



# **ALLEGATION PROGRAM**

## **ANNUAL TRENDS REPORT**

**Calendar Year 2014**

**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 November 15, 2010, requires the Agency Allegation Advisor to 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, this report discusses staff activity in calendar year (CY) 2014 involving the Allegation Program and related policies. Lastly, the allegation staff continues to carry out the agency-sponsored alternative dispute-resolution (ADR) process for discrimination allegations (early ADR). This pre-investigation process gives an individual and his or her employer (or former employer) the opportunity to resolve an allegation of discrimination through mediation, potentially avoiding lengthy litigation or have the NRC start an investigation. Sixty-two percent of the CY 2014 mediated discrimination concerns reached settlement.

In the CY 2010 to CY 2014 timeframe, the total number of allegations<sup>1</sup> received from reactor licensees, materials licensees, and vendors has fluctuated above and below 500 allegations per year, with an overall declining trend. Although the total number of allegations received in CY 2012 increased by 4 percent over CY 2011, allegations received in CY 2013 decreased by about 8 percent compared to the previous year and those received in CY 2014 decreased by 11 percent. Although facility- or vendor-specific matters do play a significant role in allegation trends, anecdotal information suggests that the overall decline could be the result of increased efforts by the NRC and nuclear industry to focus attention on developing and maintaining stronger environments for raising concerns at regulated entities.

Each allegation can include multiple concerns. Over the past 5 years, the trend in the total number of concerns has generally paralleled the trend in total allegations (i.e., as the number of allegations has increased or decreased, the number of concerns has increased or decreased correspondingly). In CY 2014, coinciding with the overall decrease in allegations received, the total volume of allegation concerns received decreased as well. More specifically, the number of allegations received in three of the four regional offices declined, and in all but one case declined by greater than 30 percent. Region I experienced an increase in the number of allegations and specific concerns received that was largely attributable to concerns raised in regard to two reactor sites. The largest percentage of concerns received nationwide was discrimination concerns, which decreased from the number of discrimination concerns received in CY 2013. These concerns involved workers primarily from operations, maintenance, security, and quality assurance functional organizations. Chilling effect concerns constituted the second highest percentage of concerns received nationwide and also decreased in CY 2014 compared to CY 2013. About 40 percent of the chilling effect concerns involved sites associated with the construction of new reactors, including the related vendor sites. The most often mentioned behaviors perceived by allegers to cause the chilling effect involved negative treatment after raising a concern; supervisors who discourage using the corrective action program or employee concerns program to document concerns; or supervisors who pressure workers to falsify documents to cover-up deficiencies. Although the number of security-related concerns increased slightly in CY 2014, 23 percent of those involved only two allegations concerning reactor sites in different regions.

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<sup>1</sup> An allegation is defined as "a declaration, statement, or assertion of impropriety or inadequacy associated with NRC-regulated activities, the validity of which has not been established" in Management Directive 8.8, "Management of Allegations," November 15, 2010.

For some in the regulated community, the NRC received allegations in numbers that warranted additional analysis.<sup>2</sup> 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 environment for raising concerns. Because a large volume of allegations from onsite sources could be indicative of a chilled work environment, the staff selected one operating reactor site, one reactor site under construction; one materials facility, and one vendor site for more in-depth review: Susquehanna Units 1 and 2; Vogtle Units 3 and 4; Honeywell; and Lake Charles. This report discusses allegation trends at each of these sites. In summary, the trends for two of the sites did not suggest a concern about the environment for raising concerns. Of the other sites, the trends are indicative of a chilled work environment, the associated employers are taking actions to address the weaknesses, and the NRC is closely monitoring the ongoing activities.

Finally, in CY 2013, the NRC reviewed the effectiveness of 11 Agreement State Programs' responses to concerns and concluded that the Agreement States continue to address concerns promptly, thoroughly document their investigations and closeout actions, inform the concerned individuals of the outcomes, and protect the concerned individuals' identities.

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<sup>2</sup> The total number of allegations received concerning reactor and fuel facility 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>.

## TRENDS IN ALLEGATIONS

The U.S. Nuclear Regulatory Commission (NRC) monitors allegations to discern trends or marked increases that might prompt the agency to question a licensee about the causes of such changes. In preparing this report, the staff reviewed a 5-year history of allegations received for reactor and materials licensees and vendors. Additionally, the staff focused on allegations with the potential to offer insights into the environment for raising concerns (i.e., safety conscious work environment (SCWE)) at a given facility. Such allegations include those submitted by current or former licensees, contractor employees, or anonymous sources that indicate an unwillingness or hesitance 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 might analyze a particular site or licensee whenever allegations or inspection findings indicate that such an analysis is warranted.

The staff also reviews national trends for reactor and materials allegations, shifts in users of the Allegation Program, and the effect that the implementation of the program has on the workload in the NRC regional and program offices. The following section discusses these trends.

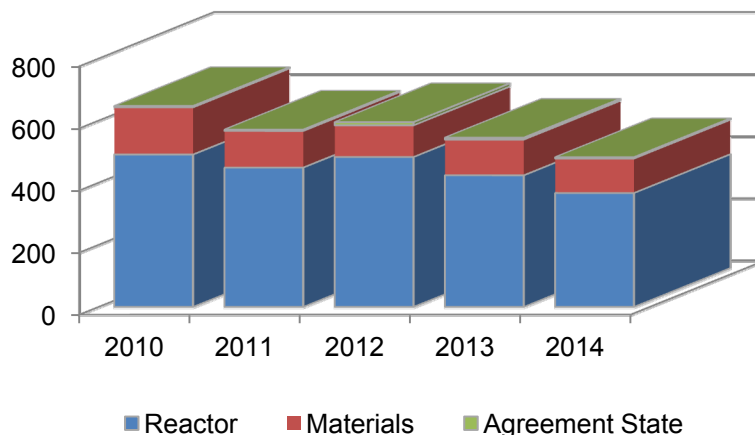
### National Trends

National trends inform the staff about the effect of external factors, plant events, and industry efforts to improve the SCWE at NRC-licensed facilities. They can help develop budget and planning assumptions to support future agency and Allegation Program needs.

Figure 1 shows that the NRC receives about 500 to 600 allegations each year and that there has been an overall declining trend in the total number of allegations received from calendar year (CY) 2010 through CY 2014. The decrease in allegations received in CY 2011 was the result of large reductions in allegations received for two reactor facilities that experienced

SCWE problems in previous years. As actions were carried out at these facilities in response to the identified SCWE problem, the number of allegations received dropped precipitously in subsequent years. And although the number of allegations received in CY 2012 increased slightly, the following year the number of allegations continued its downward trend. Although there was a decrease in allegations involving reactor licensees in CY 2013, allegations involving a number of materials licensees increased. The decrease in allegations involving reactor licensees continued in CY 2014, and those involving materials decreased as well. Over the 5-year period represented in Figure 1 the number of allegations has decreased approximately 25 percent. Although facility- or vendor-specific matters (e.g., significant outage activity, construction activity, security activity, process/program changes, or company

**FIGURE 1 ALLEGATIONS RECEIVED BY CALENDAR YEAR**



restructuring/staffing adjustments) do play a significant role in allegation trends, anecdotal information suggests that the overall decline may be the result of increased efforts by the NRC and nuclear industry to focus attention on developing and maintaining stronger environments for raising concerns at regulated entities.

The number of allegations that the NRC processed for Agreement State matters continues to be minimal. The total number of Agreement States remains at 37. Once the Agreement State Program is explained to individuals who contact the NRC with concerns about Agreement State licensees, most indicate a willingness to contact and be contacted directly by Agreement State personnel about the evaluation of their concern(s). The NRC forwards these matters to the Agreement State and does not process them as allegations. Generally, the NRC only uses the Allegation Program 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 supply more specific information on the staff effort needed for an appropriate response. Typically, each allegation represents two to three concerns. Over the past decade, the trend in the total number of concerns in all but one year has paralleled the trend in total allegations (i.e., as the number of allegations has increased or decreased, the number of concerns has increased or decreased correspondingly).<sup>3</sup> In CY 2014, coinciding with the overall decrease in allegations received, the total volume of allegation concerns received decreased as well. More specifically, the number of allegations received in three of the four regional offices, as well as in the Office of Nuclear Reactor Regulation and the Office of New Reactors declined, and in all but one case declined by greater than 30 percent; Region II was the exception, which only saw a small decline. Region I, the Office of Nuclear Material Safety and Safeguards (including the former Office of Federal and State Materials and Environmental Management Programs), and the Office of Nuclear Security and Incident Response experienced increases in the number of concerns received coinciding with their increased number of allegations. The greatest increase in allegations and concerns, received by Region I, was largely attributable to concerns raised in regard to two reactor sites.

### Reactor Licensee Trends

To offer further insight into areas in which the NRC is allocating resources for the evaluation of reactor-related allegations, Figure 2 shows the 14 functional areas that represent approximately 80 percent of the issues about which allegations were received nationwide in CY 2013.<sup>4</sup>

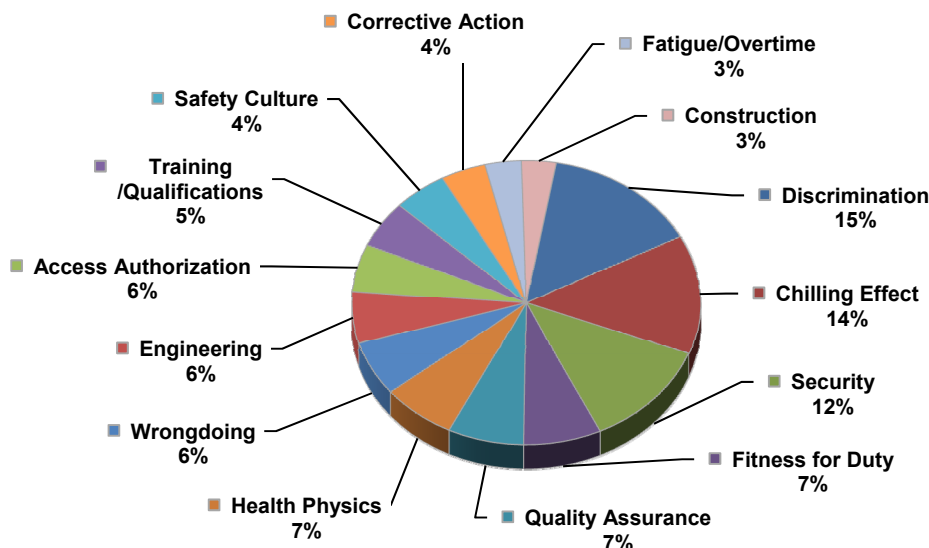
Figure 2 shows that the largest percentage of concerns in allegations received nationwide was discrimination concerns, which, nonetheless, decreased by 28 percent from the number of discrimination concerns received in CY 2013. A review of all discrimination concerns received in CY 2014 found trends in both the source and site variables. Claims were made by three times as many former contractor employees as former licensee employees. Of current workers, however, licensee employees were twice as likely to raise discrimination concerns as

<sup>3</sup> Although the total number of allegations in CY 2007 decreased, the number of concerns for reactor facilities actually increased in almost every region and program office.

<sup>4</sup> The agency received few allegations about concerns in areas not shown in Figure 2, which represent the remaining 20 percent of the issues received. These areas include civil/structural, electrical, emergency preparedness, Employee Concerns Programs, environmental qualifications, falsification, fire protection, industrial safety, instrumentation and control, licensing, maintenance, mechanical, nondestructive evaluation, operations, procurement, and safeguards.

contractors. Workers at reactor and vendor sites in Regions II raised more discrimination concerns than workers in the other Regions. These concerns involved workers primarily from operations, maintenance, security, and quality assurance functional organizations.

**FIGURE 2 REACTOR CONCERNS NATIONWIDE 2014**



The total number of chilling effect concerns in CY 2014 declined slightly. The NRC uses the term “chilling effect” to describe a condition that occurs when an event, interaction, decision, or policy change results in a perception that the raising of safety concerns to the employer or to the NRC is being suppressed or is discouraged. In CY 2014, about 40 percent of the chilling effect concerns involved the environment for raising concerns at the sites associated with the construction of new reactors, including the related vendor sites. Most were raised by contractor employees and, not surprisingly, most involved work environments in the construction and quality assurance departments. The most often mentioned behaviors perceived by individuals to cause the chilling effect involved negative treatment, such as harassment or discrimination, after raising a concern; supervisors who discourage using the corrective action program or employee concerns program to document concerns; or supervisors who pressure workers to falsify documents to cover-up deficiencies. About 13 percent of chilling effect allegation concerns were substantiated in CY 2014 and 10 percent remained open at the time this report was being prepared. Of note, very few concerns were raised to the NRC related to schedule pressure causing a chilling effect.

Although the number of security-related concerns increased slightly in CY 2014, 23 percent of those involved allegations raised by only two individuals concerning two different reactor sites. Most security-related allegation concerns were received in CY 2014 from licensee employees. No specific trends were found in the types of concerns raised. Allegations included concerns about discrimination, inattentiveness, compensatory measures, inadequate procedures and testing, and training qualifications. Of note, very few security-related chilling effect concerns were submitted in CY 2014.

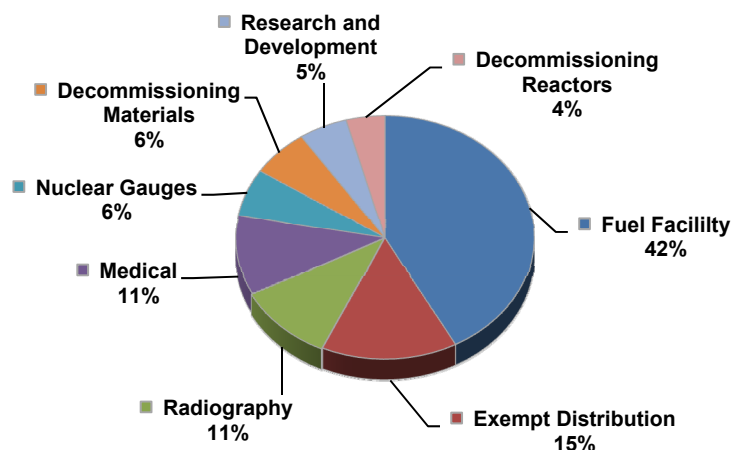
The number of fitness-for-duty concerns remained the same. Over 40 percent were drug- or alcohol-related including alleged drug or alcohol abuse, concerns about the licensee’s drug

testing policy, or concerns about attempted fitness-for-duty test subversion. No site or licensee trends were identified in the data.

### Materials Licensee Trends

A comparison of the types of materials issues in received allegations does not produce meaningful results because there are many different types of materials licensees and the activities they perform vary greatly. To offer insights into areas in which the NRC focused its attention on materials-related allegations, Figure 3 shows the eight types of materials licensees that accounted for about 80 percent of allegation concerns that the NRC received nationwide.<sup>5</sup>

**FIGURE 3 ALLEGATIONS BY TYPE OF MATERIALS LICENSEE NATIONWIDE 2014**



The NRC received slightly fewer materials allegations in CY 2014 compared to the numbers received in the previous year. Since CY 2004, the number of allegations related to fuel cycle facilities has constituted the highest percentage (30 percent to 50 percent) of materials allegations. For this reason, overall fluctuations in the receipt rate of materials allegations have primarily been the result of changes in the receipt rate of allegations involving one or more fuel cycle facilities. The second highest percentage of materials-related allegations in CY 2014 involved allegations in the exempt distribution area. Such allegations involve concerns about the alleged unauthorized sale of products containing exempt quantities of byproduct material by retailers that do not retain appropriate exempt distribution or possession licenses.

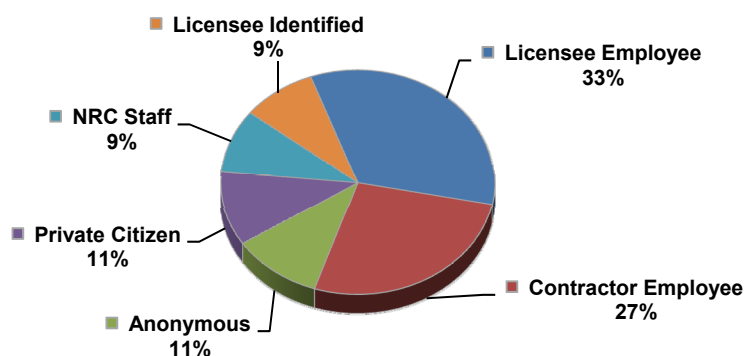
<sup>5</sup> The agency received few concerns about the materials licensee types that are not shown in Figure 3, which represent the remaining 20 percent of the issues received. These licensee types include academic, casks, special nuclear material, transportation, tritium light sources, uranium recovery, and well logging.



### Source Trends

Figure 4 shows a breakdown of 99 percent of the sources for reactors and materials allegations received in CY 2014.<sup>6</sup> The data indicate that the distribution of source categories remained consistent from CY 2010 to CY 2014. That is, employees of licensees (or former employees) and contractors (or former contractors) continue to be the primary sources of allegations. Because the total number of allegations received in CY 2014 was about 11 percent lower than the number received in CY 2013, it follows that there was a notable decline in the number of allegations raised by these two groups. Persons wishing to remain anonymous continued to be the third largest source of allegations but their numbers increased somewhat. In considering those allegation sources mentioned previously that have the potential to offer insights into the SCWE at a given facility (i.e., allegations submitted by current or former licensee or contractor employees or by anonymous sources), the percentage of allegations from these sources has consistently remained around 75 percent annually.

**FIGURE 4 ALLEGATIONS BY SOURCE CATEGORY  
NATIONWIDE 2014**



Two of the source categories deserve some explanation. The source category “NRC staff” designates an NRC staff member who suspects that a regulatory requirement has been violated deliberately or because of careless disregard, thus prompting the initiation of an investigation by the NRC Office of Investigations. The source category “Licensee Identified” denotes that a licensee representative, acting in his or her official capacity, has reported potential wrongdoing to the NRC. The agency staff assigns an allegation process tracking number to such items so that evaluation progress related to the alleged wrongdoing issue may be tracked.

### Allegation Trends for Selected Reactor Sites

Trending the number and nature of allegations for specific reactor sites, individually and in the aggregate, is one method NRC staff uses to monitor the SCWE at reactor sites. The appendix to this report offers statistics on allegations for all operating and non-operating reactor sites. The NRC received the listed allegations during the 5-year period between January 2010 and December 2014 and includes only allegations received from onsite sources (i.e., those that might indicate the health of the SCWE). Onsite sources include current or former licensee

<sup>6</sup> The NRC received few concerns from the 1 percent of sources not shown in Figure 4. These sources include state/federal agencies, and special interest groups.

employees, current or former contractor employees, and anonymous alлегers. For the purpose of this analysis, the NRC assumed that anonymous allegations came from onsite personnel.

Because a large volume of allegations from onsite sources might indicate a SCWE at risk, the staff conducted a more in-depth SCWE review of certain sites with larger numbers of onsite allegations. And because sites with a larger population of employees and contractors (such as three-unit reactor sites) typically generate more allegations, it is important to normalize the data to help ensure that those sites are not disproportionately chosen for further analysis. The following algorithm based on the median number of allegations received at operating reactor sites over the calendar year, and that considers the varying workforce size at different sites, determines what sites warrant this additional review:

- 1-unit reactor sites (or any site with fewer than 800 persons) with an onsite allegation volume greater than 2.25 times the median
- 2-unit reactor sites (or any site with 800 to 1,000 persons) with an onsite allegation volume greater than 3 times the median
- 3-unit reactor sites (or any site with more than 1,000 persons) with an onsite allegation volume greater than 4.5 times the median

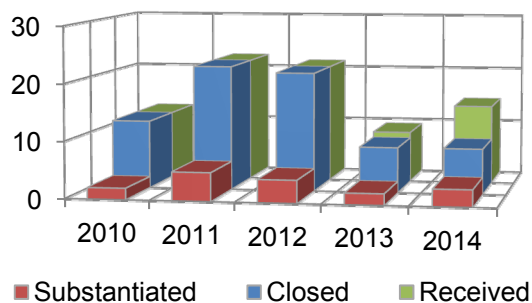
The staff recognizes, and takes into consideration when applying the above criteria, that during times of significant site activity, the site population might increase substantially.

For CY 2014, the median number of allegations per operating reactor site was three. Susquehanna Units 1 and 2, with 14 onsite allegations therefore, met these criteria. The criteria were also applied to non-operating (pre-operating license) sites and one, Vogtle Units 3 and 4 with 16 onsite allegations, also met these criteria. The staff's analyses of the SCWE at both of these reactor sites are discussed below.

### Susquehanna Units 1 and 2

After declining for two years in a row, the number of allegations received from onsite sources at the Susquehanna site increased last year. However, given the amount of outage activity, management changes, and union activities experienced at the site in CY 2014, the number and nature of allegations received does not appear to indicate weaknesses in the environment for raising concerns. In addition, no allegation concerns were raised related to chilling effect or a chilled work environment. This is a significant departure from past years in which a substantial portion of allegation concerns raised about the site involved assertions of a chilled work environment. Finally, an analysis of the subject matter of the technical allegation concerns received in CY 2014 does not indicate a trend in any specific functional area or concern type.

**FIGURE 5 SUSQUEHANNA 1 AND 2 ALLEGATIONS**



Although a number of discrimination concerns associated with Susquehanna Units 1 and 2 rose, none were concentrated in a specific plant department; none focused on a specific event or company policy issue, nor were otherwise indicative of a systemic pattern of concern. Of the discrimination issues raised in CY 2014, two remain open and under investigation and two were not investigated because a third party asserted discrimination. The NRC does not pursue third-party discrimination concerns because it is necessary to have the cooperation of the individual allegedly retaliated against to investigate the issue effectively. Instead, the NRC suggests that the alleged reporting the concern supply the third party with information so that they may contact the agency directly, if so desired. The remaining discrimination concerns were not investigated because the alleged did not establish a prima facie showing of potential discrimination. For clarification, to consider a matter of potential discrimination under Title 10 of the *Code of Federal Regulations*, an alleged 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 protected activity, and that the protected activity was, in part, a reason for the adverse personnel action. None of the discrimination concerns received by the NRC in the four years before CY 2014 were substantiated.

The most recent biennial Problem Identification and Resolution inspection at the Susquehanna site was completed in June 2014 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML14216A216). Although the inspection team identified some weaknesses in the corrective action area involving the prioritization, efficiency and timeliness of actions taken in response to concerns raised, the team also found an overall willingness of site workers to raise safety concerns. Interviews were conducted in multiple departments and found no evidence of conditions that impaired the SCWE onsite, and also that employees had adequate knowledge of the avenues available for raising safety concerns including the corrective action program and employee concerns program.

In July 2014, a supplemental inspection using inspection procedure 95002, "Supplemental Inspection for One Degraded Cornerstone or Any Three White Inputs in a Strategic Performance Area" was completed at Susquehanna Unit 2 because of the site being in the degraded cornerstone column of the ROP Action Matrix due events involving unplanned reactor trips (ADAMS Accession No. ML14255A250). The inspection team conducted interviews and focus groups with licensee staff. Seventy individuals were interviewed, including 21 supervisors and senior managers who were interviewed separate from the staff-level personnel. The input gathered in the interviews and focus groups identified an overall willingness to raise issues and use the corrective action program, and that workers would not hesitate to stop work if a problem was encountered. Of the corrective action area, the interviewees indicated that the licensee was good at identifying problems, but could be more effective at resolving them. Workers perceived that change management is a recurring weakness at Susquehanna. Examples supplied included the transition to new corrective action program software (put into place in late 2013) and the implementation of new procedures. Specific difficulties were identified as a lack of communication concerning the changes, using ineffective methods to communicate to the workforce, failure to get input from the workforce during the development of changes, and not thoroughly evaluating the effect of a change before it was carried out.

A discussion with the licensee's employee concerns program personnel, both onsite and at the licensee's corporate office revealed that the employee concerns program also received more concerns in CY 2014. Higher than normal traffic was encountered in March–May 2014, a time frame that included a Susquehanna Unit 2 outage to repair a non-safety-related pump and the

Susquehanna Unit 1 refueling and maintenance outage. This was also the period of time leading up to the NRC's 95002 inspection. In addition to multiple outages that took place at Susquehanna in CY 2014, the employee concerns program personnel attributed concern increases in CY 2014 to significant union activity, multiple senior management changes, and a change in the long-term general contractor. The employee concerns program personnel noted that Susquehanna employees are not reluctant to raise concerns or to confront management. Workers are aware of the various avenues for raising concerns but primarily use the corrective action program. Some concerns were submitted to the employee concerns program about the implementation of a new corrective action program database in early 2014, but no concerns were submitted to the employee concerns program about the corrective action program in the last 6 months of CY 2014.

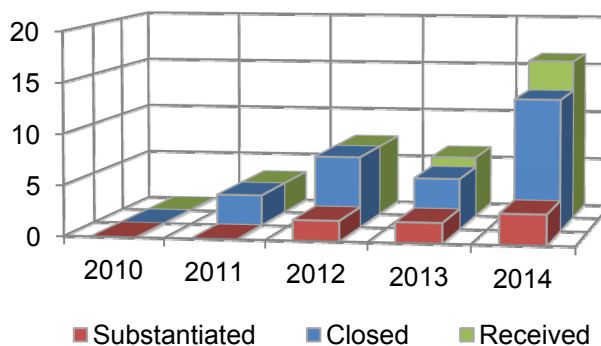
In the area of SCWE maintenance, a safety culture survey, which included an assessment of the environment for raising concerns trait, was conducted at Susquehanna in January 2013. The survey identified concerns in employee recognition and change management. Some work environment issues were identified in the Health Physics, Training, and Security organizations. The survey results prompted the licensee to develop a "Plan for Excellence." The plan's emphasis in CY 2013 was the corrective action program, equipment reliability and work management, while its emphasis in CY 2014 was improvement in operations focus and leadership. Employee concerns program representatives noted that the performance indicators developed for the Plan indicate the licensee made significant improvement in operations and leadership. The next SCWE survey at the Susquehanna site was taking place at the time this report was being prepared.

In summary, given the amount of outage activity, management changes, and union activities experienced at Susquehanna Units 1 and 2 in CY 2014, the number and nature of allegations received from onsite sources at does not appear to indicate a work environment problem. The NRC will maintain its oversight of the SCWE at Susquehanna in CY 2015 through normal inspection activities.

#### Vogtle Units 3 and 4

Representing a departure from the gradual increasing trend experienced over the past five years, the number of allegations the NRC received from onsite sources about Vogtle Units 3 and 4, two units under construction, increased significantly in CY 2014 from the number received in CY 2013. More than half of the CY 2014 allegations from onsite sources were received in the third quarter of the year as hiring peaked to accommodate new construction activities and future operations. Allegation sources, not surprisingly, were concentrated in the contractor category and many involved Chicago Bridge & Iron (CB&I) or its subcontractors' employees. Only one allegor came to the NRC anonymously. Almost half the concerns received were chilling effect

**FIGURE 6 VOGTLE 3 AND 4 ALLEGATIONS**



concerns and most of those involved CB&I and a subcontractor. Lesser trends were observed in welding and discrimination concerns.

In the second quarter of the year, the NRC substantiated a chilled work environment allegation in the Security organization, based on an evaluation by the licensee and independently verified by the NRC. Most of the security officers that were interviewed during the licensee's evaluation reportedly stated that they were reluctant to raise any concern to their management, or the licensee's, for fear of retaliation and described examples of management behaviors that contributed to that perception, including the perception that no actions were taken by their supervisors to address concerns previously raised. They did, however, express comfort raising concerns to CB&I supervisors and using CB&I's employee concerns program. The licensee committed to address this concern by, in part, SCWE refresher training.

A second chilling effect allegation was substantiated in the late summer, involving the same contractors and sub-contractors on a particular shift in the Modular Assembly Building. Based on an earlier NRC-requested evaluation by the licensee, the Commission concluded this particular group of employees was chilled. In a related matter, a 2013 confirmatory order associated with an apparent violation of employee protection regulations by CB&I included a number of required actions to address weaknesses in the SCWE. Although the infraction involved personnel at the Lake Charles facility, the confirmatory order extended the required actions to CB&I nuclear activities elsewhere, including the Vogtle 3 and 4 site. The 2013 confirmatory order was superceded by a 2014 confirmatory order associated with willful violations that supplemented the required actions.

The number of discrimination allegations also trended upward in CY 2014. The NRC received four discrimination concerns in 2014. At the time of this report one was still open and in the early alternative dispute resolution process; one was open and being investigated; one was withdrawn by the allegor; and one did not make a prima facie showing. Three of the four discrimination allegations in CY 2014 involved CB&I or their subcontractors. None of the 10 discrimination allegations raised in the previous four years has been substantiated.

The NRC's annual inspection of the licensee's corrective action program was completed in late February 2014 (ADAMS Accession No. ML14087A320) and, with regard to the site's environment for raising concerns, identified no concerns. The scope of the inspection in this regard was limited to inspectors observing meetings and activities in the field and reviewing documentation. The inspection report noted that adequate staffing levels appeared to prevent excessive overtime and no instances of concerns were being identified repeatedly because of inadequate corrective actions—two issues that can cause an unwillingness or hesitation to raise concerns.

About 4000 people worked on the Vogtle construction site during this review period, the overwhelming majority of which are CB&I contractors and subcontractors. CB&I maintained its own employee concerns program that received nearly 200 concerns for investigation, 50 of which were chilling effect concerns. Half of all concerns were received anonymously; most in drop boxes. By mid-year, the employee concerns program had substantiated 11 chilling effect concerns and initiated a corrective action plan to address this trend and management behaviors related to the chilling effect concerns.

CB&I contracted a third-party to assess comprehensively the safety culture. Such assessments are mandated under the 2013 confirmatory order mentioned earlier. The assessment took place in July 2014 and surveyed about 3,000 workers on site, with a response rate of 94 percent.

Although the assessment concluded that nuclear safety was not compromised by production priorities, weaknesses requiring management attention were identified, including trust, training, and leadership behaviors. The contractor reported that 79 percent of those surveyed thought the organization effectively put a policy into place that supports workers' rights to raise safety concerns and does not tolerate retaliation. And although several of the write-in comments indicated workers did not seem to have a clear picture of what constituted the expected threshold for writing a condition report, during interviews personnel consistently expressed a willingness to raise concerns to their immediate or next-level supervision without fear of retaliation, and most were able to identify alternate means for raising concerns.

CB&I indicated the actions taken, including reinforcing leadership expectations, leadership training on those expectations, changes made to management personnel, and a better working relationship between the human resources and employee concerns program organizations, appear to have improved the work environment and the number of chilling effect concerns dropped significantly in the second half of the year.

In summary, although allegations increased sharply at the Vogtle construction site and many of those involved chilling effect concerns, the licensee and their primary contractor, CB&I, identified a negative trend in their employee concerns program data with respect to leadership behaviors and started actions to address those trends and corroborating evidence identified by the third-party safety culture assessment that took place in July 2014. Furthermore, the licensee's investigations of chilling effect allegation concerns requested by the NRC appear to have been thorough and actions were taken to address found weaknesses. The NRC will maintain its oversight of the SCWE at Vogtle Units 3 and 4 to ensure corrective actions are completed and result in sustained performance improvements.

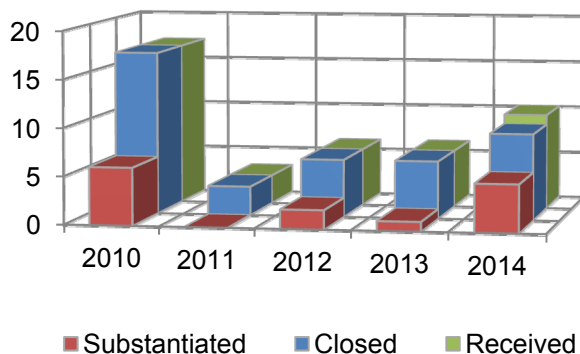
### Allegation Trends for Selected Materials Licensees

The NRC Web site posts allegation statistics for certain fuel cycle facilities (see the appendix to this report). Because of the small number of allegations and the smaller workforce sizes associated with the overwhelming majority of other smaller materials licensees, the potential for a licensee or contractor to identify an allegor is increased. For this reason, tables of statistics on allegations about materials licensees other than fuel cycle facilities have not been offered publicly or included in this report. One fuel cycle facility received a sufficient number of allegations to warrant a more in-depth review of the SCWE and is discussed in the following section.

#### Honeywell

As seen in Figure 7, the number of allegations received from onsite sources at Honeywell continued to trend upward in CY 2014. Most issues raised involved Health Physics or Operations concerns. Although there was a union lockout in August 2014 and in prior years similar actions contributed to the increase in allegations, in CY 2014 a majority of the allegations were received in the first two quarters of the year,

**FIGURE 7 HONEYWELL ALLEGATIONS**



before the lockout. Also, in October 2014 there was an event involving a uranium hexafluoride leak that was classified as an “alert” under the NRC’s emergency classification guidelines because of its potential to degrade the level of safety of the plant. The NRC defines emergencies at fuel facilities according to three levels of increasing significance: unusual event, alert, and site area emergency. The purpose of the alert classification is to ensure that emergency personnel are readily available to respond if the situation becomes more serious or to confirm radiation monitoring if required, and offer offsite authorities current information on plant status and parameters. The NRC concluded, however, that no detectable radioactive material was released from the site during this event. Although such events can trigger an increase in allegations, in this instance there was no resulting significant increase in concerns received.

To monitor the environment for raising concerns, the licensee reports it often conducts SCWE surveys of the workforce and did so in June 2014. In response to the survey’s findings, the licensee revised their annual SCWE training and offered extra supervisory training. In addition to the corrective action program, the licensee supplies a number of alternative avenues to the workforce for raising concerns, including an employee concerns hotline and suggestion boxes; both of these avenues allow for reporting concerns anonymously. Although no concerns were received through these avenues in CY 2014, the licensee stated that several employees took advantage of quarterly Health, Safety, and Environmental Committee meetings to raise concerns. In CY 2014 this committee was reinstated and the meetings designed to offer an open forum to raise concerns.

Of the environment for raising concerns, there were no chilling effect allegation concerns raised to the NRC in CY 2014, nor has there been one raised for several years. In the past 5 years, three discrimination concerns have been raised to the NRC about Honeywell. One discrimination concern was raised in CY 2014 and is still open. Of the remaining two, one was settled under the NRC’s early ADR process and the other resulted in an apparent violation of the NRC’s Employee Protection regulations and a confirmatory order was issued in early 2015 as part of a post-investigation Alternative Dispute Resolution settlement agreement (ADAMS Accession No. ML15055A094). Honeywell committed to take a number of actions to strengthen the environment for raising concerns, including reviewing and updating their SCWE policy and incorporating applicable aspects of the NRC’s Safety Culture Policy.

In conclusion, the number and nature of allegations received concerning the Honeywell site do not indicate a problem with the site’s environment for raising concerns. The NRC will continue to monitor the licensee’s compliance with the confirmatory order and otherwise maintain its oversight of the SCWE at the facility through normal inspection activity.

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

Neither this report nor the NRC Web site offers statistics by contractor or vendor for reasons similar to those outlined above for materials licensees. Nonetheless, the allegation trends of one large vendor warrant discussion in this report.

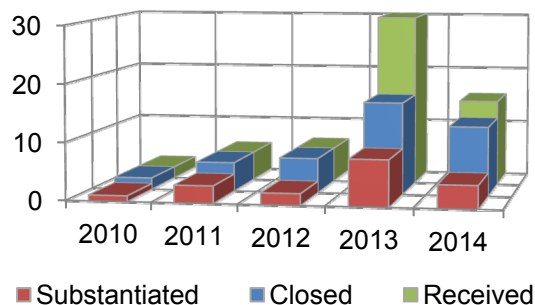
#### Lake Charles Facility

The number of allegations received by the NRC from onsite sources about the Chicago Bridge and Iron Lake Charles facility in CY 2014 decreased significantly from the number received in CY 2013. All but three allegations included a claim of discrimination and many of the technical concerns raised involved quality assurance associated with welding activities, although minor



trends also were noted in the areas of chilling effect, training, and falsification concerns. Nine discrimination allegations concerns were received in CY 2014, less than half the number received in CY 2013. Of these, two remained open at the time this report was prepared; one in the ADR process and one being investigated by the NRC. Three others were settled in the ADR process and the others were either withdrawn by the alleged or did not make a prima facie showing. The number of allegation concerns received in CY 2014 asserting a chilled work environment also declined considerably. Two were substantiated early in the year as CB&I continued to take actions to address the weaknesses in the work environment identified by the NRC in CY 2013 and one remained open at the time this report was prepared.

**FIGURE 8 LAKE CHARLES FACILITY ALLEGATIONS**



Of the environment for raising concerns, on April 18, 2013, the NRC issued a chilling effect letter (ADAMS Accession No. ML13092A077) notifying the vendor that the NRC had concluded, based on inspection observations and investigations into allegations received in CY 2012 and the first quarter of CY 2013, that portions of the Lake Charles facility workforce, especially employees with nuclear and quality control backgrounds, perceived that they were not free to raise safety concerns, that they believed they would be retaliated against for raising such concerns, and that management had not been effective in assuring employees that they could raise safety issues without fear of retaliation.

The NRC issued a confirmatory order to CB&I on September 16, 2013, because of a successful post-investigation ADR session with the Agency (ADAMS Accession No. ML13231A271). The confirmatory order represents a settlement agreement between the NRC and the vendor concerning a notice of violation and Proposed Imposition of Civil Penalties issued by the NRC on April 18, 2013 (ADAMS Accession No. ML13050A597). The violation involved employment discrimination in violation of 10 CFR 52.5, "Employee Protection."

In response to both the chilling effect letter and confirmatory order, CB&I committed to taking a number of actions at all nuclear locations including Lake Charles. These include reinforcing through communications its strategy and commitment to improve its nuclear safety culture and SCWE; updating its related policies to ensure their consistency with the NRC and industry guidance; developing and revising the company's employee-protection, safety culture, and SCWE training; improving or developing a number of safety culture processes, such as the employee concerns program and safety culture monitoring tools; and assessing comprehensively nuclear safety culture of all CB&I nuclear business entities.

In February 2014, a vendor inspection at the Lake Charles facility took place that included a review of the safety culture and the actions taken in response to the chilling effect letter and confirmatory order (ADAMS Accession No. ML14072A315). Overall, the SCWE had improved since previous inspections. Most personnel stated that they were willing to raise safety concerns and were aware of the various avenues available for raising safety concerns.



As required by the 2013 confirmatory order, an independent nuclear safety culture assessment was conducted in late April 2014. According to the contractor's report, the assessment team identified no strengths, one positive observation, and a number of weaknesses and negative observations concerning several safety culture traits.

Although the number of NRC allegations decreased in CY 2014, the vendor reports that the number of employee concerns program concerns increased significantly at Lake Charles. Similar to the NRC's experience, the numbers declined in the last quarter of the year. SCWE-related training required by the 2013 confirmatory order, as well as a number of reductions-in-force executed throughout the calendar year, is suspected to have contributed to the increased number of concerns raised to the employee concerns program. Although the program received a number of chilling effect concerns, the trend declined throughout the year. Furthermore, the percentage of concerns received anonymously declined as well indicating an improved comfort with the program and raising concerns.

On September 25, 2014, the NRC issued a second confirmatory order that superceded the first to enhance actions that CB&I had previously agreed to take to further address issues related to willful violations of NRC requirements and deliberate misconduct that occurred at the Lake Charles facility in CY 2010 (ADAMS Accession No. ML14248A445). Other actions by the vendor include training to highlight the errors behind the violations and enhanced monitoring of the safety culture.

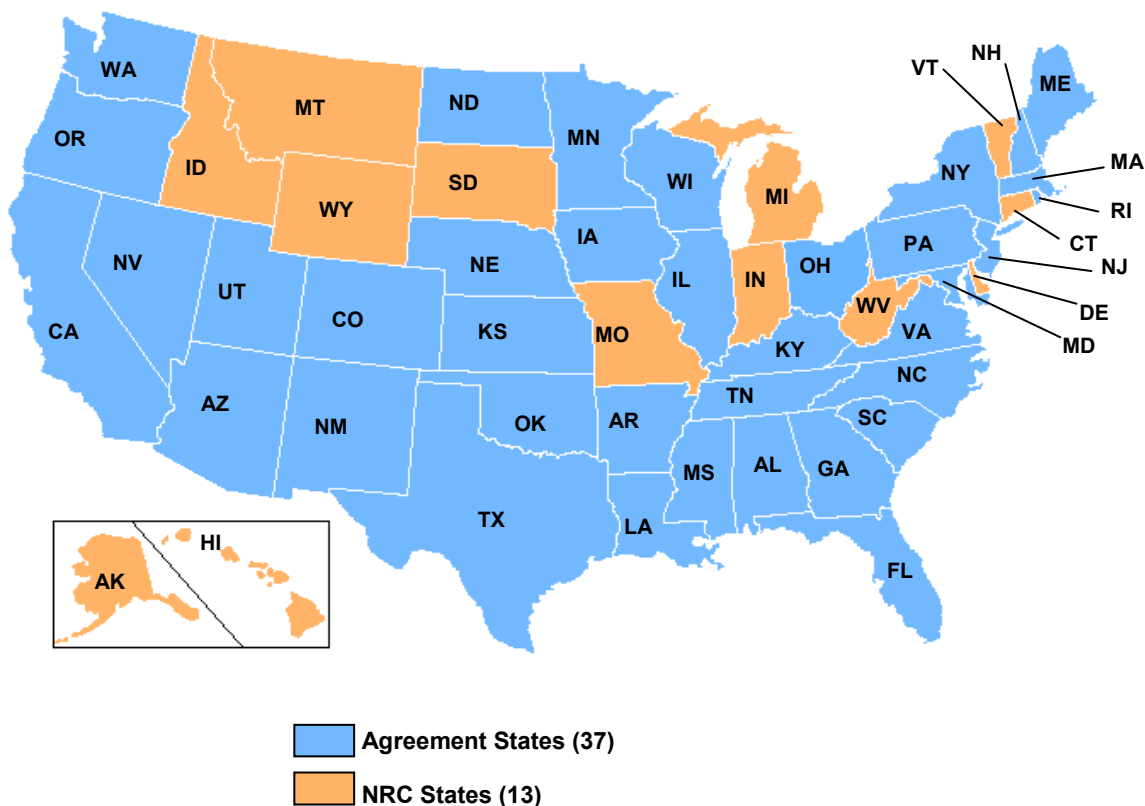
Late in the calendar year, consistent with the philosophy of the Enforcement Policy regarding violations with similar root causes for which enforcement action was taken, the NRC twice exercised enforcement discretion. The first instance involved two additional apparent violations of the NRC's deliberate misconduct regulation and three nonconformances related to the NRC's quality assurance regulations (ADAMS Accession No. ML14311A838). The second time the NRC exercised enforcement discretion was for a discrimination violation and based on the September 2013 confirmatory order (ADAMS Accession No. ML14337A190). Discretion was considered appropriate because the violations and nonconformances occurred before or during implementation of the corrective actions specified in the 2013 and 2014 confirmatory orders.

The NRC continues to monitor the vendor's SCWE and to assess CB&I's compliance with the terms of the confirmatory order and chilling effect letter.

### **Trends in the Agreement States**

Under the authority granted in Section 274b of the Atomic Energy Act of 1954, as amended (the Act), the NRC may relinquish its authority to regulate certain byproduct material, source material, 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 are compatible with the NRC's program. Figure 11 shows the 37 Agreement States.

FIGURE 9 AGREEMENT STATES



The NRC has statutory responsibility to review periodically the actions of the Agreement States to ensure that they maintain programs that are adequate to protect public health and safety and are compatible with the agency's program. 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. More information on the NRC's Agreement State Program and IMPEP is available on the Web site for the NRC's Office of Federal and State Materials and Environmental Management Programs at <http://nrc-stp.ornl.gov/>.

In CY 2014, the NRC completed routine IMPEP reviews of 11 Agreement State Programs. The review teams evaluated the effectiveness of the Agreement State Programs' responses to concerns from external sources by reviewing the casework and documentation for 80 cases cumulatively received by all of the programs reviewed. The NRC referred 25 of the 80 cases reviewed to the Agreement State Programs; the States received the other concerns directly from concerned individuals. In all cases, the review teams concluded that the States consistently took prompt and appropriate action in response to concerns raised. In all cases, the review teams noted that the States documented the results of their investigations and closeout actions, which included notifying concerned individuals of the outcomes of the investigations when the individuals' identities were known. The review team determined that the States reviewed in CY 2014 adequately protected the identity of any concerned individual who requested anonymity. In general, the results of the CY 2014 IMPEP reviews demonstrate that the Agreement States continue to treat response to concerns from external sources as a high priority in protecting public health and safety.

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## OVERVIEW OF PROGRAM ACTIVITIES

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Activities in CY 2014 in areas closely related to the Allegation Program and SCWE Policy are discussed below, including statistics associated with the agency-sponsored ADR program. The staff gathers insights into the SCWE at a particular site in several ways (e.g., by reviewing the number and nature of allegations concerning that site and through documented observations based on interviews with the licensees' workers and the review of pertinent documents during the baseline problem identification and resolution inspections). If the staff discerns that a work environment is "chilled" (i.e., not conducive to raising safety concerns internally) or there is a finding of discrimination that has the potential to chill the work environment, the NRC may request, in writing, information about the licensee's SCWE.

### Requests for Information Regarding Discrimination Findings

In early CY 2014, the NRC revised its guidance to the staff concerning the handling of discrimination concerns substantiated by the U.S. Department of Labor (DOL) under Section 211 of the Energy Reorganization Act of 1974 (ERA). While NRC enforcement action is being considered, NRC staff typically will issue a request for information to the regulated entity. Such letters inform the licensee or contractor of the NRC's knowledge of the DOL finding and interest in understanding the licensee's or contractor's position, including any actions that have been taken or are planned to assess and mitigate the potential chilling effect that might be caused by the finding. It also informs the workforce of the NRC's interest in the state of the environment for raising concerns at the site or facility. At the time such letters are issued, the NRC has confirmed neither that enforcement is necessary nor that the work environment is chilled. Rather, information is sought to help inform the NRC's potential evaluation efforts going forward.

Although the NRC issued two requests for information regarding DOL discrimination findings in CY 2013, none were issued in CY 2014. The NRC's review of the information offered in the earlier cases concluded that the safety conscious work environments of the facilities in question were adequately protected.

### Chilling Effect Letters

Sometimes even in the absence of a finding of discrimination, NRC inspection observations or allegation insights result in the NRC's conclusion that a licensee or contractor's work environment is chilled and corrective actions are warranted. In such cases the NRC will issue what is referred to as a chilling effect letter to ensure that the licensee is taking appropriate actions to foster a workplace environment that encourages employees and contractors to raise safety concerns and to feel free to do so without fear of retaliation.

No chilling effect letters were issued in CY 2014. Actions continued, however, to assess responses to two previous chilling effect letters issued by the staff in CY 2013. At the time this report was prepared, the staff had concluded one recipient had taken appropriate corrective actions to address the identified weaknesses in the SCWE and returned to normal oversight of that site. The second case, involving CB&I and discussed in the previous section of this report, is still under review.

### **Alternative Dispute Resolution Process**

The NRC's ADR program includes the opportunity to use ADR early in the allegation process for cases of alleged discrimination before the NRC investigates the allegation. Early ADR gives parties extra opportunities to resolve their differences outside the normal regulatory framework, and it uses a neutral third party to facilitate discussions and the timely settlement of the discrimination concern. The NRC believes that voluntary dispute resolution by the parties, using the communication opportunities that the early ADR process supplies, can stem the inherent damage such disputes can inflict on the SCWE more quickly than an investigation. At any time, either party can exit the ADR process, at which point an NRC investigation remains an option if the alleege is still interested in pursuing the discrimination matter. Should such an investigation and resulting enforcement panel conclude that enforcement is warranted, the NRC and licensee may engage in what the agency refers to as "post-investigation ADR." More information on that process can be found by going to <http://www.nrc.gov/about-nrc/regulatory/enforcement/adr/post-investigation.html> on the NRC's public Web site. If during early ADR, however, the parties reach a settlement, the staff will not pursue an investigation or subsequent enforcement about the discrimination finding. The NRC also considers settlements resulting from licensee-initiated mediation as equivalent to settlements reached under the Early ADR Program.

At the time this report was prepared, 24 of the early ADR offers made by the NRC in association with discrimination allegations raised in CY 2014 resulted in agreements to mediate. Of those 24 cases, 15 resulted in the parties reaching a mutually agreeable settlement. The remaining 9 cases are either still being processed or were referred to the NRC's Office of Investigations because the parties did not reach a settlement or the parties changed their mind before mediation.

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**CONCLUSIONS**

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The total number of allegations received from CY 2010 through CY 2014 declined by about 25 percent over the 5-year period. Although facility- or vendor-specific matters do play a significant role in allegation trends, anecdotal information suggests that the overall decline may be the result of increased efforts by the NRC and nuclear industry to focus attention on developing and maintaining stronger environments for raising concerns at regulated entities.

In CY 2014, coinciding with the overall decrease in allegations received, the total volume of allegation concerns received decreased as well. Although the number of security-related concerns increased slightly in CY 2014, 23 percent of those involved allegations raised by only two individuals concerning two different reactor sites.

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

The agency's early ADR process resulted in 15 cases of discrimination allegations being 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 can have on the SCWE more quickly than could an investigation.

## APPENDIX

ALLEGATION STATISTICS FOR  
OPERATING REACTORS, NON-OPERATING REACTORS, AND FUEL CYCLE FACILITIES

## OPERATING REACTOR ALLEGATIONS RECEIVED FROM ONSITE SOURCES

Site	2010	2011	2012	2013	2014
ARKANSAS 1 & 2	4	3	6	1	3
BEAVER VALLEY 1 & 2	2	1	1	1	5
BRAIDWOOD 1 & 2	4	2	2	2	
BROWNS FERRY 1, 2 & 3	12	11	16	15	11
BRUNSWICK 1 & 2	1	3	6	1	
BYRON 1 & 2	6	3	3		
CALLAWAY	3	1	5	6	3
CALVERT CLIFFS 1 & 2	3	1	1	3	2
CATAWBA 1 & 2	2	3	3	1	6
CLINTON	4	1	1	1	
COLUMBIA PLANT	4	5	1	5	1
COMANCHE PEAK 1 & 2	2	3	2	3	5
COOK 1 & 2	3	5		5	4
COOPER	5	5	3	4	2
DAVIS-BESSE	2	4		5	5
DIABLO CANYON 1 & 2	12	9	5	6	1
DRESDEN 2 & 3	1	2		2	7
DUANE ARNOLD	1	1	2	3	4
FARLEY 1 & 2	7	12	9	6	3
FERMI	3	3	1	1	
FITZPATRICK	2	2	2		1
FORT CALHOUN	5	4	3	5	4
GINNA	4	10	4		1
GRAND GULF	5	3	10	2	
HARRIS	5	3	6	2	2
HATCH 1 & 2	8	4	5	3	5
INDIAN POINT 2 & 3	6	15	17	13	6
LASALLE 1 & 2	1	2		2	1
LIMERICK 1 & 2	2	3	5	1	3
MCGUIRE 1 & 2	6	5	1	3	1
MILLSTONE 2 & 3	4	11	9	4	6
MONTICELLO		3	2	1	3
NINE MILE POINT 1 & 2	1	5	2		1
NORTH ANNA 1 & 2	2	1	1	1	
OCONEE 1, 2, & 3	11	4	6	3	6
OYSTER CREEK	4		3	1	2
PALISADES	3	5	5	11	8
PALO VERDE 1, 2, & 3	16	8	7	10	12

Site	2010	2011	2012	2013	2014
PEACH BOTTOM 2 & 3	4	3	1	7	2
PERRY	2	5	10	7	1
PILGRIM	5	5	2	4	5
POINT BEACH 1 & 2	8	6	4	3	4
PRAIRIE ISLAND 1 & 2	8	7	9	11	8
QUAD CITIES 1 & 2		1	1	3	1
RIVER BEND	7			3	2
ROBINSON	4	6	4	4	
SALEM/HOPE CREEK	6	4	5	12	8
SEABROOK	1	7	5	5	2
SEQUOYAH 1 & 2	6		19	5	7
SOUTH TEXAS 1 & 2	5	5	8	5	4
ST LUCIE 1 & 2	12	16	7	8	4
SUMMER	1	4	1		4
SURRY 1 & 2	6	4	1	1	1
SUSQUEHANNA 1 & 2	12	22	21	9	14
THREE MILE ISLAND	1	3			3
TURKEY POINT 3 & 4	15	17	17	6	2
VERMONT YANKEE	3	2		1	1
VOGTLE 1 & 2	4	12	5	2	3
WATERFORD	4	2	4	4	3
WATTS BAR 1	2	5	21	8	5
WOLF CREEK	2	4	5	6	9

**NON-OPERATING REACTOR ALLEGATIONS RECEIVED FROM ONSITE SOURCES**

Site	2010	2011	2012	2013	2014
BELLEFONTE 1		2	1		
BELLEFONTE 3 & 4		2	1		
CRYSTAL RIVER	3	1	1	1	
HUMBOLDT BAY	4	2	2		
KEWAUNEE		1	1		
LA CROSSE			1	1	
SAN ONOFRE 1	2		1		
SAN ONOFRE 2 & 3	59	23	29	9	3
SOUTH TEXAS 3 & 4	1				
SUMMER 2 & 3			10	6	12
VOGTLE 3 & 4		3	7	6	16
WATTS BAR 2	26	10	7	14	9
ZION	1	3	1	2	1

**FUEL CYCLE FACILITY ALLEGATIONS RECEIVED FROM ONSITE SOURCES**

Site	2010	2011	2012	2013	2014
AMERICAN CENTRIFUGE PLANT		1	1		
BWX TECH.	1			1	2
FRAMATONE-RICH.			1		1
GE-HITACHI GLE			1		
GLOBAL NUCLEAR	6	5	5	2	1
HONEYWELL	17	3	6	6	10
LOUISIANA ENERGY SVCS.	6	12	2	9	5
NUCLEAR FUEL SVCS.	10	4	8	6	5
PADUCAH	4	6	2	2	1
SHAW AREVA MOX		4	11	4	3
WESTINGHOUSE		1			
YUCCA MTN.	2				