

PROGRAM EVALUATION OF THE EFFECTIVENESS OF THE URANIUM RECOVERY PROGRAM

INTRODUCTION

Consistent with the requirements of the Government Performance Results Act of 1993 (GPRA), the U.S. Nuclear Regulatory Commission (NRC) Strategic Plan for Fiscal Year (FY) 2004-FY 2009 provided a schedule for planned, future program evaluations of a number of its safety programs. Among these various safety programs, the Strategic Plan indicated that an evaluation of the Uranium Recovery Program would be performed in FY 2006. This report provides the results of the NRC staff's evaluation of the effectiveness of the agency's Uranium Recovery Program within the Fuel Cycle Facilities Branch (FCFB), Division of Fuel Cycle Safety and Safeguards (FCSS), Office of Nuclear Material Safety and Safeguards (NMSS).

BACKGROUND

Uranium is primarily recovered from the earth's crust by two methods. The first is "conventional" mining and milling in which uranium ore is recovered from the earth's crust, in open pit or underground mines, and milled or processed into "yellowcake" (uranium oxide, U_3O_8) at the uranium mill. Conventional mining and milling generate significant quantities of tailings or byproduct material which must be disposed in a licensed facility. The second uranium recovery method is "in situ leach" (ISL) mining in which solutions are injected into uranium ore deposits to dissolve the uranium for subsequent extraction and processing in a surface facility to produce yellowcake. ISL mining facilities have environmental advantages over conventional facilities and generate only very small quantities of byproduct material. The bulk of uranium recovery today is by ISL mining techniques. The NRC regulates the activities of its Uranium Recovery Program licensees under the requirements of 10 CFR Part 40, "Domestic Licensing of Source Material". This regulatory oversight includes initial siting, design, operation, decommissioning, and reclamation of uranium recovery facilities, ultimately leading to the termination of the facility license. The NRC currently has 4 ISL facility licensees, of which two are operating, one is involved in an adjudicatory hearing, and one is undergoing decommissioning. There are 11 conventional facility licensees, of which one is on standby and the rest are in various stages of decommissioning and reclamation.

PROGRAM EVALUATION OBJECTIVES, SCOPE, AND METHODOLOGY

As described in the NRC Strategic Plan (FY 2004-FY 2009), the evaluation of the Uranium Recovery Program was intended to assess how effective the program has been in supporting the achievement of the NRC's strategic objective and broad performance goals established in the Strategic Plan. In this regard, the NRC's strategic objective is to enable the use and management of radioactive materials and nuclear fuels for beneficial civilian purposes in a manner that protects public health and safety and the environment, promotes the security of our nation, and provides for regulatory actions that are open, effective, efficient, realistic, and timely. The five goals that support this objective are related to safety, security, openness, effectiveness, and management. The safety goal is to ensure protection of public health and safety and the environment. The security goal is to ensure the secure use and management of radioactive materials. The openness goal is to ensure openness in our regulatory process.

Enclosure

The effectiveness goal is to ensure that NRC actions are effective, efficient, realistic, and timely. The management goal is to ensure excellence in agency management to carry out the NRC's strategic objective. With a focus on the NRC's strategic objective and five supporting goals, the evaluation of the Uranium Recovery Program would consider the following elements of the Uranium Recovery Program: (1) licensing reviews, (2) inspections, (3) support to Agreement States, (4) completion of old licensing actions, (5) support for hearings, (6) response to petitions filed under 10 CFR Part 2.206, (7) response to allegations, (8) public meetings, (9) NRC employee qualification, and (10) compliance with operating plan commitments.

The evaluation was also intended to evaluate the capability of the Uranium Recovery Program for meeting future challenges. This is especially important in light of the rapidly changing character of the uranium recovery industry. In this regard, the price of yellowcake has surged in recent years to its current price of \$52 per pound and there has been a corresponding resurgence of activity in the uranium mining industry to develop new mining facilities and restart existing, licensed facilities that are either on standby or in a decommissioning mode. Specifically, within the last year, 8 companies have expressed interest in submitting applications for 9 new mining facilities (7 ISL and 2 conventional). Additionally, several existing licensees have expressed interest in the restart of their facilities, including a shutdown ISL facility, a conventional mill on standby, and a conventional mill undergoing decommissioning that would be converted to an ISL facility. This resurgence of industry activity poses significant challenges for the Uranium Recovery Program.

The staff evaluation of the Uranium Recovery Program was performed as a self-assessment to evaluate the overall effectiveness of the program with respect to the NRC's strategic objective and the goals (safety, security, openness, effectiveness, and management) and targets that support this objective, as tracked and measured in the annual NRC Performance and Accountability Report for the fiscal year (NUREG-1542), the annual NRC Performance Budget for the fiscal year (NUREG-1100), and in the Division's Operating Plan (FCSS). For this evaluation, the staff assessed the implementation of the Uranium Recovery Program over the past two years (FY 2005 and FY 2006) with the intent of identifying areas of the program's effectiveness that might need improvement. With respect to the resurgence of activity within the uranium mining industry, the staff evaluated the capability of the Uranium Recovery Program to effectively respond to the expected submittal of a significant number of license applications for new uranium recovery facilities and license amendments for the restart of several facilities already licensed.

RESULTS OF URANIUM RECOVERY PROGRAM EVALUATION

The results of the staff's evaluation of the Uranium Recovery Program are provided below. Recommendations are provided, as appropriate, for those areas or elements of the program where the effectiveness of the program might be improved.

A. Overall Effectiveness of the Program

(1) Licensing Reviews

The NRC's primary safety goal for all of its regulatory programs is to ensure protection of public health and safety and the environment. One of the strategies that the NRC employs to achieve

the safety goal in the Nuclear Materials and Waste Safety arena, including the Uranium Recovery Program, is to develop, maintain, and implement licensing and regulatory programs to protect public health, safety and the environment. In support of this strategy, the NRC conducts activities to complete licensing actions (amendments, renewals, and reviews) and confirm that they are consistent with regulatory requirements and are within timeliness goals. The Division Operating Plan contains several performance measures for assessing the effectiveness of the Uranium Recovery Program licensing activities. These include performance measures for the timeliness of completion of acceptance reviews of licensee submittals, the timeliness of completion of licensing actions, and the overall quality of completed licensing actions.

The performance measure for the timeliness goal for acceptance reviews in the Division Operating Plan specifies that the staff should complete 90% of those reviews within 30 days. The staff completed 31 acceptance reviews in FY 2005 and 26 acceptance reviews in FY 2006. For FY 2005, the Uranium Recovery Program staff completed 100% of the acceptance reviews within 30 days. For FY 2006, the staff completed 96% of the acceptance reviews within 30 days. For FY 2005, the performance measure for the timeliness goal for licensing action completions in the Division Operating Plan specifies that the staff should complete 75% of licensing actions within 180 days from the date of acceptance and 100% within 2 years from the date of acceptance. The staff completed 35 licensing actions in FY 2005 and 34 licensing actions in FY 2006. For FY 2005, the Uranium Recovery Program staff completed 97% of its licensing actions within 180 days and 100% within 2 years. For FY 2006, the performance measure for the timeliness goal in the Division Operating Plan specifies that the staff should complete 80% of licensing actions within 180 days from the date of acceptance and 100% within 2 years from the date of acceptance. For FY 2006, the Uranium Recovery Program staff completed all (100%) of its licensing actions within 180 days. The performance results for the staff's completion of its acceptance reviews and licensing actions clearly indicate that the staff is conducting an effective program with respect to the established timeliness goals.

The performance measure for the quality of completed licensing actions specifies that the staff should complete greater than 95% of those actions without significant technical (involving lethal hazards) or regulatory deficiencies (defects or oversights violating the law). The staff completed 35 licensing actions in FY 2005 and 34 licensing actions in FY 2006 and all were completed without deficiencies. The performance results indicate that the staff is conducting an effective regulatory program with respect to the quality of completed licensing actions.

(2) Inspections

Another of the safety strategies that the NRC employs to ensure protection of public health and safety and the environment is to conduct safety oversight programs, including inspections and enforcement activities, to monitor licensee performance. In support of this strategy, the staff conducts regularly scheduled inspections of Uranium Recovery Program licensees. The performance measure for these inspections in the Division Operating Plan specifies that core inspections should be completed as scheduled with less than 10% overdue. During FY 2005, 6 core inspections of uranium recovery facilities were scheduled and all of the inspections were completed as scheduled, with none overdue. During FY 2006, 6 core inspections of uranium recovery facilities were scheduled and all were completed as scheduled, with none overdue. The performance results indicate that staff is effectively supporting the NRC's safety goal with respect to the conduct and timeliness of uranium recovery facility inspections.

The core inspections discussed above were all documented in inspection reports to assist the agency's goal of ensuring openness in our regulatory process. In support of this goal, the staff employs several openness strategies, including efforts to enhance the awareness of the NRC's independent role in protecting the health and safety and the environment and to provide accurate and timely information about the safety performance of the licensees regulated by the NRC. Uranium Recovery Program inspection reports implement these openness strategies and the performance measure in the Division Operating Plan specifies that inspection reports should be issued in a timely fashion, within 30 days from the date of the inspection (within 45 days for team inspections). Six inspection reports were written in FY 2005 and all were completed within the specified timeliness goals. In FY 2006, 3 inspection reports were written and all 3 were completed within the specified timeliness goals (The remaining reports for the 3 inspections performed in late FY 2006 are not due to be completed until early FY 2007). The performance results indicate that the staff is adequately supporting the NRC's openness goal with respect to the timeliness of uranium recovery facility inspection reports.

(3) Support to Agreement States

During both FY 2005 and FY 2006, Uranium Recovery Program staff provided technical assistance to the Office of State and Tribal Programs (STP) to support STP's review of Completion Review Reports (CRRs), submitted by the Agreement State, for the license termination of 2 former uranium recovery facilities in Colorado and 1 in Texas. The review of the CRR is part of the NRC's process for ensuring that all applicable standards and requirements have been met prior to the Agreement State termination of the license for a uranium mill facility.

The Colorado Department of Public Health and Environment (CDPHE) submitted the draft CRR for the Durita Uranium Mill Site in October 2004 and Uranium Recovery Program staff provided technical assistance for review of the CRR in the areas of radiation cleanup and control, radon emanation, surface water hydrology and erosion protection, groundwater remediation, and geotechnical stability. The staff completed its review in the above areas in a timely manner (February 2005) and identified a significant concern with respect to the termination of the groundwater monitoring program at Durita by the licensee in December 1998. The staff determined that the CDPHE did not provide adequate justification for allowing the licensee to terminate the groundwater monitoring program and plug the wells prior to license termination. In an ongoing effort to resolve this issue, NRC staff external to the Uranium Recovery Program have recently conducted an onsite review at Durita to evaluate more detailed information on the hydrogeology of the site, including the potential for groundwater contamination from tailings impoundment seepage of byproduct material. The review concluded that groundwater monitoring of the Durita site is both necessary and appropriate. This review supports the actions of the Uranium Recovery Program staff who appropriately identified and pursued a concern that has potential for adverse impacts on public health and safety and the environment. The pursuance of this issue to resolution is entirely consistent with the NRC's primary safety goal.

In September 2005, the Texas Department of State Health Services (TDSHS) submitted the draft CRR for the West Cole Project, a former in situ leach uranium mining site, and the Uranium Recovery Program provided technical assistance for the review of the CRR in the groundwater remediation area. The staff's review was completed in a timely manner (November 2005) and no major concerns were identified. In January 2006, the TDSHS

submitted the final CRR for the West Cole Project and the staff completed its review of the CRR in March 2006, concluding that all applicable standards and requirements for the protection for the public health, safety, and the environment have been met for the termination of the West Cole Project license.

In March 2006, the CDPHE submitted the draft CRR for the Maybell Heap Leach Site and the staff provided technical assistance for review of the CRR in the area of groundwater remediation. The staff performed its review of the groundwater remediation area in a timely manner (August 2006) and determined that additional information was necessary to support CDPHE's determination that all applicable standards and requirements have been met for the Maybell site license termination. Completion of this review is awaiting CDPHE's response to the request for additional information.

During FY 2005, Uranium Recovery Program staff supported the STP Integrated Materials Performance Evaluation Program (IMPEP) review of the regulatory program established by the Agreement State of Illinois. The Illinois regulatory program is administered by the Bureau of Radiation Safety of the Illinois Department of Nuclear Safety. The IMPEP review was conducted in April 2005 and the NRC Uranium Recovery Program staff focused on the adequacy of the Illinois Uranium Recovery Program in the areas of technical staffing and training, status and technical quality of inspections, technical quality of licensing actions, and response to incidents and allegations. The NRC IMPEP report was completed in a timely fashion (May 2005) and, though the overall Illinois Agreement Statement Program was deficient in one area (compatibility with NRC regulations), the performance of the Illinois Uranium Recovery Program was found to be satisfactory with no identified deficiencies.

The performance results, as discussed above, indicate that the Uranium Recovery Program provided both timely and effective support to the STP during FY 2005 and FY 2006.

(4) Completion of Old Licensing Actions

During FY 2005 and FY 2006, Uranium Recovery Program staff continued work on 2 old (greater than 3 years) licensing cases that were being tracked in the Division Operating Plan for completion within established targets dates. These cases were the Rio Algom Mining LLC (RAM) request for revised groundwater protection standards (alternate concentration limits (ACLs)) for hazardous and nonhazardous constituents in the groundwater at the Ambrosia Lake uranium mill tailings site in New Mexico and the Western Nuclear, Inc., (WNI) request for revised groundwater protection standards (ACLs) for hazardous and nonhazardous constituents in the groundwater at the Split Rock uranium mill tailings site in Wyoming.

Ambrosia Lake ACL Review:

In February 2000 and May 2001, RAM submitted license amendment applications requesting ACLs for various hazardous constituents in the groundwater at the Ambrosia Lake tailings site. For a number of reasons, the Ambrosia Lake ACL review was both protracted and delayed. These included the lack of hydrology staff within the Uranium Recovery Program in FY 2005 (2 open hydrology positions during a portion of this period), the decision to use a contractor for technical review of the amendment request, the need for multiple requests for additional information from the licensee which required numerous interactions with the licensee and corresponding revisions to the requested ACLs for various constituents, turnover in licensee

staff managing the requested license amendment (the licensing project manager left the company), and changes in NRC project managers for this licensing action, including a rotational assignee. At the start of FY 2005 (October 2004), the staff had not yet developed the draft environmental assessment (EA) for the ACL review and the Division Operating Plan had an established target date of March 2005 for completion of the licensing action. The draft EA was completed in February 2005 and the New Mexico Environment Department (NMED) had substantive comments on the EA, including the stated need for ACLs for nonhazardous constituents in the groundwater which were subsequently requested by the licensee. While efforts were ongoing to resolve the State's comments on the draft EA, the target date for completion in the Division Operating Plan was slipped to June 2005, and subsequently to July 2005 and December 2005, in the second, third, and fourth quarters of FY 2005, respectively. The final EA was not issued until January 2006, following a difficult comment resolution process with the State, and the target date for completion of the licensing action was revised to February 2006. The license amendment was completed in February 2006, nearly a year later than the original target date established in the FY 2005 Division Operating Plan.

While some of the slippage in the target date can be attributed to the technical quality of the licensee's amendment request and the difficult EA comment resolution process with NMED, significant contributors to the delay in completing this action were due to the lack of priority accorded to this groundwater-related licensing action within the Uranium Recovery Program and the decision to use a contractor for technical review of the amendment request. ACL reviews represent some of the most important actions within the Uranium Recovery Program and completion of this action should have been accorded a priority commensurate with the importance of establishing appropriate groundwater protection standards. Further, soliciting and enlisting contractor support for this review, vice in-house staff on a priority basis, just added to the delay in completing this action. Establishing contractor support for this review took some time, and in this case, the contractor had higher priority work within the agency, apart from the Uranium Recovery Program. This action could have been given a higher priority within the Program with completion in a more timely manner.

Recommendation: Any requested modifications to established target dates for completion of old, complex licensing cases in the Division Operating Plan should be discussed with, and approved by, the Division Director.

Split Rock ACL Review:

In October 1999, WNI submitted a Site Ground Water Characterization and Evaluation report that included a request for various amendments to the license for the Split Rock tailings site, including revisions to the groundwater protection standards for selected constituents in the site groundwater. The license amendment request was coupled with a proposal for institutional controls (ICs) for offsite residential properties, as well as an alternate water supply, to address concerns about offsite migration of groundwater contaminated by seepage of byproduct material from the Split Rock tailings impoundment. The NRC review of this request has involved numerous interactions with the licensee and the original licensee request (October 1999) has been supplemented over the years with 12 additional submittals to date.

The WNI amendment request was complex as the strategy to protect public health and safety and the environment was based on the results of extensive modeling of groundwater contaminant flow and transport and the implementation of ICs through agreement with offsite

property owners or property purchases. The ICs would effectively preclude the use of groundwater within the planned Split Rock site long-term surveillance boundary (LTSB) for domestic purposes. The proposal for ICs constituted an alternative to the provisions of 10 CFR Part 40, Appendix A, and the Commission approved their use in December 2002. At the start of FY 2005 (October 2004), WNI was vigorously pursuing the purchase of all the properties within the LTSB to support its IC strategy and the target date in the Division Operating Plan for completion of the licensing action was June 2005. Notwithstanding their efforts during FY 2005, WNI was unable to purchase all of the desired private properties within the LTSB and the target date for completion of the licensing action was revised to December 2005. In October 2005, the staff developed a Commission Paper (SECY-05-0200) to inform the Commission of WNI's efforts to acquire offsite properties and recommend actions to resolve the remaining ownership and IC issues. In this regard, WNI was able to acquire all but one property. Correspondingly, in October 2005, the target date for licensing action completion was slipped to April 2006. In November 2005, the Commission issued its Staff Requirements Memorandum (SRM) for SECY-05-0200 and agreed with the staff's recommendation for WNI's resolution of the property issue and the schedular commitments for the completion of the ACL amendment request. Accordingly, target dates for development of a draft EA (July 2006), final EA (October 2006), and completion of the licensing action (November 2006) were established in the Division Operating Plan, consistent with the Commission's SRM. The draft EA, final EA, and ACL license amendment were completed in May 2006, August 2006, and September 2006, respectively, well ahead of the target dates approved by the Commission.

While this complex licensing action took a long time to complete, the reasons were primarily related to the licensee's efforts to acquire offsite properties, which were outside of the staff's control, to implement its IC strategy for protection of public health and safety. The Uranium Recovery Program always gave the highest priority to the Split Rock ACL review and FCFB, FCSS, and NMSS management and the Commission were kept well-informed of the status of the ongoing licensing review during FY 2005 and FY 2006. Uranium Recovery Program staff were effective in bringing this extremely complex licensing to a successful completion that necessitated Commission involvement for resolution of policy issues (use of ICs as part of a health and safety strategy).

(5) Support for Hearings

During FY 2005 and FY 2006, Uranium Recovery Program staff provided support for the ongoing hearing related to the challenges by multiple intervenors to the license granted to Hydro Resources, Inc. (HRI), for in situ leach uranium recovery operations at several sites in New Mexico (Church Rock , Unit 1, and Crownpoint). In early FY 2005 (November 2004), the Atomic Safety and Licensing Board (ASLB) panel established a schedule for submittal of presentations by the intervenors, the licensee, and the NRC staff, addressing the intervenor's 7 areas of concern with the HRI license: 1) groundwater protection, 2) liquid waste disposal, 3) historic preservation, 4) financial and technical qualifications, 5) air emission controls, 6) adequacy of the environmental impact statement (EIS), and 7) environmental justice.

In January 2005, the intervenors and HRI filed a joint motion with the ASLB to modify the schedule for submission of presentations, and correspondingly eliminate some areas of intervenor concern, so that the intervenors could focus on the area of concern (groundwater protection) of paramount importance. The ASLB granted the joint motion and, in February 2005, established a new schedule for submittal of presentations, by the parties to the hearing, for a

reduced list of intervenor areas of concern: 1) groundwater protection, 2) historic preservation, 3) air emission controls, and 4) adequacy of the EIS. The schedule for NRC staff presentations for the above 4 areas of concern necessitated successive filings by the staff in May, June, and August 2005 (2 filings). All of the staff filings were submitted in a timely manner, in accordance with the schedule established by the ASLB. The technical quality of the staff's filings was evident in the fact that the ASLB ruled in favor of the NRC and the licensee in subsequent decisions issued by the ASLB on each of the hearing areas of concern. In rendering its decisions, the ASLB made frequent references to the sound logic and technical bases in the staff's filings for the intervenor's presentations on the challenged areas of interest. The Commission denied intervenor petitions for review of the ASLB decisions on groundwater protection and historic preservation. The Commission accepted the intervenor petition for review of the ASLB decision on air emission controls but affirmed the ASLB decision upon review. These performance results, as discussed above, indicate that the Uranium Recovery Program provided both timely and effective support for the HRI hearing during FY 2005 and FY 2006.

(6) Response to 10 CFR Part 2.206 Petitions

In June 2003, Sequoyah Fuels Corporation (SFC), located in Gore, Oklahoma, requested amendments to its Source Materials License for approval of a groundwater monitoring plan (GMP) and a groundwater corrective action plan (GCAP) for its former uranium conversion facility site, where SFC plans to develop an 11e.(2) byproduct material disposal cell. Both the State of Oklahoma and the Cherokee Nation (Petitioners) filed requests for a hearing on the proposed amendments, alleging deficiencies in the GMP and GCAP; however, the requests were untimely and were denied by the NRC. In November 2003, in accordance with NRC regulations, the ASLB referred the Petitioners requests to the NRC staff for enforcement action under 10 CFR Part 2.206. The response to the 10 CFR Part 2.206 action was assigned to NMSS and, correspondingly, the Uranium Recovery Program as the overseer of SFC's license. In this regard, the staff noted that final action on the 10 CFR Part 2.206 petition could not be taken until the staff completes its review of several SFC amendment requests. These included the amendment requests for the GMP and GCAP, as well as the prior requests for NRC approval of the overall site reclamation plan and a raffinate sludge dewatering project, submitted in January 2003 and January 2004, respectively. Regarding the SFC amendment request for the site reclamation plan, the Petitioners and a private citizen filed timely requests for a hearing on the adequacy of the plan and a Presiding Officer was designated for this proceeding. A timely request for a hearing was also filed by the State of Oklahoma for the SFC amendment request for the sludge dewatering project and this request was assigned to an ASLB panel.

The staff determined that the review of the site reclamation plan would necessitate preparation of an EIS and this EIS would take at least 2 years to complete. As such, the staff anticipated that the aforementioned licensing actions would not be completed until late FY 2006. Accordingly, a date of December 31, 2006 was established in the Division Operating Plan as the target date for issuance of the Director's decision on the 10 CFR Part 2.206 petition. The issuance of the Director's decision in a timely manner would support one of several strategies for the achievement of the NRC's goal of ensuring openness in our regulatory process. Specifically, the Director's decision would provide for a fair and timely process to allow authorized stakeholders involvement in NRC decision-making in matters involving important safety and environmental issues.

In early FY 2005 (December 2004), the Petitioners filed a joint motion with the ASLB to withdraw their hearing requests related to the SFC facility, based on the results of a Settlement Agreement between SFC and the Petitioners. As part of this Agreement, the parties agreed to seek termination of NRC's ongoing consideration of the State and Cherokee Nation concerns under the 10 CFR Part 2.206 petition. This termination would be based upon appropriate revisions to the GMP and GCAP to address State and Cherokee Nation concerns with the original version of those plans. In August 2005, the staff completed its review of SFC's proposed GMP, approving the GMP with the conditions noted in the staff's technical evaluation report for the licensing action. The staff's review of the GCAP is expected to be completed by December 2006, however, the staff understands that the expected termination of the 10 CFR Part 2.206 petition by the Petitioners is not dependent on the staff's completion of the GCAP review. As such, the staff is currently awaiting written requests by the Petitioners to withdraw the pending 10 CFR Part 2.206 petition, consistent with the Settlement Agreement.

(7) Response to Allegations

During FY 2005 and FY 2006, there were no allegations related to the Uranium Recovery Program. Nonetheless, the Division Operating Plan tracks the completion of annual refresher training by all staff to ensure the proper identification and handling of allegations. Timely completion of allegation training supports several strategies for achieving the NRC's openness goal. Specifically, the training supports the process to provide accurate and timely information about the safety performance of the licensees regulated by the NRC. Additionally, the training facilitates early public involvement on issues likely to generate substantial interest and promotes two-way communication to enhance public confidence in the NRC's regulatory processes. All Uranium Recovery Program staff completed allegation training in a timely manner in FY 2005 and FY 2006 and no staff were overdue for training. While no allegations were received during this period, Uranium Recovery Program staff appropriately maintained their capability for the proper consideration and handling of allegations.

(8) Public Meetings

There are a number of strategies that the NRC employs to support its openness goal. These include: 1) providing accurate and timely information to the public about the uses of, and risks associated with, radioactive materials, 2) enhancing the awareness of the NRC's independent role in protecting public health and safety and the environment, 3) providing accurate and timely information about the safety performance of the NRC's licensees, 4) providing a fair and timely process to allow public involvement in NRC decision-making in matters involving important issues to stakeholders, and 5) obtaining early public involvement on issues likely to generate substantial interest and promote two-way communication to enhance public confidence in the NRC's regulatory processes. In support of these strategies, the Division Operating Plan tracks the conduct of open meetings with external stakeholders on significant regulatory issues in various locations, or in the vicinity of those potentially affected, and as requested by local officials. The Division Operating Plan also tracks whether adequate notice was provided for all public meetings at least 10 calendar days prior to the meeting, whether feedback forms were provided for the meetings (new metric for FY 2006), whether communication plans were used for the meetings, and whether meeting summaries were made publicly available within 10 working days after the meeting.

During FY 2005, Uranium Recovery Program staff held 14 public meetings with both existing and prospective licensees at appropriate locations, including NRC headquarters, the licensee's facilities, and the annual Uranium Recovery Workshop in Denver, Colorado. All of these meetings were publicly noticed at least 10 calendar days prior to the meeting, feedback forms were provided at all meetings, and all meeting summaries due to be completed in FY 2005 were made publicly available within 10 working days of the meeting. With regard to the last item, 3 meetings were held late in FY 2005 and summaries for these meetings were completed in the first quarter of FY 2006. The summaries for these 3 meetings were not completed within 10 working days. In this regard, the summaries were completed by a staff member on rotational assignment to the Uranium Recovery Program. While the staff member may not have been fully familiar with the target in the Division Operating Plan for timely completion of meeting summaries (completion within 10 work days), the targets were still not met. During FY 2006, Uranium Recovery Program staff held 17 meetings at appropriate locations, including NRC headquarters, the licensee's facilities, and the annual Uranium Recovery Workshop in Denver, Colorado. All of these meetings were publicly noticed at least 10 calendar days prior to the meeting, feedback forms were provided at all of the meetings, and all but one of the meeting summaries were made publicly available within 10 working days of the meeting. The Uranium Recovery Program Communication Plan was effectively utilized for all meetings conducted in FY 2005 and FY 2006.

Based on the results of the Uranium Recovery Program conduct of public meetings, the program effectively supported the NRC's openness goal with the exception of the timeliness of meeting summaries due in FY 2006, in which the staff's performance was marginal (80% of summaries completed within 10 working days) and in need of improvement.

Recommendation: A line item should be added to the standard written agenda provided for discussion at the weekly Section Chief's meeting for the Uranium Recovery Program. The line item should be titled "Public Meetings" and should query whether any public meeting notices or summaries are due that week to meet the timeliness metrics in the Division Operating Plan for public notification.

(9) NRC Employee Qualification

The NRC employs a number of strategies to support the agency's goal of ensuring excellence in agency management to carry out the NRC's strategic objective. These strategies include the use of innovative recruitment, development, and retention actions to achieve a high quality, diverse work force with the skills needed to meet the agency's goals and related actions to develop the agency's current and future leaders. In this regard, the Division Operating Plan tracks the formal qualification of licensing, certification, and inspection staff to ensure that staff are qualified in a timely manner in support of these management strategies. During FY 2005, one Uranium Recovery Program staff member had an established target date for qualification as a technical reviewer and this member was formally qualified three months in advance of the target date. During FY 2006, one Uranium Recovery Program staff member had an established target date for qualification as a technical reviewer and this member was formally qualified one month in advance of the target date.

Based on the results of the formal qualification of Uranium Recovery program staff as technical reviewers, the program is doing an effective job of ensuring the timely development of its staff to maintain a capable, knowledgeable, and productive work force.

(10) Compliance with Operating Plan Commitments

In the foregoing sections, an evaluation was provided for various elements of the Uranium Recovery Program that are also tracked in the Division Operating Plan with specified targets and output measures. Those elements included: (1) licensing reviews, (2) inspections, (3) support to Agreement States, (4) completion of old licensing actions, (5) support for hearings, (6) response to petitions filed under 10 CFR Part 2.206, (7) response to allegations, (8) public meetings, and (9) NRC employee qualification. With respect to the specific targets and measures in the Division Operating Plan for these elements of the program, the Uranium Recovery Program was generally implemented in a very effective manner during FY 2005 and FY 2006. For Uranium Recovery Program elements subject to these output measures, the program performed in the "green" (good performance) in FY 2005. During FY 2006, the program performed in the "green" for all elements subject to the output measures with one exception, the timely completion of summaries of public meetings in which the program performed in the "yellow" (marginal performance). There were no elements of the Uranium Recovery Program that performed in the "red" (unacceptable performance) during the 2 year time frame of interest for this evaluation. Overall, the Uranium Recovery Program performed very well with respect to compliance with Division Operating Plan commitments.

B. Capability for Meeting Future Program Challenges

As previously noted, there has been a significant increase in the price of yellowcake in recent years. In the past two years alone, the price of yellowcake has risen from approximately \$20 per pound to its current price of \$52 per pound and this increase has engendered a corresponding resurgence of activity within the uranium mining industry to increase yellowcake production with both new and existing uranium recovery facilities. In this regard, 8 different companies have expressed interest in submitting applications for 9 new uranium recovery facilities (7 ISL and 2 conventional facilities). Additionally, 3 existing licensees have expressed interest in the restart of their facilities, including a shutdown ISL facility, a conventional mill on standby, and a conventional mill currently undergoing decommissioning that would be converted to an ISL facility. The greater workload associated with these anticipated licensing actions (both new and existing facility applications) will have significant impacts on Uranium Recovery Program resources and portends the need for commensurate program staffing (budgeted full-time equivalents, FTE). These resource impacts will begin in late FY 2007 and extend through FY 2009 and beyond. Each new facility application will necessitate preparation of an EIS, an approximate two year process, and, after licensing and facility startup, resources will be needed for periodic inspection of the operating facilities and the processing of license amendment requests. In this regard, there is a direct correlation between the number of anticipated licensing actions in any given year and the number of active uranium recovery facilities. This resurgence of activity within the uranium recovery industry poses the most significant future challenge for the Uranium Recovery Program in terms of its capability for handling the expected increase in workload in a responsive and efficient manner.

In recognition of the program challenges related primarily to new facility license applications, NRC management within NMSS initiated requests to the Commission in late FY 2006 for increased levels of staffing for the Uranium Recovery Program for the FY 2008 budget which was undergoing Commission review. In this regard, the Uranium Recovery Program estimated

that an additional 6.3 FTE would be needed in FY 2008 for licensing reviews associated with the expected additional applications for uranium recovery operations. In an SRM dated August 23, 2006, the Commission added 5 FTE to the staff's proposed FY 2008 budget for the licensing activities related to uranium recovery operations. Given the uncertainties related to the timing of submittals of applications for new uranium recovery facilities, the additional 5 FTE for the Uranium Recovery Program should suffice for the anticipated workload and otherwise represents most of the estimated new resource needs identified for this program for FY 2008. Although a number of new facility applications are planned for submittal in late FY 2007, the existing Uranium Recovery Program budget (8.1 FTE for licensing activities) should be sufficient for this expected workload as the staff anticipates conducting only the acceptance reviews associated with these licensing requests. Thus, based on the recent collective actions of both the NRC staff and the Commission, the Uranium Recovery Program appears well-positioned, on paper at least, to respond to the challenges related to the anticipated future submittal of a significant number (9 at present) of applications for new uranium recovery facilities.

However, although the authorization for an expanded Uranium Recovery Program in FY 2008 has been established, a significant challenge lies ahead to actually develop the staff that will be needed to effectively handle the workload which is expected to ramp upwards in early FY 2008. Based on prior recruitment experience, the bulk of new Uranium Recovery Program staffing positions will likely be filled from sources outside of the agency. In this regard, recent staffing experience within the Uranium Recovery Program indicates that it takes a minimum of 6 months or more to complete the recruitment, interview, reference and background check, and hiring of an individual from the time an application for a position is received. The filling of 5 new positions in the program in a timely manner will be a difficult task.

Recommendation: In order to attain the Uranium Recovery Program staffing levels necessary to address the expected increased workload related to new facility applications, develop the desired staffing plan for the program in early FY 2007 and initiate the recruitment and hiring of new staff no later than mid-FY 2007.

While expected new uranium recovery facility applications pose the most important future challenge to the Uranium Recovery program, there is another ongoing activity that has resource implications for FY 2007. For several years, the staff has been pursuing an initiative to eliminate or reduce the overlapping regulation of groundwater protection provided by the NRC and the non-Agreement States at operating ISL facilities. In an Information Paper dated July 8, 2005 (SECY-05-0123), the staff informed the Commission of the status of the staff's efforts to develop Memoranda of Understanding (MOUs) that would allow the States of Nebraska and Wyoming to take lead responsibility for regulation of groundwater protection at ISL facilities in those States. The staff also informed the Commission that the Nebraska and Wyoming groundwater protection programs were not equivalent to the NRC's groundwater protection program and the variances between these programs posed an impediment to the development of MOUs with the States. Groundwater protection at ISL facilities in Nebraska and Wyoming is administered through EPA-authorized Underground Injection Control Programs under the Safe Drinking Water Act whereas the NRC's jurisdiction over the groundwater derives from the Atomic Energy Act. To address the dual regulation issue, the Commission issued an SRM dated March 24, 2006, which directed the staff to initiate a rulemaking in 10 CFR Part 40 to eliminate the dual regulation by the NRC and the EPA of groundwater protection at ISL facilities. The SRM further specified that the staff should provide a proposed rule to the Commission in January 2007, followed by a final rule in September 2007.

Although the aforementioned rulemaking was mandated to be completed in FY 2007, resources were not provided for this activity in the FY 2007 budget and the staff was directed to shed lower priority work within the Uranium Recovery Program to establish the resources necessary to support the rulemaking effort. Uranium Recovery Program staff estimated that 1.0 FTE would be needed in FY 2007 for the rulemaking effort. To provide these resources, staff work on Uranium Mill Tailings Radiation Control Act Title I site groundwater reviews and SFC site reclamation reviews would be deferred in FY 2007. Given the rulemaking effort mandated by the Commission, the Uranium Recovery Program has appropriately reallocated its resources for FY 2007 to support the higher priority activities within the program, consistent with the NRC's management goal. This reallocation of resources is tracked and reported in the Division Operating Plan.

SUMMARY AND CONCLUSIONS

This report provides the results of the staff's self-assessment of the overall effectiveness of the NRC's Uranium Recovery Program, over the past two years (FY 2005-FY 2006), with respect to the NRC's strategic objective and the related goals for safety, security, openness, effectiveness, and management that support this objective. The evaluation focused on the program's conduct of its licensing reviews and inspections, support to Agreement States, completion of old licensing actions, support for hearings, response to 10 CFR Part 2.206 petitions, response to allegations, conduct of public meetings, qualification of program staff, compliance with Operating Plan commitments, and capability for meeting future challenges. Based on the results of the staff's evaluation, as discussed above, the Uranium Recovery Program has generally been conducted in a very effective manner with respect to the NRC's strategic objective, the 5 goals that support this objective, and the targets and measures established in the Division Operating Plan to facilitate achievement of those goals. Notwithstanding the overall effectiveness of the program, there are several areas where the program can be improved and recommendations are provided for those areas, as discussed in the detailed evaluation above. A recommendation is provided for the improvement of program performance related to the timeliness for completion of old, complex licensing actions. A recommendation is provided to improve the performance for reporting public meeting summaries in a timely manner. Lastly, a recommendation is provided to promote the acquisition and development of the program staff necessary to ensure the program capability for meeting the challenges associated with the expected future submittal of a significant number of applications for new uranium recovery facilities.