



# **ALLEGATION PROGRAM**

## **ANNUAL TRENDS REPORT**

**Calendar Year 2008**

**U.S. Nuclear Regulatory Commission  
Office of Enforcement  
Washington, DC 20555**

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**EXECUTIVE SUMMARY**

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U.S. Nuclear Regulatory Commission (NRC) Management Directive 8.8, "Management of Allegations," dated February 4, 1999, requires that the Agency Allegation Advisor prepare an annual report for the Executive Director for Operations that analyzes allegation trends. This annual report fulfills that commitment by providing national, regional, and site-specific trend analyses.

In addition, significant staff activity in calendar year (CY) 2008 involving the Allegation Program and related policies warrants mention in this report. The agency conducted internal lessons-learned reviews regarding the handling of allegations in CY 2007 of inattentive security officers at the Peach Bottom Atomic Power Station. These reviews resulted in enhancements to the allegation process. In addition, the allegation staff continues to implement the agency-sponsored alternative dispute resolution process (Early-ADR) for discrimination allegations. Twenty-four percent of the discrimination cases raised in CY 2008 that were offered Early-ADR reached settlement.

With regard to allegation trends, after declining slightly since CY 2005, the total number of allegations received increased by about 10% over the total received in CY 2007. The increase is primarily due to substantive increases in allegations received at several reactor facilities and one fuel cycle facility, and does not appear to be the result of a general industry issue or other external factor. Each allegation can include multiple concerns and in CY 2008, coinciding with the overall increase in allegations received, the total volume of allegation concerns received increased in all four regional offices, the Office of Nuclear Materials Safety and Safeguards (NMSS) and the Office of Nuclear Security and Incident Response (NSIR). Region IV experienced a substantial increase in the number of concerns received (28% increase). Twenty percent of the allegations received in Region IV in CY 2008 included four or more concerns and 10 percent included six or more concerns. However, there were no apparent trends with regard to Region IV allegations in terms of allegation concerns coming from particular facilities or types of facilities or as a result of an event. The largest percentage of concerns received nationwide continues to be related to security.

In CY 2008, the NRC reviewed the effectiveness of 11 Agreement State programs' responses to allegations and concluded that, in general, the Agreement States continue to promptly address concerns raised, thoroughly document their investigations and closeout actions, inform the allegers of the outcomes, and protect the identity of allegers.

For some reactor licensees, the NRC received allegations in numbers that warranted additional analysis. In preparing this report, the staff reviewed a 5-year history of allegations for reactor and materials licensees and vendors to identify adverse trends. The analysis focused on allegations that originated from onsite sources to help inform the NRC's review of the Safety Conscious Work Environment (SCWE).<sup>1</sup> The staff selected eight reactor sites and one fuel cycle facility for a more in-depth review: Susquehanna Units 1 and 2; Sequoyah Units 1 and 2; Turkey Point Units 3 and 4; San Onofre Units 2 and 3; Browns Ferry Unit 1, 2, and 3; Palo Verde Units 1, 2, and 3, Diablo Canyon Units 1 and 2; Salem/Hope Creek; and the National Enrichment Facility.

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1 The total number of allegations received concerning reactor licensees from all sources, as well as other information concerning the Allegation Program, appears on the NRC's public Web site at <http://www.nrc.gov/about-nrc/regulatory/allegations/statistics.html>.

The report discusses allegation trends at each of these sites. In summary, the trends in most cases did not suggest a concern about the environment for raising concerns. In one case, the trends are indicative of a weakening SCWE and the NRC has engaged the licensee because of this concern and is monitoring the licensee's activities to address it. No vendors were the subject of allegations at a level that warranted additional analysis.

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**OVERVIEW OF SIGNIFICANT PROGRAM ACTIVITIES**

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In calendar year (CY) 2008, the U.S. Nuclear Regulatory Commission (NRC) undertook certain significant activities that affected the Allegation Program and related policies. The agency conducted internal lessons-learned reviews regarding the handling of allegations in CY 2007 of inattentive security officers at the Peach Bottom Atomic Power Station. These reviews have resulted in enhancements to the allegation process. In addition, the allegation staff continues to implement the agency-sponsored alternative dispute resolution (Early-ADR) process for discrimination allegations. Twenty-four percent of the discrimination cases offered Early-ADR reached settlement in CY 2008. These areas are discussed in more detail below.

**Allegations of Inattentive Security Officers**

In March 2007, the NRC received an allegation from a former contract security manager that security officers at Peach Bottom were sleeping on duty as a result of fatigue caused by excessive overtime. The allegor requested that the NRC not contact him about the concerns. The NRC staff, respecting this request, did not contact the allegor to inquire further about other potential locations or to discuss other aspects of the concerns and the agency's proposed handling of them.

It is the agency's policy to request a written evaluation of allegation concerns from the licensee as often as is appropriate and when the allegor has no objection. When conditions do not inhibit the NRC from requesting such information from the licensee, this is considered an effective approach to allegation evaluation because the licensee has the primary responsibility for ensuring the safe operation of the facility and can promptly address issues through ready access to site personnel, equipment, and documentation related to the concerns. Historically, the agency has made such requests for approximately 40 percent of the allegations received. Employing the agency's policy, the staff notified the licensee of the Peach Bottom allegation and requested an evaluation of the specific concerns raised and a written response to the NRC, including documentation of any corrective actions taken in response to the evaluation. The licensee concluded that the concerns were unsubstantiated. The NRC reviewed the licensee's response and gathered some additional information but was also unable to substantiate the allegor's specific concerns.

Notwithstanding that assessment, in September 2007, the NRC received video evidence from a reporter that showed a number of inattentive security officers at Peach Bottom. The agency promptly conducted an investigation and multiple inspections which resulted in a confirmatory action letter being issued to the licensee in October 2007 (Agencywide Access and Management System (ADAMS) Accession No. ML072920283) and ultimately, on January 6, 2009, a Notice of Violation and Proposed Imposition of Civil Penalty in the amount of \$65,000 for a Severity Level III problem involving inattentive security officers at the site (ADAMS Accession No. ML083530084). The investigation conducted by the NRC Office of Investigations determined that multiple security officers at Peach Bottom were deliberately inattentive on multiple occasions. In addition, multiple security officers deliberately failed to report observations of inattentiveness to their supervision. These security officers put the licensee in violation of Title 10 of the Code of Federal Regulations (10 CFR) Section 73.55, "Requirements for Physical Protection of Licensed Activities in Nuclear Power Reactors against Radiological Sabotage" which requires armed responders to maintain continuous communication with each alarm station and be available to immediately respond to threats, and Peach Bottom License Condition 2.C(3), which requires, in part, reporting of aberrant behavior. Besides the enforcement action taken against the licensee, the NRC also issued a Severity Level III Notice of

Violation to the security contractor, Wackenhut Nuclear Services (ADAMS Accession No. ML083530605).

Since the September 2007 video evidence demonstrated that the March 2007 allegation was, in part, valid, the agency also conducted several internal reviews in an effort to determine how the agency could have improved its response to the March 2007 allegation and the clarifications and/or modifications that could be made to the NRC allegation process to provide the staff with better opportunities to discover such inappropriate activity earlier. In addition to the staff's internal reviews, the Office of the Inspector General investigated this matter. The NRC developed enhanced guidance for the staff responsible for handling allegations in a number of program areas, including communicating with alлегers; the process for requesting from a licensee information related to an allegation; informing the NRC inspectors of allegation activity, as appropriate; expectations for review and documentation of allegation closure information involving a licensee response to a request for information (RFI); and, handling alлегer feedback after the allegation is closed. The staff engaged external stakeholders regarding aspects of the process enhancements in early 2009. The Agency issued interim guidance to the staff implementing these enhancements (ADAMS Accession No. ML083640272) and will document the final outcome of these efforts in Commission and Allegation Program policy and guidance documents.

### **Safety Conscious Work Environment**

The 1996 NRC Policy Statement, "Freedom of Employees in the Nuclear Industry To Raise Safety Concerns Without Fear of Retaliation," outlines the agency's expectations that licensees and other employers subject to NRC authority will establish and maintain a Safety Conscious Work Environment (SCWE). The NRC defines a SCWE as an environment in which (1) employees are encouraged to raise safety concerns to their employers or the NRC without fear of retaliation, (2) concerns are promptly reviewed, given the proper priority, and appropriately resolved, and (3) timely feedback is provided.

The staff gathers insights into the SCWE at a particular site in several ways, including reviewing the number and nature of allegations concerning that site and documenting its observations concerning a site's SCWE based on interviews with licensee employees and reviews of pertinent documents during the baseline problem identification and resolution (PI&R) inspection. Should the staff discern that a work environment is "chilled," (i.e., not conducive to raising safety concerns internally), the NRC management can request, in writing, information concerning the licensee's SCWE. Such correspondence is called a chilling effect letter (CEL). The agency also initiates chilling effect letters after a finding of discrimination related to raising safety concerns by the U.S. Department of Labor under Section 211 of the Energy Reorganization Act of 1974, as amended, or by the NRC under the following employee protection regulations:

- Title 10 CFR Part 19, "Notices, Instructions and Reports to Workers: Inspection and Investigations," (10 CFR Part 19)
- 10 CFR Part 30, "Rules of General Applicability to Domestic Licensing of Byproduct Material"
- 10 CFR Part 40, "Domestic Licensing of Source Material"
- 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities"



- 10 CFR Part 60, "Disposal of High-Level Radioactive Wastes in Geologic Repositories"
- 10 CFR Part 61, "Licensing Requirements for Land Disposal of Radioactive Waste"
- 10 CFR Part 63, "Disposal of High-Level Radioactive Wastes in a Geologic Repository at Yucca Mountain, Nevada"
- 10 CFR Part 70, "Domestic Licensing of Special Nuclear Material"
- 10 CFR Part 72, "Licensing Requirements for the Independent Storage of Spent Nuclear Fuel, High-Level Radioactive Waste, and Reactor-Related Greater Than Class C Waste"
- 10 CFR Part 76, "Certification of Gaseous Diffusion Plants"
- 10 CFR Part 150, "Exemptions and Continued Regulatory Authority in Agreement States and in Offshore Waters under Section 274"

In CY 2008, the agency issued two CELs both to materials licensees reflecting either a merit finding by the Occupational Safety and Health Administration, or an isolated event. Another CEL was issued to a reactor facility in early 2009, which is discussed later in this report.

In October 2004, the staff implemented the alternative dispute resolution (ADR) program which included the opportunity for using ADR early in the allegation process for cases of alleged discrimination before the NRC investigates the allegation. This allows additional opportunities for the parties to resolve their differences outside of the normal regulatory framework. Early-ADR involves the use of a neutral third-party to facilitate discussion and the timely settlement of the discrimination concern. The NRC believes that voluntary dispute resolution by the parties using the communication opportunities afforded in the Early-ADR process can stem the inherent damage such disputes can inflict on the SCWE more quickly than an investigation can. At any time, either party can exit the ADR process and, if the allegor still wants to pursue the discrimination matter, the option of an NRC investigation remains. If a settlement is reached, however, the staff will not pursue an investigation or subsequent enforcement of discrimination findings. The NRC also considers settlements resulting from licensee-initiated mediation as equivalent to settlements reached under the Early-ADR Program.

The NRC made 45 Early-ADR offers in association with discrimination allegations raised in CY 2008, of which 19 (42 percent) resulted in agreements to mediate. Of those 19 cases, 11 (58 percent) mediated discrimination concerns resulted in the parties reaching a mutually agreeable settlement.

## TRENDS IN ALLEGATIONS

The NRC monitors allegations to discern trends or marked increases that might prompt the agency to question a licensee about the causes of such changes or trends. In preparing this report, the staff reviewed a 5-year history of allegations received for reactor and materials licensees and vendors. The staff focused on those allegations that have the potential to provide insights into the SCWE at a given facility. Such allegations include those submitted by current or former licensee or contractor employees or by anonymous sources that indicate an unwillingness to raise safety concerns internally. For power reactor facilities, the staff analyzes recent allegation activity twice a year in support of the Reactor Oversight Process (ROP) mid-cycle and end-of-cycle assessments. In addition, the staff may perform an analysis for a particular site or licensee whenever allegations or inspection findings indicate that such an analysis is warranted.

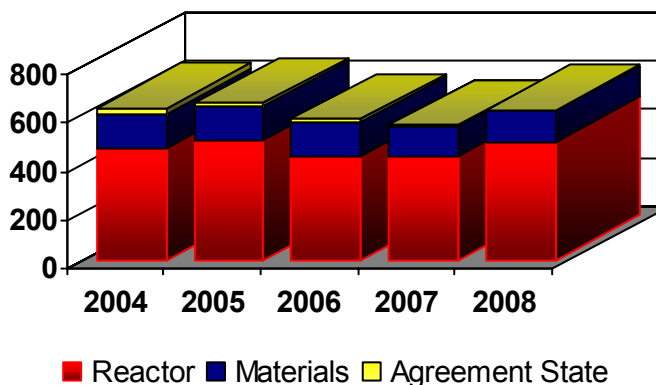
The staff also conducts reviews to identify national trends for reactor and materials allegations received, shifts in users of the Allegation Program, and the effect of Allegation Program implementation on the workload in the regions and program offices. The following section discusses these trends.

### National Trends

National trends are of interest because they provide general information to the staff about the effect of external factors, plant events, and industry efforts to improve the SCWE at NRC-licensed facilities. In

addition, they can be useful in developing budget and planning assumptions to support future agency and Allegation Program needs. Figure 1 shows that there was a slight declining trend in the total number of allegations received by NRC from CY 2004 through CY 2007. In CY 2008 however, the total number of allegations received increased by about 10 percent over the total received in CY 2007, primarily due to substantive increases in allegations received at several reactor facilities and one fuel cycle facility. The increases do not appear to be the result of a general industry issue or other external factor as the reasons for the increases in allegations at these facilities were plant-specific and varied (e.g., significant outage activity, construction activity, security issues, work environment issues, work planning or corrective action program changes).

**FIGURE 1 - ALLEGATIONS RECEIVED BY CALENDAR YEAR**



The number of allegations processed by the NRC that involve Agreement State matters continues to decline to a minimal level as additional states achieve Agreement State status (the Commonwealth of Pennsylvania became an Agreement State in CY 2008). The reason for this is that most individuals who contact the NRC with concerns about Agreement State licensees indicate a willingness to contact and be contacted directly by Agreement State personnel about the evaluation of their concern(s), once the Agreement State program is explained to them. Such matters are forwarded to the Agreement State and are not processed by the NRC as

allegations. Generally, the NRC employs the Allegation Program only to track the evaluation of concerns about Agreement State licensees when the concerned individual does not want his or her identity to be revealed to the Agreement State.

Because each allegation can include multiple concerns, the number of concerns received can provide more specific information on the staff effort needed for an appropriate response. The trend in the total number of concerns has paralleled the trend in total allegations over the last several years. For example, the number of concerns about operating power reactor facilities increased from CY 2004 to CY 2005, as did the number of allegations in all regions except Region III, while all regions experienced a decrease in the number of reactor concerns received in CY 2006. In CY 2007, although the total number of allegations decreased, the number of concerns actually increased for reactor facilities in almost every region and program office.

In CY 2008, coinciding with the overall increase in allegations received, the total volume of allegation concerns received increased in all four regional offices, NMSS and NSIR. Region IV experienced a substantial increase in the number of concerns received (28% increase). Twenty percent of the allegations received in Region IV in CY 2008 included four or more concerns and 10 percent included six or more concerns. However, no trends were apparent in terms of allegation concerns coming from particular facilities or types of facilities or resulting from an event as the allegations containing higher numbers of concerns involved multiple individual reactor and materials facilities.

### Reactor Licensee Trends

To provide further insight into areas in which the NRC is allocating resources on reactor-related allegation follow-up, Figure 2 depicts the 14 functional areas that represent approximately 80 percent of the issues received nationwide in CY 2008.<sup>2</sup>

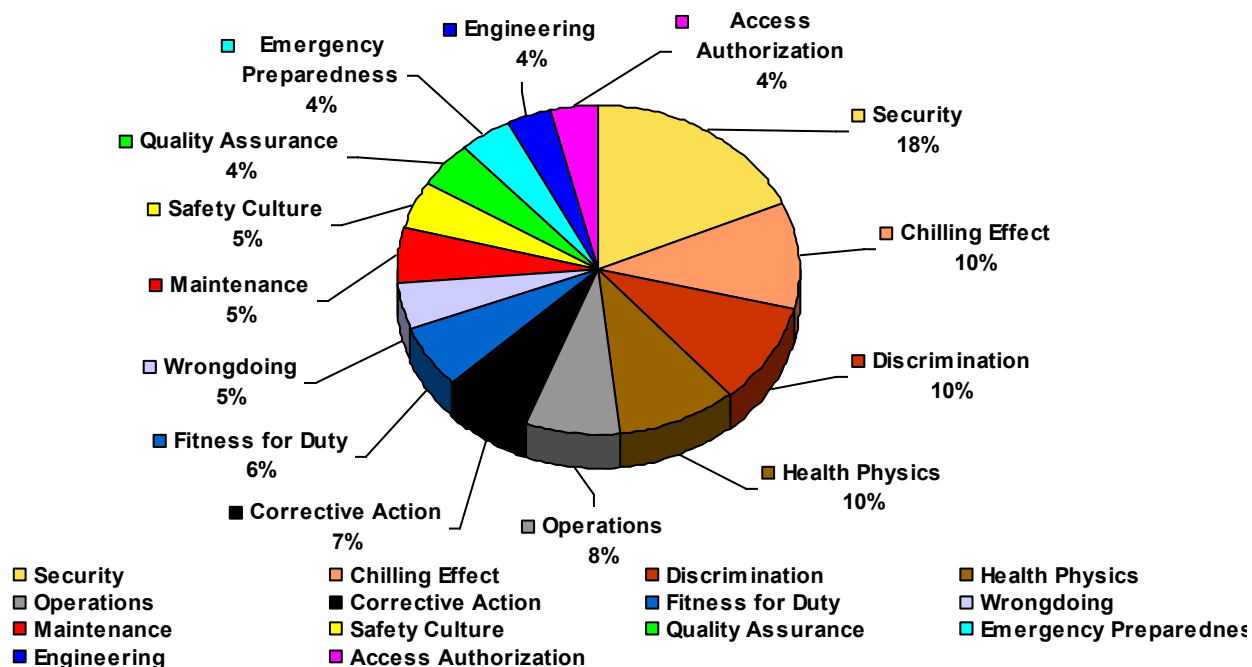
As indicated in Figure 2, security issues comprised the largest percentage of allegation concerns received in CY 2008. Since the terrorist attacks of September 11, 2001, security-related concerns have continued to represent the greatest percentage of allegation concerns received in each subsequent calendar year. Increases noted in CY 2004 were attributable to issues related to the effectiveness with which reactor licensees implemented changes to the facility and the physical security plan based upon NRC security orders issued and implemented before that time frame. In CY 2005 the number of security-related concerns sharply increased in association with a national broadcast in October 2005 regarding security at research and test reactors. Since CY 2005, the overall percentage of reactor security concerns has steadily decreased, indicating that concerns in this area will remain prominent, but possibly at a lower level than the substantial numbers of security concerns that were received in the three to four year period following 2001. Possibly improvements in the training and qualification of the security officers and increased familiarity with post 9/11 security requirements are causing a reduction in the number of concerns raised. It is also possible that actions to improve security force working conditions and to treat the security force as a more integral part of facility activities, particularly in the aftermath of the 2007 event involving inattentive security officers at the Peach Bottom Atomic Power Station, have helped improve the SCWE among the Nation's commercial reactor security forces. One notable exception in CY 2008 involved a particular reactor facility where almost all the

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<sup>2</sup> The agency received few concerns in the areas not depicted in Figure 2, which represent the remaining 20 percent of the issues received. These areas include Chemistry; Civil/Structural; Construction; Electrical; Employee Concerns Programs; Environmental; Falsification; Fatigue/Overtime; Fire Protection; Heating, Ventilation, and Air Conditioning; In-service Testing; Instrumentation and Control; Licensing; Mechanical; Other; Radwaste; Safeguards; Training/Qualifications; and Transportation.

allegation concerns involved the security area. In fact, 15 percent of all the reactor-related security concerns received in CY 2008 involved a focused issue at this facility.

**FIGURE 2 - REACTOR ISSUES NATIONWIDE 2008**



Since CY 2000, the percentage of chilling effect or chilled work environment concerns in which individuals fear retaliation or are discouraged from raising safety concerns has fluctuated (from 6 percent to 12 percent of the total number of reactor allegation concerns received) as individual reactor facilities have experienced, and eventually resolved, SCWE problems. From CY 2004 through CY 2007, the NRC received a sustained percentage of concerns in this area (8-9 percent). The receipt of chilling effect concerns at this consistent rate may reflect the nuclear workforce's increasing awareness of SCWE concepts as a result of increased industry focus in this area, local and media interest in increased NRC attention to this area at specific sites experiencing SCWE problems, and guidance made publicly available by the NRC (i.e., Regulatory Issue Summary 2005-018, "Guidance for Establishing and Maintaining a Safety Conscious Work Environment," issued in August 2005). The overall percentage of reactor-related chilling effect concerns in CY 2008 increased to about 10 percent of all reactor allegations concerns received, largely due to a sharp increase in SCWE-related concerns at one reactor facility.

In CY 2005, the NRC modified its allegation tracking database to allow concerns to be attributed to the concept of "safety culture." That is, a concern regarding a component of safety culture broader than a chilling effect (such as a concern about a licensee taking a production-over-safety approach) is now placed in a separate category. Concerns may now be applied to safety culture that in the past might have been applied to other options in the absence of a more descriptive category. The percentage of concerns attributed to safety culture has increased from approximately 4 percent of reactor concerns received in CY 2005 and CY 2006, to approximately 5 percent in CY 2007 and CY 2008. Reasons for the slight rise in safety culture concerns in CY 2007 and CY 2008 may be increased industry and worker awareness of safety culture in reaction to the mid-2006 change to the ROP's incorporation of safety culture components into

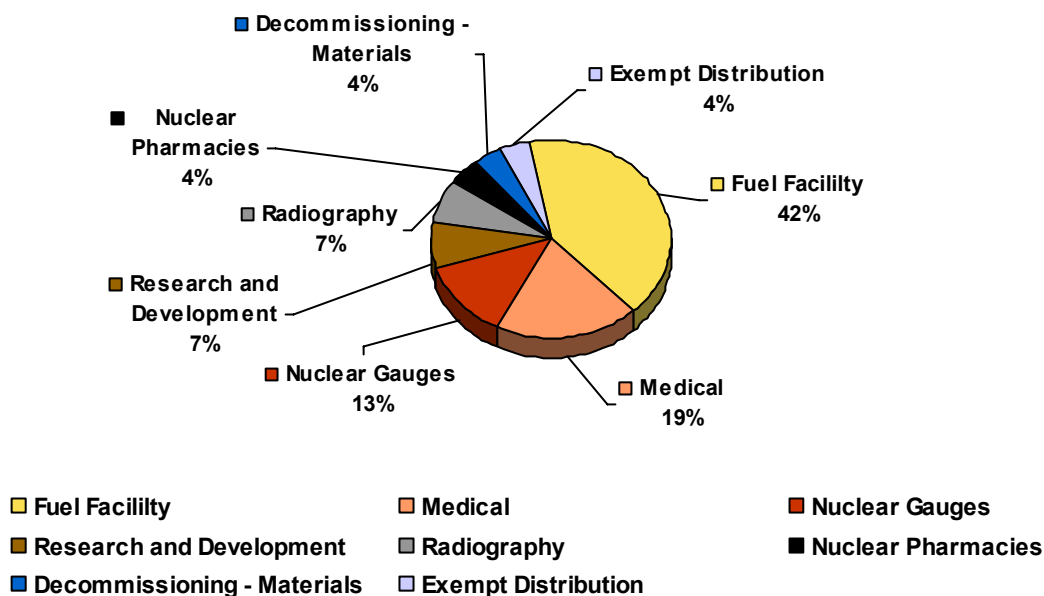
the ROP cross-cutting areas of human performance, PI&R, and SCWE, as well as to NRC efforts initiated in CY 2008 to explore the possible development of an agency policy statement regarding safety culture.

The percentage of discrimination concerns raised in the reactor area during the CY 2004 to CY 2008 review period has remained consistent at approximately 10 percent per year. More than two-thirds of the discrimination concerns raised in the reactor area in CY 2008 came from workers in the functional areas of maintenance, security, operations, and health physics.

### Materials Licensee Trends

Because of the many different types of materials licensees and because the activities performed by these licensees are not as homogeneous as those performed by reactor licensees, a comparison of the types of issues received does not produce meaningful results. For insights into the areas where the NRC focused its attention regarding materials-related allegations, Figure 3 depicts the eight types of materials licensees that accounted for approximately 80 percent of allegation concerns received by the NRC nationwide.<sup>3</sup>

**FIGURE 3 - MATERIALS LICENSEE TYPES NATIONWIDE 2008**



Since CY 2004, the number of allegations related to fuel cycle facilities constituted the highest percentage (30-40 percent) of the allegation concerns received by the NRC in the materials area. A notable increase in the receipt of concerns related to fuel cycle facilities occurred in CY 2005, but lower numbers of concerns were received in CY 2006 and CY 2007.

<sup>3</sup> The agency received few concerns about the materials licensee types not depicted in Figure 3, which represent the remaining 20 percent of the issues received. These licensee types include Academic, Casks, Decommissioning – Reactor, General Licensee, Irradiators, Other, Nuclear Laundries, Test/Research Reactor, Tritium Sources, Transportation, Uranium Recovery, and Waste Disposal.

In CY 2008, the number of fuel facility-related concerns increased to a level higher than in any of the prior four years. The substantive increase was due to a sharp increase in allegations related to a fuel facility that is transitioning from construction to operating status.

The number of allegation concerns received regarding decommissioning materials facilities was significantly larger in CY 2006 and CY 2007 than in CY 2004 and CY 2005. The increase was attributed primarily to activities at four facilities, two in Region I and two in Region IV. The number of concerns received in this area decreased significantly in CY 2008 as decommissioning activities have progressed.

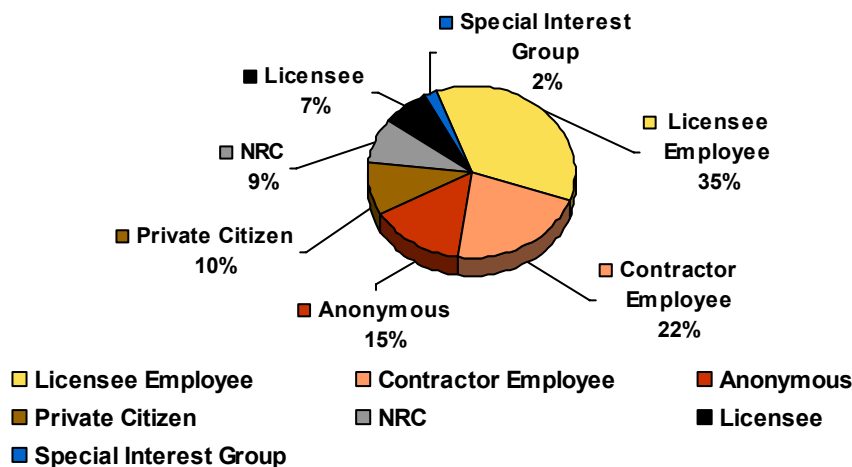
Allegation concerns received regarding decommissioning reactors have steadily decreased since CY 2004 to minimal levels as facility activities and staffing have decreased over time. As an example, a sharp decrease in the number of decommissioning reactor allegations in Region I from CY 2004 to CY 2005 coincided with the cessation of decommissioning activities at two sites.

The medical area has consistently comprised the second highest percentage of materials-related allegation concerns at about 20 percent per year between CY 2004 and CY 2008. The number of allegation concerns regarding radiographers, nuclear gauges, nuclear pharmacies, exempt distribution, and research and development has fluctuated during the CY 2004 to CY 2008 timeframe, with most increases caused by events at specific facilities.

### Source Trends

Figure 4 provides a breakdown of 99 percent of the sources for reactors and materials allegations received in CY 2008.<sup>4</sup> The data indicate that the distribution of source categories remained consistent between CY 2004 and CY 2008. That is, the primary sources of allegations

**FIGURE 4 - ALLEGATIONS BY SOURCE CATEGORY 2008**



<sup>4</sup> The NRC received few concerns from the 1 percent of sources not depicted in Figure 4. These sources include State Agencies and the News Media.

continue to be employees of licensees (or former employees) and contractors (or former contractors). It follows that the percentage of reactor and materials allegations from other sources has also remained largely unchanged over the review period. The only notable change in the data resulted from the role of the news media becoming a more prominent source of allegations in CY 2005. The October 2005 national broadcast about security at research and test reactors, discussed previously, was the primary cause of the increase in allegations.

In considering those allegation sources previously mentioned as having the potential to provide insights into the SCWE at a given facility (i.e., allegations submitted by current or former licensee or contractor employees or by anonymous sources), it is notable that the percentage of allegations from these sources since CY 2004 has remained consistently in the range of 72 to 77 percent.

In comparing the sources of materials allegations to those of reactor allegations over the past five years, the largest source for both is consistently licensee (or former licensee) employees. For reactor allegations, the next largest sources are contractor (or former contractor) employees, anonymous alлегers, and private citizens, in that order. Private citizens are the second most frequent source of materials-related allegations, followed by anonymous alлегers and contractor (or former contractor) employees. This is understandable since materials licensees employ fewer contract personnel and their activities involve more direct interaction with the public.

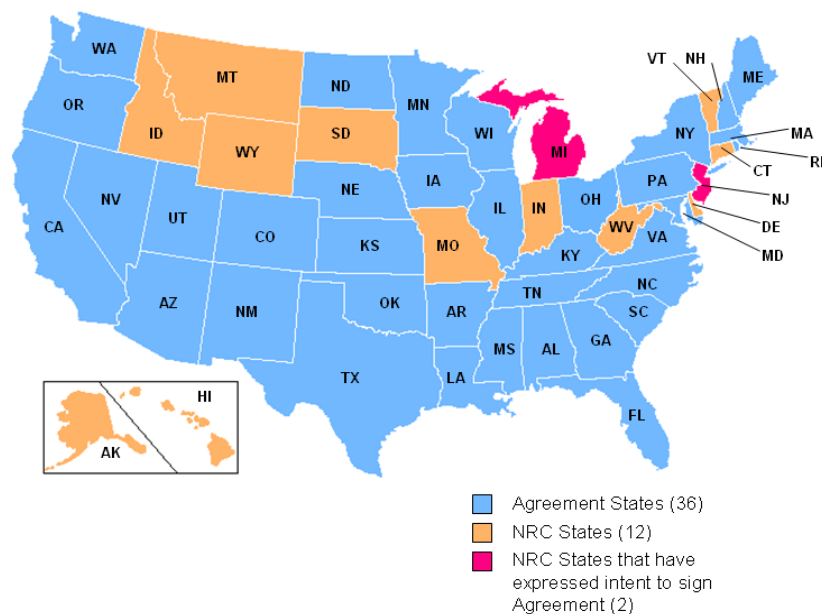
Two of the source categories deserve some explanation. The source category "NRC" designates an NRC staff member who suspects that a regulatory requirement has been violated deliberately or as a result of careless disregard, prompting the initiation of an investigation by the NRC Office of Investigations. The source category "Licensee" denotes that a licensee representative, acting in his or her official capacity, has reported a potential wrongdoing to the NRC. The agency staff assigns an allegation process tracking number to such items to allow it to track the progress of a review of the potential wrongdoing issue.

### Agreement State Trends

Under the authority granted in Section 274b of the Atomic Energy Act (the Act), as amended, the NRC may relinquish its authority to regulate certain byproduct, source, and limited quantities of special nuclear material to a State Government through a mutual agreement. A State that has entered into this agreement with the NRC is called an Agreement State. Before entering into this agreement, States must first demonstrate that their regulatory programs are adequate to protect public health and safety and appropriately compatible with the NRC's program. There were 35 Agreement States in CY 2008. In early 2009, Virginia became an Agreement State. Figure 5 depicts the current 36 Agreement States.

To ensure that Agreement States maintain a program that is adequate to protect public health and safety and appropriately compatible with the NRC's program, the NRC has a statutory responsibility to periodically review the actions of the Agreement States. This authority is granted under Section 274j of the Act. The NRC uses the Integrated Materials Performance Evaluation Program (IMPEP) to satisfy its statutory responsibility. For more information on the NRC's Agreement State Program or IMPEP, please visit the NRC's Office of Federal and State Materials and Environmental Management Programs website at <http://nrc-stp.ornl.gov/>.



**FIGURE 5 - AGREEMENT STATES**

In CY 2008, the NRC conducted routine IMPEP reviews of nine Agreement State programs and follow-up IMPEP reviews of two Agreement State programs. The review teams evaluated the effectiveness of the Agreement State programs' responses to allegations by reviewing casework and documentation for 63 allegations cumulatively received by all of the programs reviewed. Of the 63 allegations reviewed, the NRC referred 26 to the Agreement State programs; the States received the other allegations directly from concerned individuals. In all but two cases, the review teams concluded that the States consistently responded promptly and appropriately to the concerns raised. In two exceptions, prompt action was not taken because of miscommunications between the NRC and the State. The issues involved were of minimal public health and safety significance, nonetheless, the NRC staff acted to resolve the communication issue to prevent its recurrence. In all cases, the review teams noted that the States thoroughly documented the investigations and closeout actions, including notifications to the alлегers of the outcomes of the investigations when the alлегers' identities were known. The review team determined that the States that were reviewed in CY 2008 have appropriate means to adequately protect the identity of any alлегers who request anonymity. In general, the results of the CY 2008 IMPEP reviews demonstrate that the Agreement States continue to rank response to allegations as a high priority in protecting public health and safety.

### Allegation Trends for Selected Reactor Sites

Trending the number and nature of allegations concerning individual reactor sites is one method the NRC staff uses to monitor the SCWE at reactor sites. The appendix to this report provides statistics on allegations concerning all operating reactor sites. The NRC reviewed the listed allegations during the 5-year period between January 2004 and December 2008 and included only allegations received from onsite sources (i.e., those that may be indicative of the health of the SCWE). Onsite sources include current or former licensee employees, current or former contractor employees, or anonymous alлегers. For the purpose of this analysis, the NRC assumes that anonymous allegations are submitted by onsite personnel.



In determining which reactor sites should receive a more in-depth review, the staff applied the following criterion:

- The number of onsite allegations exceeds 3 times the median value.

For CY 2008, the median number of onsite allegations per reactor site was 3.5. The eight reactor sites that met this criterion are Susquehanna Units 1 and 2 (32); Sequoyah Units 1 and 2 (19); Turkey Point Units 3 and 4 (19); San Onofre Units 2 and 3 (18); Browns Ferry Unit 1, 2, and 3 (18); Palo Verde Units 1, 2, and 3 (17), Diablo Canyon Units 1 and 2 (13) and Salem/Hope Creek (11). Each of these facilities is discussed below.

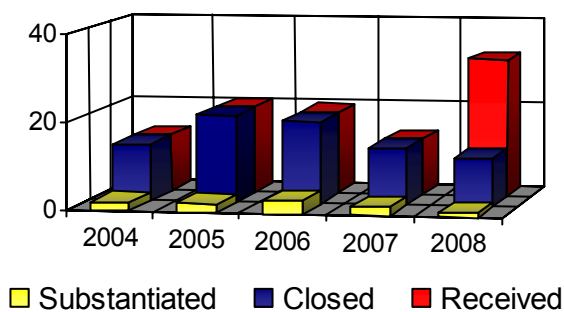
[Note: In previous Annual Allegation Trends Reports, the NRC used an additional criterion in determining which reactor facilities would receive a more in-depth review. Specifically, reviews were also performed for sites receiving a number of allegations from onsite sources that exceeded 2 times the median and also experienced more than a 50 percent increase in the number of allegations concerning the site over the previous year. A review of the evaluations performed for the 6-year period prior to CY 2008 found that none of the facilities evaluated under this criterion had an existing or developing SCWE problem. For this reason the Agency Allegation Advisor did not analyze the allegations related to these facilities.]

### Susquehanna Units 1 and 2

The number of allegations received from onsite sources at Susquehanna has been consistently high since CY 2004 (Figure 6), although a downward trend was evident from CY 2005 through CY 2007, likely in response to licensee efforts to address SCWE issues identified by previous site-wide safety culture survey results in CY 2006. The downward trend in allegation receipt and positive movement in SCWE reversed itself early in 2008. Since February 2008, there have been indications of a weakening SCWE at Susquehanna as evidenced by

the large volume of SCWE and safety culture-related allegation concerns received by the NRC, feedback provided by site employees to the NRC inspectors and investigators about the site SCWE, and the results of a recent independent third-party safety culture survey conducted at Susquehanna in October 2008. Apparent contributors to the substantive increase in negative employee feedback about the work environment were company policy changes as well as a more formalized human performance review program (Event Review Board) implemented in early 2008. Less than effective communication of these changes to site workers before implementation appeared to enhance negative employee reactions.

**FIGURE 6 - SUSQUEHANNA ALLEGATIONS**



In response to the volume of allegations received and other negative feedback about the SCWE and safety culture at Susquehanna, the NRC engaged the licensee in mid-2008 through requests for information regarding the licensee's action plans for addressing concerns with the SCWE and feedback on corrective action implementation and effectiveness. The NRC continued to review and monitor the licensee's activities throughout the remainder of CY 2008 and noted that progress on some corrective actions from the CY 2008 culture survey was lacking and that there were some follow-up activities for which corrective actions had yet to be developed. Follow-up interviews with site employees conducted by the NRC in late-2008 found continuing negative perceptions of the SCWE, the Employee Concerns Program (ECP), and other work environment issues involving personnel and work policies. Additionally, follow-up NRC interviews with first-line and mid-level supervisors found that not all were fully supportive and aligned with the site's efforts to improve the SCWE.

The results of the October 2008 independent safety culture survey indicated declining trends in the SCWE with broader organizational impacts when compared to previous survey results in CY 2006. The most negative trends were noted in the health physics and operations areas. Numerous write-in comments provided by the survey participants cited problems in the management-workforce interface, low morale, management actions and decisions inconsistent with maintaining the SCWE, a lack of confidence in management's ability to maintain facility performance and effect improvements under the worsening SCWE, and an overall view that the SCWE at the facility was declining.

Because of continuing concerns about the progress and effectiveness of the licensee's actions in response to the SCWE issue at Susquehanna, the NRC issued a CEL to the licensee on January 28, 2009, (ADAMS Accession No. ML090280115). The letter requested (1) a description of the licensee's actions to address the existing SCWE concerns to preclude a chilled worked environment, (2) the licensee's plans for evaluating the health of the SCWE at Susquehanna, and (3) the metrics through which the licensee intends to monitor the effectiveness of related corrective actions. The licensee responded to the CEL on February 27, 2009, (ADAMS Accession No. ML090710864) and March 13, 2009 (ADAMS Accession No. ML090760146) outlining its intended actions in response.

The NRC received six discrimination concerns regarding Susquehanna in CY 2008, an increase over prior years. While two remain open, the other discrimination concerns were closed because two were withdrawn, one concern involved a vague assertion that discrimination could occur sometime in the non-imminent future, and one allegor did not articulate a prima-facie showing of potential discrimination. For clarification, to consider a matter of potential discrimination pursuant to 10 CFR 50.7, "Employee Protection," an allegor must present a certain pattern of facts, called a prima facie showing. Specifically, the allegation must initially establish that an employee has engaged in a protected activity, that an adverse personnel action was taken against the employee, that management knew that the employee had engaged in the protect activity, and that the protected activity was, in part, a reason for the adverse personnel action. In the four year period prior to CY 2008, seventeen discrimination concerns were submitted regarding Susquehanna. Of these, nine were investigated by the NRC and not substantiated, five did not involve a prima-facie showing of potential discrimination, two allegors did not wish to pursue the concern, and one concern involved a third-party assertion of discrimination. Regarding third-party complaints of discrimination, the NRC does not pursue these because it is necessary to have the cooperation of the individual allegedly retaliated against in order to effectively investigate the issue.

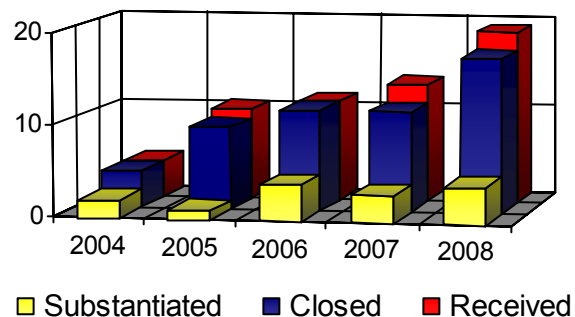
In summary, the volume of SCWE and safety culture-related allegation concerns received by the NRC in CY 2008, feedback provided by site employees to NRC inspectors and investigators

about the site SCWE, and the results of a recent independent third-party safety culture survey conducted at Susquehanna in October 2008 have provided indication of a weakening SCWE at Susquehanna. Because of continuing concerns with the progress and effectiveness of the licensee's actions in response to this matter, the NRC issued a chilling effect letter to the licensee on January 28, 2009. The NRC is evaluating the licensee's response to the CEL and will continue to monitor the licensee's actions. The NRC will interface with the licensee periodically to discuss progress on and outcomes of SCWE improvement activities, and will monitor progress through the ROP baseline inspection program.

### Sequoyah Units 1 and 2

The volume of allegations received concerning the Sequoyah site has increased in each of the last five years (Figure 7), with a clear trend of concerns in the security area. While the volume of allegations received in CY 2008 remained comparatively high, the allegations were almost exclusively in the security area, with many of those security allegations relating to a focused issue. Consequently, the allegations from onsite sources regarding Sequoyah in CY 2008 were received, almost exclusively, from contract personnel.

**FIGURE 7 - SEQUOYAH ALLEGATIONS**



Discussions with the licensee revealed that concerns received by the licensee's Concerns Resolution Program (CRP) in CY 2008 mirrored those seen in the allegations received by the NRC in some aspects, specifically with regard to security-related concerns. However, more concerns were received by the CRP regarding other disciplines onsite. Lastly, a smaller number of anonymous concerns were received by the CRP than in prior years. In mid-2007, the licensee interviewed personnel about the work environment in security and other organizations that had been identified by an earlier survey as having lower SCWE ratings. The results were generally positive; nonetheless, the licensee concluded that further review of the security organization was warranted. A focused review of the work environment in the security organization was conducted by the licensee in the fourth quarter of CY 2007. Among other subsequent actions initiated by the licensee to maintain the SCWE, the licensee also determined that the entire Tennessee Valley Authority (TVA) fleet will return to the use of proprietary security forces at all of its plants.

The licensee also indicated that in mid-2008, in reaction to increasing numbers of allegations received by the NRC regarding all of TVA's operating power reactors, they initiated an internal review in an effort to preclude a decline in the SCWE. A number of efforts were undertaken by the licensee in response. Computer based SCWE training was initiated in late-2008 and will be included as part of site access General Employee Training and annual refresher training. Efforts are being made to increase the visibility of the CRP and CRP personnel onsite. CRP personnel are now tasked with providing SCWE presentations to site work groups throughout the year. Also in late-2008, efforts were initiated to increase the visibility of CRP through the use of posters, drop boxes, and brochures. The licensee recently completed a fleet-wide company electronic survey looking at organizational culture, which included an assessment of the willingness of personnel to raise concerns and to use available avenues to submit safety issues. The results of the survey were somewhat improved compared to a similar survey conducted a

year earlier, but continued to show a level of employee concern about raising issues to the corrective action program or the CRP. A third-party safety culture survey was completed in mid-March 2009 and the results are being evaluated. Lastly, the licensee intends to conduct a self-assessment of the CRP in late-2009.

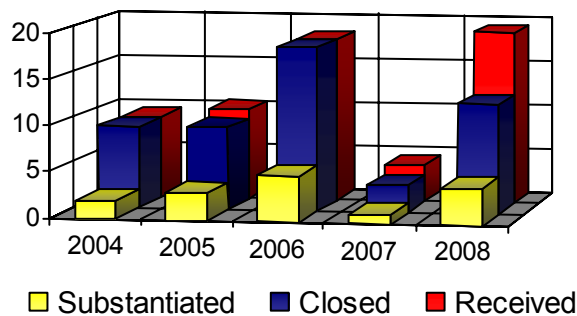
The NRC received three allegations of discrimination in CY 2008. One was settled via Early-ADR, one was not evaluated by because it was a third-party assertion of discrimination, and the other remains open at this time. The NRC received four allegations of discrimination in CY 2007. One was investigated by the NRC but not substantiated, one resulted in a settlement with the licensee, one was not investigated because the alleged did not want to pursue the issue, and the other is still open. From CY 2004 through CY 2006, four discrimination allegations were raised, all in CY 2005. Of these, three were investigated, but not substantiated, while one was withdrawn at the request of the alleged.

Overall, the number and nature of allegations regarding Sequoyah do not appear to indicate an SCWE problem at the facility at this time. In response to the findings generated by SCWE maintenance activities and efforts taken to assess potential reasons for increasing numbers of allegations being submitted to the NRC, the licensee has recognized areas for improvement and is taking actions to address them. The NRC will maintain its oversight of the SCWE at Sequoyah through normal inspection activities.

#### Turkey Point Units 3 and 4

The number of allegations received concerning the Turkey Point site in CY 2008 increased significantly. The NRC received concerns at a steady rate throughout the year. The 5-year trend is also increasing (Figure 8). An analysis of the subject matter of the allegations indicates a trend related to SCWE in the area of operations, with a number of concerns involving claims of discrimination and a “chilling effect” challenging the SCWE. Discussions with the licensee revealed that the ECP saw a slight decline in the number of concerns raised by employees through that avenue in CY 2008. The majority of concerns were received in the first four months of the year and, similar to concerns received by the NRC, primarily involved the Operations department.

**FIGURE 8 - TURKEY POINT ALLEGATIONS**



In the first half of CY 2008, prompted by an NRC concern regarding a number of allegations received, the licensee commissioned an independent, third-party evaluation of the SCWE in the Operations Department. The evaluation concluded that some individuals may have been chilled with regard to their interactions with specific licensee managers, but there did not appear to be a broad chilled environment within the Operations Department, and no personnel feared retaliation for raising safety concerns. The NRC also evaluated the licensee’s SCWE during routine and focused inspections. NRC inspectors interviewed several licensed operators and found no instances where an employee indicated they would be hesitant to raise safety concerns. These inspection observations are documented in Inspection Reports (IR) 05000250/2008007, 05000251/2008007, 05000250/2008008, and 05000251/2008008. The licensee committed to

enhance communications between plant operators and senior management to ensure constructive interactions.

In late 2007, and continuing into early 2008, the licensee conducted a self-assessment of the ECP. The report identified a number of weaknesses, including the program's low visibility and a lack of confidence in the program's ability to maintain confidentiality. The NRC's inspections mentioned above found similar concerns. In response to these findings, the licensee appointed a new ECP Manager in May 2008 and, according to the licensee, began a number of initiatives to address documented weaknesses. These initiatives include improved program advertising and outreach efforts, required periodic SCWE training for supervisors, and initial training for new employees. A survey was administered in the fall of CY 2008 to assess the SCWE and safety culture. According to discussions with the licensee the survey results were provided to the site in early 2009 and show steady or improved ratings on a number of questions. The licensee had not yet shared the results with the whole management team or with the workforce and it is not clear whether corrective actions will be necessary to address the survey findings.

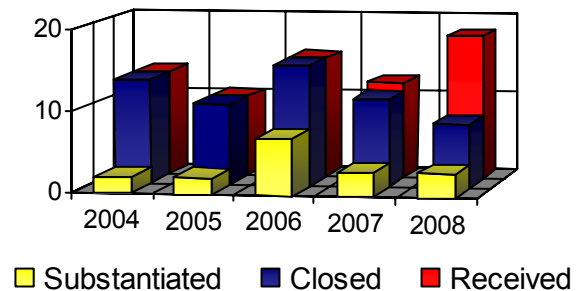
The NRC received five allegations of discrimination in CY 2008. Three remain open, one was not investigated because the alleged did not wish to participate in an investigation or in ADR, and one was not eligible for investigation by the NRC because the alleged did not articulate a prima facie showing of potential discrimination.

The NRC will monitor the licensee's efforts to enhance communications between plant operators and senior management, as well as progress on ECP improvement initiatives through normal inspection activities.

### San Onofre Units 2 and 3

The number of allegations received at San Onofre from onsite sources in CY 2008 (18) represents an increasing trend in allegation receipt at the facility over the past five years. Almost half of the allegations received in CY 2008 involved the maintenance and work planning areas and were focused on transition issues related to the implementation of new work process management tools (including implementation of a new corrective action program tracking system). Several allegation concerns were submitted in CY 2008 about the site work environment and safety culture, with most involving concerns about the implementation of changes to the work planning/control processes and the corrective action program.

**FIGURE 9 - SAN ONOFRE ALLEGATIONS**



The latest PI&R inspection reports (IR 05000361/2008012 and 05000362/20080012, and Confirmatory Order EA-07-232 Follow-Up Inspection dated 12/3/2008) highlighted that human performance errors continue to occur and that the effectiveness of problem evaluation remains a continuing problem at San Onofre. Notwithstanding the identification of persistent problems in these areas, it is noted that interviews with site workers during the NRC PI&R inspection demonstrated that the workers feel free to report problems to management and to the Nuclear Safety Concerns Program (NSCP). For the third consecutive year, the ROP 2008 annual

assessment of facility performance at San Onofre identified continuing substantive crosscutting issues in human performance related to the adequacy of procedures or work instructions and in PI&R related to the effectiveness of problem evaluation. This has resulted in a request for additional licensee follow-up action, including the performance of an independent safety culture assessment. Additional NRC inspection activity is also planned.

Early in CY 2008, the San Onofre NSCP was receiving concerns at a rate similar to that of prior years. A substantive increase was seen with the transition to the new work planning and control and corrective action program tracking systems. Similar to trends seen in the NRC allegation data, concerns to NSCP were submitted most frequently by maintenance and craft personnel in CY 2008.

The licensee indicated in discussions with the NRC that its most recent independent third-party safety culture survey was conducted in the first quarter of CY 2008. The survey resulted in positive feedback related to general culture and work environment and highlighted that NSCP provided an effective alternate path for problem resolution. The overall survey results noted slight improvement from previous results, but indicated that expectations were not met in some areas, such as in the areas of corrective action program effectiveness and change management.

For the three discrimination concerns received by the NRC regarding San Onofre in CY 2008, one was settled via Early-ADR and the other two were not investigated by the NRC because the alleged did not articulate a prima-facie showing of potential discrimination. The number of discrimination concerns submitted in CY 2008 was notably lower than the number received in CY 2007 (6). Regarding the CY 2007 discrimination concerns, the NRC investigated two that were not substantiated, and another is still under investigation. The NRC did not investigate one 2007 discrimination concern because it was provided by a third-party source, and in another instance, a discrimination concern was not investigated because the alleged did not wish to participate in an NRC investigation. The remaining discrimination concern in CY 2007 was settled via Early-ADR. The discrimination allegations received in CY 2007 were all from either the maintenance or engineering department. The NRC received nine allegations of discrimination regarding San Onofre between CY 2003 and CY 2006. Seven of these were investigated and not substantiated. The remaining two were not investigated because one alleged did not articulate a prima-facie showing of potential discrimination, and another alleged would not provide his or her identity.

The nature of allegations received by the NRC from onsite sources in CY 2008 regarding San Onofre, coupled with SCWE-related feedback from both the NRC PI&R inspection in late-2008 and the licensee's most recent independent safety culture survey conducted in early 2008, do not appear to indicate a specific SCWE problem at the facility at this time. However, both the NRC 2008 PI&R inspection and the licensee's 2008 independent safety culture survey noted issues with corrective action program effectiveness, amplified by problems in transitioning to new work planning and control and corrective action program tracking systems. In addition, for the third consecutive year, the ROP annual assessment of facility performance at San Onofre identified continuing substantive crosscutting issues in human performance related to the adequacy of procedures or work instructions and in problem identification and resolution related to the effectiveness of problem evaluation. Continuing problems in these areas could have a deleterious effect on the safety culture at San Onofre, including the SCWE, if consistent improvement is not realized. As a result, the licensee was requested to provide a written response to the NRC describing their plans for addressing these substantive crosscutting areas, to support a public meeting discussing these issues, and to perform an independent safety culture assessment. The licensee has scheduled an independent safety culture assessment for



mid-2009. A focused NRC PI&R inspection is also planned for mid-2009 to assess the licensee's improvement efforts.

### Browns Ferry Units 1, 2, and 3

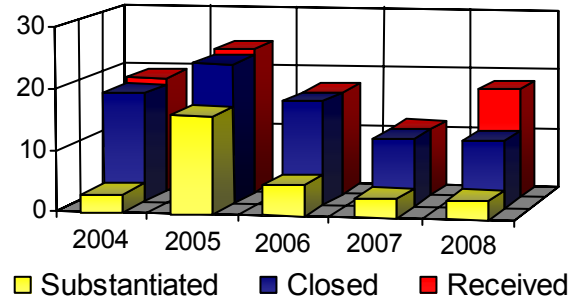
Following the restart of Browns Ferry Unit 1 in May 2007, in CY 2008, the NRC evaluated allegations received from onsite sources at Browns Ferry on a site-wide basis, i.e., by considering the combined total of allegations received at Browns Ferry Units 1, 2, and 3. Although the number of allegations received at Browns Ferry from onsite sources in CY 2008 (18) is comparatively high, the nature of the allegations received do not appear to indicate a SCWE problem at the facility at this time. The NRC received allegations at an even pace throughout the year and there were no distinct issue or discipline trends evident from the CY 2008 allegation data. For each of the five years in the CY 2004-2008 time period, a large percentage

(75 percent or greater) of the total number of allegations received about the Browns Ferry site were related exclusively to Browns Ferry Unit 1. The NRC conducted a PI&R inspection in August 2007 (IR 05000259/2007008, 05000260/2007008, and 05000296/2007008) that included a review of the SCWE. The staff observed that licensee management routinely emphasized the need for all employees to identify and report problems and that employees were not hesitant to do so.

Discussions with the licensee revealed that the number of concerns received by the Browns Ferry CRP was lower in CY 2008 than the number received in CY 2007. The onsite workforce at Browns Ferry 1 decreased significantly after its transition to operating status in mid-2007, and the licensee believes that caused a significant drop in the number of concerns received by the site CRP. However, the number of allegations received by the NRC increased in CY 2008.

In mid-2008, in reaction to increasing numbers of allegations received by the NRC involving all of TVA's operating power reactors, the licensee initiated an internal review in an effort to prevent a decline in the SCWE. In discussions with the NRC, the licensee indicated that, based on an assessment of concerns provided to the licensee in NRC allegation RFI compared to concerns raised internally, the review surmised that there may be some concern related to employee confidence in management, the corrective action program, and the CRP to resolve issues. At Browns Ferry specifically, the licensee identified concerns related to recent personnel policy and management changes. A number of efforts were undertaken by the licensee in response. Computer based SCWE training was initiated in late-2008 and will be included as part of site access General Employee Training and annual refresher training. Efforts are being made to increase the visibility of CRP and CRP personnel onsite. CRP personnel are now tasked with providing SCWE presentations to site work groups throughout the year. Also in late-2008, the licensee indicated that efforts were initiated to increase the visibility of CRP through the use of posters, drop boxes, and brochures. The licensee recently completed a fleet-wide company electronic survey looking at organizational culture, which included an assessment of the willingness of personnel to raise concerns and to use available avenues to submit safety issues.

**FIGURE 10 - BROWNS FERRY ALLEGATIONS**



The results of the survey were somewhat improved compared to a similar survey conducted a year earlier, but continued to show a level of employee concern about raising issues to the corrective action program or the CRP. A third-party safety culture survey was completed in mid-March 2008 and the results are being evaluated. Lastly, the licensee intends to conduct a self-assessment of the CRP in late-2009.

The number of discrimination concerns received in CY 2008 (2) and CY 2007 (3) represent a substantive decline in such issues compared to the three prior years. Two of the discrimination concerns in CY 2007 resulted in settlements, one was not investigated because it was a third party claim of discrimination, and the CY 2008 discrimination concerns remain under evaluation.

Of the 12 discrimination concerns received in the 2004-2006 timeframe, one (submitted in 2005) was substantiated. In this instance, the discriminatory act was taken by a licensee contractor and because the licensee conducted an immediate investigation and took prompt corrective action to address the specific issue and protect the SCWE, the NRC exercised discretion in this case. Of the remaining 11 discrimination concerns in the CY 2004-2006 time frame, one is still open, four were investigated by the Office of Investigations (OI) and not substantiated, one was not investigated because it was a third-party assertion of discrimination, and the remaining five were not investigated because the alleger either withdrew the complaint, did not want to participate in an investigation, or was unable to be re-contacted.

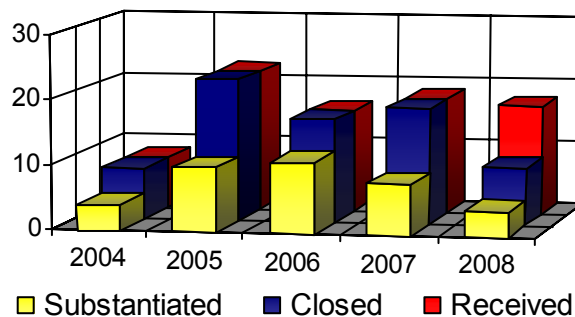
The nature of the allegations received in CY 2008 does not indicate a significant concern with the SCWE at the Browns Ferry site. The NRC will continue to monitor the site's work environment through normal inspection activities.

### Palo Verde Units 1, 2, and 3

The number of allegations regarding Palo Verde was again high in CY 2008 as the site continued to address "performance areas for improvement" identified by the licensee's and the NRC's safety culture assessments (Figure 11).

In CY 2007, the NRC placed Unit 3 in Column IV of the NRC's action matrix after identifying two separate significant inspection findings. As a result, the NRC increased regulatory oversight and conducted a special inspection, Inspection Procedure 95003, "Supplemental Inspection for Repetitive Degraded Cornerstone," at the end of the year. The inspection report issued February 1, 2008 concluded that, "as an overriding priority, nuclear plant safety issues had not always received the attention warranted by their significance" (IR 05000528/2007012, 05000529/2007012, and 05000530/2007012). The NRC inspection team identified weaknesses in organizational characteristics and attitudes associated with ten of the NRC's thirteen safety culture components. However, the two SCWE-related components (environment for raising concerns, and preventing, detecting, and mitigating perceptions of retaliation) were found to be adequate. None of the 400 individuals interviewed by the NRC indicated they were hesitant to raise nuclear safety concerns. Of the

**FIGURE 11 - PALO VERDE ALLEGATIONS**





interviewees, twenty-five percent had demonstrated a willingness to raise issues multiple times if dissatisfied with the original resolution, and almost all said they would escalate a concern. A large majority of those interviewed perceived their managers as receptive to concerns and willing to address them. In early 2008, the licensee identified 12 key performance areas for improvement and the NRC issued a confirmatory action letter (CAL) to track the improvement initiative. NRC inspections in CY 2008 focused on evaluating the effectiveness of the licensee's actions to improve performance as documented in the CAL. Throughout the assessment period, NRC inspections determined that the licensee implemented some corrective actions, however, the actions were not completely effective.

The 17 allegations received by the NRC from onsite sources in CY 2008, came at a steady rate throughout the calendar year. The issues raised were generally varied, with small pockets noted in engineering, security, and radiation protection, but they did not indicate that the workforce was chilled.

Two discrimination allegations were raised in CY 2008. One is still open and the other was not investigated because it was provided by a third-party source. Four were received in CY 2007, of which one was withdrawn by the allegor, one was investigated by the NRC and not substantiated, and two were settled via a licensee-initiated ADR process and credited under the NRC's Early-ADR process. Between CY 2004 and CY 2006, the NRC received seven discrimination allegations. Of those, four were investigated by the NRC and not substantiated, one was withdrawn, and one was settled under the NRC's Early-ADR process.

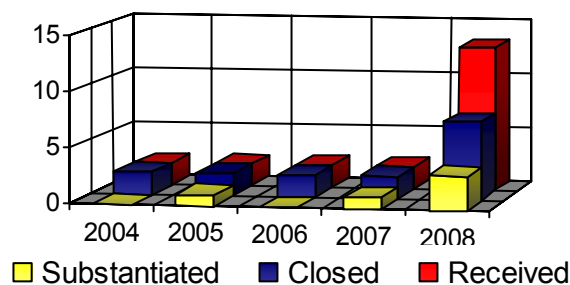
The licensee had a number of contractors on site in CY 2008. Discussion with the licensee's Employee Concern Program (ECP) staff indicated a significant number of issues were raised through that program over the last two years, including issues in areas similar to allegations raised to the NRC. In late CY 2008, the licensee began conducting refresher training in the area of SCWE. Also in late 2008, the licensee conducted another safety culture assessment, which showed rating improvements in a number of areas. The ECP initiated efforts to improve visibility, including increasing briefings and new employee orientation.

In early 2009, the NRC determined that the licensee had made substantial and sustainable improvements in their safety culture. The allegation trends do not indicate a weakening of the SCWE. The NRC will maintain its oversight of the SCWE at Palo Verde through normal inspection activities.

### Diablo Canyon Units 1 and 2

Although the number of allegations received from onsite sources at Diablo Canyon increased significantly in CY 2008 as compared to the last several years, there were no significant discipline, source, or SCWE-related trends indicated in the concerns received (Figure 12). Diablo Canyon Unit 2 was down for an extended refueling outage between February and April 2008 which included the replacement of all four steam generators. The timing, sources, and nature of the concerns raised in the first two quarters correspond to this period of

**FIGURE 12 - DIABLO CANYON ALLEGATIONS**



significant site activity. It is not unusual to see increased allegation traffic during significant site activities given the additional number of workers on site and new and different challenges.

The most recent NRC PI&R inspection team at Diablo Canyon in November 2008 observed that all employees interviewed were willing to raise safety concerns through at least one of the avenues available to them (IR 05000275/2008008 and 05000323/2008008). The inspection team also found, however, that some were hesitant to raise concerns via one or more of those avenues. Some stated examples of both new and older instances of management behavior that could discourage raising safety concerns in the Operations Department. Some personnel expressed concern that the corrective action program was not effective; specifically with prioritization and timeliness of corrective actions. And finally, with regard to the ECP, some expressed concerns about its ability to maintain the confidentiality of its customers. A review of ECP files indicated that the program has received no nuclear safety or quality issues, other than those allegations for which the NRC requested an evaluation, in the last two years.

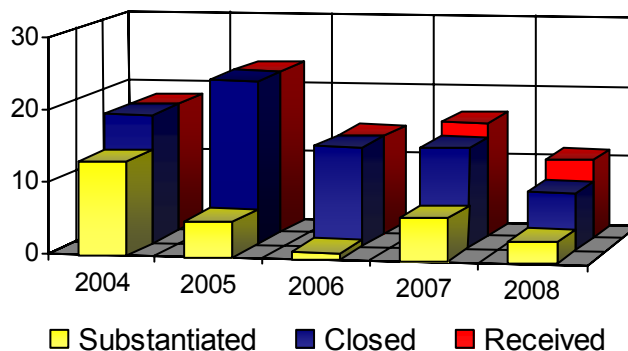
Regarding allegations of discrimination, only one was received in CY 2008 and was settled between the employee and licensee under the NRC's Early-ADR process. No other claims of discrimination were made during the 5-year review period.

The NRC will maintain its oversight of the SCWE at Diablo Canyon through normal inspection activities. The NRC will monitor areas observed during the PI&R inspection that may challenge the SCWE.

### Salem/Hope Creek

The number of allegations received from onsite sources decreased between CY 2007 and CY 2008, and, as seen in Figure 13, the trend over the past four years is declining as well. The NRC received allegations in each of the four quarters of the year, with a modest increase in the second quarter. The timing, source, and nature of the concerns raised, corresponded to the licensee's spring outage of Salem Unit 2 and the steam generator replacement work on site.

**FIGURE 13 - SALEM/HOPE CREEK ALLEGATIONS**



Discussions with the licensee's ECP personnel about general trends in that program's CY 2008 activities reveal that similar concerns were also raised internally. Early in CY 2008, the NRC engaged the licensee with regard to a chilling effect allegedly impacting a particular department. The licensee conducted an evaluation which resulted in it taking several corrective actions. The NRC's assessment determined that the corrective actions were appropriate and responsive to the allogger's concerns. There does not appear to be any trend in the allegation data that would indicate a concern with any other department's environment for raising concerns.

Allegations of discrimination also declined in CY 2008. The NRC received two; one of which was settled prior to an NRC investigation using an ADR process. The other did not meet the NRC's requirements for investigation because it did not articulate a prima facie case.

The licensee conducted an assessment of their safety culture in July 2008, including the SCWE. Based on conversations with the licensee, results indicate an improvement in SCWE-related ratings at Hope Creek, but slightly declining ratings in certain departments at the Salem facility. The licensee has developed action plans to address these areas. The NRC will maintain its oversight of SCWE at Salem/Hope Creek through normal inspection activities. Review efforts will focus on corrective actions developed in response to the safety culture assessment, particularly in the departments identified as needing management attention due to SCWE concerns.

### Allegation Trends for Selected Materials Licensees

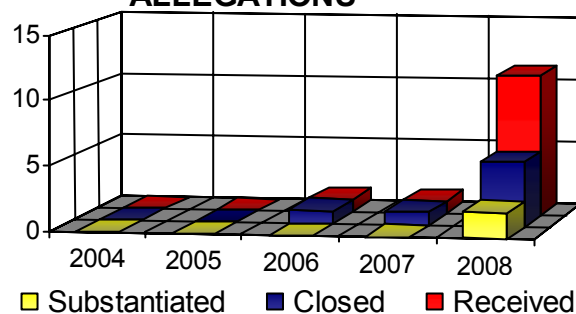
The NRC website posts allegation statistics for certain fuel cycle facilities (see the appendix to this report). Because of the small number of allegations involving other smaller materials licensees and because of the potential for a licensee or contractor to identify an allogger, allegation statistics for materials licensees other than fuel cycle facilities have not been provided publicly or included in this report.

Allegations were received at greater than three times the industry median in CY 2008 from onsite sources at one large fuel cycle facility, the National Enrichment Facility operated by Louisiana Energy Services in Eunice, New Mexico. As seen in Figure 14, there was a significant increase in allegations received from onsite sources from CY 2007 (1) to CY 2008 (11). The facility is currently transitioning toward operation from its construction phase which commenced in August 2006. It is not unusual to see a substantive increase in allegations as a large facility transitions from construction to operation, i.e., as contractor activities are completed and as the oversight of facility systems, structures and

components is transitioned from the contractor to the licensee. The number of personnel onsite was decreased by almost 40 percent in CY 2008 and will continue to decrease as the construction phase winds down. The allegation sources for CY 2008 were about evenly split between contractor employees and licensee employees. In the allegations submitted to the NRC, some concerns were raised about incidents that purportedly chilled the work environment stemming from the perception of a few individuals that senior management exhibited production-over-safety behaviors.

The licensee's ECP is receiving concerns similar to those received by the NRC and saw a similar increase in the number of concerns raised from CY 2007 to CY 2008 as the facility staffing level has been reduced. The site is currently taking actions in response to some issues that were identified during its evaluation of allegations submitted for evaluation via an NRC allegation RFI and is also taking actions in response to a recent independent safety culture assessment which found overall the licensee's safety culture to be satisfactory, but noted some areas needing improvement (e.g., work control, operating experience, organizational change management, and the corrective action program).

**FIGURE 14 - NATIONAL ENRICHMENT FACILITY ALLEGATIONS**



The NRC will continue to monitor allegation activity involving the National Enrichment Facility through normal inspection activities as the facility continues to downsize in its approach to operational status.

#### **Allegation Trends for Selected Vendors**

Because none of the vendors received a sufficient number of allegations to discern a trend or pattern or to provide insights into the work environment, this report does not include more in depth reviews of specific vendors. The report also does not provide statistics by contractor or vendor because publishing the number of allegations could identify an alleger.

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## CONCLUSIONS

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From CY 2004 through 2007 the trend in the total number of allegations received by the NRC declined slightly. In CY 2008 however, the total number of allegations received increased by about 10 percent, primarily due to substantive increases in allegations received at several reactor facilities and one fuel cycle facility. The increases do not appear to be the result of a general industry issue or other external factor. The number of allegations processed by the NRC involving Agreement State matters continues to decline to a minimal level as additional States achieve Agreement State status. Most individuals who contact the NRC with concerns about Agreement State licensees agree to have their concerns forwarded to the Agreement State for resolution and the NRC does not process these concerns as allegations. To ensure that Agreement States maintain a program that is adequate to protect public health and safety and appropriately compatible with the NRC's program, the Agency periodically reviews the actions of the Agreement States. The results of these reviews in CY 2008 demonstrate that the Agreement States continue to rank response to allegations as a high priority in protecting public health and safety.

The analyses of allegations have provided insights into the SCWE at several facilities. The staff has taken action to engage licensees concerning their work environment when warranted and will continue to monitor these sites with interest.

The agency's Early-ADR process resulted in 11 cases in which discrimination allegations were successfully settled between the parties before the start of an NRC investigation. The staff believes that voluntary dispute resolution by the parties using the communication opportunities afforded in Early-ADR can stem the inherent damage such disputes have on the SCWE more quickly than an investigation can.

Finally, the NRC developed enhanced guidance for the staff responsible for handling allegations in a number of program areas based on an internal review of the lessons learned in CY 2007 in handling allegations of inattentive security officers. The areas enhanced include communicating with alлегers; the process for requesting from a licensee information related to an allegation; informing the NRC inspectors of allegation activity, as appropriate; expectations for review and documentation of allegation closure information involving a licensee response to a RFI; and, handling alлегer feedback after the allegation is closed. The staff engaged external stakeholders regarding aspects of the process enhancements in early 2009. The NRC will document the outcome of these efforts in Commission and Allegation Program policy and guidance documents.

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APPENDIX

ALLEGATION STATISTICS  
OPERATING REACTORS AND FUEL CYCLE FACILITIES

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## OPERATING REACTOR ALLEGATIONS RECEIVED FROM ONSITE SOURCES

Site	2004	2005	2006	2007	2008
ARKANSAS 1 & 2	6	4	4	8	6
BEAVER VALLEY 1 & 2	9	7	3	2	3
BRAIDWOOD 1 & 2	3	4	6	5	3
BROWNS FERRY 1, 2 & 3	19	24	17	11	18
BRUNSWICK 1 & 2	2	3	1	3	2
BYRON 1 & 2	6	12	3	9	8
CALLAWAY	1	11	3	17	2
CALVERT CLIFFS 1 & 2	5	1	2	1	
CATAWBA 1 & 2	2			2	3
CLINTON	4	1	3	1	1
COLUMBIA PLANT	6	7	3	3	1
COMANCHE PEAK 1 & 2	2	9	3	4	5
COOK 1 & 2	12	7	7	3	5
COOPER	10	1	3	2	3
CRYSTAL RIVER	4	2	5	4	2
DAVIS-BESSE	12	9		4	1
DIABLO CANYON 1 & 2	2	2	2	2	13
DRESDEN 2 & 3	3	9	7		8
DUANE ARNOLD	8	1	1	1	2
FARLEY 1 & 2	1	4	4	5	5
FERMI	2	2	3	10	3
FITZPATRICK		3	3	1	2
FORT CALHOUN	2	2	6		1
GINNA		2	2	2	4
GRAND GULF	6	7	4	8	4
HARRIS		9	14	14	1
HATCH 1 & 2	1	3	1	6	7
INDIAN POINT 2 & 3	19	9	15	19	3
KEWAUNEE	3	3	4	1	
LASALLE 1 & 2		2	1	5	1
LIMERICK 1 & 2	4	8	4	1	3
MCGUIRE 1 & 2	2	2			2
MILLSTONE 2 & 3	1	10	9	5	8
MONTICELLO		2	2	1	2
NINE MILE POINT 1 & 2	4	4	5	6	1
NORTH ANNA 1 & 2	4	2	1	3	1
OCONEE 1, 2, & 3	11	3	2	2	1
OYSTER CREEK	8	14	4	2	6
PALISADES	10	3	6	5	6
PALO VERDE 1, 2, & 3	8	22	16	18	17
PEACH BOTTOM 2 & 3	1	5	6	8	3
PERRY	12	4	1	1	6

Site	2004	2005	2006	2007	2008
PILGRIM	14	9	6	7	8
POINT BEACH 1 & 2	11	13	2	1	5
PRAIRIE ISLAND 1 & 2	4	5	6	6	5
QUAD CITIES 1 & 2	1	2	1	4	4
RIVER BEND	3	2	3	2	8
ROBINSON		1	1		1
SALEM/HOPE CREEK	18	23	14	16	11
SAN ONOFRE 2 & 3	13	10	15	12	18
SEABROOK	3	10	4	4	9
SEQUOYAH 1 & 2	4	10	11	13	19
SOUTH TEXAS 1 & 2	6	4	8	6	8
ST LUCIE 1 & 2	4	16	15	11	6
SUMMER	3		3		2
SURRY 1 & 2	1	2		1	2
SUSQUEHANNA 1 & 2	13	20	19	13	32
THREE MILE ISLAND	6	4	1	1	2
TURKEY POINT 3 & 4	9	10	18	4	19
VERMONT YANKEE	3	1	4	3	1
VOGTLE 1 & 2	1	5	5	7	1
WATERFORD	1	2	2	2	4
WATTS BAR 1	4	2	6	3	9
WOLF CREEK		3	1	1	7

## FUEL CYCLE FACILITY ALLEGATIONS RECEIVED FROM ONSITE SOURCES

<b>Site</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
AMERICAN CENTRIFUGE PLANT				1	
BWX TECHNOLOGIES, INC.			3	1	
FRAMATONE-LYNCHBURG	1				
FRAMATONE-RICHLAND	1		1		
GLOBAL NUCLEAR FUEL	1	2		1	1
HONEYWELL	2	7		1	4
LOUISIANA ENERGY SERVICES			1	1	11
NUCLEAR FUEL SERVICES, INC.	10	6	1	3	3
PADUCAH	10	7	3	6	3

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