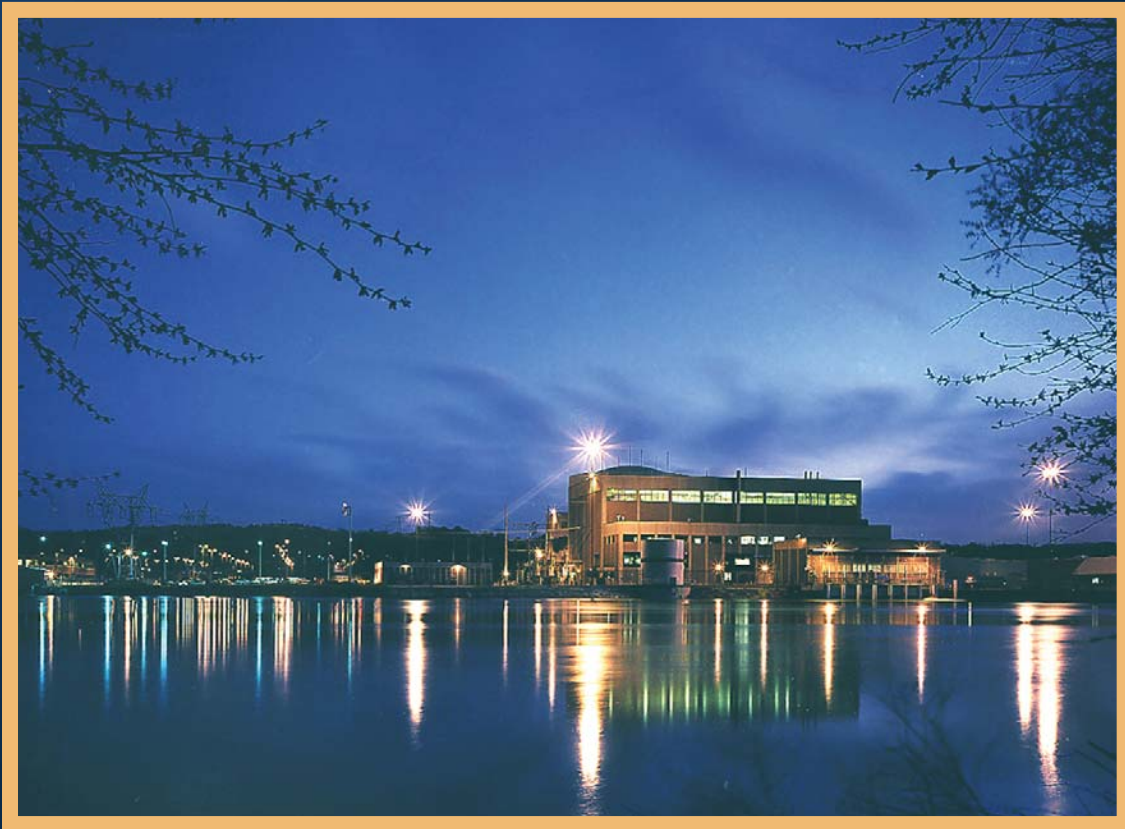


CHAPTER 2

Program Performance



Fort Calhoun Nuclear Power Plant located between Fort Calhoun, NE and Blair, NE



McGuire Nuclear Station located northwest of Charlotte, NC, on Lake Norman

MEASURING AND REPORTING PERFORMANCE

This chapter presents information on the NRC's performance in achieving its mission and goals during FY 2007. The agency's mission is to ensure adequate protection of the safety and security of the American public in the use of byproduct, source, and special nuclear materials.

The NRC is developing a new Strategic Plan for FY 2008-FY 2013 that determines the agency's long-term strategic direction. The Commission has approved the framework for the draft Strategic Plan. The Performance and Accountability Report reflects the new goal structure proposed in the agency's draft Strategic Plan and reports performance in support of the Safety and Security strategic goals, as well as Openness, Effectiveness and Management which are referred to as operational goals in this report.

This chapter describes the NRC's achievements in accomplishing the two strategic goals. The Safety goal discussion addresses reactor licensing, new reactor licensing, reactor inspection, fuel facilities, material users, high-level waste repository, decommissioning and low-level waste, and spent fuel storage and transportation. The Security goal discussion addresses emergency preparedness and incident response in the nuclear reactor safety and nuclear materials and waste safety programs. In addition, this chapter also describes the agency's progress in achieving greater effectiveness for the five management initiatives identified in the President's Management Agenda. Lastly, this chapter presents information on data sources, data quality, and the completeness and reliability of performance data. This discussion

focuses primarily on the NRC's methods for collecting and analyzing data, ensuring data security, and improving the agency's performance measures and the quality of its data during the current reporting period.

GOALS AND PERFORMANCE MEASURES

Safety Goal: Ensure Protection of Public Health and Safety and the Environment

Strategic Outcomes

The NRC has five strategic outcomes associated with the Safety goal that determine whether the agency has achieved its objective to ensure protection of public health and safety as well as the environment:

- No nuclear reactor accidents.
- No inadvertent criticality events.
- No acute radiation exposures resulting in fatalities.
- No releases of radioactive materials that result in significant radiation exposures.
- No releases of radioactive materials that cause significant adverse environmental impacts.

RESULTS: In FY 2007, the NRC achieved all of its Safety goal strategic outcomes.

Performance Measures

The table that follows lists the performance measures and targets for the FY 2007 Safety goal, as stated in the FY 2007 Performance Budget.

PROGRAM PERFORMANCE

FY 2007 SAFETY GOAL PERFORMANCE MEASURES

Measure	2002	2003	2004	2005	2006	2007
1. Number of new conditions evaluated as red by the Reactor Oversight Process is ≤ 3 .	2	1	1	0	0	0
2. Number of significant accident sequence precursors of a nuclear reactor accident is 0.	1	0	0	0	0	0
3. Number of operating reactors with integrated performance that entered the Manual Chapter 0350 process, or the multiple/repetitive degraded cornerstone column or the unacceptable performance column of the Reactor Oversight Program Action Matrix, with no performance exceeding Abnormal Occurrence Criterion I.D.4 is ≤ 4 .	3	2	1	0	0	1
4. Number of significant adverse trends in industry safety performance with no trend exceeding the Abnormal Occurrence Criterion I.D.4 is ≤ 1 .	0	0	0	0	0	0
5. Number of events with radiation exposures to the public and occupational workers that exceed Abnormal Occurrence Criterion I.A is:						
Reactors: 0	0	0	0	0	0	0
Materials: ≤ 3	0	0	0	1	0	0
Waste: 0	0	0	0	0	0	0
6. Number of radiological releases to the environment that exceed applicable regulatory limits is:						
Reactors: ≤ 3	0	0	0	0	0	0
Materials: ≤ 2	4	0	1	0	0	0
Waste: 0	0	0	0	0	0	0

Analysis of Results

1. **Reactor Oversight Process:** The NRC reactor inspection program monitors nuclear power plant performance in three broad areas—reactor safety, radiation safety, and security. Plant performance is analyzed based on a large number of performance indicators and inspection findings. Each nuclear power plant is then categorized into one of four categories—green, white, yellow, or red. Red findings indicate a finding of high safety significance. Results – There are no red performance indicators or findings.
2. **Reactor significant precursors:** The second measure tracks significant precursor events, a statistical measure of risk that determines the likelihood of an event adversely impacting safety. A significant precursor is an event that has a probability of 1 in 1000 (or greater) of leading to substantial damage to the reactor fuel. Results – No significant precursor events have been identified based on screening reviews.
3. **Reactor performance:** The conditions in this measure indicate whether the NRC identifies significant performance issues in a plant during inspections conducted under the reactor oversight program. If any of the conditions in this measure are met, the NRC will take action to ensure that plant safety is improved. Results – The target of less than or equal to four reactors was not exceeded. One reactor met the conditions in this measure during FY 2007. Palo Verde Unit 3 entered the multiple/repetitive degraded cornerstone column because of safety system equipment problems and the licensee was not effective in addressing the problem. NRC inspections identified the issue and brought it to the attention of licensee management for correction. Palo Verde is scheduled for a significant site review in FY 2008.
4. **Reactor safety trends:** This measure tracks trends for several key indicators of industry safety performance. These indicators provide insights into major areas of reactor performance, including reactor safety, radiation safety, and emergency preparedness. Statistical analysis techniques are

applied to each indicator to calculate its long-term trend. These trends represent industry averages rather than individual plant performance. Results – No statistically significant adverse trends have been identified in any of the indicators.

5. **Nuclear material radiation exposures:** This measure tracks the number of radiation exposures to the public and occupational workers that exceed Abnormal Occurrence Criterion I.A, which is defined as those events that produce unintended permanent functional damage to an organ or a physiological system, as determined by a physician. This measure tracks both nuclear reactors and other nuclear material users, such as hospitals and industrial users. Results – No radiation exposures in the reactor and materials area exceeded Abnormal Occurrence Criterion I.A.
6. **Nuclear material releases to the environment:** This measure is an indicator of the effectiveness of the NRC's nuclear material environmental programs. Exceeding applicable regulatory limits is defined as a total effective dose equivalent to individual members of the public that is attributable to a licensed user of nuclear materials but does not exceed 0.1 rem in a year, exclusive of dose contributions from background radiation. Results – No nuclear material releases to the environment that exceeded regulatory limits.



Senior Resident Inspector Dan Kimble showing the Region III Regional Administrator James Caldwell the condensate and feedwater control panel in the LaSalle Main Control Room.

INDUSTRY TRENDS

The NRC measures the effectiveness of its Nuclear Reactor Safety program activities based on the continued safe operation of the Nation's nuclear power plants. In order to demonstrate progress in achieving the agency's Safety strategic goal, the NRC compiles data on overall safety performance using several industry-level performance indicators, a number of which are addressed in the following pages. These indicators (except precursor occurrence rate) show significant improvement in the long-term trends for safety performance of nuclear power plants since 1988, the baseline year for the statistical analyses. Plant operating experience data have yielded a steady stream of improvements in the reliability of plant

systems and components, plant operating procedures, training of power plant operators, and regulatory oversight. For ease of viewing, all the figures in this section display data since 1993.

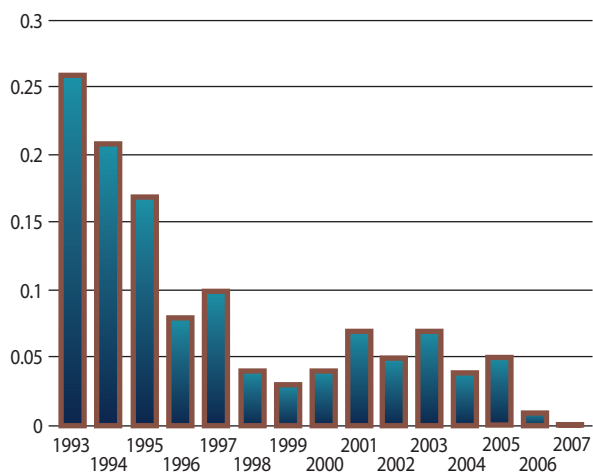
The industry safety indicators are derived through engineering and scientific analyses by the NRC's Office of Nuclear Reactor Regulation and Office of Nuclear Regulatory Research (RES). The analyses of some events for FY 2007 are still ongoing. The performance indicator results are subject to minor variations as licensees submit revisions to the source data and may differ slightly from data reported in previous years as a result of refinements in data quality. The results of these analyses are reported annually to both the Commission and to Congress.

The Industry's Safety Performance Record

SIGNIFICANT EVENTS

per reactor

Figure 9

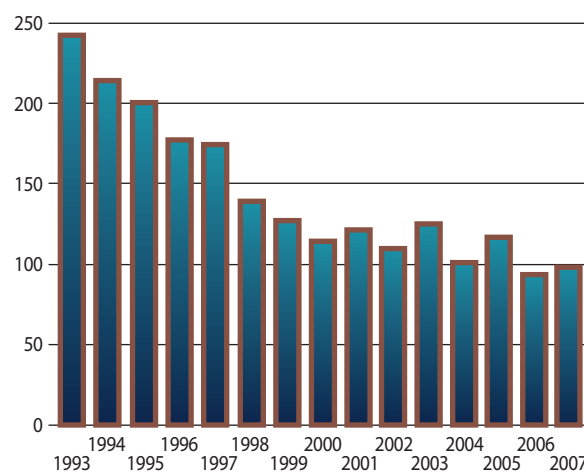


Significant events meet specific criteria such as degradation of important safety equipment. The agency reviews operating events and assesses their safety significance. The number of significant events has declined since 1993.

COLLECTIVE RADIATION EXPOSURE

Exposure (Person-cSv)

Figure 10

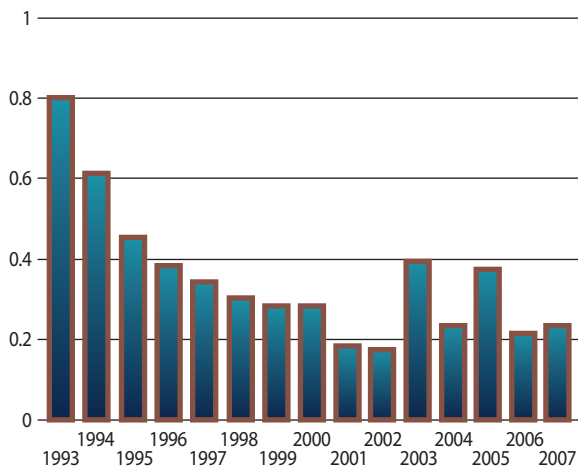


The total (collective) radiation dose received by workers is an indication of the radiological challenges of maintaining and operating nuclear power plants. The trend shows a reduction in collective dose since 1988 and demonstrates the effectiveness of the controls on radiation exposure implemented to meet these challenges.

SAFETY SYSTEMS ACTUATIONS

per reactor

Figure 11

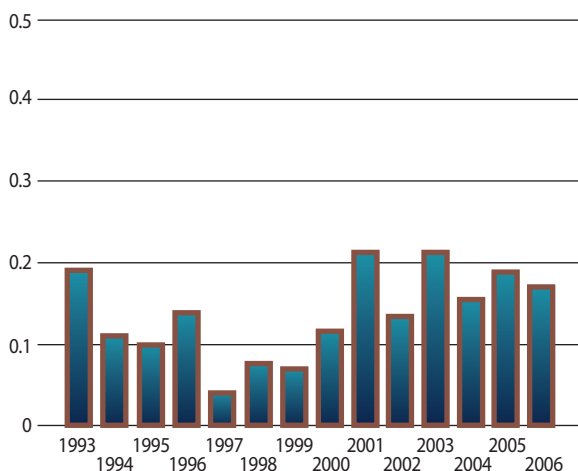


Safety systems mitigate off-normal events such as the widespread power blackout in August 2003, by providing reactor core cooling and water addition. Actuations of safety systems that are monitored include certain emergency core cooling and emergency electrical power systems. Actuations can occur as a result of "false alarms" (such as testing errors) or in response to actual events.

PRECURSOR OCCURRENCE RATE

per reactor per year

Figure 13

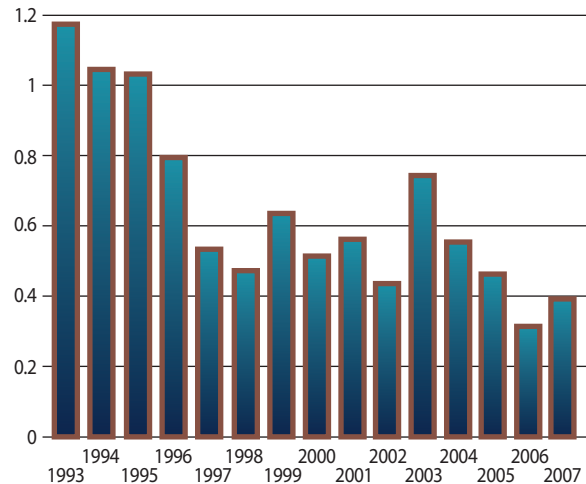


A precursor event is an event that has a probability of greater than 1 in 1 million of leading to substantial damage to the reactor fuel. There is no statistically significant adverse trend in the occurrence rate of precursor events since 1993, the baseline year for the statistical analysis. Due to the complexities associated with evaluating precursor events, the data always lag behind other indicators. Precursor data through FY2007 are not available.

AUTOMATIC SCRAMS

per reactor

Figure 12

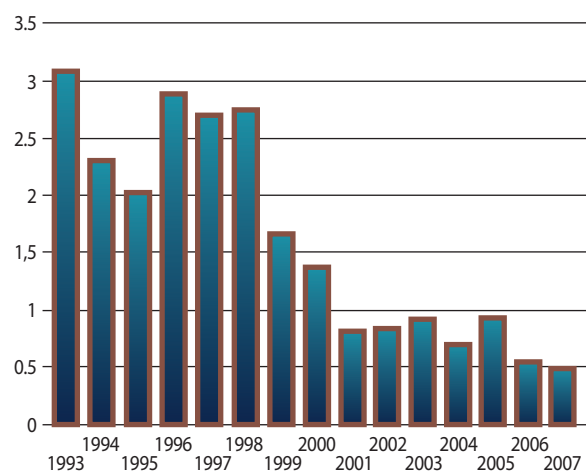


A scram is a basic reactor protection safety function that shuts down the reactor by inserting control rods into the reactor core. Scrams can result from events that range from relatively minor incidents to precursors of accidents. The massive power blackout in August 2003 accounts for most of the increase in FY 2003, but has not affected the statistical trend for number of scrams, which has been declining steadily since 1988.

SAFETY SYSTEM FAILURES

per year

Figure 14



Safety system failures include any events or conditions that could prevent a safety system from fulfilling its safety function. The statistical trend for number of safety system failures across the industry has declined since 1988.

Nuclear Reactor Licensing Activity

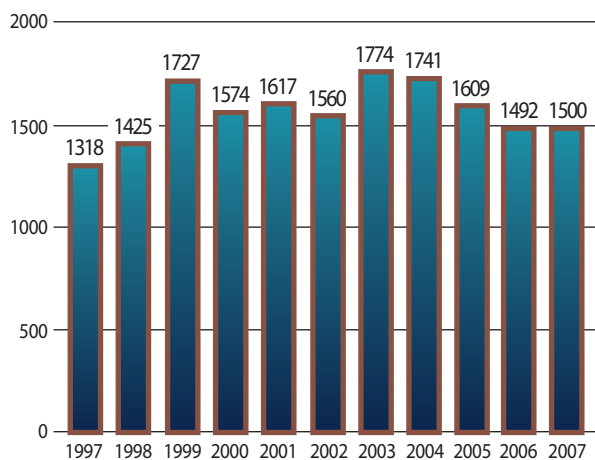
The agency's nuclear reactor safety activity ensures that civilian nuclear power reactors and test and research reactors are operated in a manner that adequately protects public health and safety and the environment while safeguarding special nuclear materials used in reactors. Safety at nuclear power plants has improved substantially over the past 20 years, as both the nuclear industry and the NRC have gained extensive experience in the operation and maintenance of nuclear power facilities. This improvement in the safety performance of nuclear power plants results from the combined efforts of the nuclear industry and the NRC.

The NRC completed 1,500 reactor licensing actions during the year (see Figure 15). The agency completed those actions in a timely manner. Approximately 96 percent of the licensing actions in the agency's inventory were completed within 1 year and 100 percent were completed within 2 years (see Figure 16).

LICENSING ACTION TIMELINESS

(Number of Actions)

Figure 15



The NRC completed extensive inspection and licensing efforts and authorized the restart of the Tennessee Valley Authority's Browns Ferry Unit 1 nuclear power plant. The NRC staff reviewed

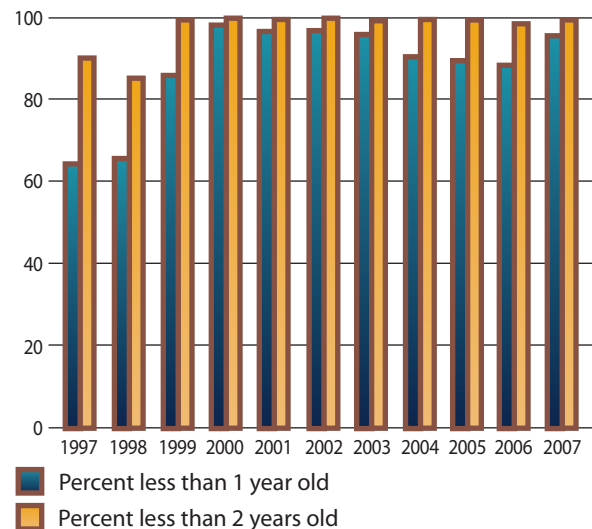
approximately 100 licensing actions and necessary inspections before restart, which took 5 years and approximately 60,000 hours of work.

The NRC also evaluates nuclear reactor power uprate applications, which are means for licensees to increase the power output of their plants. The NRC reviews focus on the potential impacts of the proposed power uprate on overall plant safety and evaluates whether plant operation at the increased power level is safe.

LICENSING ACTION AGE

(In Percent Completed)

Figure 16



New Reactor Licensing

Another issue facing the agency is the potential to receive applications for a new generation of nuclear reactors. These licensing activities will ensure that future reactors will meet the NRC's safety requirements and that a stable and predictable regulatory process is in place so that the agency can evaluate future license applications without imposing unnecessary regulatory burden on nuclear power generating companies. The staff is prepared to begin the first application to construct and operate a new reactor which was tendered by NRG Energy for the South Texas site during the last week of September 2007.

The NRC expects to receive a significant number of new reactor combined license applications over the next several years, and continues to develop the infrastructure necessary to support the application reviews. Activities undertaken to prepare for the reviews include issuing a new reactor combined license application regulatory guide (Regulatory Guide 1.206, “Combined License Applications for Nuclear Power Plants [LWR Edition],” issued June 2007), developing strategies for optimizing the review of the applications, developing a construction and vendor inspection program for new construction and vendor activities, and continuing agency activities in the preapplication and design certification review processes. In addition, the NRC has updated more than 250 sections of NUREG-0800, “Standard Review Plan for the Review of Safety Analysis Reports for Nuclear Power Plants,” and associated regulatory guides and performed rulemaking activities to revise the licensing process under 10 CFR Part 52. To accomplish these tasks, the NRC reorganized to create the Office of New Reactors.

New Reactor Designs

The NRC has been actively reviewing new nuclear reactor designs to ensure that applications can be evaluated thoroughly and in a timely manner upon receipt. By certifying these designs, the NRC resolves safety issues in a design certification rulemaking. When an applicant submits an application for construction of a new nuclear power plant using one of the certified designs, the license application review can proceed in a manner that promotes safety while minimizing unnecessary regulatory burden and delays for the applicant.

The NRC has issued design certifications for four reactor designs that can be referenced in an application for a nuclear power plant. These designs include the following: General Electric Nuclear Energy’s Advanced Boiling Water Reactor design; Westinghouse’s System 80+ design; Westinghouse’s AP600 design; and Westinghouse’s AP1000 design.

The NRC is currently performing the design certification review of the General Electric Economic Simplified Boiling Water Reactor design and is in the process of performing a design certification amendment for the Westinghouse AP1000 design. In addition, the NRC is performing design certification preapplication reviews for the AREVA Evolutionary Power Reactor and Mitsubishi’s U.S. Advanced Pressurized-Water Reactor.

Early Site Permits

The NRC has issued early site permits for the Grand Gulf site in Mississippi and for the Clinton site in Illinois. The agency is nearing completion of the early site permit for the North Anna site in Virginia. The staff issued its safety evaluation report for the Vogtle early site permit application on August 30, 2007. Early site permits address site safety issues, environmental protection issues, and plans for coping with emergencies independent of the review of a specific nuclear plant design.

The NRC has revised the regulation governing early site permits, design certifications, and combined licenses (10 CFR Part 52) to improve the effectiveness and efficiency of the licensing process. The NRC published these revised revisions in the *Federal Register* on August 28, 2007.

In addition to working on domestic issues for new reactor construction, the NRC is cooperating with other national nuclear regulatory authorities to address advanced reactor oversight. The NRC is participating in an initiative, the Multinational Design Evaluation Program, through which several regulatory authorities share expertise and resources in reviewing new designs and seek to find ways to harmonize codes, standards, and regulations for the review of future reactor designs and seek to find ways to harmonize codes, standards, and regulations for the review of future reactor designs.

License Renewal

Reactor operating licenses for nuclear reactors are granted for 40 years and can be renewed for an additional 20 years. The review process for renewal applications is designed to assess whether a reactor can continue to be operated safely during the extended period of operation.

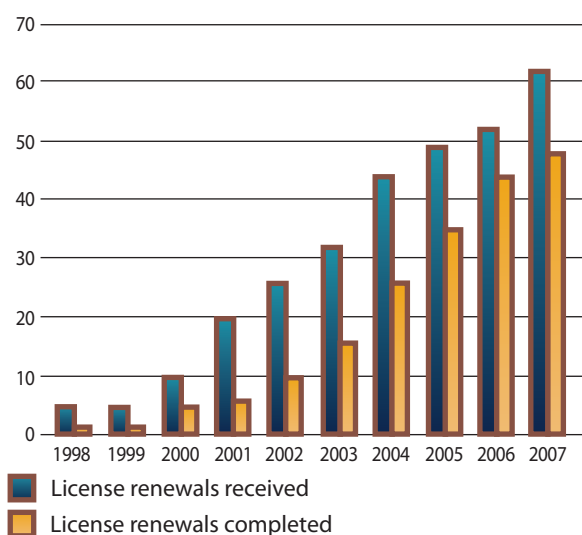
To renew a license, the utility must demonstrate that the effects of aging will not adversely affect structures or components important to safety during the renewal period. Such structures and components include the reactor vessel, piping, electrical cabling, containment structure, and steam generators. For some structures or components, additional action may be needed to ensure adequate margins of safety. Additionally, the potential impact on the environment because of the extended period of operation is assessed to verify that the impacts are not so great as to preclude license renewal.

The NRC has received applications to renew the licenses for 62 units at 36 sites and has renewed licenses for 48 units at 26 sites (see Figure 17). The NRC is currently reviewing applications to renew the licenses for 14 units at 10 sites. The agency expects that almost all of the licensees for currently licensed units will ultimately apply to renew their licenses.

LICENSE RENEWAL APPLICATIONS

(Number of Applications)

Figure 17



Nuclear Reactor Inspection

The NRC's Reactor Oversight Process verifies that nuclear plants are being operated safely and in accordance with the NRC's rules and regulations. The NRC has full authority to demand a licensee take immediate action for any conditions that result in excess risk to the public, including requiring a plant to shut down if necessary. The agency evaluates inspection findings and performance indicators to assess the safety performance of each operating nuclear power plant. The NRC performs a rigorous program of inspections at each plant and may perform supplemental inspections and take additional actions to ensure that the plants address significant safety issues. The results of NRC inspection findings for each plant are available to the public at http://www.nrc.gov/NRR/OVERSIGHT/ASSESS/pim_summary.html. The NRC also conducts public meetings with licensees to discuss the results of the NRC's assessments of its safety performance.

In FY 2007, the Nation's nuclear power plants were operated within NRC safety requirements. The performance measures for the Safety goal document that no plants were operating at unacceptable levels. In addition, the safety indicators for nuclear plants as a whole showed no adverse trends. More than 99 percent of plant safety indicators were rated green in FY 2007.

The NRC continued to improve the Reactor Oversight Process in FY 2007. Agency assessments confirm that the Reactor Oversight Process has resulted in a more objective, risk-informed, and predictable regulatory process that focuses NRC and licensee resources on aspects of plant performance that have the greatest impact on safe plant operations.

Reactor Investigations and Enforcement

Compliance with NRC requirements plays an important role in giving the agency confidence that reactor safety is being maintained. NRC policies deter noncompliance and encourage prompt identification and timely comprehensive corrections. Licensees, contractors, and their employees who do not achieve the high standard of compliance expected by the

NRC are subject to enforcement sanctions. Each enforcement action depends on the circumstances of the case. The NRC will not permit licensees to continue to conduct licensed activities if they cannot achieve and maintain adequate levels of safety. In FY 2007, there were 107 escalated enforcement actions with \$459,750 in fines assessed in FY 2007.

Fuel Facilities

The NRC licenses and inspects all commercial nuclear fuel facilities that process and fabricate uranium ore into reactor fuel. This fuel is the raw material that powers the Nation's nuclear reactors. Inspection actions include detailed health, safety, safeguards, and environmental licensing reviews as well as inspections of licensee programs, procedures, operations, and facilities to ensure safe and secure operations.

The NRC conducted several significant fuel cycle licensing reviews in FY 2007. The agency completed license renewals for BWX Technologies, Inc., and Westinghouse Electric Co., LLC. To ensure that the fuel facilities are operating safely and securely, the agency reviewed, among other issues, safety analyses for controlling hazardous materials and the engineered and human performance barriers relied on to control hazardous materials. The NRC also conducted comprehensive reviews of fuel cycle licensees. Including an integrated safety analysis which increases the use of risk information to identify hazards, the engineered and human performance barriers relied on to control hazards, and the management measures to ensure that controls are available and reliable. The NRC completed integrated safety analysis reviews for Westinghouse Electric Co., LLC, and AREVA NP, Inc. The NRC also completed a review of the annual integrated safety analysis updates for all fuel facilities.

The NRC issued Orders related to access controls to enhance security at all fuel cycle facilities. The Orders implemented Section 652 of the Energy Policy Act of 2005.

The NRC issued a license to USEC, Inc., to construct and operate the American Centrifuge Plant. This is the second license issued by the NRC for a full-scale uranium enrichment plan. The American Centrifuge Plant will use gas centrifuge technology to enrich uranium. The enriched uranium generated by this facility will provide fuel for nuclear power plants, which will allow the continued safe and secure development of the industry to satisfy the Nation's increasing need for electricity, both now and in the future. Both the American Centrifuge Plant and the National Enrichment Facility, another gas centrifuge facility, are currently under construction.

Nuclear Materials Users

The NRC licenses and inspects the commercial use of nuclear material for industrial, medical, and academic purposes. Commercial uses of nuclear materials include medical diagnosis and therapy, medical and biological research, academic training and research, industrial gauging and nondestructive testing, production of radiopharmaceuticals, and fabrication of commercial products (such as smoke detectors) and other radioactive sealed sources and devices. The NRC and 34 Agreement States regulate more than 21,000 specific materials licensees and 150,000 general materials licensees. The NRC currently regulates and inspects approximately 4,400 specific licensees for the use of nuclear byproduct and other radioactive materials.

Detailed health and safety reviews, as well as inspections of licensee procedures and facilities, provide reasonable assurance of safe operations and the development of safe products. The NRC routinely inspects nuclear materials licensees to ensure that they are using nuclear materials safely, maintaining accountability of those materials, and protecting public health and safety. The agency also analyzes operational experience from NRC and Agreement State licensees. The NRC meets regularly internally to evaluate the safety significance of events reported by licensees and Agreement States.

PROGRAM PERFORMANCE

In FY 2007, the NRC completed reviews of 2,688 materials licensing actions and 1,225 materials program inspections. From 2001 through 2007, the NRC has maintained effectiveness in the timeliness of its reviews of nuclear material license renewals and sealed source and device designs. In FY 2007, the NRC completed 98 percent (109) of the 111 requests for license renewal and sealed source and device design reviews within 180 days, and 98 percent (2,520) of 2,577 new applications and license amendments within 90 days.



The Palisades Senior Resident Inspector (John Ellegood) shows the Region III Regional Administrator (James Caldwell) and the EDO (Luis Reyes) the supplemental Emergency Diesel Generator (EDG). The supplemental EDG provides an additional source of electricity to address concerns over loss of power during a potential station blackout event.

The NRC worked with the Department of Energy to recover unwanted or orphaned radioactive sources. From the inception of this program in 1997, more than 15,500 radioactive sources have been recovered from more than 620 sites within the United States.

The NRC is assisting the Customs and Border Protection agency in fulfilling its congressional mandate to verify the legitimacy of radioactive material shipments coming into the United States through established ports of entry. The NRC regularly provides Customs and Border Protection with

information on the licensing of radioactive materials, including import and export licensing data, and has established processes to provide around-the-clock technical support.

The NRC completed an inventory of high-risk sources, defined as International Atomic Energy Agency (IAEA) Category 1 and Category 2 sources. The NRC also used the inventory in further enhancing the safety, security, and control of radioactive sources, including issuance of increased control orders

In 2005, the NRC issued more than 1,000 increased control orders imposing additional safety and security measures on licensees that possess quantities greater than those specified in IAEA Category 2. The NRC worked with the Agreement States to impose the same requirements on their licensees through legally binding agreements. In addition to continuing in FY 2007 to evaluate the need to enhance security at byproduct material licensees, the NRC is inspecting licensee compliance with these safety and security measures and coordinates with Agreement States to identify and resolve any implementation issues. The NRC also issued security orders to irradiator facilities, manufacturer and distributor facilities, and licensees shipping IAEA Category 1 quantities including orders requiring this group of licensees to implement a program to fingerprint and conduct a criminal history check for access to safeguards information and access to material. The NRC began working with Agreement States to issue orders and legally binding agreements requiring fingerprinting and criminal history checks for access to material to licensees subject to increased controls. The NRC revised its screening process for new license applications to provide increased assurance that the material will be used as intended.

Rulemaking Activities

In FY 2007, the NRC undertook several rulemaking activities to allow the use of radioactive materials while protecting public health and safety and the environment. These activities included publishing several rules that certify the safety of casks for storage

of spent nuclear fuel, and implementing a National Source Tracking System for certain sealed sources. The agency also published a rule expanding the definition of byproduct material to include discrete sources of radium-226 and accelerator-produced material.

Investigation and Enforcement

Out of approximately 1,085 inspections, 9 resulted in escalated actions, including the issuance of civil penalties. Violations identified included failure to maintain control over licensed material, comply with requirements of the increased controls order, use two independent methods to secure a portable gauging device to deter/prevent theft, secure licensed material from unauthorized access, and submit accurate information to the NRC. The NRC issued associated civil penalties, including three for \$3,250; four for \$6,500; one for \$9,750; and one for \$13,000.

State and Tribal Programs

The NRC, with the assistance of the Agreement States, completed nine Integrated Materials Performance Evaluation Program reviews to determine the adequacy and compatibility of those Agreement States and one review for the materials licensing and inspection program in NRC Region III.

Three States (Nebraska, Massachusetts, and Ohio) signed an addendum that modified their respective Section 274i agreements under the Atomic Energy Act to perform security inspections, for and on behalf of the NRC, of materials licensees authorized to possess and transport items containing radioactive material in quantities of concern.

High-Level Waste Repository

The high-level waste repository activity focused preparing for an application from DOE for permanent storage and disposal of high-level nuclear waste. The NRC conducts its high-level waste program in accordance with the Nuclear Waste Policy Act (as amended), and the Energy Policy Act of 1992.

In FY 2007, the NRC assessed technical and regulatory issues relevant to the proposed repository. The NRC reviewed and evaluated technical and scientific changes to the Department of Energy program; observed and commented on the Department of Energy's quality assurance program; issued enhanced license application review guidance; revised technical models to conform to a new Environmental Protection Agency standard and supplemented, maintained, and operated the Licensing Support Network to allow document access to potential parties to the hearing and the public. The NRC also conducted public outreach activities and meetings to make the regulatory process accessible to interested stakeholders. In addition, the agency provided legal advice, counsel, and representation for staff reviews, Commission actions, and pre-application discovery disputes.

The NRC continued to interact with the Department of Energy on its spent fuel management program, which will use standardized transportation, aging, and disposal canisters. The Department of Energy issued final performance specifications for the disposal container in June 2007, and these specifications will inform the designs for transport package and storage cask systems. These interactions will inform the development of the NRC's approach to reviewing the canister certification application.

To prepare for the eventual high-level waste license application, the NRC enhanced its electronic information exchange capability to enable the electronic receipt of high-level waste documentary material. The agency used the electronic hearing docket in the proceeding for the Preliminary Application Presiding Officer. The NRC obtained security approval to deploy the protective order file to support the proceeding. The NRC tested its preparedness by conducting end-to-end exercises to determine how organizations' processes, procedures, functions, and systems receive, process, and respond to documents and filings. The agency's management group completed the operational readiness review for the release and concluded that the release met the service-level requirements and functionality for the pre-license application phase.

Decommissioning and Low-Level Waste

The NRC licenses and inspects activities at 16 power and early demonstration reactors, 14 research and test reactors, 23 uranium recovery sites, and 32 complex material and fuel cycle facilities that are undergoing decommissioning and the NRC conducts regulatory oversight activities at 16 licensed Title II uranium recovery facilities. Decommissioning removes radioactive contamination from buildings, equipment, ground water, and soil, achieving levels that permit the release of the property, with or without restrictions on its future use by the public. The NRC terminates the licenses for decommissioned facilities after the licensees demonstrate that the residual on-site radioactivity is sufficiently low to protect the health and safety of the public and the environment, and is within regulatory limits. The NRC also conducts a number of regulatory activities to help ensure the safe management and disposal of the low-level radioactive waste generated by radioactive material users, nuclear power plants, and other NRC licensees.

The NRC has overseen decommissioning activities at numerous complex sites and power reactor sites. In FY 2007 the NRC terminated the licenses, or completed regulatory oversight activities, at two power reactors, three research and test reactors, seven complex materials sites, and one uranium recovery site. Completion of decommissioning activities enables sites to return to productive use while ensuring that residual radioactivity does not pose an unacceptable risk to the public.

In FY 2007, the NRC completed monitoring plans for the Savannah River Site (SRS) Saltstone facility and the Idaho National Laboratory (INL) for waste determinations made pursuant to the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005 (NDAA). The NRC completed the INL Tank Farm Facility Technical Evaluation Report in October 2006. NRC performed the first on site observation under the NDAA at INL in April 2007. During that April observation at INL, NRC also supported a public meeting with the Snake River Plain

Alliance and other interested members of the public. NRC also worked with DOE, the State, and the EPA to develop an enhanced consultation process for future waste determinations at the SRS. In August 2007, NRC published a Notice of Availability in the *Federal Register* for NUREG-1854, "NRC Staff Guidance for Activities Related to U.S. Department of Energy Waste Determinations, Draft Final Report for Interim Use."

Spent Fuel Storage and Transportation

The NRC ensures that reactor spent fuel is safely stored to support continued reactor operations and safely transported when necessary. The NRC conducts licensing and certification reviews to ensure that storage designs comply with NRC regulations for the storage of nuclear reactor spent fuel and for the domestic and international transport of nuclear reactor spent fuel and other risk-significant radioactive materials.

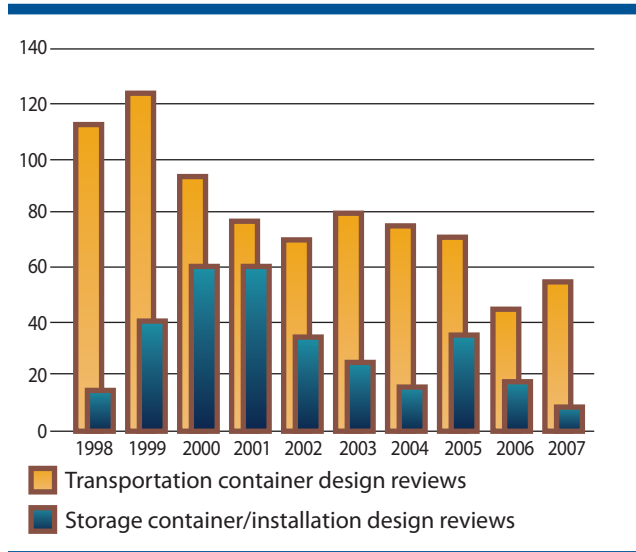
Shipments of radioactive materials are safely and securely transported each year within the United States. Several Federal agencies share responsibility for regulating the safety and security of those shipments. The NRC closely coordinates its transportation-related activities with those of the Department of Transportation and, as appropriate, the Department of Energy. To help ensure the safety and security of both spent fuel storage and radioactive material transportation, the NRC inspects transport container package designs, spent fuel storage cask designs, and interim storage of spent fuel at both reactor sites and sites away from the reactors.

In FY 2007, the NRC completed 57 transport container design reviews and 10 storage container and installation design reviews (see Figure 18). The NRC review of transportation and interim storage licensing requests ensure that shipments are made in NRC-approved packages that meet rigorous performance requirements and verifies that spent fuel is safely stored, thereby enabling continued reactor operations. The NRC also conducted 14 inspections of independent spent fuel storage installations and radioactive material package certificate holders in

order to perform “dry run” loadings with licensee personnel and to ensure that casks are being fabricated according to approved safety requirements.

STORAGE AND TRANSPORTATION DESIGN REVIEWS COMPLETED

Figure 18



The NRC issued studies of two tunnel fires (the Baltimore tunnel in Maryland and the Caldecott tunnel in Oakland, California) involving non-nuclear materials to analyze possible regulatory implications of such events for the transportation of spent nuclear fuel. The staff concluded from both evaluations that regulatory requirements for the containment of radioactive material would have been met, and hence the public would be protected from similar events involving radioactive material shipments.

The NRC issued a draft and final supplement for the environmental assessment of the spent fuel storage facility under construction at the Diablo Canyon nuclear plant. The report follows a June 2006 ruling by the U.S. Court of Appeals for the Ninth Circuit that the NRC must consider the possibility of terrorist attacks in reviews of proposed new facilities. The supplemental environmental assessment concludes that the probability of a successful terrorist attack on any such facility is very low. This conclusion is based on the NRC’s continual evaluation of the

threat environment and coordination with other Federal, State, and local agencies; protective measures currently in place that reduce the chances of the success of any terrorist attack; the robust design of dry cask storage systems, which provide substantial resistance to penetration; and, the NRC’s security assessments of potential consequences of terrorist attacks at these facilities.

Research Activities

Safety Research

The NRC’s safety research program evaluates and resolves safety issues for nuclear power plants and other facilities regulated by the NRC, provides the basis for regulatory changes and improvements, develops technical bases and tools to address emerging issues and advanced reactor designs, coordinates NRC activities related to consensus and voluntary standards for agency use, assesses operational events to identify accident precursors, and resolves safety issues. The agency conducts its research program to evaluate existing and potential safety issues; supply independent expertise, information, and technical judgments to support timely and realistic regulatory decisions; reduce uncertainties in risk assessments; and develop technical regulations and standards. When possible, the NRC engages in cooperative research with other Government agencies (e.g. the Department of Energy and the National Aeronautics and Space Administration), the nuclear industry, universities, and international partners.

During the past year, the NRC research program has addressed key areas that support the agency’s safety mission, including verification and validation of fire safety models for nuclear power plant applications, development of a licensing strategy for the next-generation nuclear plants, a proactive material degradation assessment of reactor system and pressure boundary components and their susceptibility to known and potential degradation mechanisms, and research to support the licensing of new digital instrumentation and control (I&C) systems.

Fire Safety

The NRC's fire safety research program supports regulatory activities related to fire protection and fire risk analysis. During FY 2007, this research program focused on risk-informed fire protection activities such as supporting the implementation of a new fire protection rule, 10 CFR 50.48(c), which endorses National Fire Protection Association Standard 805, and the fire protection inspection significance determination process. In May 2007, the NRC issued NUREG-1824, "Verification and Validation of Selected Fire Models for Nuclear Power Plant Applications," which documents the verification and validation of five fire modeling tools commonly used in nuclear power plant applications. The NRC completed fire testing and issued NUREG/CR-6931, "Cable Response to Live Fire (CAROLFIRE)," Vols. 1 and 2, on June 1, 2007, which provides research results on cable configurations that were identified as needing further study in and provides the necessary data to develop a cable response model to reduce the uncertainty in predicting electrical cable damage when performing fire modeling analysis.

Licensing of New Nuclear Plants

The Energy Policy Act of 2005 specifies that the Secretary of Energy shall establish the new nuclear plant project. This project consists of research, development, design, construction, licensing, and operation of a prototype nuclear plant, including a very-high-temperature reactor, which can be used to generate electricity, hydrogen, or both. In addition, the Energy Policy Act provides that the NRC shall have licensing and regulatory authority for any reactor authorized under the Act. The Secretary of Energy and the NRC Chairman must jointly develop and submit a licensing strategy for the prototype reactor by August 2008. The NRC has initiated work to develop the licensing strategy discussed in the Energy Policy Act. Toward that end, the NRC and the Department of Energy staff reviewed different licensing strategies and identified the advantages and disadvantages of each with respect to meeting the Congressional mandate of building a prototype by 2020. In addition, the staff convened a group of experts to identify research needed to develop the

technical basis for NRC decisions to license a next-generation nuclear plant.

Materials Degradation

The NRC is conducting research on materials degradation to identify susceptible materials and components in light-water reactors. In February 2007, the NRC issued NUREG/CR-6923, "Expert Panel Report on Proactive Materials Degradation Management." Other ongoing activities include (1) evaluating the effectiveness of in-service inspection techniques and programs to detect degradation in components with a high likelihood for degradation, (2) estimating probabilities of failure and associated uncertainties for these components, and (3) performing risk assessments of components that are likely to degrade to evaluate their impact on safety. In May, 2007 the NRC issued a report entitled, "Probabilistic Fracture Mechanics Evaluation of Selected Passive Components." Currently, the NRC is also cooperatively developing and implementing an international research program to address potential future degradation by taking mitigating actions, performing effective and timely inspections, and monitoring and repairing affected components.

Digital Instrumentation and Control

The NRC expects a substantial increase in the use of digital systems for both new reactors and retrofits in operating reactors. As a result, the NRC is updating applicable licensing criteria and regulatory guidance and performing research to support licensing of these new digital instrumentation and control systems. The comprehensive Digital System Research Program Plan defines the instrumentation and control research programs that support the regulatory needs of the agency. The NRC's research will result in the development of licensing review and acceptance criteria for issues such as electrical and communication separation and independence between safety-related and nonsafety-related displays and controls and redundant safety channels (interchannel communications). In addition, the NRC is applying its diversity and defense-in-depth policy as a means to address common-cause failures in digital safety systems. Furthermore, the NRC is actively

engaged in ongoing cyber research to ultimately provide regulatory guidance and tools for evaluating digital systems for cyber vulnerabilities, including potential vulnerabilities arising from safety and non-safety system interconnections.

State-of-the-Art Reactor Consequence Analysis

The NRC is developing a best estimate of the off-site consequences from hypothetical severe accidents for operating commercial nuclear power plants to provide the public more realistic information regarding the risk associated with commercial nuclear power plants. The NRC is updating previous consequence studies, performed more than 20 years ago, to base the studies on current information.

For more than 20 years, utilities have been improving their plant designs and operations, inspection methods, operator training, and emergency preparedness. These changes have significantly improved nuclear power plant safety. Over the same period, the NRC, the U.S. nuclear industry, and the international nuclear communities performed extensive severe accident research to understand better the phenomena of severe accidents; the performance of the plants' systems and components under these conditions; the timing, magnitude, and composition of the fission product release; and the effectiveness of the different design and mitigative measures, including emergency preparedness.

International Activities

The NRC's international responsibilities involve participation in activities that support U.S. Government compliance with international treaties and agreements. The NRC is also involved in programs of bilateral nuclear cooperation and assistance and actively supports multinational efforts, such as those sponsored by IAEA and the Organization for Economic Cooperation and Development's Nuclear Energy Agency. One notable accomplishment include the NRC's approval of the Memorandum of Cooperation on Nuclear Safety for the Westinghouse Advanced Pressurized Reactor (AP1000) with the National Nuclear Safety Administration of the People's Republic of China. This

memorandum will serve as the basis for cooperation through technical assistance, training, and the sharing of information on the AP1000 Reactor.

The NRC has been a leader in developing and implementing programs focused on leveraging the knowledge and resources within the international regulatory community in the licensing of new reactor designs. The NRC is participating in an initiative, the multinational design evaluation program, through which several regulatory authorities share expertise and resources in reviewing new and future reactor designs.

Since the terrorist attacks on September 11, 2001, the NRC has worked both domestically and internationally to enhance nuclear safety and security through the regulatory oversight of radioactive sources. During FY 2007, the NRC provided assistance for strengthening safety and security oversight of radioactive sources to the regulatory authorities of Armenia, Azerbaijan, Georgia, Iraq, Kazakhstan, Kyrgyzstan, Tajikistan, and Uzbekistan. This assistance focused on developing a national registry of radioactive sources and drafting related laws and regulations.

SECURITY GOAL: Ensure the Secure Use and Management of Radioactive Materials

Strategic Outcome

The NRC has the following strategic outcome associated with the agency's goal to ensure the secure use and management of radioactive materials:

- No instances in which licensed radioactive materials are used domestically in a manner hostile to the security of the United States.

RESULTS: In FY 2007, the NRC achieved its security goal strategic outcome.

Performance Measures

The table below lists the performance measures and targets for the FY 2007 Security goal, as stated in the FY 2007 Performance Budget. The NRC met all of the FY 2007 Security goal performance measure targets.

FY 2007 SECURITY GOAL PERFORMANCE MEASURES

Measure	2002	2003	2004	2005	2006	2007
1. Number of unrecovered losses or thefts of risk-significant radioactive sources is 0.	0	0	0	0	0	0
2. Number of substantiated cases of theft or diversion of licensed, risk-significant radioactive sources or formula quantities of special nuclear material, or attacks that result in radiological sabotage is 0.	0	0	0	0	0	0
3. Number of substantiated losses of formula quantities of special nuclear material or substantiated inventory discrepancies of formula quantities of special nuclear material that are judged to be caused by theft or diversion or by substantial breakdown of the accountability system is 0.	0	0	0	0	0	0
4. Number of substantial breakdowns of physical security or material control (i.e., access control containment or accountability systems) that significantly weaken the protection against theft, diversion, or sabotage is less than 1.	0	0	0	0	0	0
5. Number of significant unauthorized disclosures of classified and/or safeguards information is 0.	0	0	0	0	0	0

Analysis of Results

1. Unrecovered losses or thefts: This measure includes any loss or theft of radioactive nuclear sources that the NRC has determined to be risk significant. The measure tracks the NRC’s performance in ensuring that those radioactive sources that the agency has determined to be risk significant for the public health and safety are accounted for at all times. The agency used a thorough, detailed, scientific methodology and the public rulemaking process to determine which sources are important. There was no loss or theft of radioactive nuclear material that the NRC determined to be risk significant during FY 2007.

2. Thefts or diversion: This measure includes whether NRC-licensed facilities maintain adequate protective capabilities to prevent theft or diversion of nuclear material or sabotage that could result in

harm to the public health and safety. There were no substantiated cases of theft or diversion of licensed, risk-significant radioactive sources or formula quantities of special nuclear material or attacks that resulted in radiological sabotage during FY 2007.

3. Loss or inventory discrepancy: This measure includes whether special nuclear material is accounted for at all times and that no losses of this material occur that could lead to the creation of an improvised nuclear device or other type of nuclear device. Furthermore, the measure tracks whether the systems in place at NRC-licensed facilities maintain accurate inventories of special nuclear material that the facilities process, use, or store. There were no substantiated losses of formula quantities of special nuclear material or substantiated inventory discrepancies of formula quantities of special nuclear material that were

caused by theft or diversion or by substantial breakdown of the accountability system during FY 2007.

4. Substantial breakdowns of physical security:

This measure includes any breakdowns in access control, containment, or accountability systems that significantly weakened the protection against theft, diversion, or sabotage for nuclear materials that the Commission has determined to be risk significant. There were no substantial breakdowns of physical security during FY 2007.

- 5. Significant unauthorized disclosures:** This measure includes significant unauthorized disclosures of classified and/or safeguards information that cause damage to national security or public safety. This measure tracks whether information that can harm national security (classified information) or cause damage to the public health and safety (safeguards information) has been stored and used in such a way as to prevent its disclosure to the public, terrorist organizations, other nations, or personnel without a need to know. There were no significant disclosures that caused damage to national security or public safety during FY 2007.

Security Activities

Security Inspections

The NRC maintained vigilant oversight of security in the nuclear industry. During FY 2007, the NRC continued to implement the security cornerstone of the Reactor Oversight Process and completed a comparison of the effectiveness and efficiency of the agency's revised significance determination process and an industry-developed alternative. The comparison effort identified difficulties in using the industry alternative, which resulted in the NRC and industry agreeing to discontinue the assessment of the industry alternative and to use the agency's Significance Determination Process while continuing to address areas needing further clarification. Routine security inspections required by the reactor inspection

program continued, following their commencement in FY 2006. In addition, the NRC completed all inspections to determine whether licensees have adequately accounted for and controlled the spent fuel in their spent fuel pools. The inspections showed that the current programs of all licensees' are adequate to control and account for special nuclear material and that past program deficiencies have been corrected.

Force-on-Force Inspections

The NRC regularly carries out force-on-force inspections at commercial operating nuclear power plants as part of its comprehensive security program. These inspections are used to evaluate and improve the effectiveness of plant security programs to prevent radiological sabotage. The agency's force-on-force inspection program is conducted at least once every three years at each commercial nuclear power plant and fuel facility.

Force-on-force inspections assess a nuclear plant's ability to defend against the design-basis threat, which characterizes the adversary against which plant owners must design appropriate defenses, such as physical protection systems and response strategies. A full force-on-force inspection, spanning two weeks, includes both tabletop drills and simulated combat between a mock commando-type adversary force and the nuclear plant security force. During the attack, the adversary force attempts to reach and damage key safety systems and components that protect the reactor's core (containing radioactive fuel) or the spent nuclear fuel pool, potentially causing a radioactive release to the environment. The nuclear power plant's security force seeks to stop the adversaries from reaching the plant's equipment and causing such a release. In FY 2007, the agency completed 23 force-on-force inspections and submitted its second annual Report to Congress on the results of the NRC security inspection program.

Security Rulemaking

During FY 2007, the NRC undertook security rulemaking activities to promote greater stability of

the security requirements placed upon its licensees. The agency proposed revisions to the requirements for fitness-for-duty and access authorization, published a final rule revising the design-basis threats, and published a proposed rule for Nuclear Materials Management and Safeguards System database reporting. The agency also implemented interim fingerprinting requirements in accordance with Section 652 of the Energy Policy Act of 2005.

In addition, the agency made significant progress in the development of security infrastructure for new reactor licensing, including development of the standard review plans for early site permits, design certification, and combined operating licenses; security assessment format and content guides; security requirements during construction; and completion of a memorandum of understanding for consulting with the Department of Homeland Security on new reactor applications. The NRC also completed its security review for the design certification of the General Electric ESBWR and provided technical support for a draft COL regulatory guide; and completed its security review of the ESP for Vogtle.

The NRC continued to improve and formalize its working relationships with external Federal agencies. These activities included the development of a memorandum of agreement between the NRC and the Department of Energy on the harboring of transport vehicles at NRC-licensed sites. The agency recognizes the importance of a coordinated approach to security among the agencies in the Federal Government charged with homeland security responsibilities.

Control of Radioactive Sources

In FY 2007, the NRC maintained its efforts to identify and mitigate the risk of terrorist threats through enhanced security and controls for the use, storage, and transportation of byproduct material and spent nuclear fuel. In collaboration with the Department of Homeland Security, Department of Energy, and other Federal, State, and local agencies, the NRC continued

to assess the potential use of risk-significant sources in radiological dispersal devices and to coordinate efforts to consistently enhance radioactive source protection and security.

The NRC worked with Agreement States to issue new requirements to licensees that enhance the security and control for risk-significant radioactive material. This included development of an inspection program to verify the implementation of these measures. The NRC also completed activities for a final rule to establish the regulatory foundation for the National Source Tracking System, a database for tracking radioactive sources of concern. The rule would require the NRC and Agreement State licensees to report transactions involving the manufacture, transfer, receipt, and disposal of nationally tracked sources (i.e., Category 1 and 2 sources from the IAEA Code of Conduct for the Security of Radioactive Sources). In response to two GAO reports recommending the development of a better tracking system for radioactive sources, the first stage for a National Source Tracking System involved the implementation of a source registry and the development of an interim database. In response to a GAO investigation on the ease of obtaining a new license for radioactive sources, the NRC and Agreement States have implemented a process to screen new license applications or applicants to determine, with reasonable assurance, that the requested materials will be used as intended.

The NRC continued its significant participation in implementing portions of the IAEA Code of Conduct on the Safety and Security of Radioactive Sources, as well as its participation in IAEA committees that are developing guidance documents for the security of radioactive sources during use, storage, and transport. The NRC's involvement in these committees enhances security and public safety and contributes to international and domestic regulatory stability. Under the new export and import regulations that became effective in FY 2006 which impose more stringent controls over the Category 1 and 2 materials defined by the Code of Conduct. The NRC issued 158 licenses for export/import. The NRC is also developing plans

to expand the National Source Tracking System to include Category 3 sources.

In FY 2007, the agency also ordered additional security measures at the Louisiana Enrichment Services, National Enrichment Facility; completed an initial security review of the facility; and accredited the facility for the storage of national security information. The agency conducted other information security reviews, including an initial facility security review for a Westinghouse Electric Company facility in Pennsylvania and the Portsmouth Gaseous Diffusion Plant in Ohio.

The agency conducted an operational readiness review of the General Electric-Separation of Isotopes Laser Excitation facility in Wilmington, North Carolina. The NRC issued a classified facility clearance and effected the transfer of classified documentation and components from Australia to General Electric-Separation of Isotopes by Laser Excitation facility in accordance with the provisions of the Agreement for Cooperation between Australia and the United States concerning technology for the separation of isotopes by laser excitation.



Scott Atwater, Region IV DNMS inspector, checking dry fuel storage casks at Arkansas Nuclear One in Russellville, AK.

Spent Fuel

In FY 2007, the agency completed three security plan reviews for proposed independent spent fuel storage installations and issued four security orders to new independent spent fuel storage installations licensees. The NRC also reviewed and approved five spent fuel transportation routes. The agency has been involved with the evaluation of the security measures being developed by Private Fuel Storage, a proposed independent spent fuel storage installation located in Skull Valley, Utah, on the Goshute Indian Reservation. The agency's safety evaluation report concluded that the proposed security measures identified for the Private Fuel Storage facility will provide adequate protection of public health and safety.

Emergency Preparedness and Incident Response

The NRC emergency preparedness and incident response activities ensure that the agency is capable of responding effectively to events at its licensees' sites and that adequate protective measures can and will be taken to mitigate plant damage and to minimize radiation doses to members of the public.

In FY 2007, the NRC worked with States to address replenishment of potassium iodide supplies as a supplement to public protective action plans within the 10-mile emergency planning zones around nuclear power plants; worked with the Department of Health and Human Services to distribute pediatric liquid potassium iodide to States that requested it; and, through its role on the Federal Radiological Preparedness Coordinating Committee, is assisting The White House Office of Science and Technology Policy in its statutory responsibility associated with Public Law 127(f) regarding distribution of potassium iodide 10 to 20 miles outside nuclear power plants.

The agency accelerated upgrades to its incident response center, including improved communications and modernization of the Emergency Response Data System. The NRC also began revising emergency preparedness regulations and guidance to address changes in the threat environment and technological

and programmatic advancements. Stakeholders, including the public, are actively involved in the revision process. The proactive approach demonstrated by these activities benefits the public by establishing a more robust, effective response framework that can quickly respond to events; coordinating with other Federal, State, and local agencies; and ensuring the protection of public health and safety.

The agency uses different types of exercises to test and demonstrate its incident response and emergency preparedness capabilities. The exercises provide training; test the agency's plans, procedures, and guidance documents; and test and evaluate the headquarters' incident response facility and critical incident response communication capabilities.

In FY 2007, NRC emergency responders participated in 11 exercises at licensee sites, three of which included the full NRC response team. In addition, the NRC participated in two Governmentwide interagency exercises. The NRC also conducted two other performance-based training activities in the form of tabletop drills.

The results of these exercises and tabletop drills include (1) improved relationships and communications between the NRC Headquarters, NRC Regions, the licensees, and the State emergency management organizations; (2) enhanced interactions with other government organizations (e.g., NORAD); (3) testing and implementation of improved training and team format processes; and, (4) improved effectiveness and efficiency of the NRC's Headquarters Operations Center. Following the conduct of each exercise, the NRC completes a comprehensive review of the exercise and collects lessons learned from participants. The lessons learned are used to correct deficiencies identified in the exercise and enhance the efficiency and/or effectiveness of the facility, guidance documentation, or interaction with exercise partners. Six Priority 2 and 83 Priority 3 Lessons

Learned were developed from the post-exercise critiques of the headquarters response. The NRC closed 11 Priority 1, 94 Priority 2, and 37 Priority 3 Lessons Learned in FY 2007.

Operational Goals and Associated Performance Measures

Below is a description of the agency's Openness, Effectiveness, and Management operational goal performance measures in FY 2007, as well as agency actions taken to correct those measures that were not achieved.

Openness Goal measures not met and corrective actions taken.

- 2b. The NRC anticipates that meeting and/or exceeding the Federal Agency Mean Score will remain a challenge in FY 2008. However, the Web Content Management System, when implemented, will satisfy the majority of customer concerns. The NRC anticipates that CMS will be implemented late in FY 2008.
- 2h. To improve the percentage of documents that are released within the required time frame, in the fourth quarter FY 2006, the NRC implemented an agencywide policy regarding a common method of calculating release dates for documents. As a result, there has been an increase in the percentage of documents released to the public within 6 business days. To improve the percentage further and meet the target, the agency will conduct follow-up sessions with offices/regions individually to communicate the agency's policy and the importance of the timely release of information to the public.
- 2i. While the agency did not meet the target, there has been an increase in the percentage of documents released to the public within 6 business days. We will continue to work with

FY 2007 OPERATIONAL GOALS AND ASSOCIATED PERFORMANCE MEASURES

Measure	2002	2003	2004	2005	2006	2007
Operational Goal: Openness						
1. 90% of surveyed stakeholders that perceive the NRC to be open in its processes.						94%
2. 88% of selected openness output measures that achieve performance targets.					50%	66%
a. 90% of stakeholder formal requests for information receive an NRC response within 60 days of receipt.					100%	100%
b. The NRC achieves a 72% user satisfaction score for the agency's public Web site greater than or equal to the Federal Agency Mean score based on results of the yearly American Customer Satisfaction Index for Federal Web sites.					70%	71%
c. Complete 50% of Freedom of Information Act Requests in 20 days (median).					61%	67%
d. Issue 90% of Director's Decisions under 2.206 within 120 days.					100%	100%
e. Make 90% of Final Significance Determination Process Determinations within 90 days for all potentially greater than green findings.					92%	100%
f. 90% of stakeholders believe they were given sufficient opportunity to ask questions or express their views.					90%	96%
g. At least 90% of Category 1, 2, and 3 meetings on regulatory issues for which public notices are issued at least 10 days in advance of the meeting.					92%	93%
h. 90% of non-sensitive, unclassified regulatory documents generated by the NRC and sent to the agency's Document Processing Center that are released to the public by the 6th working day after the date of the document.					63%	75%
i. 90% of non-sensitive, unclassified regulatory documents received by the NRC that are released to the public by the 6th working day after the document is added to the ADAMS main library.					77%	87%
Operational Goal: Effectiveness						
1. 70% of selected processes deliver efficiency improvements.					25%	60%
a. 10% reduction in the average enforcement processing time for Handling Discrimination Allegations. Not Achieved					N/A	0%
b. Eliminate the requirement for license renewal and approve a living license for the two Category III facilities which have been renewed in FY 2006 and FY 2007.					Not Eliminated	Not Eliminated

FY 2007 OPERATIONAL GOALS AND ASSOCIATED PERFORMANCE MEASURES - Continued

Measure	2002	2003	2004	2005	2006	2007	
Operational Goal: Effectiveness—continued							
c. Improve the timeliness of the review process for nuclear power reactor License Termination Plans by at least 30% over 3 years (FY 2006–FY 2008) as compared to the historical average.					New measure in FY 2006	N/A	N/A
d. Reduce resources expended in support of each interagency exercise by 5% while still accomplishing agency goals for each exercise.					New measure in FY 2006	N/A	5%
e. Implement process enhancements to permit improvement of the reactor rulemaking petition timeliness by 5%.					New measure in FY 2006	N/A	5%
f. Achieve an average 5% reduction on license renewal resources for applications completed in FY 2007.					New measure in FY 2006	N/A	5%
2. No more than one instance per program where licensing or regulatory activities unnecessarily impede the safe and beneficial uses of radioactive materials.					New measure in FY 2006	0	0

offices to ensure employees are aware of the importance of ensuring documents are released within 6 business days. We will continue to provide timely reports to offices on document release statistics.

Effectiveness Goal measures not met and corrective actions taken.

1a. Only two discrimination cases were processed during FY 2007 with an average processing time of 236 days. The agency was not able to meet the ten percent reduction in processing time due to the complexity of utilizing alternative dispute resolution (ADR). The direct costs associated with post-investigation ADR are greater than the costs for processing traditional enforcement actions. Efficiencies have been made and continue to be made in the ADR process which should allow the agency to reduce the processing time for future cases.

1b. The Commission has approved a proposal to extend the license term up to 40 years for fuel cycle facilities subject to 10 CFR Part 70, Subpart H. The applicable regulatory infrastructure to support this change is under development. When completed, the next cycle of Category III fuel cycle licensees would receive a 40-year license, based on approval of the licensees' Integrated Safety Analysis. Realistically, a savings would not be realized until FY 2009 or later, and therefore, no efficiency result was realized for FY 2007.

Management Goal measures not met and corrective actions taken.

1b. The agency has experienced a large growth in FTE's within the last year due to the New Reactor Program ramping up to receive applications from licensees to develop and construct new reactors. As a result, additional budget staff was hired to manage the program which resulted in

FY 2007 OPERATIONAL GOALS AND ASSOCIATED PERFORMANCE MEASURES - Continued

Measure	2002	2003	2004	2005	2006	2007
Operational Goal: Management						
1. 70% of selected support processes deliver efficiency improvements. Not Achieved						
					50%	0%
a. Percent reduction in time (10% in FY 2006 and 5% in FY 2007) necessary to add or remove employees from drug testing pool. In FY 2007 all employees were included in the drug testing pool, so this measure is not applicable.					10%	N/A
b. 5% reduction of agency FTE used to develop and submit the FY 2008 and FY 2009 performance budgets.					0%	12% increase
c. Issue offer letter 80% of the time within 45 work days of the closing date of the announcement.					67%	31%
2. 70% of selected NRC management programs deliver intended outcomes. Achieved						
				60%	80%	100%
a. Infrastructure management program: 80% of activities achieve their targets				100%	100%	100%
b. Financial Management & Budget and Performance Integration program: 70% of activities achieve their targets				67%	67%	88%
c. Expanded electronic government program: 75% of activities achieve their targets				50%	75%	75%
d. Management of Human Capital program: 80% of activities achieve their targets				80%	100%	80%
e. Internal Communication program: 100% of activities achieve their targets				100%	100%	N/A

the agency exceeding the target for this measure. However, the Office of the Chief Financial Officer is currently developing a new budget process as directed by the Commission.

study workgroup and to develop a plan to assess NRC's progress towards reducing the hiring time frame to meet the 45-day target.

- 1c. The NRC undertook a Lean Six Sigma study during the second quarter of FY 2007 to evaluate the hiring process from the closing date of the announcement to the offer date and develop recommendations to help streamline that process. The agency is currently leading a separate effort to implement the recommendations made by the Lean Six Sigma

ADDRESSING THE PRESIDENT'S MANAGEMENT AGENDA

Overview

The President's Management Agenda prescribes Governmentwide initiatives to reform the U.S. Government to be more citizen centered, results

oriented, and market based and to promote competition rather than stifle innovation. To achieve this goal, the Administration has identified five initiatives to improve Government performance in the areas of (1) strategic management of human capital, (2) budget and performance integration, (3) competitive sourcing, (4) expanded electronic government, and (5) improved financial management. The following describes the response of the NRC to these initiatives and discusses agency accomplishments during FY 2007 in each of the five areas.

Initiative 1: Strategic Management of Human Capital

The NRC's ability to accomplish its mission depends on its highly skilled and experienced workforce. The Commission is proud of the NRC's ranking as the "Best Place to Work" in the Federal Government based on responses to the 2006 Federal Human Capital survey. Going forward, the NRC anticipates growth in new work, especially in reactor licensing reviews, at a time when increasing numbers of experienced staff are eligible to retire and the agency experiences increased competition for staff from the private sector. To address these challenges, the NRC has streamlined recruitment and the review and approval process for relocation and retention.

Through the use of an automated strategic workforce planning tool, the NRC is able to determine what critical skill/knowledge gaps exist and can gear its recruitment and other programs (e.g., grants and fellowships) appropriately. The agency is currently targeting the following fields for aggressive recruitment and staff development—engineering (nuclear, structural, thermal, geotechnical, electrical, environmental, fire protection, and mechanical), security (physical protection, cyber, and network), nuclear physics, health physics, probabilistic risk assessment, digital instrumentation and control, seismology, volcanology, geology, and hydrology.

For the short-run, demand for skilled individuals appears to be already outpacing the available supply. Efforts are underway to increase the talent pool:

1. The NRC provides grants to support courses, studies, training, curricula, and disciplines pertaining to fields that are important to the work of the agency. This important effort is intended to develop the national academic infrastructure necessary to ensure a viable nuclear workforce in the future.
2. The NRC's scholarship and fellowship programs support students pursuing an education in critical skills related to the agency's regulatory mission in exchange for a commitment to work at the NRC.
3. The NRC established and participates in partnership programs with minority institutions of higher education, including historically black colleges and universities, Hispanic-serving institutions, and tribal colleges and universities to enhance their capacity to train students in fields that are critical to the agency's mission.
4. The NRC is also identifying recruitment champions for selected universities to strengthen and develop relationships with diverse student populations.

The NRC's strategic approach to training and development allows the agency to establish priorities and leverage investments to ensure a comprehensive, integrated, competency-based system of staff training. This year, the NRC conducted concurrent Senior Executive Service candidate development programs and offered more frequent leadership potential programs to meet the need for additional supervisory and managerial positions created by the new reactor program and anticipated retirements. The agency also offered executive leadership seminars and leadership training for new supervisors and team leaders.

Initiative 2: Budget and Performance Integration

The NRC continues to make progress in achieving budget and performance integration in accordance with the President's Management Agenda. This progress includes adopting new outcome-based

performance measures aligned with the agency's Strategic Plan, accurately monitoring program performance, and integrating performance information with associated costs. To address these initiatives, the NRC has pursued and completed a number of important actions in FY 2007.

Integrating Planning and Budgeting

The NRC's planning, budgeting, and performance management process links the agency's various budget accounts to its safety and security goals and clearly identifies the budgetary resources devoted to them. The agency's budget identifies the alignment of resources to the safety and security goals. The associated output measures closely link to the agency's Safety and Security goals and performance measures.

Budget Formulation Application

The NRC adopted the budget formulation application in FY 2007 to replace an outdated single-user, desktop database. The Web browser, multiuser budget formulation application has increased efficiency by providing agencywide access to budget information, allowing multiple users access to the system, enabling real-time aggregation of entered budget data, and offering more robust reporting capabilities.

Initiative 3: Competitive Sourcing

One of the NRC's corporate management strategies is to acquire goods and services in an efficient manner. To achieve this, the NRC established output measures associated with the implementation of the competitive sourcing initiative under the President's Management Agenda, adopted a performance-based approach to contracting, and posted procurement synopses on the agency's Web site.

The NRC uploaded its Year 2007 Federal Activities Inventory Reform Act inventory in the Office of Management and Budget's Workforce Inventories Tracking System on June 29, 2007. In accordance with NRC's Competitive Sourcing Plan, the NRC has identified potential commercial activities to be studied

to determine which are appropriate for public-private competition. The NRC completed three business case analyses in FY 2007.

The NRC continues to implement performance-based contracting for facility management services, data entry, information technology, and other support services. To give vendors a better understanding of contract requirements, the NRC includes such criteria as measurable performance requirements, quality standards, quality surveillance plans, and provisions for reducing the fee or price when the vendor fails to perform the services, as required. The NRC continues to exceed its target for expending eligible service contracting dollars through performance-based contracting. In addition, the NRC continues to post all required synopses and solicitations for acquisitions valued at more than \$25,000 on its external Web site.

Initiative 4: Expanded Electronic Government

The NRC has aligned its information technology investments with the Federal Government's Electronic Government program (e-gov). The e-gov program, a component of the President's Management Agenda, consists of 25 Presidential Priority Initiatives and 9 Line of Business initiatives. Of these 34 initiatives, NRC is engaged in 22 (full partner in 8 initiatives, transitioning to full partnership in 7 initiatives, and monitoring 7 additional initiatives that might benefit NRC).

The NRC uses e-gov services for payroll, security clearance, acquisition support, Governmentwide customer service, and recruitment, and is aligned with the e-records, budget formulation and geospatial programs. Geospatial programs deal with information that can be described in a geographic fashion, e.g., locations of hospitals, schools, nuclear power plants, or information related to road, river or rail systems. NRC uses geospatial information for site location studies and for incident response. NRC is in the process of currently implementing e-travel, e-training, e-authentication, FISMA reporting and training services, and e-rulemaking. NRC is also converting

its paper based employee records to OPM's electronic personnel folder. To institutionalize e-gov, NRC has established procedures to avoid information technology investments that would duplicate other Federal electronic government programs. The NRC receives financial and human resource services from the Department of the Interior, a selected shared service provider, and is in process of replacing its core financial systems.

The NRC emphasizes enterprise architecture in its systems development life cycle methodology and has a Project Management Methodology in place. The Project Management Methodology provides full life cycle guidance for the agency, providing guidance for enterprise architecture, CPIC, infrastructure development and life cycle management processes. An Information Technology Senior Advisory Council, comprising senior business managers, plays an integral role in ensuring technology investments align to the agency's mission and goals and in establishing priorities.

Federal Information Security Management Act

In March 2007, the House Committee on Government Reform's Subcommittee on Technology, Information Policy, Intergovernmental Relations, and the Census graded NRC's compliance with FISMA as an "F". NRC has increased efforts to complete the review, testing, and evaluation of major system security plans and authorities to operate. Eight systems were accredited in FY 2007 with the eighth system being the Reactor Program System, which received its authority to operate on September 28, 2007.

The NRC has an effective information technology security awareness training program. All employees are required to complete an online information technology security awareness course, and NRC information systems security officers and other employees and support contractors with significant security responsibilities are required to complete

a more advanced online technical security awareness course. In addition, the NRC maintains an information technology security Web site and provides information to agency employees for the timely awareness of information technology security issues.

Outwardly Facing Systems

The NRC has identified systems that meet the e-gov system criteria for outward facing e-gov systems. These systems are the Code Development System (CDS), Web-Based Licensing System, Electronic Information Exchange (EIE), and the National Source Tracking System. Of note, the EIE program provides for the transmission of digitally signed electronic documents to the NRC over the Internet. Information received in this manner can then be electronically disseminated directly into the agency's information systems. The NRC's electronic information exchange program plays a major role in enabling the agency to meet the Government Paperwork Elimination Act requirement to allow the public the option of transacting business electronically with the agency. The EIE is used to meet authentication requirements.

The EIE handled approximately 97,000 electronic transactions in FY 2007. The majority of those transactions involved receiving and routing digital fingerprints through NRC security personnel to the Federal Bureau of Investigation for security clearances. This procedure reduces the time required for processing from 1-2 weeks to 2 days. The electronic information exchange is also used to transmit licensing and adjudicatory documents to the NRC resulting in shorter processing times and reduced cost.

Information Technology/Information Management Meta-System

To meet the challenges of high level waste, new nuclear power reactor licensing, and E-filing (conducting agency adjudicatory actions

electronically), the NRC has integrated several major agency applications, including the Agencywide Documents Access and Management System, Electronic Information Exchange, Electronic Hearing Docket, Digital Data Management System, and Licensing Support Network. The collection of computer applications, information technology infrastructure components (formerly known as the High-Level Waste Meta-System), and business processes is now referred to as the Information Technology/Management Meta-System. NRC completed a requirements analysis targeting implementation of application and infrastructure enhancements, improvement of business processes, and leveraging existing and new information technology while providing a more robust, secure, and integrated environment.

The NRC will continue to validate the Information Technology/Management Meta-System's capability to support the business processes of high-level waste, E-filing, electronic adjudicatory processes, and new reactor licensing processes through performing iterative testing and exercises. The NRC conducted an Operational Readiness Review that resulted in the acceptance of Release 2 of the Information Technology/Management Meta-System to support the High-Level Waste activities and adjudicatory proceedings. The agency used the Information Technology/Management Meta-System in the Vogtle ESP proceeding to perform electronic filing, review, and distribution of adjudicatory documents.

In partnership with the nuclear industry, NRC has successfully streamlined the process for electronic receipt, and online review of Combined Operating License Applications (COLA). All of the stakeholders are now aligned concerning how an electronic COLA will be formatted, packaged, and submitted to the NRC. The enhanced IT components and business

process improvements are implemented in the production environment and have been used during the submittal of the latest revision of the AP1000 Design Control Document.

Initiative 5: Improved Financial Management

The agency's goals for improved financial management include providing reliable, transparent, useful, and timely information to stakeholders and for management decision making; maintaining adequate controls; and implementing integrated and flexible systems to meet the agency's reporting needs. This will ensure that NRC's financial assets are adequately protected consistent with risk.

Financial Statements/Reporting

The NRC received an unqualified audit opinion on its FY 2007 financial statements. The agency's independent auditors eliminated the material weakness and the substantial non-compliance findings for the NRC's License Fee Billing System. The agency implemented a number of new and improved controls to include a validation tool which analyzes and reconciles the completeness and accuracy of billing for reactors and material inspections. As a result, the agency has decreased the risk of potential billing errors and further enhanced the control environment.

Also in FY 2007, the NRC completed its second year of implementing the OMB Circular A-123, Appendix A, requirements for assessing internal control over financial reporting. The deficiencies noted during testing were classified as control deficiencies. No material weaknesses were identified. The agency included the results of the assessment in the Federal Managers' Financial Integrity Act Statement of Assurance.

New Financial Management System

NRC is implementing a new core financial management system hosted by a shared service provider using Web-enabled commercial off-the-shelf software. The new system will combine the functionality of the core accounting, license fee billing, cost accounting, allotment/allowance financial plan and the capitalized property systems into a single enterprise-wide system. This systems strategy will result in more efficient transaction processing utilizing electronic workflow management, greater access to information through the use of ad-hoc reporting tools, and improved overall system performance. An integrated financial management system will also improve internal controls by eliminating multiple data transfers between stand alone systems and the resultant manual reconciliations currently performed to ensure data integrity.

Time and Labor System

NRC is implementing a major upgrade to the time and labor system to be hosted by a shared service provider. The NRC plans to leverage the services of a shared service provider to share costs and lower system life cycle costs. The new version will provide significant changes to the functionality of this software including a Web-enabled capability. The time and labor system will have an improved capability to collect information for fee billing, and cost accounting and provide a wider range of management reports. The time and labor system supports issuing the NRC payroll by providing employee time information to the NRC's E-Payroll system, the Federal Personnel/Payroll System, hosted by the National Business Center, Department of the Interior.

COSTING TO GOALS, PART REVIEWS, AND PROGRAM EVALUATIONS

Costing to Goals

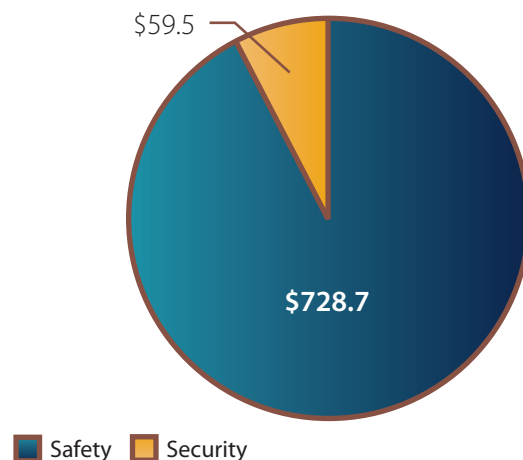
The NRC is working to improve its cost management capabilities to better align its costs with desired outcomes. This year's Performance and Accountability

Report presents the full cost of achieving the Safety and Security goals for two of the agency's programs, Nuclear Reactor Safety and Nuclear Materials Safety. The cost of achieving the agency's Safety goal was \$728.7 million and the cost of achieving the agency's Security goal was \$59.5 million (see Figure 19).

NRC SAFETY AND SECURITY COSTS

(In Millions)

Figure 19



PROGRAM ASSESSMENT RATING TOOL (PART)

Seven of the agency's major activities have undergone PART reviews, with six of the programs rated as effective, the highest rating available, and one as moderately effective. PART reviews recommended improvement by all programs to develop better linkages between the agency's goals and performance measures. The NRC has responded to this recommendation by defining outcomes and outputs that align with performance measures. The NRC is in the process of linking operating plan performance measures to strategies, outlined in the agency's Strategic Plan, that facilitate the agency meeting its objectives and goals. New measures in the FY 2007 Performance Budget more closely tie the outcomes of the Reactor Inspection and Performance Assessment program to the agency's Safety goal. The following table shows the results of the NRC PART reviews:

PROGRAM	YEAR	PART RATING
Reactor Inspection and Performance Assessment	FY 2003	Effective
Fuel Facilities Licensing and Inspection	FY 2003	Effective
Nuclear Materials Users Licensing and Inspection	FY 2004	Effective
Reactor Licensing	FY 2005	Moderately Effective
Spent Fuel Storage and Transportation Licensing and Inspection	FY 2005	Effective
Decommissioning and Low-Level Waste	FY 2007	Effective
High-Level Waste Repository	FY 2007	Effective

Results of FY 2007 PART Reviews

Decommissioning and Low-Level Waste

Effective in FY 2007. The program earned high scores for Program Purpose and Design and for Program Management. The PART noted that the purpose was clear and the program used regular independent assessments have helped the program to become more results-focused. The program achieves its long-term safety and security goals with respect to the safe management and cleanup of an increasing number of NRC-licensed sites that use radioactive material.

The improvement plan for the program includes developing better linkage of budget requests to the program's success in accomplishing annual and agency long-term goals to make clear how funding affects program accomplishment. Another follow-up action is to improve quantitative measurements of efficiency, including baselines and annual targets to demonstrate year-to-year performance trends better.

High-Level Waste Repository

Effective in FY 2007. The program earned high scores for Program Purpose and Design and for Program Management. The PART noted that the purpose was clear and the program used regular, independent assessments to help the program become more results-focused and to satisfy NRC's Nuclear Waste Policy Act responsibilities and pre-licensing functions. The PART also indicated that the program has made significant progress toward meeting the goal of establishing a regulatory system to ensure the repository achieves long-term safety and security goals.

The improvement plan for the program includes developing better linkage of budget requests to the program's success in accomplishing annual and long-term goals to make clear how funding affects program accomplishment. Another follow-up action is to improve quantitative measurements of efficiency, including baselines and annual targets to demonstrate year-to-year performance trends better.

PROGRAM EVALUATIONS

The NRC conducted a number of self-assessments of its regulatory operations in FY 2007. The license renewal, uranium recovery, and Integrated Materials Performance Evaluation Program activities and the low-level waste program conducted noteworthy evaluations during FY 2007.

License Renewal

The reactor license renewal program evaluation has two objectives: (1) to determine if program elements are effective and efficient and (2) to provide timely, objective information to inform program planning and improvements given the current regulatory environment. The NRC piloted an improved implementation of the license renewal application process for Farley, Arkansas Nuclear One, and D.C. Cook. The primary objective of the program review

was to assess the effectiveness of the changes made to the process used by the staff to perform the aging management reviews and aging management program evaluations. The goal of the improved process is to maximize the potential efficiencies available with use of the current license renewal implementation guidance documents by using multi-discipline, on-site review teams. The staff has documented the lessons learned from the pilot application of the improved process and has discussed them in public meetings with stakeholders. Because the improved process was being used on subsequent applications, many of the recommendations before the program review documented them in its report. The agency is currently completing implementation of the remaining recommendations.

NEPA Compliance Assessment/Audit of the Office of Federal and State Materials and Environmental Management Program Environmental Review Program

Battelle Memorial Institute released a comprehensive review of the NRC's Federal and State Materials and Environment Management environmental program, including policies, procedures, and products, and applicable NRC regulations and guidance. The review concluded that the program complies with the National Environmental Policy Act and supports the preparation of documents that fulfill the Act's requirements to concentrate on issues that are truly significant to make the National Environmental Policy Act process useful to decisionmakers and the public. Reviewers identified areas of potential improvement and the staff will incorporate them into the policies, procedures, and practices of the Federal and State Materials and Environment Management environmental review program.

Low-Level Waste Program Strategic Assessment

In FY 2007, an assessment of the NRC's Low-Level Radioactive Waste regulatory program was completed. As part of this assessment, the staff used a

variety of means to elicit stakeholder input, including participation in a workshop led by the Advisory Committee on Nuclear Waste and Materials and the issuance of a *Federal Register* notice requesting public comments on the staff's approach. The staff also solicited suggestions from Agreement State regulators and representatives of industry groups and considered recent position papers on Low-Level Radioactive Waste management issued by national scientific and technical organizations.

A strategic objective for the Low-Level Radioactive Waste program was formulated to complement the overall agency goals of Safety and Security. The purpose of the strategic assessment was to identify and prioritize activities to position the Low-Level Radioactive Waste program to meet this objective and to address challenges in areas such as knowledge management. The staff evaluated these activities and assigned priorities of high, medium, or low based on criteria such as their contribution to the agency's strategic goals, the degree of urgency for the activity, and the benefit to be derived. The current Low-Level Radioactive Waste program is fully protective of public health and safety, and the activities evaluated represent opportunities to enhance efforts to risk-inform the Low-Level Radioactive Waste regulatory framework. The staff has begun working on the highest priority activities and will incorporate the results of the assessment into future resource requests.

DATA SOURCES AND QUALITY

The NRC's data collection and analysis methods are driven largely by the regulatory mandate that Congress entrusted to the agency. Specifically, the NRC's mission is to regulate the Nation's civilian use of byproduct, source, and special nuclear materials to ensure adequate protection of public health and safety, protect the environment, and promote the common defense and security. In undertaking this mission, the NRC oversees nuclear power plants, nonpower reactors, nuclear fuel facilities, interim spent fuel storage, radioactive material transportation, disposal of nuclear waste, and the industrial and medical

uses of nuclear materials. Section 208 of the Energy Reorganization Act of 1974, as amended, requires the NRC to inform Congress of incidents or events that the Commission determines to be significant from the standpoint of public health and safety. The NRC developed the abnormal occurrence (AO) criteria to comply with the legislative intent of the Energy Reorganization Act to determine which events should be considered “significant.” Based on those criteria, the NRC prepares an annual “Report to Congress on Abnormal Occurrences” (NUREG-0090, Vol. 26), which is available on the agency’s public Web site at <http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr0090>.

One important characteristic of this report is that the data presented normally originate from external sources such as Agreement States and NRC licensees. The NRC believes that these data are credible because (1) agency regulations require Agreement States, licensees, and other external sources to report the necessary information; (2) the NRC maintains an aggressive inspection program that, among other activities, includes auditing licensee programs and evaluating Agreement State programs to ensure that they are reporting the information as required by the agency’s regulations; and (3) the agency has established procedures for inspecting and evaluating licensees. The NRC employs multiple database systems to support this process, including the Licensee Event Report Search System, the Accident Sequence Precursor Database, the Nuclear Materials Events Database, and the Radiation Exposure Information Report System. In addition, nonsensitive reports submitted by Agreement States and NRC licensees are available to the public through the NRC’s Agencywide Documents Access and Management System, which is accessible through the agency’s public Web site <http://www.nrc.gov>.

The NRC has established procedures for the systematic review and evaluation of events reported by the NRC and Agreement State licensees. The NRC’s objective is to identify events that are significant from the standpoint of public health and safety based on

criteria that include specific thresholds. The NRC verifies the reliability and technical accuracy of event information reported to the agency. The NRC periodically inspects licensees and reviews Agreement State programs. In addition, NRC headquarters, the Regional offices, and Agreement States hold periodic conference calls to discuss event information. Events identified as meeting the AO criteria are validated and verified by all applicable NRC headquarters program offices, Regional offices, and agency management before being reported to Congress.

Data Security

The NRC ensures data security through its automated information security program, which provides administrative, technical, and physical security measures to protect the agency’s information, automated information systems, and information technology infrastructure. Specifically, these measures include the policies, processes, and technical mechanisms used to protect classified information, unclassified safeguards information, and sensitive unclassified information that are processed, stored, or produced on the agency’s automated information systems. Data security for information maintained outside the NRC’s infrastructure is provided by the hosting contractor or organization.

Performance Data Completeness and Reliability

In order to manage for results, it is essential for the NRC to assess the completeness and reliability of performance data. Comparisons of actual performance with the projected levels are possible only if the data used to measure performance are complete and reliable. Consequently, the Reports Consolidation Act of 2000 requires the Chairman of the NRC to assess the completeness and reliability of the performance data used in this report. In addition, the Office of Management and Budget Circular A-11 specifically describes how Federal agencies should assess the completeness and reliability of their performance data.

PROGRAM PERFORMANCE

Data Completeness

The Office of Management and Budget considers data to be complete if an agency reports actual performance data for every performance goal and indicator in the annual plan. Actual performance data may include preliminary data if those are the only data available when the agency sends its report to the President and Congress. The data presented in this report meet these requirements for data completeness, in that the NRC has reported actual or preliminary data for every strategic and performance goal measure.

Data Reliability

The Office of Management and Budget considers data to be reliable when agency managers and decisionmakers do not demonstrate either a refusal or a marked reluctance to use the data in carrying out their responsibilities. The data presented in this report meets this requirement for data reliability in that the NRC's managers and decisionmakers regularly use the reported data on an ongoing basis in the course of their duties.