



Special Inquiry into Counterfeit, Fraudulent, and Suspect Items in Operating Nuclear Power Plants

**OIG CASE No. 20-022
February 9, 2022**



**All publicly available OIG reports, including this report, are accessible through the NRC's website at:
<http://www.nrc.gov/reading-rm/doc-collections/insp-gen>**



MEMORANDUM

DATE: February 9, 2022

TO: Christopher T. Hanson
Chairman, Nuclear Regulatory Commission

FROM: Robert J. Feitel
Inspector General

SUBJECT: SPECIAL INQUIRY INTO COUNTERFEIT, FRAUDULENT, AND
SUSPECT ITEMS IN OPERATING NUCLEAR POWER PLANTS
(OIG CASE NO. 20-022)

Attached is an Office of the Inspector General (OIG), U.S. Nuclear Regulatory Commission (NRC), Special Inquiry into concerns that counterfeit, fraudulent, and suspect items (CFSI) are present in most, if not all, U.S. nuclear power plants; the NRC has lowered the oversight standards for CFSI; and the NRC failed to appropriately address allegers' concerns about CFSI.

We report five findings in this inquiry. Although this report is furnished for whatever action you deem appropriate, please notify us by April 11, 2022, confirming the agency's review of applicable policies and procedures and what action(s), if any, you decide to take based on the results of this inquiry.

Attachment: As stated

cc w/attachment:

Commissioner Baran

Commissioner Wright

Daniel H. Dorman, Executive Director for Operations

David A. Castelveter, Director, Office of Public Affairs



Results in Brief

Why We Did This Special Inquiry

We initiated this inquiry in response to information from alлегers with three areas of concern: CFSI are present in most, if not all, U.S. nuclear power plants, the NRC has lowered the oversight standards for CFSI, and the NRC failed to address CFSI allegations.

Concurrently with this investigation, the OIG completed an audit (OIG-22-A-06, Audit of the Nuclear Regulatory Commission's Oversight of Counterfeit, Fraudulent, and Suspect Items at Nuclear Power Reactors) that assessed whether the NRC's oversight activities reasonably assure nuclear power reactor licensees' programs can mitigate the risk of CFSI in operating reactors, those under construction, and those completed but not yet online. The audit found the NRC should improve its oversight of CFSI by clarifying and communicating how the agency collects, assesses, and disseminates information regarding CFSI, and by improving staff awareness of CFSI and its applicability to inspections.

This inquiry examined the adequacy of the NRC's oversight of CFSI in U.S. operating nuclear power plants and addressed the allegations.

Special Inquiry into Counterfeit, Fraudulent, and Suspect Items in Operating Nuclear Power Plants

OIG Case No. 20-022

February 9, 2022

What We Found

1. Counterfeit, fraudulent, and suspect items (CFSI) are present in operating plants. We sampled a nuclear power plant in each of the NRC's four regions and found data to support that CFSI are being used in a plant in Region III. In addition, a well-placed NRC principal told us about two CFSI component failures at Region I plants that the licensee determined to be CFSI. A recent OIG audit report also revealed that CFSI are present at nuclear operating plants.
2. Although we are aware that the NRC staff does not have a direct role in identifying CFSI and preventing their introduction into a plant, the extent of CFSI in operating plants is unknown because the NRC does not usually require licensees to track CFSI unless a situation rises to the level of being a significant condition adverse to quality or a reportable issue under 10 C.F.R. Part 21, Reporting of Defects and Noncompliance (Part 21). We also learned that CFSI are not specifically tracked in regional corrective action programs, and if done at all, tracking is voluntary and methods and data quality vary among licensees.
3. We did not substantiate that the NRC has lowered CFSI standards, but found several examples that appear as such, including lack of inspection violations issued, a downward trend in Part 21 reports, and termination of a Part 21 rulemaking in 2016 that addressed CFSI oversight concerns identified by an NRC working group.
4. Although some third-party organizations reported fewer than 10 potential CFSI cases since 2016, this investigation revealed that the CFSI total could be greater. We found that U.S. Department of Energy staff identified more than 100 incidents involving CFSI in FY 2021 alone, including 5 incidents involving safety-significant components in its nuclear facilities. Additionally, as recently as 2019, the International Atomic Energy Agency published a report regarding its concerns about CFSI in nuclear power plants worldwide.
5. Although the NRC's Allegation Manual includes provisions for handling counterfeit/fraudulent parts, we found that the NRC did not investigate or pursue any substantive actions regarding an alлегer's concerns about the presence of CFSI, nor did the NRC process any of the information provided by the alлегer over the last 10 years through its Allegation Review Boards. In addition, the NRC's publications about the allegation process omit information regarding non-allegations, which is how this alлегer's concerns were classified, and could be construed as misleading to the public.

TABLE OF CONTENTS

| | |
|--|---|
| I. Background..... | 1 |
| II. Details | |
| CFSI in Operating Plants | 4 |
| CFSI Oversight Standards..... | 6 |
| U.S. Federal Government and International CFSI Concerns..... | 7 |
| NRC’s Handling of CFSI Allegations | 9 |

I. BACKGROUND

What are CFSI?

A nuclear power plant is composed of millions of parts, and those parts should meet product specifications and quality standards. Parts that are intentionally altered to imitate a legitimate product without the legal right to, that are intentionally misrepresented with intent to deceive, or which do not meet intended product specifications, are referred to as CFSI.¹ According to the Electric Power Research Institute, counterfeit parts have been found in valves, bearings, circuit breakers, pipe fittings, and structural steel, and can be difficult to spot.² Counterfeit parts are safety and security concerns that could have serious consequences in critical power plant equipment required to perform a safety function. Figure 1 shows three valves that are commonly used in the nuclear industry.

Figure 1: Example of authentic versus counterfeit components



An example of a counterfeit Walworth gate valve (center) is much like the other two authentic valves, but did not meet product specifications.

Source: Electric Power Research Institute.

¹ The NRC has defined a counterfeit, fraudulent, and suspect item as an unauthorized copy or substitute that has been identified, marked, and/or altered by a source other than the item's legally authorized source or has been misrepresented to be an authorized item of the legally authorized source. Agencywide Documents Access and Management System (ADAMS) Accession No. ML12251A222. Ref: Electric Power Research Institute; Sept 28, 2010 presentation.

² <https://inis.iaea.org>.

Regulations Governing CFSI

The NRC has three primary regulations for oversight of CFSI:

- Title 10 C.F.R. Part 50, Appendix B, Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants, establishes quality assurance requirements for the design, manufacture, construction, and operation of structures, systems, and components that prevent or mitigate the consequences of accidents that could cause undue risk to the health and safety of the public;³
- 10 C.F.R. Part 21, Reporting of Defects and Noncompliance, establishes requirements for firms constructing, owning, operating, or supplying components to licensed facilities to immediately notify the NRC of defects that could create a substantial safety hazard; and,
- 10 C.F.R. 50.55, Conditions of Construction Permits, Early Site Permits, Combined Licenses, and Manufacturing Licenses, has similar reporting requirements as Part 21.

Part 21 Clarification

Since the NRC began operations in 1975, Part 21 has presented interpretive challenges for licensees, vendors, and the NRC staff, and over the years, the NRC has endeavored to clarify the regulation.⁴ To assist with that clarification, the NRC's OIG performed two audits related to Part 21,⁵ which yielded 15 recommendations, most of which were related to clarifying Part 21.

In response to the OIG's recommendations, the staff accelerated ongoing initiatives to clarify Part 21. On September 29, 2011, the staff informed⁶ the Commission of its plan to develop a regulatory basis to clarify Part 21, addressing the need and priority for rulemaking, regulatory guides, and outreach efforts. The staff also established an agencywide working group to explore Part 21 inspection findings, and it identified 25 potential areas for improvement, including several areas related to requirements for materials licensees. The 25 areas can be divided into three categories: evaluating and reporting, commercial grade dedication, and administrative changes.

During public meetings, such as the Regulatory Information Conference, the Nuclear Procurement Issues Committee annual vendor workshop, the annual Fuel

³ This requirement applies to all activities affecting the safety-related functions of those structures, systems, and components including designing, purchasing, fabricating, erecting, installing, inspecting, testing, operating, maintaining, repairing, and modifying.

⁴ Draft Regulatory Basis to Clarify 10 C.F.R. Part 21 (ADAMS Accession No. ML12248A200).

⁵ Audit of NRC's Vendor Inspection Program, dated September 28, 2010 (OIG-10-A-20, ADAMS Accession No. ML102710583), and Audit of NRC's Implementation of 10 C.F.R. Part 21, Reporting of Defects and Noncompliance, dated March 23, 2011 (OIG-11-A-08, ADAMS Accession No. ML110820426).

⁶ Staff Plans to Develop the Regulatory Basis for Clarifying the Requirements in Title 10 of the Code of Federal Regulations Part 21, Reporting of Defects and Noncompliance (SECY-11-0135, ADAMS Accession No. ML112430138).

Cycle Information Exchange, and the biennial NRC Workshop on Vendor Oversight for New Reactor Construction, NRC staff engaged stakeholders on the need for rulemaking. NRC staff hosted public meetings on August 1, 2011, and January 26, 2012, to provide early stakeholder outreach and solicit feedback in these areas. The public meetings helped inform SECY-11-0135⁷ and provided additional areas for improvement. Thereafter, the staff issued the regulatory basis with the intent of providing necessary clarity to Part 21 and its associated guidance.

Between 2011 and 2016, the NRC launched several initiatives relevant to the topic. One relevant initiative was Project Aim, which launched in June 2014. Project Aim featured a small team developed to forecast the long-term workload for the agency and the framework and recommendations to enhance the NRC's ability to plan and execute its mission in a more effective, efficient, and agile manner. On September 16, 2016, the agency notified the OIG of a status change involving Project Aim and Part 21:

“As part of the Project Aim re-baselining effort, the NRC staff recommended termination of the 10 C.F.R. Part 21 rulemaking effort in SECY-16-0009, “Recommendations Resulting from the Integrated Prioritization and Re-Baselining of Agency Activities,” January 31, 2016 (ADAMS Accession No. ML16028A189). Specifically, Part 21 rulemaking was listed on the shed list of Enclosure 1, line item 2 (ADAMS Accession No. ML16028A212) to SECY-16-0009 (ADAMS Accession No. ML16028A208). That recommendation was accepted in the April 13, 2016 memo from the Commission to the Executive Director for Operations (ADAMS Accession No. ML16104A158). Therefore, the staff's efforts to revise Part 21 ceased in 2016.”⁸

Although the Commission approved this recommendation,⁹ its memorandum to the staff stated:

“The staff should monitor the effect of these approved changes, commensurate with their significance, and report back to the Commission on future adjustments or course corrections that are needed, if any.”

⁷ Staff Plans to Develop the Regulatory Basis for Clarifying the Requirements in Title 10 of the Code of Federal Regulations Part 21, “Reporting of Defects and Noncompliance.”

<https://www.nrc.gov/reading-rm/doc-collections/commission/secys/2011/index.html>.

⁸ ADAMS Accession No. ML16260A057, page 6, which includes the agency's response.

⁹ ADAMS Accession No. ML16104A158, page 2.

II. DETAILS

CFSI in Operating Plants

Finding 1: Licensees are currently using CFSI in operating plants.

We have found evidence of CFSI used in operating plants. Our investigation revealed nine reports coded in the licensee's corrective action program as counterfeit/fraudulent items, and three of the nine had CFSI use confirmed.

A well-placed NRC principal said that he discovered a counterfeit pump shaft had been installed when the emergency service water pump shaft snapped after a very short time in service. The licensee did a root cause evaluation¹⁰ on the shaft and confirmed the part was counterfeit material; however, this failure was not reported to the NRC because the licensee's regulatory compliance manager said reporting under Part 21 was only necessary if a counterfeit part was discovered prior to installation in service. Once the part was in service, Part 21 no longer applied. The NRC principal then told us that he inquired about this situation with NRC subject matter experts, but was told that a recent series of NRC Office of the General Counsel regulatory interpretations had allowed utilities to use license event reports¹¹ for reporting the failure of parts in service. Furthermore, if an in-service failure was evaluated for potential reporting under 10 C.F.R. 50.73, it did not need to be reported under Part 21 even if it was determined the failure was not reportable under 10 C.F.R. 50.73.

The principal said the criteria and purpose of reporting under Part 21 are very different from reporting failures under 10 C.F.R. 50.73, and under the latter, the threshold for reporting is much higher as it requires safety system failures. In the case of an emergency service water pump, for example, both pumps would have to have failed to meet reporting requirements under 10 C.F.R. 50.73. Part 21 staff members told the principal that though they agreed with his concerns, they could not do anything about them, and he should no longer consider the violation. The principal said:

“They told me that they had already initiated rulemaking to restore the original intent behind Part 21. This rulemaking was subsequently terminated as part of a cost reduction effort. So today, in the industry, Part 21 no longer does what was originally intended, which was to identify counterfeit parts and report manufacturers who violate their QA program.”

¹⁰ The NRC defines root cause as the basic reason(s) for a problem, which if corrected, will prevent recurrence of that problem.

¹¹ 10 C.F.R. 50.73 § 50.73, Licensee event report system.

The principal provided another example of a different plant using safety-related instruments to monitor temperatures in safety-related areas such as the steam line tunnel. The temperatures were being monitored for increases that could have identified a steam line break.¹² The instruments (about 15 instruments monitoring numerous reactor areas) were suddenly failing at a significantly increased rate. There was evidence that some instruments had been repaired using defective parts and had subsequently failed prematurely. Our investigation revealed a green finding was issued for poor maintenance practices, but there was little information about the defective repairs because the licensee claimed that screening and reporting under Part 21 was not done or required because the failures, many over several years, had been screened under 10 C.F.R. 50.73. These failures, however, were ultimately not reported under 10 C.F.R. 50.73 because they did not constitute a complete failure of a safety function, did not result in an emergency shutdown of the reactor, and did not exceed outage time allowable in the technical specification.

Simultaneously with this report's issuance, the OIG also issued an audit report¹³ that revealed CFSI are present at U.S. nuclear operating plants. According to the report, third-party organizations, such as the Electric Power Research Institute, the Institute of Nuclear Power Operations, and the Nuclear Procurement Issues Corporation, reported around 10 potential CFSI cases since 2016. As reported in Finding 2 below, CFSI totals could be greater.

Finding 2: Licensees do not specifically track CFSI.

Though the NRC maintains that licensees have corrective action programs that track deficient components that fail, we found that three out of the four licensees we sampled did not track CFSI in their corrective action programs. Current reporting requirements only mandate the reporting of defects and failures that could lead to a substantial safety hazard and significant events driven by equipment failure. Our analysis determined that NRC regulations do address failures classified as significant condition adverse to quality (SCAQ), but the licensee has discretion for corrective actions for failures classified as condition adverse to quality (CAQ),¹⁴ which account for most failures. According to the NRC CFSI Working Group Report,¹⁵ "basic components that are determined to

¹² A main steam line break is far more safety significant in a boiling water reactor because the steam is radioactive and the older boiling water reactors rely extensively on steam-driven core cooling pumps (RCIC, HPCI) to mitigate a reactor accident. Pressurized water reactors, on the other hand, have non-radioactive steam and use electric-powered safety injection systems as well as a large, dry, robust containment.

¹³ OIG-22-A-06, Audit of the Nuclear Regulatory Commission's Oversight of Counterfeit, Fraudulent, and Suspect Items at Nuclear Power Reactors.

¹⁴ The difference between these two terms is defined in 10 C.F.R. Part 50, Appendix B.

¹⁵ ADAMS Accession No. ML112130293.

be CFSI that do not constitute a substantial safety hazard or cause a reportable event would not be required to be reported.”¹⁶

Additionally, the report stated that there is a lack of clarity about whether CFSI constitute a deviation, failure to comply, or CAQ as defined in existing rules and guidance:

- Evaluation under Part 21 may not be conducted for basic components; and,
- Corrective action may not be taken, and repetition may not be precluded, for issues that do not rise to the level of an SCAQ.

The current interpretation of Part 21 only applies to basic components, including items that have completed the commercial-grade dedication process, after product acceptance. CFSI identified during receipt inspection and commercial-grade dedication activities may not be evaluated for reportability under Part 21.

We also learned that some licensees do not use the word “counterfeit” in their corrective action programs. If a safety component fails, licensees sometimes use the corrective action program to investigate why the component failed, such as due to faulty circuit cards, but we learned that licensee investigations into failed parts are not automatic and are infrequently pursued.

Other credible licensee sources told us that SCAQs and CAQs get corrective action reports, but only the former require a root cause investigation. There is more discretion with a CAQ corrective action report, which can be closed out as direct disposition, actions taken, or with a corrective action as simple as instruction not to use that vendor anymore. Additionally, one source said that CAQs do not require reporting to the NRC, nor is there a requirement to have the same level of evaluation as to why the component failed. All the licensee sources we interviewed told us there is no regulatory requirement for them to report CFSI to the NRC.

CFSI Oversight Standards

Many of the surveillance, quality control, and auditing systems on which both the NRC and its licensees rely to monitor compliance with safety standards are based primarily on complete, accurate, and timely recordkeeping and reporting.

Prior to 2012, NRC staff had documented multiple inspection findings related to Part 21, including commercial grade dedication findings, despite the staff’s attempts to clarify requirements through generic communications and extensive outreach efforts. However, we learned from a well-placed NRC source that the NRC “was not aware of any violations specifically for CFSI.”

¹⁶ A basic component is defined as a system, structure, or component that ensures integrity of the reactor coolant pressure boundary, the capability to shut down the reactor and maintain it in a safe-shutdown condition, or the capability to prevent or mitigate the consequences of accidents.

The NRC's website¹⁷ shows a decline in the docketed Part 21 reports by both vendors and licensees in the last 5 years. However, since 2011, the number of operating plant Part 21 reports has decreased by at least 50 percent.

As discussed in the Background section, the NRC terminated clarification rulemaking for Part 21 through Project Aim in 2016. A credible licensee source told us that he believed parts that meet the criteria for screening for potential Part 21 reporting are received by the licensee about two or three times per year, but our investigation found that no Part 21 reports have been docketed in ADAMS for this licensee.

U.S. Federal Government and International CFSI Concerns

Although some third-party organizations reported fewer than 10 potential CFSI cases since 2016, our investigation revealed that the CFSI total could be greater. During our investigation, we learned that CFSI is a U.S. federal government and international concern.

The U.S. Department of Defense Instruction 4140.67, DoD Counterfeit Prevention Policy, dated April 26, 2013, states in part that it is policy to “document all occurrences of suspect and confirmed counterfeit materiel in the appropriate reporting systems including the Government-Industry Data Exchange Program (GIDEP).” GIDEP, a central repository for sharing information on suspect products used by federal agencies, maintains its CFSI information in an area of the database called Failure Experience Data. Additionally, the DOE has issued DOE Order 414.1D, Quality Assurance Attachment 3, Suspect/Counterfeit Items Prevention.

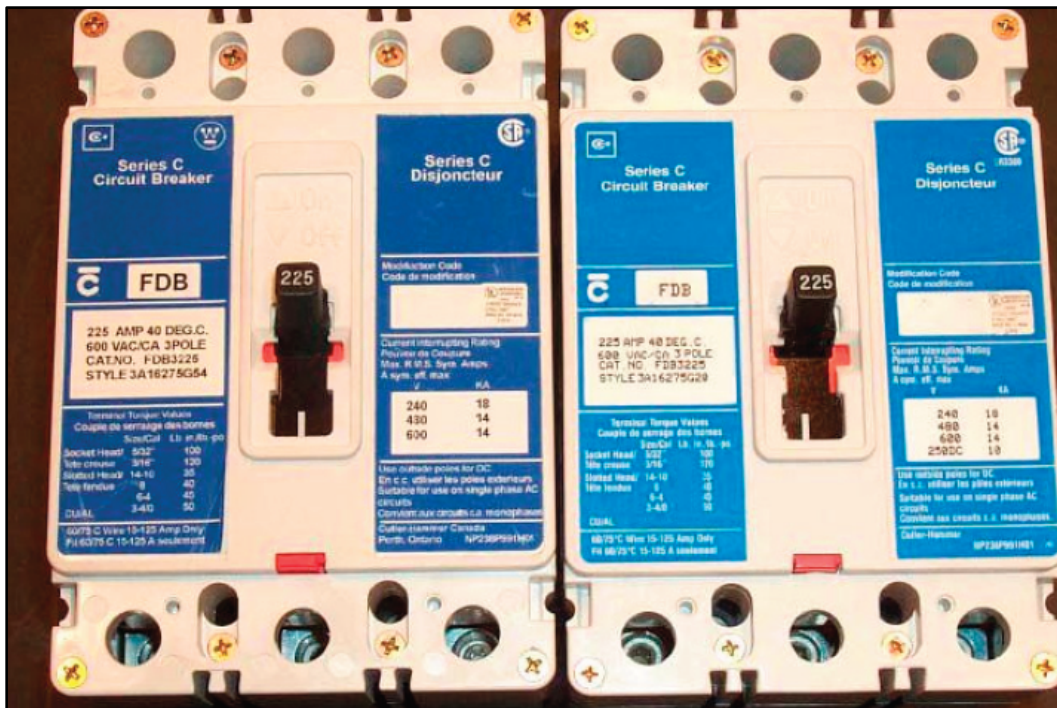
The DOE CFSI subject matter expert told us that in addition to GIDEP, the DOE's nuclear facilities are required to report to the DOE's Occurrence Reporting and Processing System (ORPS) any CFSI in hazard category 1, 2, and 3, and CFSI involving systems, structures, or components. Only items found in use in nuclear reactors are reported in ORPS, which is meant for safety issues.

The same expert recently completed an annual report that includes all the CFSI that the DOE has found in fiscal year 2021. We were informed that five CFSI safety components were reported in ORPS, and DOE lab personnel (who currently do not report in ORPS) estimated more than “100 CFSI non-reported components.” The expert also said that the DOE CFSI working group, consisting of 130 staff members, is developing a comprehensive reporting system for all DOE staff to report CFSI components found.

¹⁷ <https://www.nrc.gov/reading-rm/doc-collections/event-status/part21/index.html>.

In 2019, the IAEA issued a report about CFSI concerns,¹⁸ citing CFSI's immediate and potential threats to worker safety, facility performance, the public, and the environment, as well as their potentially negative impact on facility costs. The report said that concerns extend beyond the equipment or component level to the raw materials used in facility construction and chemicals and other substances used in a facility. It warned that even equipment purchased from an original equipment manufacturer may be counterfeit or fraudulent and discussed the importance of rigorous supply chain and procurement processes. The report also said that counterfeit items may have been inadvertently procured and already installed in nuclear facilities and must be identified and evaluated as early as practicable: "This includes communicating and documenting information internally and sharing the resulting lessons learned with the entire nuclear industry." The IAEA also reported that electronic parts are increasingly subject to counterfeiting and are not easy to detect, and provided Figure 2 as an example.

Figure 2: Counterfeit breaker (left) and legitimate breaker (right)



Source: IAEA.

We learned there are nuclear power plant commercial grade component suppliers from countries whose interests may be inimical to the United States, but the NRC's oversight relies on import/export controls largely dependent upon the U.S. Department of Commerce (DOC). An NRC source told us that if "nuts and bolts" come from China, for example, the vendor or licensee needs to follow the commercial grade dedication program if the parts are used in U.S. nuclear power

¹⁸ IAEA's Nuclear Energy Series NP-T-3.26, Managing Counterfeit and Fraudulent Items in the Nuclear Industry.

plants; moreover, the DOC is ultimately responsible for controls regarding the importation of commercial grade components used in nuclear power plants. The NRC source said licensees, not the NRC, are responsible for which parts end up in their plants.

The NRC's Handling of CFSI Allegations

Issue 1: The NRC Did Not Process Allegations

Although the NRC's Allegation Manual includes provisions for handling allegations of counterfeit/fraudulent parts, we found that the NRC did not investigate or pursue any substantive actions regarding an alleged concern that CFSI are present in most, if not all, U.S. nuclear power plants.

According to Management Directive (MD) 8.8, Management of Allegations, "anyone should feel free to communicate any safety concern to the U.S. Nuclear Regulatory Commission." The document invites the public to bring safety concerns directly to the NRC at any time and indicates it is the agency's responsibility to respond to those concerns in a timely manner. MD 8.8 contains policy and program guidance for the management and processing of allegations and 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. The NRC Office of Enforcement maintains the NRC Allegation Manual,¹⁹ which contains a more detailed discussion of program practices.

According to the NRC Allegation Manual,²⁰ information submitted to the agency is evaluated by comparing the information provided to the three basic criteria²¹ that constitute an NRC allegation:

"This interpretation is usually made as the receiving NRC employee consults with his/her supervisor and the OAC [office allegation coordinator] while documenting the information provided by a concerned individual. If, after this initial consultation, it is unclear whether information provided by the concerned individual constitutes an allegation, it is appropriate to discuss the information at an ARB [Allegation Review Board] to obtain a decision. If the ARB cannot reach a conclusion as to whether the concern in question should be processed as an allegation, the [agency allegation advisor] should be consulted. Some regions/offices assign an allegation number to such issues and then recode the item in the AMS [Allegation Management

¹⁹ ADAMS Accession No. ML17003A227.

²⁰ *Ibid.*

²¹ The three criteria are: Does the information involve an asserted inadequacy or impropriety? Is the issue associated in some way with NRC-regulated activity? Is the NRC already aware of the validity of the concern?

System] database as a non-allegation if the ARB determines that the issue is not an allegation. Some regions/offices document the issue on allegation process forms but withhold assigning an allegation number until the ARB has reached a conclusion. Either approach is acceptable.”

This investigation revealed that the alleged communicated CFSI concerns to the agency staff via letters, e-mails, phone calls, and discussions at public meetings over 10 years. Most of the alleged’s concerns involved Seabrook Station, but the individual also alleged that new construction at Vogtle and Summer had substandard welds. This alleged also emailed the Commission to voice concerns with CFSI, among other things, in U.S. nuclear plants.

We found that the NRC neither processed any information the alleged provided through an ARB, nor consulted with the OAC. Instead, the NRC reviewed the information, determined it did not meet the criteria of an allegation, and requested additional specific information, which it appeared the alleged did not provide. We identified 18 letters the NRC sent to the alleged since 2014. Furthermore, our investigation revealed that the OAC was accidentally copied on an internal response being prepared for the alleged in 2018. The OAC then started storing hard copies of the alleged’s information in a non-allegation file.

Additionally, we found that the regions did not communicate with each other regarding the alleged welding concerns.

A regional official told us that he would train staff on the proper handling of allegations and non-allegations. He also said that the NRC should look at what transpired with the alleged’s correspondence, and determine if processes were followed, whether issues were clearly documented, and if the NRC “got too comfortable” with this alleged by assigning his concerns to primarily one person. A regional official also informed us that it “looks like we made a lot of assumptions” and that one region should have contacted the other if the alleged asserted faulty welds.

Additionally, we found that the NRC responded to the alleged in a February 12, 2014 letter regarding his concern with CFSI at Seabrook Station stating, “NextERA has a corrective action system to address the identification and correction of any such equipment.” Contrary to this statement, the OIG learned that the licensee does not track CFSI in its corrective action program.

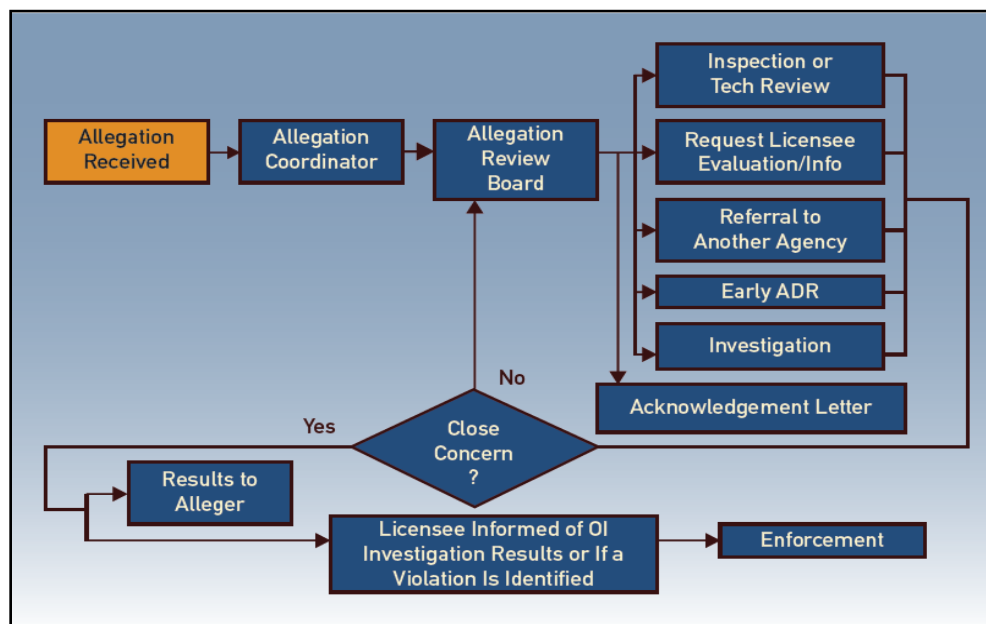
Furthermore, we identified that the NRC’s Allegation Management System does not directly track allegations of CFSI; rather, they are classified as either wrongdoing or falsification. As of the date of this report, the NRC Office of Investigations has investigated 12 CFSI-related allegations since 2010—none of which were substantiated—and now has no CFSI-related investigations open.

Issue 2: NRC’s Allegation-Related Publications

We also found the NRC’s publications about allegations²²—Frequently Asked Questions and the NRC’s brochure (i.e., NUREG/BR-0240)—omit information regarding non-allegations, which is how this alleged concern was classified. Such missing information regarding the NRC’s approach to reviewing allegations could be construed as misleading to the public because neither source discusses information, questions, or concerns submitted for consideration by the allegation process that have been determined not to meet the NRC’s definition of an allegation, and so are classified as non-allegations.²³

For example, one of the FAQs states, “How specific should I be in the concern(s) that I raise to the NRC?” In the response, the agency discusses providing as much specific information as possible, but the answer does not explain how the NRC addresses information an alleged concern might provide that does not meet the threshold to be considered an allegation. Additionally, NUREG/BR-0240 does not discuss what happens when the NRC determines that information provided by the alleged concern is deemed a non-allegation by the staff and is not given to the OAC (see Figure 3).

Figure 3: The NRC’s allegation process



Source: NUREG/BR-0240.

²² <http://www.nrc.gov/about-nrc/regulatory/allegations/safety-concern.html>.

²³ A non-allegation interpretation is done by comparing the information provided to the three basic criteria that constitute an NRC allegation. See footnote 19. (ADAMS Accession No. ML17003A227).

The lack of clarity in the NRC's allegations-related publications is not a hypothetical concern; to the contrary, the OIG has received numerous complaints that suggest the public does not understand the allegation screening process.

Conclusion

According to the NRC, the potential number of CFSI cases, and the resulting impact on the nuclear fleet, is relatively small. However, the NRC may be underestimating the number of CFSI in plants and their impact because it does not require licensees to report CFSI except in extraordinary circumstances, such as those involving the failure of equipment that performs a significant safety function.

CFSI present nuclear safety and security concerns that could have serious consequences for nuclear power plant equipment required to perform a safety function. Through this special inquiry, the OIG learned that CFSI are, in fact, present at nuclear power plants regulated by the NRC. The OIG also learned that there are potential gaps in the NRC's regulatory framework, such as those identified in a 2011 NRC working group, that are yet to be satisfactorily resolved. Such regulatory gaps might increase the chance that CFSI go undetected. This special inquiry further revealed that there are instances where the NRC did not correctly process allegations or other information regarding CFSI.

The Office of the Inspector General has forwarded this report to the NRC's executive leadership for review and response.

TO REPORT FRAUD, WASTE, OR ABUSE

Please Contact:

Email: [Online Form](#)

Telephone: 1-800-233-3497

TTY/TDD: 7-1-1, or 1-800-201-7165

Address: U.S. Nuclear Regulatory Commission
Office of the Inspector General
Hotline Program
Mail Stop O5-E13
11555 Rockville Pike
Rockville, MD 20852

If you wish to provide comments on this report, please [email](#) the OIG.