



# **ALLEGATION PROGRAM**

## **ANNUAL TRENDS REPORT**

**Calendar Year 2015**

**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 January 29, 2016, 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 2015 involving the Allegation Program and related policies. The allegation staff continues to facilitate the agency-sponsored pre-investigation (early) Alternative Dispute Resolution process for discrimination allegations. The NRC believes this pre-investigation process is beneficial to the environment for raising concerns and 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 and/or an NRC investigation. About 41 percent of the 2015 mediated discrimination concerns reached settlement.

In the 2011 to 2015 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 slightly declining trend. The total number of allegations received in 2015 increased by 15 percent over 2014, in large part because of concerns raised about construction site activities associated with new reactors.

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 2015, coinciding with the overall increase in allegations received, the total volume of allegation concerns received increased as well. More specifically, the number of allegations received in three of the four regional offices increased. In addition, in Region II, with oversight responsibility for the new reactors under construction there was a 63-percent increase in allegation concerns received. The largest percentage of concerns in allegations received nationwide was discrimination concerns, which increased from the number received in 2014. Contractor employees, both current and former, made a significant number of these concerns at reactor and vendor sites associated with new reactor construction. Chilling effect concerns constituted the second highest percentage of concerns received nationwide and also increased in 2015. 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, such as harassment or discrimination, after the individual or others raised a concern; supervisors that discouraged using the Corrective Action Program to document concerns; and verbally abusive comments about delays caused by concerns.

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

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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," January 29, 2016.

<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>.

environment for raising concerns. Because a large volume of allegations from onsite sources could be indicative of a chilled work environment, the staff selected five operating reactor sites, two reactor sites under construction, and two vendor sites for more in-depth review:

- Palo Verde Units 1, 2, and 3
- Salem Units 1 and 2/Hope Creek Unit 1
- Watts Bar Unit 1
- Wolf Creek
- Pilgrim
- Vogtle Units 3 and 4
- Virgil C. Summer Units 2 and 3
- CB&I Lake Charles
- CB&I Charlotte

This report discusses allegation trends at each of these sites. In summary, the trends for five of the sites did not suggest a concern about the environment for raising concerns. The others, however, did indicate the environment was chilled, including one instance that resulted in the issuance by the NRC of a chilling effect letter, a regulatory tool used by the NRC to notify the licensee of the NRC's concern about the environment for raising concerns and to request corrective actions. The associated employers in each case are taking actions to address the weaknesses and the NRC is closely monitoring the ongoing activities.

Finally, in 2015, the NRC reviewed the effectiveness of eight 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.

## 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. 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 a hesitance to raise safety concerns internally. For power reactor facilities, the staff analyzes recent allegation activity in support of the reactor oversight process (ROP) 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

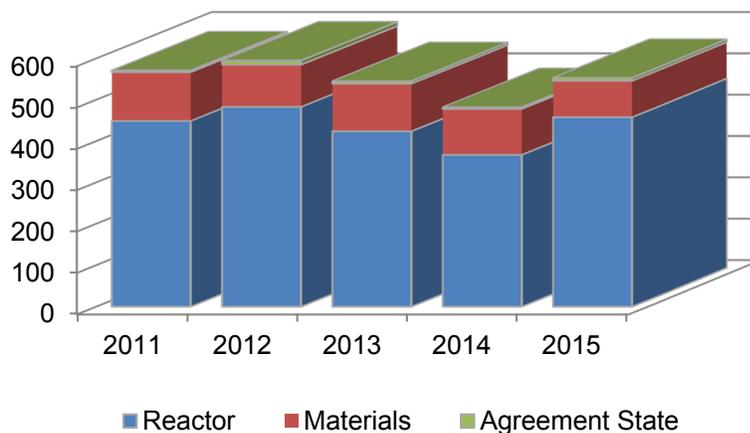
National trends inform the staff about the effect of external factors, plant events, and industry efforts to improve the SCWE at NRC-licensed facilities. They can help develop budget and planning assumptions to support future agency and Allegation Program needs.

Figure 1 shows that the NRC receives about 500 to 600 allegations each year and that there has been a slightly declining trend in the total number of allegations received from calendar year 2011 through 2015. There was a slight increase in the number of allegations received in 2012, however, the next 2 years the total number of allegations trended down. Although

there was a decrease in allegations involving reactor licensees in 2013, allegations involving a number of materials licensees increased. The decrease in allegations involving reactor licensees continued in 2014, and those involving materials decreased as well. Over the previous 5-year period the number of allegations decreased approximately 25 percent, suggesting stronger environments for raising concerns at regulated entities. However, in 2015, despite receiving fewer materials-related allegations, that trend reversed itself in large part due to concerns raised about construction site activities associated with new reactors.

The number of allegations that the NRC processed for Agreement State matters continues to be minimal. Under the authority granted in Section 274b of the Atomic Energy Act of 1954, as amended, the NRC may relinquish its authority to regulate certain byproduct material, source

**FIGURE 1 ALLEGATIONS RECEIVED BY CALENDAR YEAR**



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. 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 concerns. 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 previous 5 years, the trend in the total number of concerns 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). In 2015, coinciding with the overall increase in allegations received, the total volume of allegation concerns received increased as well. More specifically, the number of allegation concerns received in three of the four regional offices, as well as in the Office of New Reactors and Office of Nuclear Material Safety and Safeguards increased. Region II received the most allegation concerns and saw a 63 percent increase over last year's concern count, largely attributable to concerns raised in regard to the new reactor construction sites. Region III, on the other hand, received 27 percent fewer allegation concerns in 2015 than they did in 2014 and the Office of Nuclear Reactor Regulation and Office of Nuclear Security and Incident Response related allegations also declined, although not as significantly.

### 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 2015.<sup>3</sup>

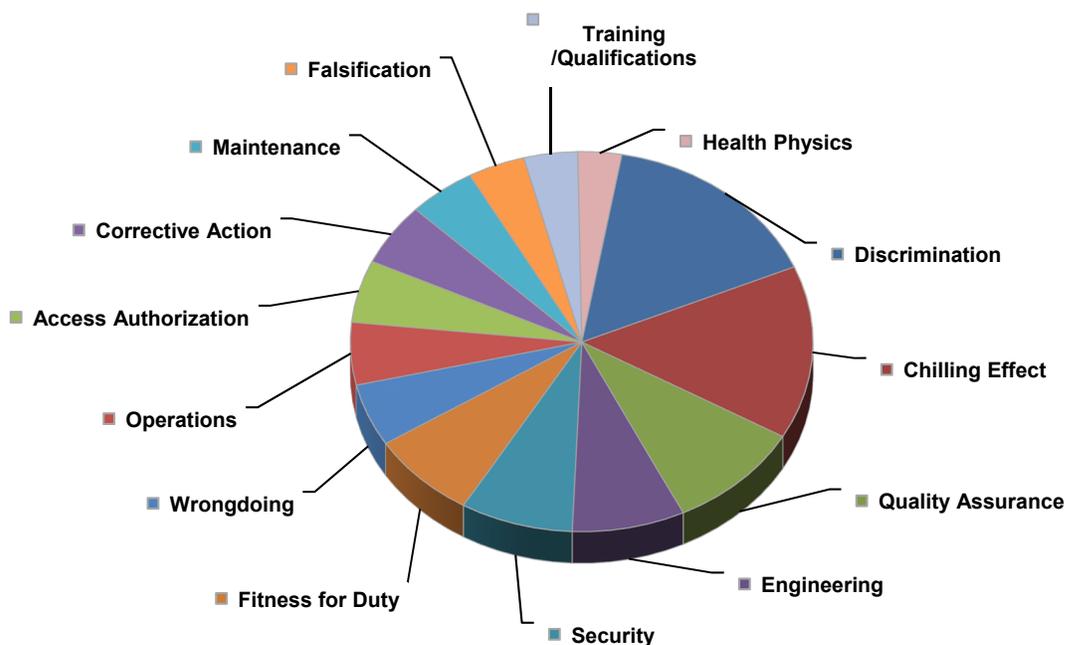
Figure 2 shows that the largest percentage of concerns in allegations received nationwide was discrimination concerns, which increased by almost 50 percent from the number of discrimination concerns received in 2014. A review of all discrimination concerns received in 2015 found trends in both the source and site variables. Two-thirds of the claims were made by contractor employees, both current and former. Workers at reactor and vendor sites associated with the new construction sites raised more discrimination concerns than workers at operating reactor sites. These concerns involved workers primarily in the construction and maintenance functional organizations. Lessor trends at operating sites were identified in Radiation Protection and Security organizations. Layoffs and terminations were alleged to be the adverse action taken against the worker in the majority of the concerns received; however, there were also a number of complaints alleging negative performance appraisals and failures to hire resulting from workers raising safety concerns. At the time this report was prepared, none of the discrimination concerns raised in 2015 had yet been substantiated; however, close to 35 percent were still open and either being investigated or within the NRC's early Alternative

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<sup>3</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 chemistry; civil and structural; construction; cyber security; electrical; emergency preparedness; employee concerns programs; environmental qualifications; fatigue and overtime; fire protection; heating, ventilation, and air conditioning; industrial safety; inservice testing; instrumentation and control; licensing; mechanical; nondestructive evaluation; procurement; reciprocity; safeguards; and safety culture.

Dispute Resolution (ADR) process. About 41 percent of the 2015 mediated discrimination concerns reached settlement. Finally, approximately 27 percent of alлегers filing a discrimination concern that were offered either early ADR or an investigation withdrew their complaint before a conclusion was reached by the agency.

**FIGURE 2 REACTOR CONCERNS NATIONWIDE 2015**



The total number of chilling effect concerns in 2015 increased significantly. 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. Similar to trends in 2014, last year 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, although there was also a trend noted in security departments at operating reactors. The most often mentioned behaviors alleged by individuals to cause the chilling effect involved negative treatment, such as harassment or discrimination, after the concerned individual or others raised a concern; supervisors who discourage using the Corrective Action Program to document concerns; or verbally abusive comments made by supervisors about delays caused by concerns. About 16 percent of chilling effect allegation concerns were substantiated in 2015, although this includes substantiation of multiple allegations regarding the same chilled environment at two new reactor construction sites.

A large percentage of allegations containing quality assurance-related concerns involved contractor activities associated with new reactors under construction. Twenty percent involved welding inspection and verification or training and qualification of the welders.

Regarding the engineering-related concerns received in 2015, 33 percent were received in one allegation about one operating reactor site. No other trends were identified in the other allegation concerns in the engineering discipline.

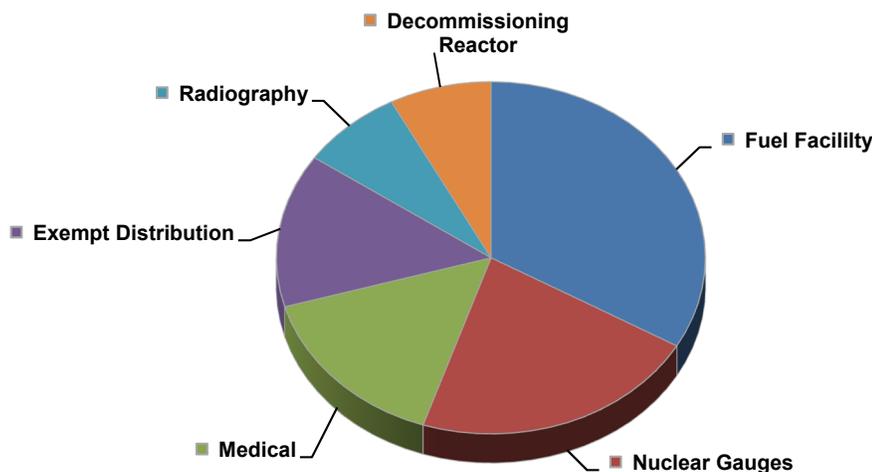
The number of security-related concerns decreased by about 32 percent in 2015. Most security-related concerns were from onsite sources, but otherwise, no trends were identified in the types of concerns raised.

The number of fitness-for-duty concerns increased by 53 percent in 2015. The majority were drug- or alcohol-related, including concerns about substance abuse, the licensee's drug testing policy, and concerns about attempted fitness-for-duty test subversion.

### 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 six types of materials licensees that accounted for about 80 percent of allegation concerns that the NRC received nationwide.<sup>4</sup>

**FIGURE 3 ALLEGATIONS BY TYPE OF MATERIALS LICENSEE NATIONWIDE 2015**



The NRC received about 20 percent fewer materials allegations in 2015 compared to the numbers received in the previous year. Since 2004, the number of allegations related to fuel cycle facilities has constituted the highest percentage (30 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 2015 involved

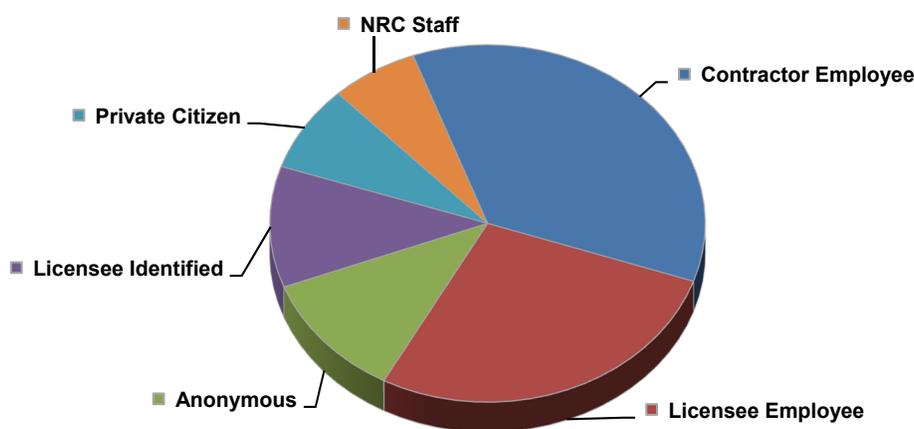
<sup>4</sup> The agency received few concerns about the materials licensee types that are not shown in Figure 3, which represent the remaining 20 percent of the issues received. These licensee types include academic, casks, irradiators, transportation, pharmacies, and well logging.

allegations in the nuclear gauges area. A nuclear gauge is a tool used to measure thickness, density, or the make-up of a wide variety of material or surfaces. It consists of a radiation source that emits a cloud of particles and a sensor that counts the received particles that are either reflected by the test material or pass through it. By calculating the percentage of particles that return to the sensor, the gauge can be calibrated to measure the density and inner structure of the test material.

### Source Trends

Figure 4 shows a breakdown of 99 percent of the sources for reactors and materials allegations received in 2015.<sup>5</sup> The data indicate that the distribution of source categories remained consistent from 2011 to 2015. That is, employees of licensees (or former employees) and contractors (or former contractors) continue to be the primary sources of allegations. In 2015, the number of contractor employees raising allegations increased by about 50 percent reflecting the large contractor numbers at the new reactor construction sites. Persons wishing to remain anonymous continued to be the third largest source of allegations, and their numbers increased by approximately 20 percent. 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 2015**



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. NRC staff suspected concerns decreased by 19 percent in 2015. 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

<sup>5</sup> The NRC received few concerns from the 1 percent of sources not shown in Figure 4. These sources include news media, State and Federal agencies, and special interest groups.

assigns an allegation process tracking number to such items so that the 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 2011 and December 2015 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 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 warranted this additional review:

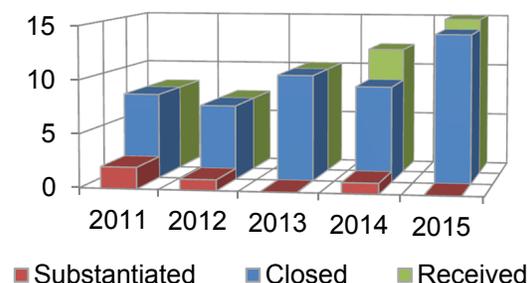
- 1-unit reactor sites (or any site with fewer than 800 persons) with an onsite allegation volume greater than 2.25 times the median
- 2-unit reactor sites (or any site with 800 to 1,000 persons) with an onsite allegation volume greater than 3 times the median
- 3-unit reactor sites (or any site with 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 2015, the median number of allegations per operating reactor site was three. The following reactor sites met these criteria: Palo Verde Units 1, 2 and 3 (15), Salem Units 1 and 2/Hope Creek Unit 1 (14), Watts Bar Unit 1 (12), Wolf Creek (12), and Pilgrim (10). The criteria were also applied to non-operating (e.g., pre-operating license) sites and Vogtle Units 3 and 4 (39) and Virgil C. Summer Units 2 and 3 (30) also met these criteria. The staff's analyses of the SCWE at these reactor sites are discussed below.

Palo Verde Units 1, 2 and 3

The number of allegations received by the NRC from onsite sources at Palo Verde in 2015 only slightly increased from 2014. Nonetheless this is the third consecutive year there has been an increase. More than half of the allegations received from onsite sources in 2015 were received in the first two quarters of the year. While the concentration of concerns in the second quarter aligns with an April refueling outage, only two allegation concerns were received in the fourth quarter when the second outage occurred. Outages can typically generate allegations due to both the increased size of the workforce and off normal operations. Licensee employees represented a significant concentration of allegations received. There was a wide range and no noticeable trends in the disciplines of the concerns. There were two allegations related to SCWE concerns raised in 2015 at Palo Verde. Neither concern was substantiated.

**FIGURE 5 PALO VERDE ALLEGATIONS**

There were four discrimination concerns received in 2015. Two remained open at the time this report was being prepared and one was settled using the NRC's early ADR process. From 2011 to 2014, there were nine discrimination concerns received and none were substantiated. There was no trend in disciplines for the discrimination concerns received.

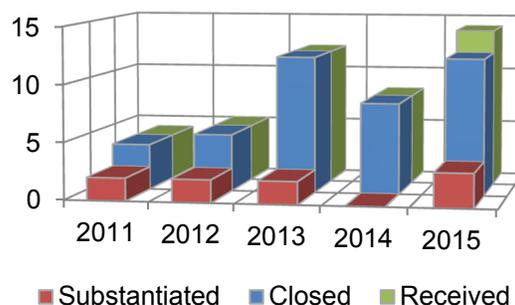
Based on discussions with the licensee staff, Palo Verde's Employee Concerns Program (ECP) received about 40 percent fewer concerns in 2015 than in the previous year. Similar to the trends seen in NRC allegations, the majority were received during the first two quarters of the year. There were no significant discipline trends identified in 2015 by the ECP staff, however, it was noted that some trends identified in previous years improved. Also of note, anonymous condition reports trended downward.

In August through late-September 2015, the licensee conducted a safety culture assessment in which 87 percent of the workforce participated. The results showed a notable improvement (greater than 5 percent) over the last assessment conducted in 2012. The 2015 assessment identified one group requiring immediate management attention. An independent team was formed to develop a plan to address the identified weaknesses.

In summary, based on the number and nature of allegations received in 2015, there does not appear to be an indication of a chilled work environment at Palo Verde. The two SCWE-related allegations received during the first quarter were unsubstantiated and in general the number of allegations received by the NRC had declined by the end of the year. Results from the licensee's safety culture assessment do not indicate a reluctance to raise safety concerns. The NRC will maintain its oversight of the SCWE at Palo Verde through normal inspection activities.

Salem Units 1 and 2/Hope Creek Unit 1

An analysis of the number and nature of allegations received in 2015 does not suggest a SCWE concern at the Salem/Hope Creek site. The number of allegations received by the NRC from onsite sources regarding Salem/Hope Creek was notably higher than the number received in 2014; however, there was no concentration of allegations received from a particular plant or department. A notable number of allegations involving concerns related to corrective action efforts were evident. It is noted that 70 percent of the allegations received from onsite sources in 2015 were provided to the NRC anonymously. While this percentage of anonymous allegations is abnormal, the reluctance of an allogger to provide identifying information to NRC is not necessarily an indication of a SCWE problem, unless the licensee is similarly receiving an abnormal number of anonymous concerns. Based on discussions with the licensee, this was not the case as the number of anonymous concerns submitted to the ECP was similar to those submitted in past years. About 35 percent of concerns were raised to the NRC in 2015 asserted a chilled work environment or a declining safety culture. Two of the three concerns submitted anonymously lacked sufficient detail to perform an evaluation. The others remained open at the time this report was being prepared. The chilled work environment concerns do not appear to be connected by a particular issue, or indicative of a larger problem within a group or department onsite.

**FIGURE 6 SALEM/HOPE CREEK ALLEGATIONS**

There was only one allegation of discrimination submitted to the NRC regarding Salem/Hope Creek in 2015. The concern was not investigated because the allogger 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 allogger 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. In the 4 years prior to 2015, there were 9 allegations of discrimination submitted to NRC regarding Salem/Hope Creek. Although one was settled through the NRC's early ADR process, none were substantiated.

The most recent NRC Problem Identification and Resolution (PI&R) Inspections at Salem/Hope Creek were accomplished in February 2015 (Hope Creek Agencywide Documents Access and Management System (ADAMS) Accession No. ML15085A348) and May 2015 (Salem ADAMS Accession No. ML15202A314). Neither inspection found evidence of a problem with the SCWE. Interviews indicated that workers were willing to use the Corrective Action Program and raise safety issues. None of the interviewees was aware of instances of retaliation, and all had knowledge of available avenues for raising safety concerns.

The Salem/Hope Creek ECP also received some assertions of discrimination in 2015. While none were substantiated, they did correct inappropriate behaviors when identified. The Salem/Hope Creek ECP did not receive any concerns related to the SCWE in 2015. A sitewide

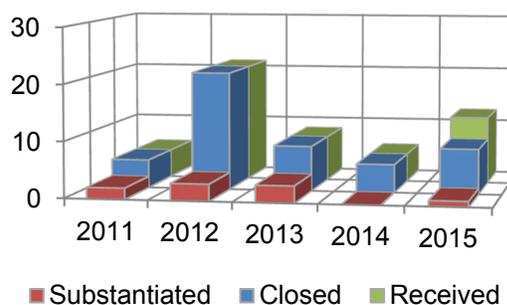
safety culture assessment was conducted in early 2015. The results indicated that there was a very strong environment for raising concerns at the site.

In summary, an analysis of the number and nature of allegations received in 2015 does not suggest a SCWE concern at the Salem/Hope Creek site. The NRC will maintain its oversight of the SCWE at the site through normal inspection activities.

### Watts Bar Unit 1

The number of allegations received by NRC from onsite sources, primarily from licensee employees, both current and former, regarding Watts Bar Unit 1 in 2015 more than doubled from the number received in 2014, after a slightly declining trend over the past 5 years, and a significant drop in concerns received in the past 2 years. In 2015 the rate of receipt increased in both the second and fourth quarters. The jump in the fourth quarter coincides with a refueling outage that can typically generate allegations because of both the increased size of the workforce and off-normal operations. One to three allegations were received in each of a variety of disciplines with no notable trend in any one discipline identified. Concerns received in the first half of 2015 asserting a chilled work environment were not substantiated; however, a review initiated by the NRC in late 2015 in response to an increase in minor operational issues resulted in the NRC issuing a chilling effect letter to the licensee on March 23, 2016 (ADAMS Accession No. ML16083A479).

**FIGURE 7 WATTS BAR 1 ALLEGATIONS**



In November 2015, the NRC inspected a reactor coolant system heat up of Unit 1 that began without the normal source of primary system let down available. The inspection efforts were challenged because of poor operator log keeping and the lack of condition reports initiated by the licensee. The NRC conducted interviews of licensee management and operators to gather information about both the November event and the SCWE in the Operations Department. A followup inspection was also conducted in January 2016 (ADAMS Accession No. ML16098A323). In mid-February 2016, the NRC received additional information related to the SCWE issues and determined that sufficient evidence existed to support the issuance of the chilling effect letter concluding that Watts Bar employees in the Operations Department do not feel free to raise safety concerns using all available avenues without fear of retaliation.

The site's subset of discrimination allegations also trended upward compared to the previous year, but only by one concern. Three of the four discrimination concerns were received in the first two quarters of the year, and the last was received in the fourth quarter. Two remained open at the time of this analysis. No discrimination concerns have been substantiated in the past 5 years.

The licensee's ECP received about 35 percent fewer concerns for evaluation in 2015 than the previous year. No chilled work environment or retaliation concerns were substantiated by the ECP. Early in 2015, the program increased communications with the workforce on the ECP's role and general trends and, throughout the year, the process was streamlined to allow the

employee concerns professionals more time in the field and less on paperwork. In June 2015, TVA conducted a fleetwide survey consisting of several nuclear safety culture-related questions or statements the employees were asked to show agreement with on a scale of favorable, neutral, or unfavorable. Based on discussions with licensee staff, the results were fairly positive. TVA identified two organizations for targeted improvement and has prepared action plans to address identified weaknesses.

In summary, based on information received through allegations, inspections, and interviews with the TVA workforce, the NRC has concluded a chilled work environment exists in the Operations Department. The NRC will review the licensee's plan to improve the SCWE and assess its effectiveness during routine ROP inspections on Unit 1 and startup testing inspections on Unit 2. Additionally, the PI&R inspection scheduled for later in 2016, which reviews a sample of the plant's corrective actions to identify and resolve any safety issues, will specifically evaluate the licensee's actions taken to address the Operations Department work environment issues. The NRC will determine if additional action is needed based on the results of this inspection, as well as, ongoing observations by inspection staff. The NRC inspectors have increased their presence at the site, including on weekends and during backshift, to monitor operations. The NRC has also assigned a Senior Operations Advisor to provide additional oversight and support to the NRC inspection and regional management staff involved with the licensee's oversight.

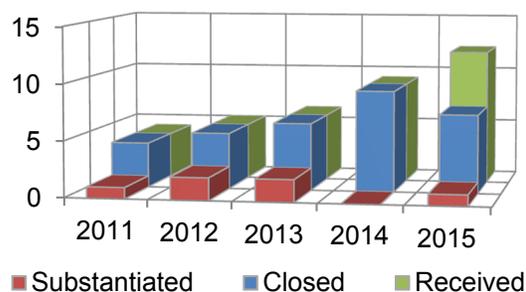
### Wolf Creek Unit 1

In 2013, the NRC issued a chilling effect letter to the licensee about the SCWE at the Wolf Creek site after the NRC determined that the work environment in the Quality Assurance organization was not conducive to raising concerns. Since that time, the licensee has taken various actions to address weaknesses in the environment for raising concerns and in April 2015 the chilling effect letter and the ROP cross-cutting theme in SCWE were closed.

The NRC chilling effect letter followup inspection (ADAMS Accession No. ML15086A560), completed in February 2015, evaluated the licensee's root cause analyses, completed and planned corrective actions, metrics and measures implemented to monitor progress, and the results of independent safety culture surveys and assessments performed in 2013 and 2014. To validate the licensee's internal survey results, interviews with individuals from various disciplines were conducted. The interviewees generally felt that the safety culture improvements made had been effective. The NRC team determined that the licensee had taken appropriate actions to foster a workplace environment that encourages employees to raise safety concerns to feel free to do so without fear of retaliation, and that no chilling effect existed.

The number of allegations received by the NRC from onsite sources at Wolf Creek in 2015 only slightly increased from 2014. However, the trend of onsite allegations received since 2011 has been steadily increasing. Allegations were received by as many former contractors as by licensee employees. There was a wide range in concern disciplines. There were three allegation concerns raised in 2015 about the SCWE, two of which remained open and under evaluation at

**FIGURE 8 WOLF CREEK ALLEGATIONS**



the time this report was being prepared. A third SCWE concern was not substantiated.

Discrimination concerns at Wolf Creek have been increasing. Of the nine discrimination concerns received in 2015, there were concerns over seven disciplines. From the period between 2011 and 2015, there have been 22 discrimination concerns received by the NRC. None of the discrimination concerns received during this timeframe were substantiated by the NRC; however, the Department of Labor's Occupational Safety and Health Administration issued a finding of discrimination for one concern not investigated by the NRC. Of these 22 concerns, four remained open and under investigation at the time this report was being prepared and two were settled in the NRC's early ADR process.

Based on discussions with the licensee staff, Wolf Creek's ECP received a similar number of employee concerns in 2015 as they received in the previous year. In late October through the first week of December 2015, the licensee conducted a safety culture assessment. The licensee reported that the results were fairly positive. The results indicated, however, that many employees were unaware of the licensee's Safety Culture Monitoring Panel that examines safety culture issues and trends and reports to the leadership team, and some were concerned about changes to the Corrective Action Program. The licensee indicated that risk-informed prioritization was new to program and further communication was necessary to ensure the workforce understood how their concerns were being prioritized.

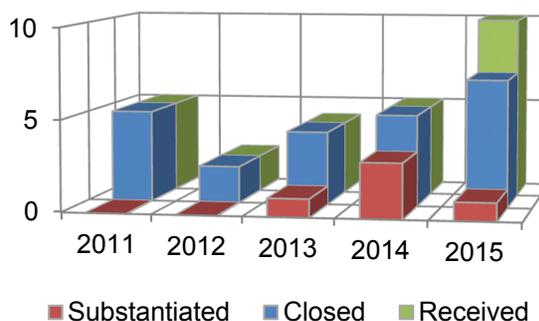
In summary, considering the recent licensee actions to improve the work environment related to the 2013 chilling effect letter, the 2015 closure of the chilling effect letter indicating that a chilling effect did not exist and taking into account the number and nature of allegations received in 2015, there does not appear to be an indication of a current work environment concern at Wolf Creek. The NRC will oversee the SCWE at Wolf Creek through normal inspection activities and allow time for the implemented actions in response to the chilling effect letter to continue to improve the safety culture.

### Pilgrim Unit 1

Based on the number and nature of allegations received from onsite sources at Pilgrim in 2015 timeframe, there does not appear to be a work environment problem at the site. The number of allegations received in 2015 represents a notable increase compared to the number received each year from onsite sources at Pilgrim over the past several calendar years. The majority of the allegation concerns received in 2015 were related to the security area. The rate of receipt was spread evenly throughout the year, with a slight increase in the second quarter during a refueling outage.

Three concerns were raised in 2015 asserting a chilled work environment. Two were not substantiated and one remained open at the time this report was being prepared. The chilled work environment concerns do not appear to be connected by a particular issue, or indicative of a larger problem within a group or department onsite.

**FIGURE 9 PILGRIM ALLEGATIONS**



There were three discrimination concerns submitted to NRC regarding Pilgrim in 2015, all in the last third of the year, two of which were received late in the calendar year and remained open at the time this report was being prepared. In the 4 years before 2015, there were six total discrimination concerns raised regarding Pilgrim and none were substantiated.

From a plant performance perspective, as of the end of 2014, Pilgrim was in the Degraded Cornerstone column of the ROP action matrix because two parallel White findings in the Initiating Events cornerstone had been opened because of the objectives of a late-2014 95002 inspection (ADAMS Accession No. ML15026A069) not being met for the two White performance indicators. However, it was noted at that time that the contributing factors to the assessment level did not appear to be related to a SCWE problem. While the 95002 inspection team did identify problems in the corrective action area, the team also noted that the licensee effectively identified the Corrective Action Program implementation weaknesses that had contributed to performance issues. The 95002 inspection team conducted interviews and focus group meetings with a large number of site staff, including supervisors and senior managers, in part, to gain a sense of whether SCWE and safety culture aspects might be contributing to current performance issues. Most of the feedback provided by site workers related to the SCWE area was very positive. The 95002 inspection team also reviewed the most recent licensee-initiated safety culture assessment. The NRC team did not identify any departments with concerns beyond those already identified by the Pilgrim Nuclear Safety Culture Monitoring Panel.

Pilgrim has been in the Repetitive Degraded Cornerstone column of the ROP action matrix since the start of first quarter of 2015 following a significance determination related to a White Finding under the Mitigating Systems Cornerstone. Pilgrim was already in the Degraded Cornerstone column for more than five consecutive quarters by the beginning of 2015 because of the two open White inputs under Initiating Events. The Initiating Events White input was closed in June 2015 after successful completion of followup efforts was documented through an NRC inspection report (ADAMS Accession No. ML15169A946). Notwithstanding the removal of the two White Initiating Events inputs, Pilgrim was placed in ROP Column 4 because of the duration of the original inputs, the repetitive nature of new findings, persistent weaknesses in the Corrective Action Program, and repeated unplanned scrams and equipment failures. A 95003 inspection is forthcoming, focused on the Corrective Action Program and safety culture.

The most recent PI&R inspection (ADAMS Accession No. ML15273A456) found the site to be marginally effective at implementing their Corrective Action Program and evaluating and resolving problems. The team acknowledged that problems were entered into the Corrective Action Program with a low threshold, but noted that the licensee did not consistently prioritize, evaluate, and implement corrective actions to resolve problems in a timely manner commensurate with safety significance. In the SCWE area, the PI&R inspection found no evidence of challenges to the SCWE. Multiple interviews were conducted and employees expressed willingness to raise safety issues. None of the interviewees experienced or were aware of a situation where someone else was retaliated against for raising a safety issue. Interviewees demonstrated adequate knowledge of the avenues available for raising safety issues. The inspection team also performed sample reviews of anonymous condition reports and ECP files, and interviewed the ECP manager.

Like the NRC, the Pilgrim ECP also received a substantial portion of its concerns in 2015 in the Security area and saw an increased receipt rate around the time of the spring 2015 refueling outage. A substantial portion of issues processed by ECP as "Rapid Resolutions" (nuclear

safety/quality issues not requiring a full investigation) involved assertions that issues were not being properly addressed via the Corrective Action Program. Two discrimination concerns were processed by ECP in 2015. Both were closed as unsubstantiated. Based on discussions with the ECP staff, the results of the most recent site-wide assessment of the safety culture and SCWE conducted by an external contractor in July and August 2015 indicated overall improvement in leadership and in the ECP. ECP visibility was noted as a strength.

In summary, the number and nature of allegations received from onsite sources at Pilgrim in 2015 does not appear to indicate a work environment problem. Pilgrim is currently in the Repetitive Degraded Cornerstone column of the ROP action matrix, but at this point in time, the contributing factors to this current assessment level do not appear to be related to a SCWE problem. While a recent (late-2014) 95002 inspection and the most recent PI&R inspection did identify concerns in the corrective action area, neither identified concerns with the work environment. A 95003 inspection is forthcoming at Pilgrim and will include focuses on the Corrective Action Program and safety culture, including the health of the environment for raising concerns.

### Vogtle Units 3 and 4

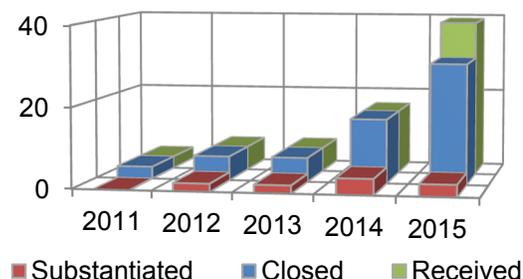
The number of allegations received by NRC from onsite sources regarding Vogtle Units 3 and 4 under construction in 2015 increased significantly from the number received in 2014 continuing an upward trend over the past 5 years.

However, throughout the calendar year, the volume decreased each quarter. Allegation sources, not surprisingly, were concentrated in the contractor and former contractor categories. The majority of concerns received were either chilling effect or discrimination concerns.

All but one of the chilling effect concerns were raised in the first three quarters of the year and at a steady rate. The region's annual inspection of the licensee's corrective action program and SCWE was completed in late May 2015 (ADAMS Accession No. ML15173A445) and with regard to the site's environment for raising concerns, identified no issues. Specifically, the inspection team found that thresholds for identifying issues were adequate to ensure that adverse conditions were appropriately evaluated and corrected, that SCWE training required by an NRC 2014 confirmatory order was effective, and that employees believed the Corrective Action Program and ECP are effectively handling concerns. In general, the inspection concluded that the licensee and contractor employees were comfortable raising concerns, that corrective actions taken in response to previously identified SCWE concerns seemed to be effective, and that the SCWE was improving as a result of increased leadership emphasis. These conclusions were based on interviews with licensee and contractor employees, interviews with ECP and SCWE subject matter experts, and document reviews, including the results of self-assessments, required training, and trends in the Corrective Action Program and ECP.

Despite these positive general observations, pockets of concern were found to exist in the 3 months after the NRC's inspection and three chilled work environment allegations were substantiated. The staff reviewed the licensee's and contractor's investigations requested by the

**FIGURE 10 VOGTLE 3 AND 4 ALLEGATIONS**



NRC and concluded that they were thorough and the actions taken to address weaknesses in the environment for raising concerns were appropriate.

As with allegations in general, the site's subset of discrimination allegations also trended significantly upward compared to the previous year. The rate of receipt throughout 2015, however, declined. Half of the discrimination concerns submitted to the NRC in 2015 were still open at that the time this report was prepared and one was settled in the early ADR process. No discrimination concerns have been substantiated in the past 5 years.

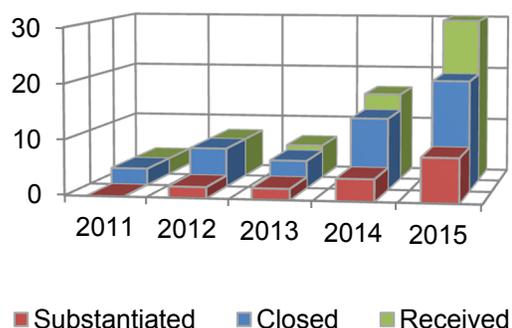
Approximately 6,000 workers were on the Vogtle construction site during this review period, most of which were contractors and subcontractors. The primary contractor maintained its own ECP and received over 800 concerns requiring an investigation, rapid response, or referral; significantly more than were received in 2014. More than half of the issues brought to the contractor's ECP involved wrongdoing, discrimination, or chilling effect concerns. Nearly 30 percent of all concerns were received anonymously, which, although very high, is an improvement over last year. A safety culture assessment conducted by the contractor in late August 2015 showed notable improvement in the PI&R safety culture trait. However, this and other traits received a positive response rate of less than 75 percent.

In summary, the work environment at the Vogtle construction site remains a challenge. Second quarter efforts by the contractor to arrest the volume of allegations going to the NRC and improve the SCWE were only partly effective. Allegation rates declined throughout the year, but the contractor's third quarter survey results indicate significant improvement is still needed. The NRC will maintain its oversight of the SCWE at the Vogtle Unit 3 and 4 site through normal inspection activities to ensure corrective actions are completed and result in sustained performance improvements.

### Virgil C. Summer Units 2 and 3

The number of allegations received by NRC from onsite sources regarding Virgil C. (VC) Summer Units 2 and 3 in 2015 increased significantly from the number received in 2014 continuing an upward trend over the past 5 years. However, throughout the calendar year, the volume decreased each quarter. Furthermore, about 75 percent of the total number of allegations were received in the first two quarters of the year. Allegation sources, not surprisingly, were concentrated in the contractor and former contractor categories. The majority of concerns received were either chilling effect or discrimination concerns. More than half of the 16 chilling effect concerns were raised in the first quarter of the year and then receipt of such concerns steadily declined.

**FIGURE 11 VC SUMMER 2 AND 3 ALLEGATIONS**



The region's annual inspection of the licensee's Corrective Action Program and SCWE was completed in late April 2015 (ADAMS Accession No. ML15148A161) and with regard to the site's environment for raising concerns, identified no concerns. Specifically, the inspection team found that thresholds for identifying issues were adequate to ensure that

adverse conditions were appropriately evaluated and corrected, that SCWE training required by an NRC 2014 Confirmatory Order was effective, and that employees believe the Corrective Action Program and ECP are effectively handling concerns. In general, the inspection concluded that licensee and contractor employees were comfortable raising concerns, that corrective actions taken in response to previously identified SCWE concerns appeared to be effective, and that the SCWE was improving as a result of increased leadership emphasis. These conclusions were based on interviews with licensee and contractor employees; interviews with ECP and SCWE subject matter experts; and document reviews, including the results of self-assessments, required training, and trends in the corrective action program and ECP.

Despite those positive overall observations, the NRC concluded in the second quarter of the year that the craft workforce was chilled, which resulted in 14 separate chilling effect allegations being substantiated. The staff reviewed the corrective actions taken by the licensee and contractor and found them to be adequate to address the chilled work environment. Corrective actions included refresher training, primarily for the leadership team, leadership assessments, new corrective action program drop boxes, better trending of anonymous concerns, and increased routine meetings with craft employees to assess the effectiveness of these actions.

As with allegations in general, the site's subset of discrimination allegations also trended significantly upward as compared to the previous year. Almost all of the discrimination concerns were received in the first two quarters of the year. Half of the discrimination concerns submitted to the NRC in 2015 remained open at the time this report was being prepared and two were settled using the NRC's in early ADR process. No discrimination concerns have been substantiated in the past 5 years.

Approximately 4,000 workers were on the construction site during this review period, most of them contractors and subcontractors. The primary contractor maintained its own ECP and based on discussions with the licensee and contractor they received over 300 formal and informal concerns, which represent approximately one and a half times as many as they received in 2014. Formal concerns requiring investigation trended down throughout the year. Half as many anonymous concerns were received by the ECP in 2015 as in 2014. And, lastly, the contractor substantiated and took actions to address a number of chilled work environment concerns in the first two quarters, but no discrimination concerns were substantiated.

The contractor conducted a small survey in February 2015 and a full safety culture assessment in October 2015. Several nuclear safety culture traits received a positive response rate of less than 75 percent, although the contractor noted that both the Respectful Work Environment and Environment for Raising Concerns traits showed improvement compared to last year's assessment and the February 2015 survey. Overall, the contractor concluded that efforts to improve management behavior is still needed, but actions taken throughout the year in response to trends noted in the fourth quarter of 2014 and the February 2015 survey results indicate they are improving the SCWE and overall safety culture at the VC Summer Units 2 and 3 site. Those actions included program improvements to the ECP and Nuclear Safety Culture Monitoring Panel, improved communication tools, and new training for ECP, Human Resources, and Site Leadership on how to recognize signs of retaliation, and for foremen on how to become a preferred path for employee concern resolution.

In summary, although there was a sharp increase in allegations at the VC Summer Units 2 and 3 construction site in 2015 and many of those were chilled work environment and discrimination concerns, the receipt rate trended down by the end of the year. The contractor's

ECP saw similar trends. Based on the NRC's inspections and contractor's self-assessments it is evident that although efforts to date have resulted in some improvement, work is still needed to ensure a strong environment for raising concerns. The NRC will maintain its oversight of the SCWE at the VC Summer Units 2 and 3 construction site through normal inspection activities.

### 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. None of the materials licensees, fuel cycle facilities or otherwise, received a sufficient number of allegations to discern a trend or pattern or to provide insights into the SCWE. Therefore, this report does not include more in-depth reviews of specific materials licensees.

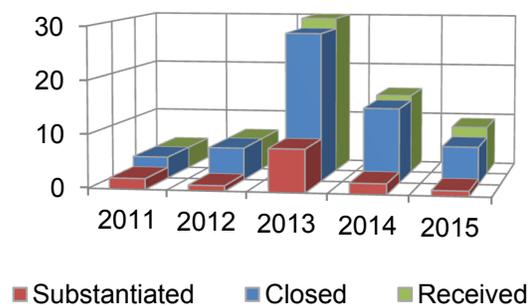
### Allegation Trends for Selected Vendors

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 vendor, Chicago Bridge and Iron (CB&I) at two different sites warrant discussion in this report.

#### CB&I Lake Charles

The number of allegations received by the NRC from onsite sources regarding the CB&I Lake Charles fabrication facility in 2015 continued to decrease significantly from the number received in the previous two years. There was no notable trend identified in any one discipline. One concern asserting a chilled work environment was substantiated in the last half of the year, but the NRC concluded that the vendor was taking effective corrective actions to address the concern. Four discrimination concerns were received in 2015, which also represented a decline from the volume received in 2014. Of these discrimination concerns, two remain open and in the early ADR process; one was withdrawn by the allegor; and one did not make a prima facie showing. In the five year review period none of those investigated by the NRC since 2011 have been substantiated, however a number of discrimination concerns have been settled between the allegor and their employer in the early ADR process. In 2011 a substantiated discrimination concern resulted in the issuance of a confirmatory order to CB&I after a successful post-investigation ADR session with the NRC (ADAMS Accession No. ML13232A282). The confirmatory order issued by the NRC on April 18, 2013 represented a settlement agreement between the NRC and the vendor concerning a Notice of Violation of the NRC's 10 CFR 52.5, "Employee Protection" regulation and proposed civil penalty (ADAMS Accession No. ML13050A597).

**FIGURE 12 CB&I LAKE CHARLES ALLEGATIONS**



Also in April 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 2012 and the first quarter of 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.

Finally in September 2014, the 2013 confirmatory order was revised and superseded to enhance actions that CB&I had previously agreed to take to address issues related to willful violations of NRC requirements and deliberate misconduct that occurred at the Lake Charles facility in 2010 (ADAMS Accession No. ML14248A402). Additional actions by the vendor include training to highlight the errors behind the violations and enhanced monitoring of the safety culture.

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 NRC and industry guidance; developing and revising the company's employee-protection, safety culture, deliberate misconduct, and SCWE training; improving or developing a number of safety culture processes, such as the ECP and safety culture monitoring tools; and performing comprehensive nuclear safety culture assessments of all CB&I nuclear business entities. The monitoring tools included the implementation of an external oversight board including independent consultants with nuclear experience, to oversee implementation of these corrective actions, review performance improvement progress, and provide feedback on apparent effectiveness of corrective actions.

In May 2015, a vendor inspection at the Lake Charles facility was conducted that included a review of the actions taken in response to the chilling effect letter and confirmatory order (ADAMS Accession No. ML15169A231). The inspection team concluded that CB&I was meeting the conditions specified in the confirmatory order at the facility. The safety culture, including the SCWE, continued to show improvement. Most CB&I Lake Charles personnel told the inspectors that they were willing and able to raise concerns through multiple avenues without fear of retaliation. If continued to be effectively implemented, the NRC concluded that the actions taken by the vendor should result in a sustained SCWE.

In January 2016, Westinghouse acquired the majority of the nuclear assets of CB&I Nuclear. CB&I Lake Charles was not acquired as part of the Westinghouse acquisition and remains a CB&I manufacturing facility. In the summer of 2016 CB&I Lake Charles is expected to complete its existing scope of safety-related work. 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.

### CB&I Charlotte

The number of allegations received by the NRC from onsite sources at CB&I Charlotte significantly increased in 2015. Although there was a wide range in concern disciplines, the largest number of concerns involved quality assurance issues. There were four allegation concerns raised in 2015 about the SCWE, one of which was substantiated and two that are still

open and under evaluation. The substantiated concern was raised in the first quarter of the year and involved CB&I source inspectors. The NRC is monitoring the vendor's implementation of corrective actions to improve the SCWE. The two chilling effect concerns that are still open were received late in 2015.

There were four discrimination concerns received in 2015 all of which are still open and being investigated. Like Lake Charles and other business groups within CB&I where nuclear related activities are conducted, CB&I Charlotte was also subject to the confirmatory order issued by the NRC in April 2013 concerning a Notice of Violation of the NRC's 10 CFR 52.5, "Employee Protection" regulation (ADAMS Accession No. ML13050A597) and then revised and superseded in 2014 to address deliberate misconduct concerns (ADAMS Accession No. ML14248A402).

Based on discussions with CB&I ECP personnel, CB&I Charlotte's ECP also received significantly more concerns in 2015. Most of those concerns were from source inspectors working at suppliers locations. A majority of the ECP investigations conducted were in the fourth quarter of 2015 which is when the Westinghouse acquisition of CB&I Charlotte was announced. At the time this report was prepared, there had been no changes in the SCWE policy associated with the acquisition.

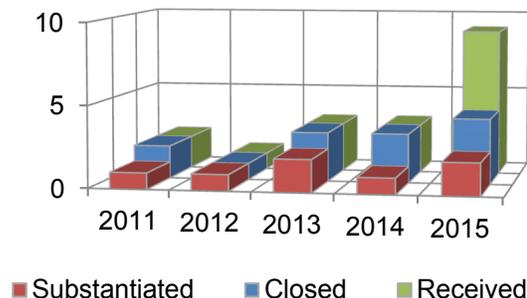
In summary, in late summer 2015, based on an allegation received in the first quarter, the vendor and NRC concluded a chilled work environment exists in the source inspector's organization. The NRC reviewed the vendor's plan to improve the SCWE and will maintain oversight to assess its effectiveness. The NRC will determine if additional action is needed based, in part, on the results of ongoing evaluations of the two open chilled work environment allegation concerns received late in 2015.

### Trends in the Agreement States

As explained earlier in this report, 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 14 shows the 37 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. 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 Nuclear Material Safety and Safeguards at <https://scp.nrc.gov>.

**FIGURE 13 CB&I CHARLOTTE ALLEGATIONS**





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## OVERVIEW OF PROGRAM ACTIVITIES

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Activities in 2015 in areas closely related to the Allegation Program and SCWE Policy are discussed below, including statistics associated with the agency-sponsored early 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 PI&R 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

The Department of Labor or another federal authority other than the NRC (e.g., U. S. Circuit Court) periodically substantiates a discrimination concern under Section 211 of the Energy Reorganization Act of 1974. In such cases, 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 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. 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. The NRC issued no requests of this nature in 2015.

### Chilling Effect Letters

When 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, 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 by the NRC in 2015; however, one was issued in early 2016 concerning the Watts Bar Unit 1 site and is discussed in a previous section of this report.

### Early 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, 29 of the early ADR offers made by the NRC in association with discrimination allegations raised in 2015 resulted in agreements to mediate. Of those 29 cases, 12 resulted in the parties reaching a mutually agreeable settlement. The remaining 17 cases are either still being processed or were referred to the NRC’s Office of Investigations because the parties did not reach a settlement.

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**CONCLUSIONS**

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The total number of allegations received from 2011 through 2015 declined slightly 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. The 15 percent increase in 2015 reflects the significant construction activities at the new reactor sites. In 2015, coinciding with the overall increase in allegations received, the total volume of allegation concerns received increased as well. The significant increase in discrimination and chilling effect related concerns also is associated with concerns raised by contractor employees at the reactor and vendor sites associated with the new construction 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 12 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	2011	2012	2013	2014	2015
ARKANSAS 1 & 2	3	6	1	2	10
BEAVER VALLEY 1 & 2	1	1	1	5	1
BRAIDWOOD 1 & 2	2	2	2	0	2
BROWNS FERRY 1, 2 & 3	11	16	15	11	6
BRUNSWICK 1 & 2	3	6	1	0	2
BYRON 1 & 2	3	3	0	0	2
CALLAWAY	1	5	6	3	5
CALVERT CLIFFS 1 & 2	1	1	3	2	1
CATAWBA 1 & 2	3	3	1	5	3
CLINTON	1	1	1	0	1
COLUMBIA PLANT	5	1	5	1	3
COMANCHE PEAK 1 & 2	3	2	3	5	3
COOK 1 & 2	5	0	5	4	5
COOPER	5	3	4	2	1
DAVIS-BESSE	4	0	5	5	1
DIABLO CANYON 1 & 2	9	5	6	1	4
DRESDEN 2 & 3	2	0	2	7	3
DUANE ARNOLD	1	2	3	4	1
FARLEY 1 & 2	12	9	6	3	2
FERMI	3	1	1	0	9
FITZPATRICK	2	2	0	1	1
FORT CALHOUN	4	3	5	4	6
GINNA	10	4	0	1	0
GRAND GULF	3	10	2	0	4
HARRIS	3	6	2	2	6
HATCH 1 & 2	4	5	3	5	5
INDIAN POINT 2 & 3	15	17	13	6	2
LASALLE 1 & 2	2	0	2	1	1
LIMERICK 1 & 2	3	5	1	3	1
MCGUIRE 1 & 2	5	1	3	1	5
MILLSTONE 2 & 3	11	9	4	6	4
MONTICELLO	3	2	1	3	0
NINE MILE POINT 1 & 2	5	2	0	1	0
NORTH ANNA 1 & 2	1	1	1	0	3
OCONEE 1, 2, & 3	4	6	3	5	8

Site	2011	2012	2013	2014	2015
OYSTER CREEK	0	3	1	2	3
PALISADES	5	5	11	8	3
PALO VERDE 1, 2, & 3	8	7	10	12	15
PEACH BOTTOM 2 & 3	3	1	7	2	2
PERRY	5	10	7	1	2
PILGRIM	5	2	4	5	10
POINT BEACH 1 & 2	6	4	3	4	2
PRAIRIE ISLAND 1 & 2	7	9	11	8	2
QUAD CITIES 1 & 2	1	1	3	1	4
RIVER BEND	0	0	3	2	3
ROBINSON	6	4	4	0	1
SALEM/HOPE CREEK	4	5	12	8	14
SEABROOK	7	5	5	2	1
SEQUOYAH 1 & 2	0	19	5	7	7
SOUTH TEXAS 1 & 2	5	8	5	4	7
ST LUCIE 1 & 2	16	7	8	4	6
SUMMER	4	1	0	4	4
SURRY 1 & 2	4	1	1	1	2
SUSQUEHANNA 1 & 2	22	21	9	14	3
THREE MILE ISLAND	3	0	0	3	0
TURKEY POINT 3 & 4	17	17	6	2	8
VOGTLE 1 & 2	12	5	2	3	5
WATERFORD	2	4	4	3	2
WATTS BAR 1	5	21	8	5	12
WOLF CREEK	4	5	6	9	12

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

Site	2011	2012	2013	2014	2015
BELLEFONTE 1	2	1	0	0	0
BELLEFONTE 3 & 4	2	1	0	0	0
CRYSTAL RIVER	1	1	1	0	0
HUMBOLDT BAY	2	2	0	0	1
KEWAUNEE	1	1	0	0	0
LA CROSSE	0	1	1	0	0
SAN ONOFRE 1	0	1	0	0	0
SAN ONOFRE 2 & 3	23	29	9	3	0
SUMMER 2 & 3	0	10	6	12	30
VERMONT YANKEE	2	0	1	1	0
VOGTLE 3 & 4	3	6	6	16	39
WATTS BAR 2	10	7	14	7	11
ZION	3	1	2	1	0

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

Site	2011	2012	2013	2014	2015
American Centrifuge Plant	1	1	0	0	0
BWX Tech.	0	0	1	2	0
Framatone-Rich.	0	1	0	1	0
GE-Hitachi GLE	0	1	0	0	0
Global Nuclear	5	5	2	1	3
Honeywell	3	6	6	10	5
Louisiana Energy Svcs.	12	2	9	5	4
Nuclear Fuel Svcs.	4	8	6	4	3
Paducah	6	2	2	1	0
Shaw Areva MOX	4	10	4	1	2
Westinghouse	1	0	0	0	1