



ALLEGATION PROGRAM

ANNUAL TRENDS REPORT

Calendar Year 2021

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

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EXECUTIVE SUMMARY

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 2021 involving the Allegation Program and related policies. The allegation staff continues to facilitate the agency-sponsored pre-investigation alternative dispute resolution process for discrimination allegations. The NRC believes this pre-investigation process is beneficial to the environment for raising concerns. The pre-investigation alternative dispute resolution 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 an NRC investigation, or both. At the time the staff prepared this report, 50 percent of the 2021 mediated discrimination concerns had been settled using this process.

During the 5-year period from 2017 through 2021, the NRC received between 150 and 300 allegations per year¹ concerning reactor plants, materials facilities, and their vendors. The total number of allegations in 2021 increased by approximately 40 percent from the previous year, driven by increases in allegations associated with both reactor and materials licensees and vendors.

Each allegation can include multiple concerns. Although not always the case, over the 5-year analysis period, 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 2021, coinciding with the overall increase in allegations received, the total volume of allegation concerns increased as well, albeit by a smaller percentage.

Chilling effect concerns constituted the largest percentage of reactor allegations received nationwide. After 2 years of decline, in 2021 the number of chilling effect concerns increased compared to the previous year. Licensee employees, both current and former, raised twice as many chilled work environment concerns as contractor employees in 2021. Most frequently the entire site, the maintenance organization or operations were the environments alleged to be chilled. And the cause of the chill was attributed to senior management more often than lower-level supervisors. Disrespectful treatment by management towards workers that raised concerns was the most often stated behavior that chilled the workforce. Chilling effect allegations that were substantiated are being effectively addressed by licensee management.

The second largest percentage of nationwide reactor allegations was related to discrimination concerns. The number of discrimination concerns remained steady for the past couple of years. Licensee employees, both current and former, raised more discrimination concerns than contractor employees in 2021. The concerns came from workers in various departments at 24 different sites. At the time the staff prepared this report, the NRC had not substantiated any of the discrimination concerns raised in 2021; however, approximately half of those warranting investigation were still open and were either being investigated or were in the NRC's pre-investigation alternative dispute resolution (ADR) process.

¹ Management Directive 8.8 defines an allegation as "a declaration, statement, or assertion of impropriety or inadequacy associated with NRC-regulated activities, the validity of which has not been established."

For one site, the NRC received allegations in numbers that warranted additional analysis.² 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 might indicate a chilled work environment, the staff selected the Vogtle, Units 3 and 4, construction site for a more in-depth review. In summary, a review of the number and nature of the allegations associated with the Vogtle construction site in 2021, and inspections conducted by the NRC, indicates that most workers were not hesitant to raise safety concerns through many of the available reporting avenues. Furthermore, the NRC notes that the licensee is actively monitoring the environment to identify and address any challenges to the environment for raising concerns.

Finally, in 2021, the NRC reviewed the effectiveness of 11 Agreement State programs and concluded that they continue to address concerns promptly, thoroughly document their investigations and closeout actions, protect the concerned individuals' identities in accordance with Agreement State laws, and inform the concerned individuals of the outcomes. In general, the results of the 2021 Integrated Materials Performance Evaluation Program reviews demonstrate that the Agreement States continue to treat responses to concerns from external sources as a high priority in protecting public health and safety.

² The total number of allegations received concerning reactor and fuel-facility licensees from all sources, as well as other information on 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. 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 that current or former licensee employees, contractor employees, or anonymous sources submitted that may 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 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 NRC's 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. The staff can use national trends to help develop budget and planning assumptions to support future agency and Allegation Program needs.

Figure 1 Allegations Received by Calendar Year

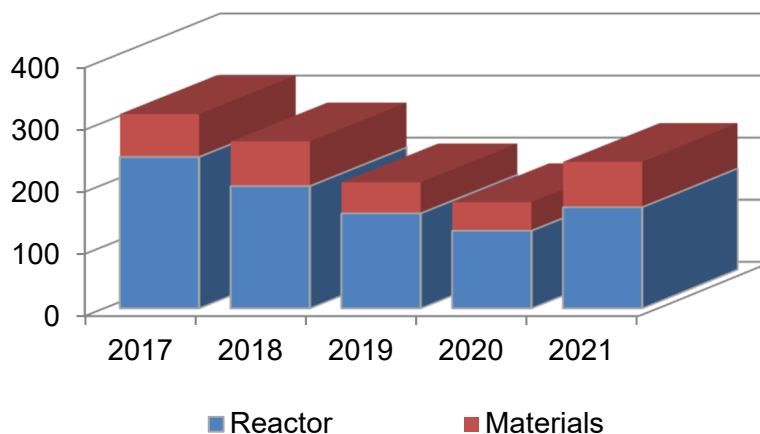


Figure 1 shows that the NRC received between 150 and 300 allegations each year, that the total number of allegations received declined between calendar years 2017 and 2020, and that the decline slowed. However, in 2021 the trend reversed and the number of allegations the NRC received increased by approximately 40

percent, driven by increases in allegations associated with both reactor and materials licensees and their vendors. Of interest, multiple concerns were received involving the sale of radioactive material on the internet after one concerned individual shared their positive experience using the NRC allegation program with their social media followers. The Vogtle construction site was the subject of almost a quarter of the reactor allegations.

Last year the staff considered whether the decline in 2020 was related to the COVID-19 public health emergency (PHE). Although it couldn't be verified by an analysis of the available data, because licensees' onsite staffing and work was limited to ensure fewer face-to-face interactions in 2020, there were likely fewer conflicts or opportunities for error that might have

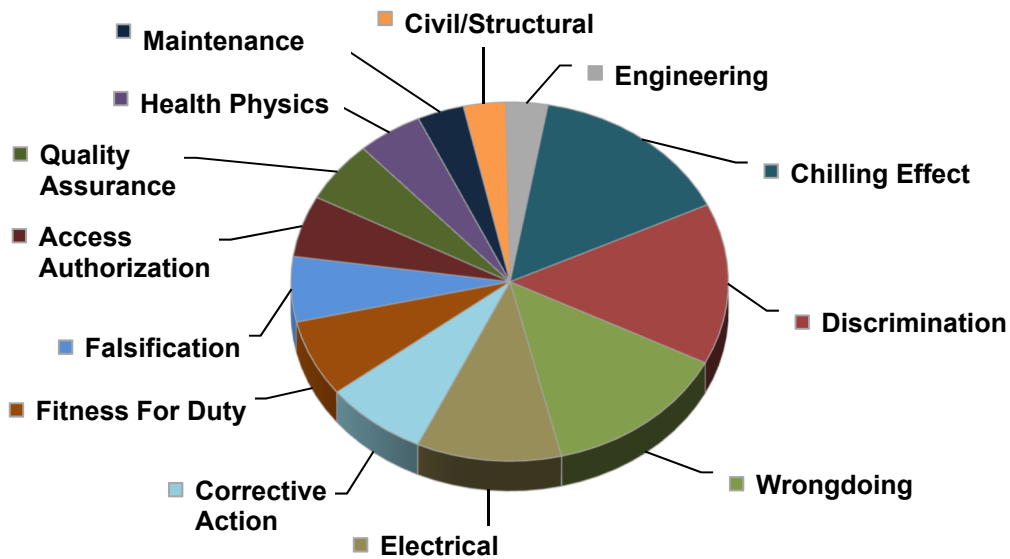
otherwise translated into allegations. Similarly, it is also reasonable to assume that increased onsite work resulted in increased allegations in 2021.

Because each allegation can include multiple concerns, the staff effort to prepare an appropriate response is based on the number of concerns received. Typically, each allegation represents two to three concerns. During the 5-year analysis period, 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 2021, coinciding with the overall increase in allegations received, the total volume of allegation concerns increased as well, but by a smaller percentage than the allegations themselves. More specifically, the number of allegation concerns increased in all the regional and headquarters offices, except the Office of International Programs.

Reactor Licensee Trends

Figure 2 offers insight into areas in which the NRC is allocating resources for the evaluation of reactor-related allegations. The figure shows the 13 functional areas that represent approximately 80 percent of the allegation issues that the program received nationwide in 2021.³

Figure 2 Reactor Concerns Nationwide, 2021



³ 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, construction, cybersecurity, emergency preparedness, employee concerns programs, fatigue and overtime, fire protection, instrumentation and control, licensing, mechanical, nondestructive examination, operations, other, safety culture security, startup testing, and training/qualification.

Chilling effect and chilled work environment concerns constituted the highest percentage of allegations received nationwide. The number of concerns increased approximately 30 percent from the previous year. 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 the NRC is being suppressed or is discouraged. A chilled work environment is a condition in which the chilling effect is not isolated (e.g., multiple individuals, functional groups, shift crews, or levels of workers within the organization are affected). A chilled work environment is often referred to as a condition that is the opposite of a SCWE. Licensee employees, both current and former, raised twice as many chilled work environment concerns as contractor employees in 2021. The maintenance or operations departments, or the entire site, were the environments most often alleged to be chilled. And the cause of the chill was attributed to senior management more often than lower-level supervisors. Finally, disrespectful treatment by management towards workers that raised concerns was the most often stated behavior that allegedly chilled the workforce. One third of the concerns were about the work environment at the Vogtle construction site. An analysis of all 2021 allegations concerning Vogtle Units 3 and 4 can be found later in this report.

Discrimination concerns were the next largest percentage of reactor allegations received nationwide. The number of discrimination concerns remained steady for the past couple of years. Licensee employees, both current and former, raised more discrimination concerns than contractor employees in 2021. The concerns came from workers in various departments at 24 different sites. Most, however, were raised by workers at the Vogtle site under construction. As suspected, raising a concern to management was the most frequently cited protected activity and termination the most frequently cited adverse action.

At the time the staff prepared this report, the NRC had not substantiated any of the discrimination concerns raised in 2021; however, approximately half of those warranting investigation were still open and were either being investigated or were in the NRC’s pre-investigation alternative dispute resolution (ADR) process. Fifty percent of the 2021 ADR-mediated discrimination concerns reached a successful settlement. Finally, approximately 25 percent of allegers filing a discrimination concern who were offered either ADR or an investigation withdrew their complaint before the agency reached a conclusion.

Wrongdoing concerns and the subset of wrongdoing concerns involving falsification were also reviewed to identify any trends in the collected data. Both categories increased by approximately 60 percent. Thirty-seven percent of wrongdoing concerns and 29 percent of the falsification concerns were raised to the NRC by licensee officials acting in their official capacity. Furthermore, 14 and 10 percent, respectively, were NRC staff suspected concerns. Regarding concerns raised from strictly workers on site, most were raised in the second and fourth quarters and involved a variety of licensees. The most often alleged departments alleged to be involved in acts of wrongdoing were operations and security. The primary area of concern involved employees willfully violating procedures or being directed to violate procedures.

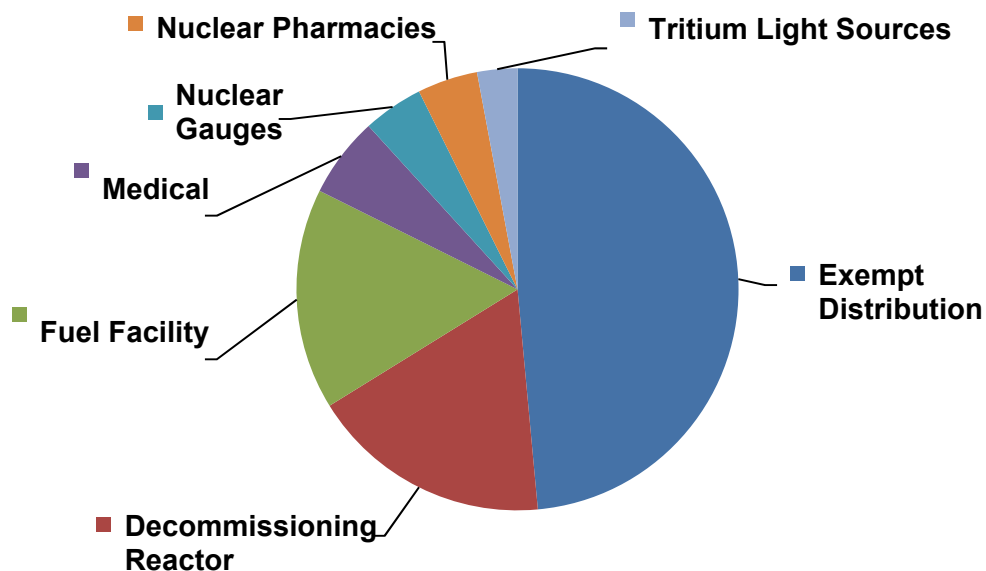
It is also worth noting that although electrical-related concerns nearly doubled in 2021, approximately 70 percent were associated with the Vogtle construction site. Because electrical-related activities increase significantly towards the end of construction, the increase in allegations in that area is not surprising.

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 with great variation in the activities they perform. To offer insights into areas in which the NRC focused its attention on materials-related allegations, Figure 3 presents the eight types of materials licensees that accounted for about 90 percent of allegation concerns that the NRC received nationwide.⁴

The NRC received about 60 percent more materials-related allegations in 2021 than in 2020. For several years, the number of allegations related to fuel cycle facilities has constituted the highest percentage of materials-related allegations. In both 2020 and 2021, however, the NRC received more allegations concerning exempt distribution products. Such products include silicon chips, self-illuminous products, gunsights, and smoke detectors. These products are required to be distributed by persons who have a specific license from the Commission authorizing such distribution to persons exempt from the requirements for an NRC license. As previously mentioned, one reason more exempt distribution concerns were received is likely due to consumers' increased focus on the sale of radioactive products on the Internet and positive social media posts about the NRC allegation program's efforts to address the concerns.

Figure 3 Allegations by Type of Materials Licensee Nationwide, 2021

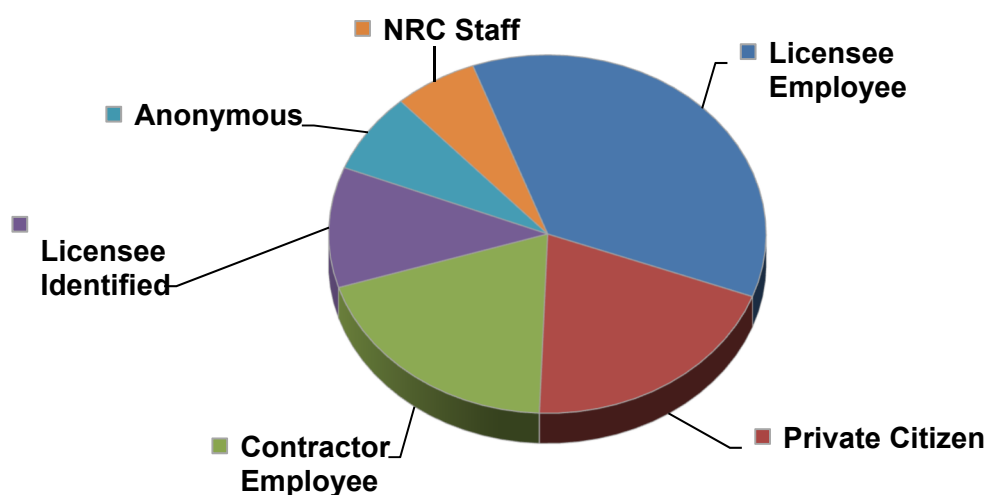


Source Trends

⁴ The agency received few concerns about the materials licensee types not shown in Figure 3, which represent the remaining 10 percent of the issues received. These licensee types include decommissioning materials, general licensee, research and development, special nuclear material, uranium recovery, and waste disposal.

Figure 4 shows a breakdown of 95 percent⁵ of the sources for reactors and materials allegations received in 2021. The number of allegations from licensee and contractor employees increased significantly after last year's decline. In considering those allegation sources with the potential to offer insights into the SCWE at a given facility (i.e., allegations that current or former licensee, contractor employees, or anonymous sources submitted), the percentage of allegations from these sources increased by about 30 percent in 2021. While the number of concerns from most sources increased, reflecting the overall increase in allegations received, the NRC Allegation Program received a slight decrease in licensee identified concerns.

**Figure 4 Allegations by Source Category
Nationwide, 2021**



Licensee-identified issues are potential wrongdoing concerns, brought to the NRC by a licensee representative acting in his or her official capacity to keep the NRC informed of their investigation. The agency staff assigns an allegation process tracking number to track the evaluation progress related to the alleged wrongdoing issue. Similarly, the source category "NRC Staff" indicates an NRC staff member who suspects that a regulatory requirement has been willfully violated, thus prompting the NRC Office of Investigations to investigate. The volume of NRC staff concerns also declined slightly compared to the previous year.

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 the NRC staff uses to monitor the SCWE at reactor sites. The appendix to this report offers statistics on allegations for all operating and nonoperating reactor sites. The NRC received the listed allegations during the 5-year period from January 2017 through December 2021. The list includes only allegations 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 were from onsite personnel.

⁵ The other 5% of the sources for reactors and materials allegations received in 2021 are federal/state/local government employee, special interest group, federal agency, state agency, and news media.

Because a large volume of allegations from onsite sources might indicate a SCWE at risk, the staff conducts a more in-depth SCWE review of any site with larger numbers of onsite allegations. Because sites with a larger population of employees and contractors (such as three-unit reactor sites or sites under construction) typically generate more allegations, the data must be normalized to ensure that the NRC does not disproportionately choose larger sites for further analysis. The NRC used the following algorithm, which is based on the median number of allegations received at operating reactor sites over the calendar year, considers the varying workforce size at different sites, and then determines what sites warrant additional review:

- one-unit reactor sites (or any site with fewer than 800 persons) with an onsite allegation volume greater than 2.25 times the median;
- two-unit reactor sites (or any site with 800 to 1,000 persons) with an onsite allegation volume greater than 3 times the median;
- three-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.

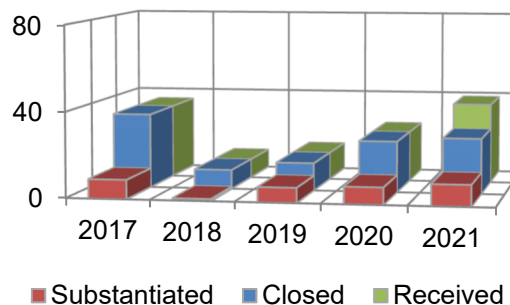
For 2021, the median number of allegations per operating reactor site was one. However, comparing the number of allegations received at each site to such a low median would not identify meaningful anomalies. Therefore, in accordance with program guidance, the staff used a median of three in the above algorithm. The only site that met the above thresholds for further review was the reactor site under construction, Vogtle Units 3 and 4, with 38 allegations from onsite sources.

Vogtle Units 3 and 4

As Figure 5 shows, the number of allegations the NRC received from onsite sources about this reactor site under construction in 2021 increased for the third consecutive year. The number of individual allegers, however, declined. The rate of allegation receipt declined from the first quarter to the second, but slowly increased through the end of the year. Allegation sources, not surprisingly, continue to be concentrated in the contractor and former contractor categories. Two allegers came to the NRC anonymously which is one less than in 2020. Most of the chilling effect concerns were raised in the first half of the year.

Unlike general allegation activity, the site's subset of discrimination allegation concerns trended downward as compared to the previous year. All but three concerns were received in the first half of the year. Of the 9 discrimination concerns warranting investigation in 2021, 3 were still open at the time this report was prepared; 2 were withdrawn; 3 were settled in pre-investigation ADR; and one was investigated but not substantiated. Two discrimination concerns in the prior 5-year period were substantiated by the NRC and resulted

Figure 5 Allegations at Vogtle 3 & 4



in a fleet-wide Confirmatory Order (CO) to take certain actions to establish and maintain a strong environment for raising concerns (EA-18-130; EA-18-171; Agencywide Documents Access and Management System (ADAMS) Accession No. ML19249B612). Those actions, including process revisions, training, communications, and SCWE assessments, were inspected by the NRC and found acceptable. Furthermore, inspector observations of the environment for raising concerns concluded that workers at Vogtle are willing to raise nuclear safety concerns through a variety of reporting avenues.

Based on discussions with licensee representatives, the employee concerns program (ECP) received several concerns from workers in the same departments as the NRC received allegations. Of note, a chilled work environment was substantiated by the ECP and corrective actions initiated prior to the NRC engaging the licensee with a request for information on a similar allegation. The licensee stated that the ECP monitors the work environment by focusing its attention on organizations that are subject to increased stressors as the site nears operation. ECP activities include verification of corrective actions taken in response to substantiated employee concerns and follow-up SCWE assessments.

Although there was a notable increase in allegations at Vogtle Units 3 and 4 in 2021, including concerns involving chilled work environments, the NRC does not believe this indicates a weakening SCWE. The number of individual allegeders declined, and the licensee is actively monitoring the environment to identify and address any challenges to the environment for raising concerns. The NRC will maintain its oversight of the SCWE at Vogtle Units 3 and 4 through normal and CO follow-up inspection activities, as well as review of the licensee's safety culture assessments to ensure the improvements to the environment for raising concerns are sustainable.

Allegation Trends for Selected Materials Licensees

The NRC posts allegation statistics for certain fuel cycle facilities on its public Web site (see the appendix to this report). Because of the small number of allegations and the smaller workforce sizes associated with most materials licensees, a licensee or contractor has a higher chance of identifying an allegeder. Therefore, this report does not include statistics on allegations about materials licensees other than fuel cycle facilities. None of the fuel cycle facilities received enough allegations to discern a trend or pattern to provide insights into the SCWE. Therefore, this report does not include more in-depth reviews of specific fuel cycle facilities.

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 selected materials licensees. None of the vendors 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 vendors.

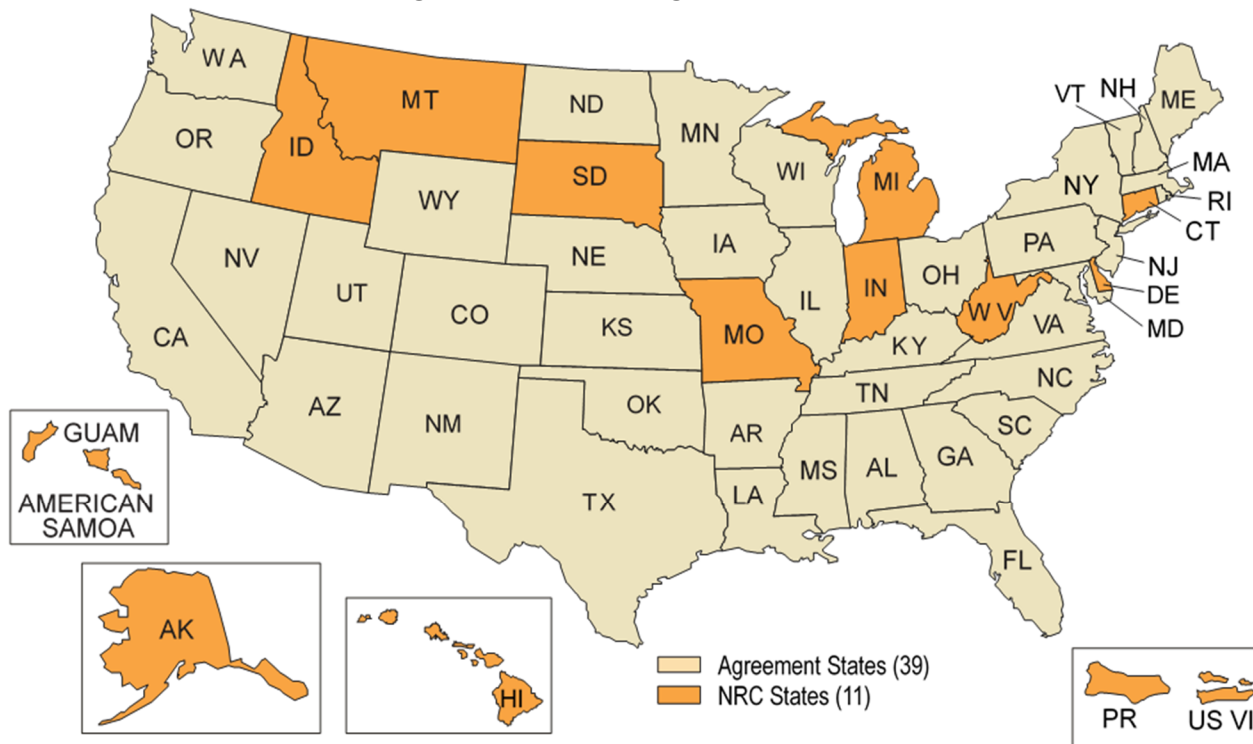
Trends in the Agreement States—Calendar Year 2021

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 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. When individuals contact the NRC with concerns about Agreement State licensees, the NRC staff explains the Agreement State program to the individual. Most of these individuals are willing to

contact, and be contacted directly by, Agreement State personnel about their concerns. The NRC staff does not process the concern as an allegation but rather provides the concern to the Regional State Agreements Officer for referral to the Agreement State. If an individual wishes to remain anonymous to the Agreement State, the NRC staff still refers the concern to the Agreement State in accordance with the agreement, but without divulging the concerned individual's identity. The NRC Office of Nuclear Material Safety and Safeguards addresses concerns about Agreement State program oversight outside of the Allegation Program.

Before becoming Agreement States, states must first demonstrate that their regulatory programs are adequate to protect public health and safety and are compatible with the NRC's program, and the NRC has a statutory responsibility to periodically review the actions of the Agreement States to ensure that they adequately maintain their programs. The NRC uses the Integrated Materials Performance Evaluation Program (IMPEP) to satisfy this 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 6 shows the 39 Agreement States.

Figure 6 NRC and Agreement States



In calendar year 2021, the NRC and its Agreement State partners completed routine IMPEP reviews of 11 Agreement State programs. During the year, these 11 Agreement State programs received a total of 120 allegations, including 24 allegations referred to the programs by the NRC. The IMPEP review teams evaluated the effectiveness of the Agreement State programs' responses to concerns by reviewing the casework for, and documentation of, 71 of the 120 cases received by the Agreement State programs. The IMPEP teams concluded that the Agreement State programs consistently took prompt and appropriate action in response to concerns raised. The review teams noted that the states collectively 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 all the Agreement States reviewed in 2021 adequately protected the identity of any concerned individual, in accordance with Agreement State laws. The IMPEP teams also found no evidence that the Agreement States inappropriately released a concerned individual's identity. In general, the results of the 2021 IMPEP reviews demonstrate that the Agreement States continue to treat responses to concerns from external sources as a high priority in protecting public health and safety.

OVERVIEW OF PROGRAM ACTIVITIES

The sections below discuss activities that took place in calendar year 2021 in areas closely related to the Allegation Program and SCWE policy, including statistics associated with the agency-sponsored pre-investigation ADR program. The staff gathers insights of the SCWE at a particular site in several ways (e.g., by reviewing the number and nature of allegations concerning a particular 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) 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 about Discrimination Findings

The U.S. Department of Labor (DOL) or a 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, on which the NRC's employee protection regulations are based. In such cases, while the NRC is considering enforcement action, the staff may issue a request for additional information to the regulated entity. Such requests 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 the finding might cause. If the finding is widely known, such as being discussed in press publications, a public letter requesting such information from the licensee also informs the workforce of the NRC's interest in the state of the environment for raising concerns at the site. At the time the NRC issues such requests, the NRC normally has neither confirmed that enforcement is necessary nor that the work environment is chilled. Rather, information is acknowledged or, if necessary, sought to help inform the NRC's potential evaluation efforts going forward. No such letters of this nature were issued in 2021.

Chilling Effect Letters

When the NRC concludes that a licensee or contractor's work environment is chilled and corrective actions are warranted, the agency will typically issue a Chilling Effect Letter (CEL). A CEL is intended 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.

In March 2020, the NRC staff issued a CEL to the Armed Forces Radiobiology Research Institute (AFFRI) (ADAMS Accession No. ML20070K841). AFFRI has a Research and Test Reactor license and materials licenses. The NRC initially identified this issue during an inspection conducted in August 2018 (ADAMS Accession No. ML18260A111). In a follow-up inspection in the spring of 2019 (ADAMS Accession No. ML20052F052), the staff found the corrective actions taken by AFFRI management were not effective. At that time, AFFRI told the NRC inspectors that they had engaged a contractor to conduct a safety culture assessment. That survey, also proved to be ineffective both because the population responding to it was too low to provide meaningful results, and the survey questions focused on industrial, rather than nuclear, safety. The NRC at that time concluded that a CEL was appropriate. AFFRI's response to the CEL outlined actions to improve the work environment, including communications, policies, reporting tools, metrics, and surveys to monitor progress.

Additionally, on November 19, 2020, the NRC issued Confirmatory Order (CO) EA-2020-056 (ADAMS Accession No. ML20303A211) as a result of an agreement reached during an ADR mediation session conducted in September 2020. The CO was issued in response to an investigation by the NRC Office of Investigation that substantiated that an AFRRRI employee was subjected to a 2-day suspension without pay, in part, for engaging in protected activity. The actions outlined by the licensee to address the CEL were included in the Order.

In late November 2021, the NRC inspected the site to assess the environment for raising concerns and compliance with the terms of the CO (ADAMS Accession No. ML2132A766). The inspectors determined that all employees interviewed stated they would feel free to raise nuclear safety concerns through all avenues, and up and down the chain of command, without fear of retaliation. Based on AFRRRI's progress to date in responding to the Order, inspectors found that AFRRRI's actions to address existing SCWE issues had improved the environment for raising concerns and closed the CEL. Inspectors determined that AFRRRI is implementing its SCWE program in accordance with the Order.

Pre-investigation Alternative Dispute Resolution Process

The NRC's ADR program includes the opportunity to use voluntary dispute resolution early in the allegation process for cases of alleged discrimination before the NRC investigates the allegation. Pre-investigation 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 pre-investigation 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 alleegeer 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 "enforcement ADR," formally referred to as post-investigation ADR. If, however, the parties reach a settlement during ADR, the staff will not pursue an investigation of or subsequent enforcement for a discrimination finding. The NRC also considers settlements resulting from licensee-initiated mediation as equivalent to settlements reached under the pre-investigation ADR program.

At the time the staff prepared this report, eight of the pre-investigation ADR offers the NRC made in association with discrimination allegations raised in 2021 resulted in agreements to mediate. Of those eight cases, four resulted in the parties reaching a mutually agreeable settlement. Three remaining cases are still being mediated, and one failed and an investigation was opened.

CONCLUSIONS

The number of allegations has been trending down for many years, but the trend slowed in 2020 and last year the trend reversed, and the NRC saw a 40 percent increase. Nearly a quarter of the reactor allegations dealt with concerns from workers at the Vogtle construction site, and social media postings about the online sale of radioactive materials and the NRC's evaluation of such concerns contributed significantly to the materials-related allegations.

The analysis of allegations provided insights into the SCWE at the Vogtle construction site. Although allegations associated with this site increased in 2021, the licensee is effectively monitoring the work environment and taking actions as needed to maintain a healthy environment for raising concerns. The NRC will continue its oversight of the SCWE at Vogtle Units 3 and 4 through normal and CO follow-up inspection activities.

To date, the agency's pre-investigation ADR process has resulted in a number of discrimination allegations being settled between the parties before the start of an NRC investigation. Typically, between 50 and 75 percent of cases mediated reach settlement. In 2021, at least 50 percent reached settlement. The staff believes that voluntary dispute resolution by the parties, using the communication opportunities afforded by pre-investigation ADR, can stem the inherent damage such disputes can inflict on the SCWE more quickly than an investigation could.

The agency's and licensees' focus on the SCWE is likely contributing to the maintenance and improvement of the industry's environments for raising concerns and should continue.

APPENDIX

ALLEGATION STATISTICS FOR
OPERATING REACTORS, NONOPERATING REACTORS, AND FUEL CYCLE FACILITIES

OPERATING REACTOR ALLEGATIONS RECEIVED FROM ONSITE SOURCES

Site	2017	2018	2019	2020	2021
ARKANSAS 1 & 2	4	6	4	2	4
BEAVER VALLEY 1 & 2		1			2
BRAIDWOOD 1 & 2	4	3		1	2
BROWNS FERRY 1, 2 & 3	6	3	19	4	3
BRUNSWICK 1 & 2	3	6	1	4	
BYRON 1 & 2		1	2	1	
CALLAWAY	5	2	1	1	1
CALVERT CLIFFS 1 & 2	4	2	3		2
CATAWBA 1 & 2		2	1	5	2
CLINTON	1	2	1	2	1
COLUMBIA PLANT	3	5	1		3
COMANCHE PEAK 1 & 2	1	1	1		2
COOK 1 & 2	4				1
COOPER		1	1		
DAVIS-BESSE	1	2		2	
DIABLO CANYON 1 & 2	2		4		2
DRESDEN 2 & 3	1	2	3	1	2
FARLEY 1 & 2	4	5		2	3
FERMI	2	6		3	1
FITZPATRICK			1		1
GINNA	1			1	
GRAND GULF	3	11	2	1	2
HARRIS	5	2	2	1	
HATCH 1 & 2	2	2	3	4	3
INDIAN POINT 3	1	1	4	5	
LASALLE 1 & 2		2		1	1
LIMERICK 1 & 2	1				1
MCGUIRE 1 & 2	1	1	1		1
MILLSTONE 2 & 3	8	2	2	3	4
MONTICELLO				2	1
NINE MILE POINT 1 & 2	2	4	1	1	
NORTH ANNA 1 & 2	3	1	3	1	
OCONEE 1, 2, & 3	1		1	5	1
PALISADES	4	2	2	2	
PALO VERDE 1, 2, & 3	1	6	3	1	3
PEACH BOTTOM 2 & 3			1	1	

Site	2017	2018	2019	2020	2021
PERRY	1		2		1
POINT BEACH 1 & 2	1				
PRAIRIE ISLAND 1 & 2			1		
QUAD CITIES 1 & 2	2	1		1	2
RIVER BEND	3		2	2	2
ROBINSON	2	4	1	3	
SALEM/HOPE CREEK	7	7	5	1	9
SEABROOK	1				1
SEQUOYAH 1 & 2	7	6	9	1	
SOUTH TEXAS 1 & 2	9	8	3		6
ST LUCIE 1 & 2	5	1	5	3	2
SUMMER	2	3	5		2
SURRY 1 & 2	2	1	1		2
SUSQUEHANNA 1 & 2	6	4	1	1	3
TURKEY POINT 3 & 4	3	5	3	5	5
VOGTLE 1 & 2	3	2	3	2	1
WATERFORD	3	1	1	2	1
WATTS BAR 1 & 2	11	29	21	6	7
WOLF CREEK	4	8	2	3	1

NONOPERATING REACTOR ALLEGATIONS RECEIVED FROM ONSITE SOURCES

Site	2017	2018	2019	2020	2021
CRYSTAL RIVER					2
DUANE ARNOLD	1				
FORT CALHOUN	2	1			
HUMBOLDT BAY		1			
INDIAN POINT 1, 2 & 3	2	2	9	10	
LA CROSSE					
OYSTER CREEK	3	2		4	3
PILGRIM	8			2	
SAN ONOFRE 2 & 3		4	2		
SUMMER 2 & 3	12				
THREE MILE ISLAND 1 & 2	2		1		
VERMONT YANKEE	2	1			
VOGTLE 3 & 4	43	9	13	24	38
YANKEE-ROWE			1		

FUEL CYCLE FACILITY ALLEGATIONS RECEIVED FROM ONSITE SOURCES

Site	2017	2018	2019	2020	2021
AREVA RICHLAND				2	
BWXT	2	1	1	1	1
CB&I AREVA MOX	1				
GLOBAL NUCLEAR FUEL	4	6		1	1
HONEYWELL	2	1			
LOUISIANA ENERGY SERVICES	1	2	1		2
NUCLEAR FUEL SERVICES	1	9	2	1	4
WESTINGHOUSE	2	1	4		