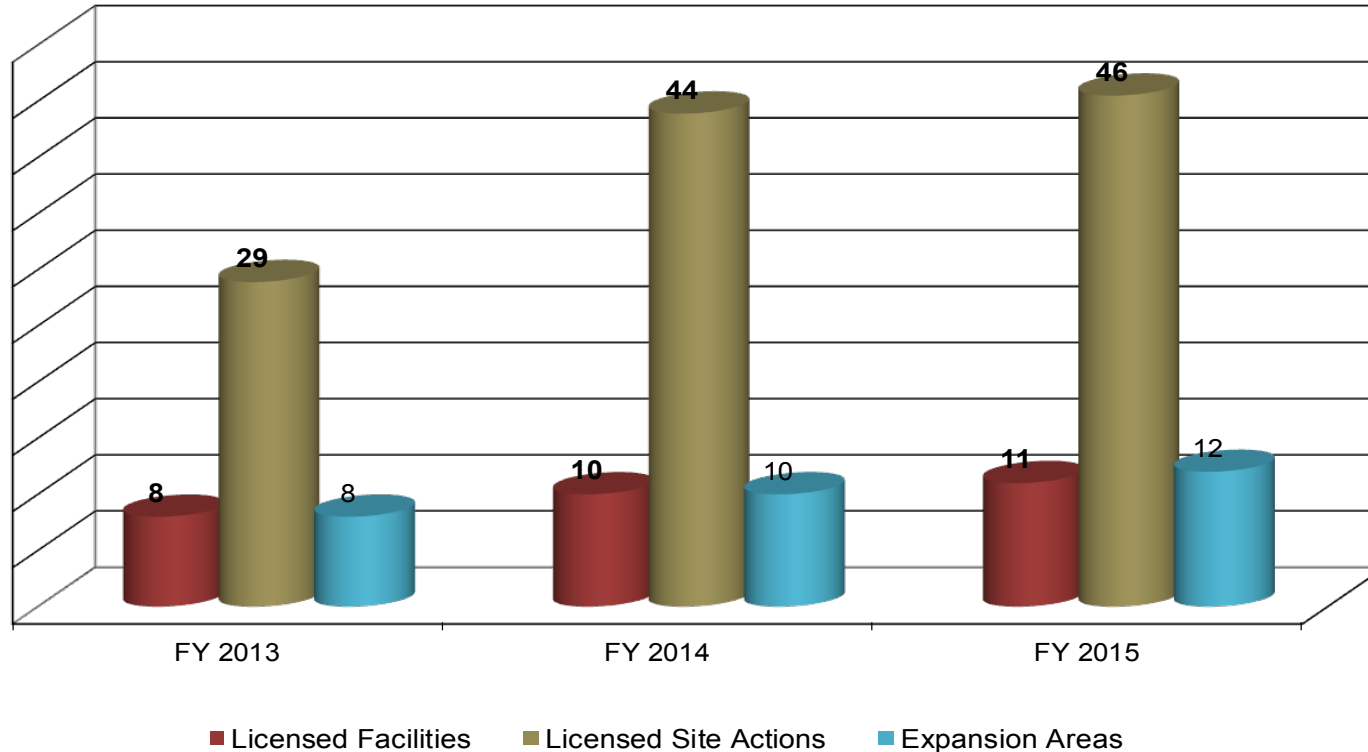
## Oversight and Inspection

- 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
<b>Fiscal 2007 Applications</b>							
Cameco (Crow Butte Resources)	North Trend	ISR - Expansion	Received June 2007	08/28/2007	NE	Draft License Issued	None
<b>Fiscal 2009 Applications</b>							
Powertech Uranium Corporation	Dewey Burdock	ISR - New	Resubmitted 8/09	Oct-09	SD	SER Completed - 3/13	01/26/07
<b>Fiscal 2011 Applications</b>							
Strata Energy, Inc.	Ross	ISR - New	Rec. January 2011	Jun-11	WY	SER Completed - 2/13	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	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
<b>Fiscal 2013 Applications</b>							
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	KM-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
<b>Fiscal 2014 Applications</b>							
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
Urinerz 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
<b>Other Major Licensing Actions</b>							
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
<b>No. of New Facility Applications =</b>						<b>11</b>	
<b>No. of Restart/Expansion Applications =</b>						<b>11</b>	
<b>No. of Other Actions</b>						<b>6</b>	
<b>Total No. of Licensing Actions**</b>						<b>28</b>	

\*\* 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 ?

