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United States Nuclear Regulatory Commission
Protecting People and the Environment

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Volume 17

Office of Investigations Annual Report Fiscal Year 2020

Office of Investigations

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ABSTRACT

This report provides the U.S. Nuclear Regulatory Commission with an overview of the activities, mission, and purpose of the Office of Investigations (OI), along with the framework of case inventory and highlights of significant cases that OI completed during fiscal year 2020 (see the staff requirements memorandum COMJC-89-8, dated June 30, 1989). This is the 32nd OI annual report.

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DIRECTOR'S MESSAGE

In the last annual report, I closed with a look into the future, stating that the modernization of the investigative and enforcement data systems and consolidation of the data could provide new and additional insight into the U.S. Nuclear Regulatory Commission's role as regulators, as well as areas for transformation throughout the agency. While that process continues and is making steady progress, some of the improvements have provided the means to look at some of the Office of Investigations (OI) case data and conduct trend analysis of the three major case categories investigated by OI.

The analysis focuses on the previous 5 years, 2015–2019, and takes a closer look at Discrimination—Employee Protection; False Statements—Inaccurate Incomplete Information; and Atomic Energy Act / License Conditions violations. Analysts examined each of the categories according to the licensee type to identify any trends or anomalies. Throughout the analysis, the staff compared the industry population, both the number of licensees and the number of persons employed, to the number of investigations and the results of the investigations.

The results did not surprise me. OI's measure of success is not finding fault but determining whether a violation occurred. The office investigates each case thoroughly until the evidence indicates that the allegation or violation was substantiated or unsubstantiated. This provides a window into serious regulatory compliance violations and the effectiveness of the safety culture throughout the industry. Without giving away the details, there is a story to tell, and it is one that speaks highly of the professionalism and dedication of everyone involved in ensuring the U.S. nuclear industry is the safest in the world.

Andy Shuttleworth
Director

FOCUSING ON OUR MISSION

As the law enforcement arm of the U.S. Nuclear Regulatory Commission (NRC), the Office of Investigations (OI) protects the American public by conducting criminal, civil, and administrative investigations of alleged violations by NRC licensees.

Since 1982, OI has investigated a broad range of violations. OI continues to focus on criminal violations that undermine the safe and secure use of radioactive materials, the common defense and security of the United States, and the protection of the environment, such as the following:

- criminal violations that pose a particularly significant risk of harm to public health and safety
- criminal conduct, including making material false statements to the NRC during the regulatory process, affecting proper regulatory actions by the NRC
- criminal violations by individuals who discriminate against whistleblowers who raise and pursue certain protected activities regulated by the NRC
- criminal violations in situations where the normal regulatory process may be unable to remedy the problem
- criminal violations by individuals and organizations that attempt to introduce counterfeit, fraudulent, and suspect items into the nuclear supply chain
- proactive investigative partnerships with other Federal, State, local, and international law enforcement agencies

FISCAL YEAR 2020 HIGHLIGHTS

During the unprecedented challenges that occurred during fiscal year (FY) 2020, the U.S. Nuclear Regulatory Commission (NRC) Office of Investigations (OI) maintained a mission-driven, high-performing workforce and continued the commitment to investigative independence, excellence, and adherence to established quality standards. OI personnel include criminal investigators who bring a wide range of experience from across the Federal enterprise and professional support staff who continuously work to exceed the expectations of internal and external stakeholders.

The majority of investigations closed by OI in FY 2020 involved operating reactors, with approximately one-quarter of the closed investigations related to materials and a very small percentage concerning new reactors. Roughly one-third of the investigations were closed as substantiated, and the remaining two-thirds were closed as unsubstantiated. This report discusses the specific numbers in detail.

The challenges created by the worldwide Coronavirus Disease 2019 (COVID-19) pandemic and associated quarantine and domestic travel restrictions caused OI to implement new strategies to carry out its investigative role within the NRC:

- OI personnel demonstrated flexibility and resilience while adapting to working from home on a full-time basis. OI continued to effectively accomplish its assigned investigative mission, even while NRC Headquarters and the regional offices limited the number of personnel in agency office spaces.

- OI established new procedures for OI investigators to conduct remote interviews pursuant to domestic and international travel restrictions and social distancing guidelines.

- To align with the agency's transformation initiative, OI updated the Investigative Procedures Manual to help strengthen policies and procedures subsequent to revisions that have occurred in investigative practices and criminal investigations at the national level.

- OI collaborated with agency stakeholders in the Office of the General Counsel and the Office of Enforcement (OE) to enhance the Case Management System (CMS), resulting in a more efficient and streamlined process for documenting investigative case information.

- OI adopted multiple NRC Futures and Transformation initiatives, including redesigning functions and features in the current electronic CMS, allowing for a paperless process; collaborating with the Office of the Chief Information Officer (OCIO), OE, and other agency partners to fully replace and integrate the OI CMS into a combined case management infrastructure by 2021; and fully digitizing the OI case file plan, transforming the program from hard-copy files to a 100-percent paperless process.

- Using virtual means, OI maintained collaboration on export enforcement, deconfliction, and counterproliferation investigations with other Federal agencies with law enforcement responsibilities, such as the U.S. Department of Commerce, the Federal Bureau of Investigation, and the U.S. Department of Homeland Security at both the Counter Proliferation Strike Force in Atlanta, GA, and the Export Enforcement Coordination Center in Vienna, VA.

- During FY 2020, OI leadership and staff attended virtual training sessions and conferences to improve skills and gain knowledge. Additionally, OI personnel presented training as part of a nationwide knowledge transfer to NRC colleagues throughout the agency.

- OI has maintained partnerships with the U.S. Department of Homeland Security, National Intellectual Property Rights Coordination Center (IPR Center), to collaborate on investigative efforts and share information related to counterfeit, fraudulent, and suspect items, including those in nuclear power plants and in devices using nuclear material. OI continues to collaborate with 16 other Federal agencies as part of Operation Chain Reaction within the IPR Center.

1 INTRODUCTION AND OVERVIEW

HISTORY

In 1982, with the support of the U.S. Department of Justice (DOJ) and the U.S. Congress, the NRC established OI as part of an agency effort to improve the quality of its investigative work and to support the NRC's overall mission. The Commission announced the formation of OI on April 20, 1982, to improve the NRC's capability "to perform credible, thorough, timely and objective investigations." OI has the responsibility to conduct independent investigations either at the request of specific NRC officials or on its own initiative. OI subsequently hired experienced Federal criminal investigators, a practice it continues today, who probe alleged wrongdoing in accordance with DOJ guidelines and the Quality Standards for Investigations established by the Council of the Inspectors General on Integrity and Efficiency (CIGIE).

AUTHORITY

The Commission delegated to the Director of OI the authority to take the necessary steps to accomplish the OI mission, as described in Title 10 of the *Code of Federal Regulations* (10 CFR) 1.36, "Office of Investigations." (See Section 161(c) of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2201(c)), and Section 206 of the Energy Reorganization Act of 1974 (42 U.S.C. 5846).) OI jurisdiction extends to the investigation of alleged wrongdoing by licensees, certificate holders, permittees, and applicants; by contractors, subcontractors, and vendors of such entities; and by management, supervisors, and other employed personnel of such entities who may have violated the Atomic Energy Act, the Energy Reorganization Act, and rules, orders, and license conditions issued by the Commission.

Additionally, during investigations, OI may uncover issues that are potentially significant to safety that may, or may not, be related to wrongdoing. OI promptly gives such information to the NRC technical staff for appropriate action. OI also provides professional investigative expertise to the NRC staff in the form of assists to staff. Generally, these assists to staff are associated with matters of regulatory concern for which the NRC staff has requested OI's investigative expertise but that do not initially involve a specific indication of wrongdoing.

MISSION

As stated in the NRC's Strategic Plan for FYs 2018–2022, the agency's mission is to license and regulate the Nation's civilian use of radioactive materials to protect public health and safety, promote the common defense and security, and protect the environment. The NRC's vision is to carry out its mission in a manner that ensures it remains a trusted, independent, transparent, and effective nuclear regulator. The NRC's Strategic Plan defines the strategic goals and objectives that will allow the agency to carry out its mission and identifies activities that will contribute to achieving these goals.

OI aligns with the agency's regulatory programs and strategic values and goals to provide for the safe use of radioactive materials and nuclear power for civilian use. OI's national investigations program consistently operates under the agency's principles of good regulation (independence, openness, efficiency, clarity, and reliability) to support regulatory actions that are effective, realistic, and timely.

2 THE OFFICE OF INVESTIGATIONS

The Director of OI reports to the Deputy Executive Director for Materials, Waste, Research, State, Tribal, and Compliance Programs and supports the reactor and materials programs.

OI is an independent, national investigations program, which consists of four regionally co-located field offices led by special agents in charge who report directly to OI senior executives located at OI headquarters. Federal criminal investigators (special agents (GG-1811)) and professional support personnel staff OI field and headquarters offices.

All NRC OI special agents have extensive backgrounds and experience in Federal criminal investigations. During FY 2020, the professional cadre of OI special agents had an average of 18 years of Federal law enforcement experience. OI special agents have previously served in law enforcement at other Federal agencies, including the Secret Service, U.S. Department of Energy, Naval Criminal Investigative Service, U.S. Department of Labor, Air Force Office of Special Investigations, Federal Bureau of Investigation, Drug Enforcement Administration, Bureau of Alcohol Tobacco Firearms and Explosives, Coast Guard Investigative Service, Internal Revenue Service, Army Criminal Investigative Division, and various offices of Inspectors General.

OI plans and conducts investigations of allegations of wrongdoing to determine whether there are willful and deliberate actions in violation of NRC regulations and criminal statutes. OI also develops and implements policies, procedures, and quality control standards for investigations. OI conducts investigations in accordance with the DOJ guidelines and the Quality Standards for Investigations established by the CIGIE. Additionally, OI maintains proactive investigative partnerships with other Federal, State, and local law enforcement officials.

3 QUALITY ASSURANCE REVIEWS

OI quality assurance reviews (QARs) are annual self-assessments of OI's national investigations program. Each year, OI selects a team of senior OI personnel to conduct the QARs of each OI office, including headquarters and the OI field offices. The QARs aim to ensure the continuing initiative of self-assessments and to determine ways to improve efficiency and productivity. To ensure OI is in compliance with accepted guidelines for its activities, OI has adopted the CIGIE's Quality Standards for Investigations and the U.S. Attorney General's guidelines to provide a framework for conducting high-quality investigations. OI conducted the 2020 QAR to ascertain the existence of, and compliance with, adequate policies, procedures, and applicable investigative standards within the program. This year's QAR also supported the goal of continuous improvement and assessed three major focus areas: operations, management, and administration.

The COVID-19 pandemic affected the operational posture of OI for most of 2020. Restrictions on office occupation and maximum telework policies across the NRC led to the completion of this year's QAR entirely on a virtual platform. Regardless of the virtual environment, the QAR teams successfully completed all review items as required by OI internal procedures, addressing the following areas:

- internal stakeholder meetings
- randomly selected case reviews for quality overview
- sensitive equipment verification
- program quality checks
- OI data system review

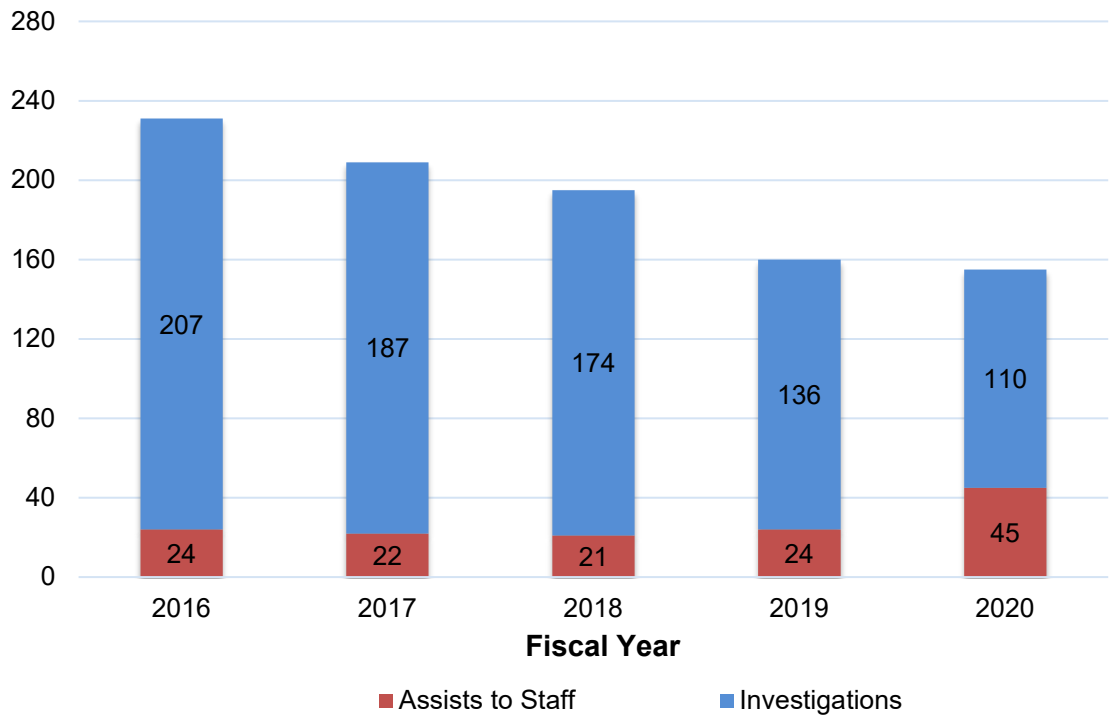
During the review, the QAR teams checked a random selection of 38 closed cases and 12 cases in an open status. The case reviews resulted in no significant case findings. A review of the OI operational programs found that OI was generally in compliance with all pertinent governing policies and procedures. However, upon review of the OI headquarters administrative areas, the QAR teams noted some programmatic gaps that were addressed through corrective measures subsequent to the conclusion of the QAR.

Meetings were conducted with internal stakeholders for each of the reviewed offices and included staff from the Office of the Executive Director for Operations, Regional Administrators, legal staff, and allegations and enforcement personnel. During these meetings, OI solicited feedback on its performance and input on the delivery of OI work products. In broad terms, the stakeholders communicated that they were satisfied with the OI program overall and provided constructive feedback on several administrative items relevant to OI practices.

After each office review, the QAR team conducted an exit briefing with the OI field office special agent in charge to discuss the team's findings and recommendations. OI management at NRC Headquarters was also apprised of the results at the conclusion of all QARs. OI management addressed the feedback received from the QAR teams by implementing procedural and programmatic changes, including the issuance of internal procedural directives such as investigative guidance memoranda and a revision of the OI Investigative Procedures Manual. The OI Director and Deputy Director also conducted follow-up meetings with key internal stakeholders to advise them of plans that OI has made as a result of the 2020 QAR findings and other ongoing program initiatives.

4 CASES

Figure 1 shows the OI case inventory, which includes all investigations[1] and assists to staff[2] conducted during FY 2016 through FY 2020. The total case inventory in FY 2020 was 155, which was a 3-percent decrease from 160 in FY 2019. This includes 110 investigations, 60 of which were carried over from FY 2019. Also included are 45 assists to staff, 5 of which were carried over from FY 2019.



Note: Cases carried over from previous year combined with cases opened in current year

Figure 1 Case Inventory

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1 An investigation is the detailed and systematic collection, development, and examination of evidence and other relevant information to uncover the facts and circumstances or to establish the truth concerning potential wrongdoing within the jurisdiction of the NRC.

2 Assists to staff are cases that are brief and focused inquiries not involving a specific allegation of wrongdoing. OI does not evaluate the concerns addressed in assists to staff for substantiation. Assists to staff serve to provide the NRC staff with clarifying information about concerns to better inform the decision-making process, allowing for the agency to pursue the most appropriate course of action.

5 CASES OPENED

Table 1 shows the number of cases opened by category from FY 2016 through FY 2020. OI opened 90 cases in FY 2020 in the categories listed below; this represents a 13-percent increase in total cases opened from FY 2019. The number of investigations of suspected material false statements increased by 20 percent, and violations of other NRC regulatory requirements increased by 10 percent. In FY 2020, the number of discrimination investigations decreased by 55 percent, and the number of assists to staff increased by 74 percent.

Table 1 Cases Opened by Category

Category	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Total	119	115	101	80	90
Material False Statements	24	23	16	15	18
Violations of Other NRC Regulatory Requirements	29	30	27	20	22
Discrimination	46	41	40	22	10
Assists to Staff	20	21	18	23	40

Figure 2 shows the distribution of cases opened during FY 2016 through FY 2020 for the reactor and materials programs. From FY 2019 to FY 2020, the overall number of reactor cases decreased by 2 percent. Reactor investigations decreased by 25 percent, and reactor-related assists to staff increased by 65 percent.

The number of materials cases increased by 73 percent, with an increase of 56 percent in the number of materials investigations and a 100-percent increase in materials-related assists to staff.

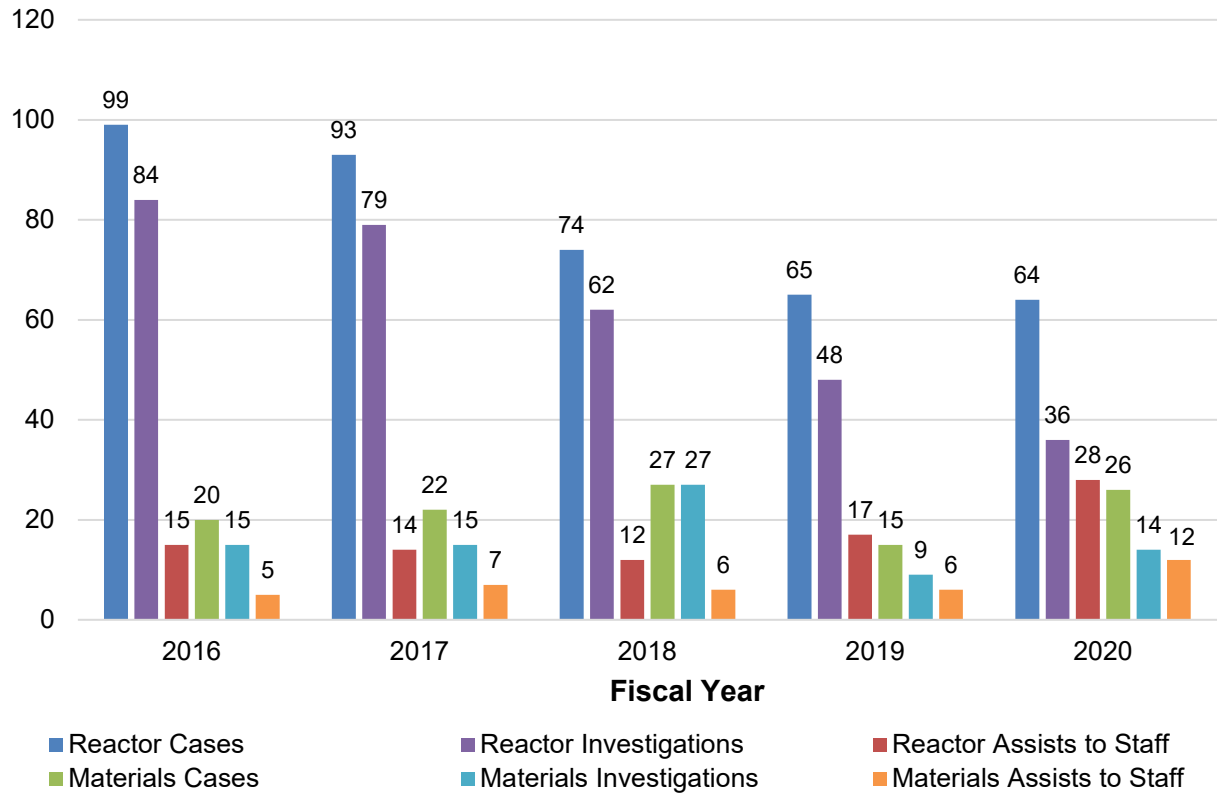

Figure 2 Reactors and Materials Cases Opened

Reactor cases: 64
Reactor investigations: 36
Reactor assists to staff: 28

Materials cases: 26
Materials investigations: 14
Materials assists to staff: 12

6 CASES CLOSED

Table 2 shows the number of cases closed by category during FY 2016 through FY 2020. OI closed 90 cases in FY 2020 in the categories listed below; this represents a 5-percent decrease from the number closed in FY 2019. Investigations of material false statements decreased by 33 percent, while investigations involving violations of other NRC regulatory requirements decreased by 36 percent. Discrimination investigations decreased by 23 percent, and assists to staff increases by 95 percent.

Table 2 Cases Closed by Category

Category	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Total	137	115	115	95	90
Material False Statements	34	23	22	18	12
Violations of Other NRC Regulatory Requirements	42	26	32	28	18
Discrimination	37	47	41	30	23
Assists to Staff	23	19	20	19	37

Figure 3 shows the cases closed from FY 2016 through FY 2020 for the reactor and materials programs. OI closed 90 cases in FY 2020, which included 53 investigations and 37 assists to staff. From FY 2019 to FY 2020, the overall number of reactor cases decreased by 9 percent. Reactor investigations decreased by 32 percent, and reactor-related assists to staff increased by 86 percent.

The overall number of materials cases increased by 10 percent for the same period. Materials investigations decreased by 25 percent, and materials-related assists to staff increased by 120 percent.

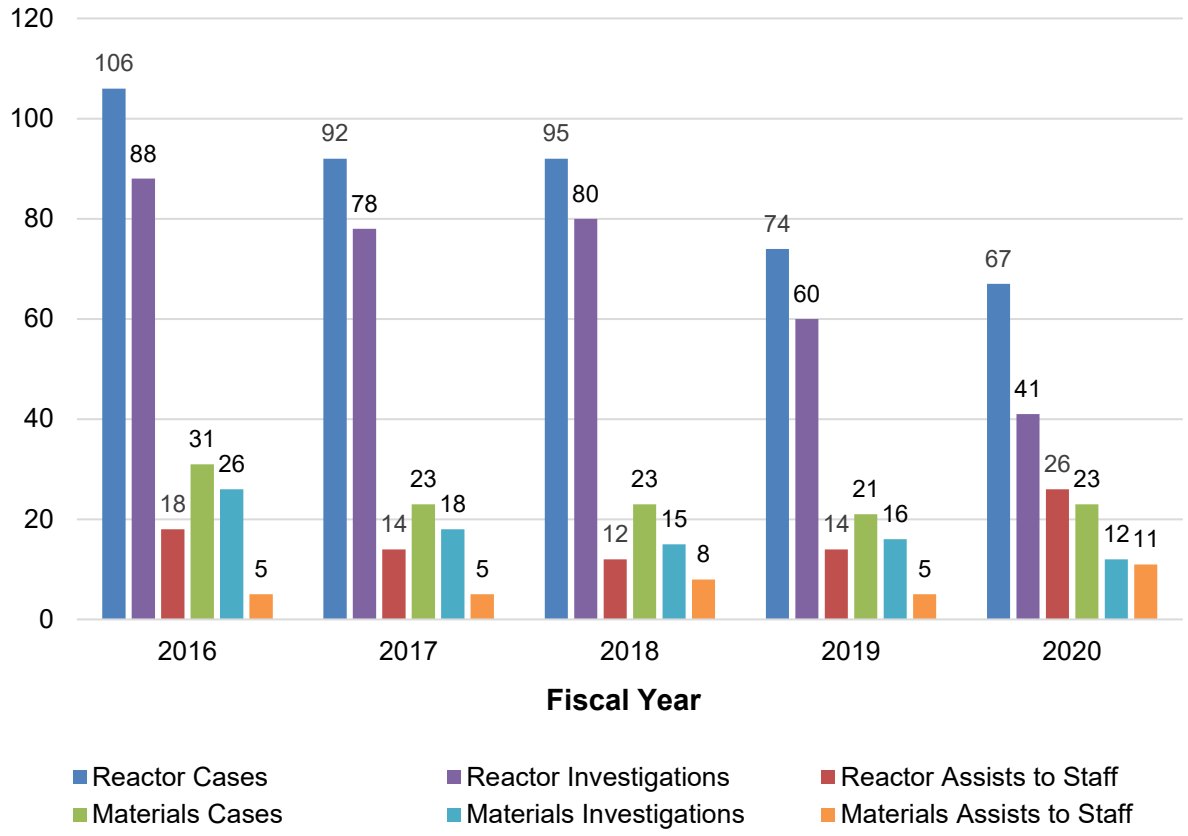

Figure 3 Reactors and Materials Cases Closed

Reactor cases: 67
Reactor investigations: 41
Reactor assists to staff: 26

Materials cases: 23
Materials investigations: 12
Materials assists to staff: 11

OI closed 53 investigations related to reactors, new reactors, and materials:

- 39 (74 percent) of the total investigations involved operating reactors:
  - 1 closed from FY 2017
  - 4 closed from FY 2018
  - 29 closed from FY 2019
  - 5 closed from FY 2020

- 2 (4 percent) of the total investigations involved new reactors:
  - 2 closed from FY 2019

- 12 (23 percent) of the total investigations involved radioactive materials, nuclear medicine, fuels, waste, or decommissioned facilities
  - 1 closed from FY 2017
  - 5 closed from FY 2018
  - 5 closed from FY 2019
  - 1 closed from FY 2020

- 18 (34 percent) investigations were closed after OI substantiated willfulness in one or more of the allegations of wrongdoing:

  - Of the 18 substantiated investigations, OI substantiated 15 (83 percent) that involved operating reactors:

    - Atomic Energy Act/license conditions: 7
    - falsification: 5
    - discrimination: 3

  - Of the 18 substantiated investigations, none (0 percent) were for new reactors.

  - Of the 18 substantiated investigations, OI substantiated 3 (17 percent) that involved radioactive materials, nuclear medicine, fuels, waste, or decommissioned facilities:

    - Atomic Energy Act/license conditions: 2
    - falsification: 1
    - discrimination: 0

- 33 (62 percent) investigations were closed after OI investigations did not substantiate willful wrongdoing:
  - Of the 33 unsubstantiated investigations, OI unsubstantiated 23 (70 percent) that involved operating reactors:
    - Atomic Energy Act/license conditions: 8
    - falsification: 4
    - discrimination: 11
  - Of the 33 unsubstantiated investigations, OI unsubstantiated 2 (6 percent) that involved new reactors:
    - Atomic Energy Act/license conditions: 0
    - falsification: 0
    - discrimination: 2
  - Of the 33 unsubstantiated investigations, OI unsubstantiated 8 (24 percent) that involved radioactive materials, nuclear medicine, fuels, waste, or decommissioned facilities:
    - Atomic Energy Act/license conditions: 2
    - falsification: 0
    - discrimination: 6
- 2 (4 percent) investigations were administratively closed:
  - operating reactors: 1 (no violation/regulatory requirement)
  - materials: 1 (alleger officially withdrew concerns of discrimination)

7 SIGNIFICANT INVESTIGATIONS

This section highlights investigative conclusions by OI. Final enforcement action by the NRC or the DOJ is pending unless otherwise stated.

DISCRIMINATION

ARMED FORCES RADIOBIOLOGY RESEARCH INSTITUTE

OI substantiated an allegation of discrimination for raising nuclear safety concerns against a senior reactor operator by management at the Armed Forces Radiobiology Research Institute (AFRRI). In January 2018, the individual raised concerns to management about changes made to the reactor's access list that allowed several security officers to have unrestricted access to the reactor, which was a violation of the site security plan. The individual engaged in protected activity by taking a picture of unattended keys located in a security manager's office to document his concern and was confronted within minutes of taking the picture of the keys. The individual was subsequently suspended without pay for 2 days. The evidence gathered during the investigation determined the alleger's suspension was due, in part, to the protected activity of raising nuclear safety concerns. However, the investigation determined that due to a lack of knowledge and understanding of NRC requirements related to 10 CFR 50.7, "Employee protection," management's conduct resulted from negligence, not willfulness, and did not constitute deliberate misconduct.

The NRC issued a confirmatory order to AFRRI memorializing commitments reached during an alternative dispute resolution mediation session. The commitments were made as part of the settlement agreement between AFRRI and the NRC based on evidence gathered during the investigation.

SEQUOYAH NUCLEAR PLANT

OI substantiated an allegation of discrimination for engaging in NRC-protected activity against a former Sequoyah Nuclear Plant Site Licensing Manager by the Tennessee Valley Authority (TVA) Corporate Nuclear Licensing Senior Vice President and Director of Corporate Nuclear Licensing.

WATTS BAR NUCLEAR PLANT, UNIT 1

OI substantiated an allegation of discrimination for raising nuclear safety concerns against a former Manager of Emerging Regulatory Issues by the TVA Corporate Nuclear Licensing Senior Vice President.

Based on the two OI investigations described above, the NRC imposed a civil penalty of $606,942 to the TVA for two Severity Level II problems based upon violations of 10 CFR 50.7.

FALSE STATEMENTS - INACCURATE INCOMPLETE INFORMATION

POWER REACTOR

OI substantiated that a licensed operator deliberately submitted incomplete and inaccurate information about the manipulation of a switch that resulted in a loss of offsite power with a scram. The licensed operator was employed at [a Region II nuclear facility], owned and operated by [the

NRC licensee], when the action occurred. The licensed operator inadvertently manipulated a switch to manual, reset the switch back to automatic, and then failed to provide complete and accurate information to the [the NRC licensee] about the switch manipulation. The licensed operator continued to provide incomplete and inaccurate information even after the scram was found to have likely been caused by human error.

Based on the preponderance of the evidence obtained during this investigation, OI determined that the licensed operator submitted incomplete and inaccurate information to the licensee on multiple occasions about the manipulation of the switch that resulted in the scram. [The NRC licensee] subsequently terminated the employment of the licensed operator.

The results of this investigation remain under regulatory review by the NRC staff.

TECHNICAL VIOLATIONS— ATOMIC ENERGY ACT / LICENSE CONDITIONS

POWER REACTOR VENDOR

OI substantiated deliberate misconduct when contract supervisors employed by [a reactor vendor] working at an NRC-licensed facility directed contract employees to deliberately disengage a protective device and to continue drilling in a concrete structure within the protected area. OI developed evidence showing that on November 9 and 10, 2016, contract employees, at the direction of or with concurrence from contract supervisors, deliberately violated licensee procedures by failing to connect a tool to an equipment protection device in order to cut a grounded, embedded item without first obtaining an engineer's evaluation and approval.

OI established that despite a clear understanding of the licensee's requirements and procedures, the protective device was deliberately disengaged, and drilling continued within the protected area without prior engineering approval. The evidence obtained by OI determined that the [reactor vendor] supervisors directed the vendor's employees to disengage the protective device to cut metallic obstructions or rebar without first having an engineer's evaluation and approval, in violation of licensee procedures. Additionally, OI found that the contract supervisors deliberately provided incomplete or inaccurate information during their testimony.

The results of this investigation remain under regulatory review by the NRC staff.

8 STATISTICAL ANALYSIS OF FISCAL YEAR 2015–2019 DATA

Discrimination—Employee Protection

From FY 2015 through FY 2019, OI opened and conducted 185 investigations in the category of employee protection related to discrimination for raising nuclear safety concerns. Of the 185 investigations involving discrimination, OI closed 159 investigations within that 5-year period. After FY 2019, 26 investigations were either closed or were still in the investigative process. (The data provided in this 5-year statistical analysis do not include carryover cases from FYs before FY 2015.) The investigations are sorted by three licensee types: power reactors (including research reactors), new reactors (under construction), and materials (which includes medical, fuels, waste, and decommissioned facilities). The standard is conducting an impartial high-quality investigation that gathers evidence related to each element of the alleged violation and, based on the evidence, determines whether a violation occurred. In short, OI investigates the allegation, not the licensee or the alleger. The key finding for substantiated violations in all OI investigations is the determination of whether the violation was a willful violation, ranging from deliberate intent to violate to and including careless disregard for NRC requirements.

Considering that about 100,000 individuals work directly for the nuclear power industry, the overall percentage of complaints that are referred for investigation is very small. The 5-year average is less than 0.2 percent, or less than 0.04 percent per year.

Power Reactors

During the 5-year analysis period, OI conducted 116 investigations of allegations of discrimination for reporting nuclear safety concerns related to operating power reactors. The 116 investigations were linked to only 60 unique licensee docket numbers, which means that nearly half of the operating power reactors had no allegations of discrimination of their employees, contractors, or vendors for the 5-year period. Of the 116 investigations, 99 were closed within the 5-year period.

Further breakdown of the data on power reactor investigations revealed that only 4 (4 percent) of the 99 allegations were closed substantiated during FY 2015–2019 (see Figure 4). While every substantiated allegation is serious, the incidence of substantiation is very low.

Of the remaining investigations, 84 were closed unsubstantiated between FY 2015–2019 (see Figure 4), including one involving a research reactor. In addition, 11 were administratively closed as “other,” meaning it was determined that no violation of an NRC regulation or requirement occurred, or the alleger withdrew the allegation.

New Reactors

OI investigated 47 allegations related to discrimination for reporting nuclear safety concerns at new reactor sites during the 5-year analysis period. OI closed 45 of the 47 investigations within the 5-year period. Only one allegation (2 percent) was substantiated. Of the remaining allegations, 37 were unsubstantiated within the 5-year period (see Figure 4), and 7 were administratively closed.

Materials

OI conducted 22 investigations of allegations related to discrimination for reporting nuclear safety concerns related to materials during the 5-year analysis period. No allegations were substantiated, while 15 were closed unsubstantiated (see Figure 4).

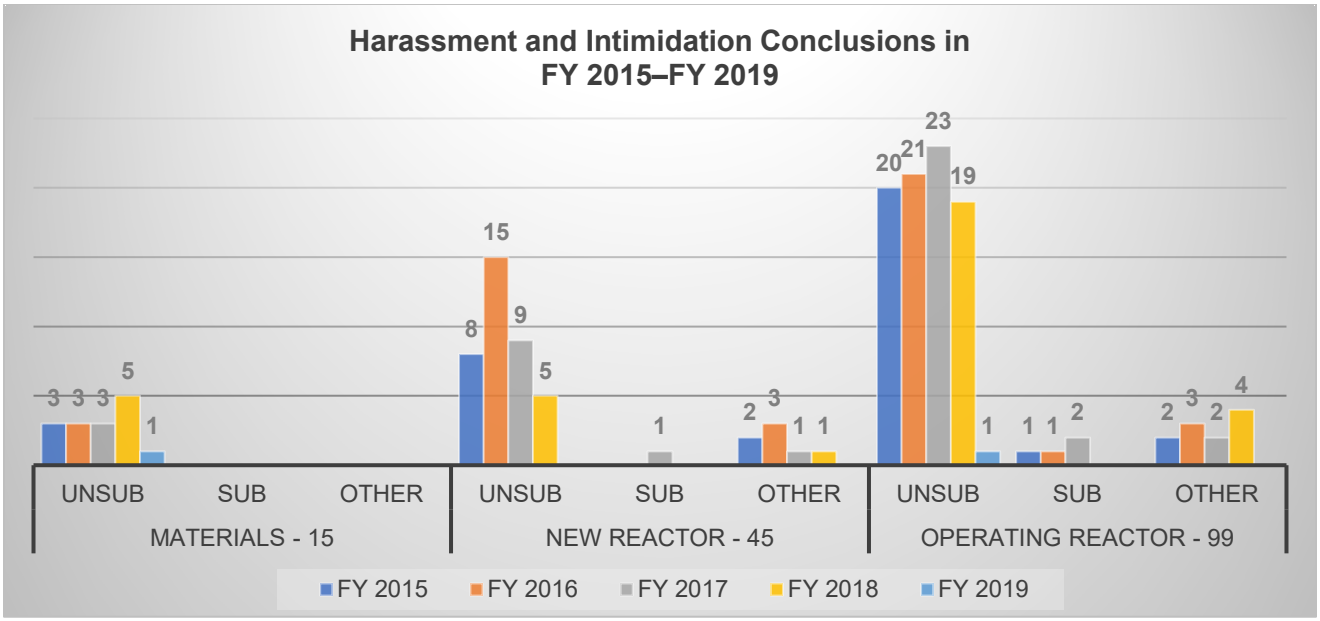

Figure 4 Yearly Breakdown of FY 2015–FY 2019 Discrimination Investigative Conclusions

False Statements—Inaccurate Incomplete Information

From FY 2015 through FY 2019, OI conducted 114 investigations in the category of false statements related to providing false, incomplete, or inaccurate information. Of the 114 investigations, OI closed 98 in the 5-year period. The remaining 16 investigations were either closed or were still in the investigative process after FY 2019. The investigations are sorted by three licensee types: power reactors (including research reactors), new reactors (under construction), and materials (which includes medical, fuels, waste, and decommissioned facilities). Similar to the discrimination category, there is a very low incident rate of false statements compared to the overall number of personnel working in or supporting the nuclear power industry or using nuclear materials in other fields. However, since the foundation of the regulatory relationship between the NRC and licensees is based on trust and transparency, any allegations of a licensee, its employees, or its contractors providing anything less than 100-percent accurate information requires intense scrutiny.

Power Reactors

Power reactors accounted for 83 of the 114 investigations concerning allegations of providing false, incomplete, or inaccurate information. Of these, 72 were closed within the 5-year period (see Figure 5). Of the 72 investigations, 39 (54 percent) were closed substantiated in the 5-year period (see Figure 5). Of note, research reactors accounted for 5 of the 83 allegations of providing false, incomplete, or inaccurate information. OI closed three of these substantiated within the 5-year period, and two of those came from the same licensee. A closer examination for any trends or indicators did not reveal any one licensee or facility as a standout. Further analysis

determined that the following subcategories did appear more than others: 11 were related to safety requirements, and the next highest subcategory was 6 incidents related to security personnel. All others were a random distribution, ranging from inventory logs to training and testing. Of the remaining allegations OI investigated, 29 were unsubstantiated in the 5-year period (see Figure 5) and 4 were administratively closed.

New Reactors

New reactors accounted for 13 investigations of allegations of providing false, incomplete, or inaccurate information. OI closed 12 in the 5-year period, and 5 (42 percent) of these were closed substantiated (see Figure 5). Of the remaining 12, 7 were unsubstantiated within the 5-year period (see Figure 5).

Materials

Materials accounted for 18 investigations of allegations of providing false, incomplete, or inaccurate information. OI closed 14 in the 5-year period, and 6 (43 percent) of these were closed substantiated in the 5-year period (see Figure 5). Of the remaining 14 investigations, 8 were unsubstantiated in the 5-year period (see Figure 5).

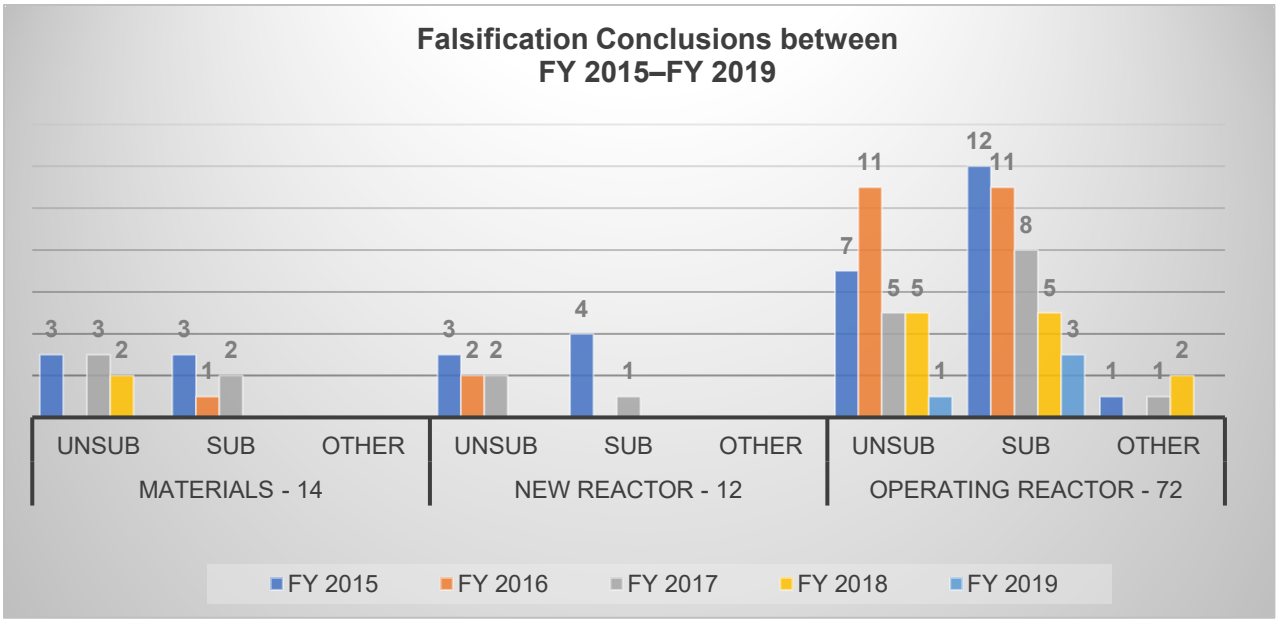

Figure 5 Yearly Breakdown of FY 2015–FY 2019 Falsification Investigative Conclusions

Licensing Conditions—Atomic Energy Act

From FY 2015 through FY 2019, OI conducted 146 investigations related to allegations of violations of licensing conditions or other violations associated with the Atomic Energy Act. OI closed 128 investigations within the 5-year period, and 18 investigations were either closed or were still in the investigative process after FY 2019. The investigations are sorted by three licensee types: power reactors (including research reactors), new reactors (under construction), and materials (which includes medical, fuels, waste, and decommissioned facilities). Similar to the two other categories, the materials category had a very low incident rate of violations when compared to the overall number of personnel working in or supporting the nuclear power industry

or using nuclear materials in other fields. The analysis demonstrates that while OI substantiated slightly less than 50 percent of the investigations of violations related to licensing conditions or some aspect of the Atomic Energy Act, the majority of these were willful misconduct, specifically deliberate misconduct violations.

Of the 128 investigations closed, 60 (47 percent) closed substantiated in the 5-year period (see Figure 6). The 60 substantiated violations break down as follows: 36 were related to power reactors and their vendors, 19 to nuclear materials (including 1 decommissioned site), 4 to new reactor construction, and 1 to a research reactor.

Power Reactors

Power reactors and a research reactor accounted for 92 of the 146 investigations conducted concerning allegations of violations related to licensing conditions or other violations associated with the Atomic Energy Act. OI closed 77 investigations in the 5-year period, and 37 (48 percent) of these were closed substantiated in FY 2015–FY 2019 (see Figure 6). Of the remaining investigations involving power reactors, 35 were closed unsubstantiated within the 5-year period (see Figure 6) and 5 were administratively closed.

New Reactors

Allegations involving new reactors accounted for eight OI investigations, of which four (50 percent) were substantiated, and four were unsubstantiated in the 5-year period (see Figure 6). All closed between FY 2015 and FY 2019.

Materials

Materials accounted for 46 of the investigations, 43 of which were closed in the 5-year period. OI substantiated 19 (44 percent) allegations in the 5-year period (see Figure 6). Of the remaining materials investigations, 22 were closed unsubstantiated and 2 were administratively closed in the 5-year period.

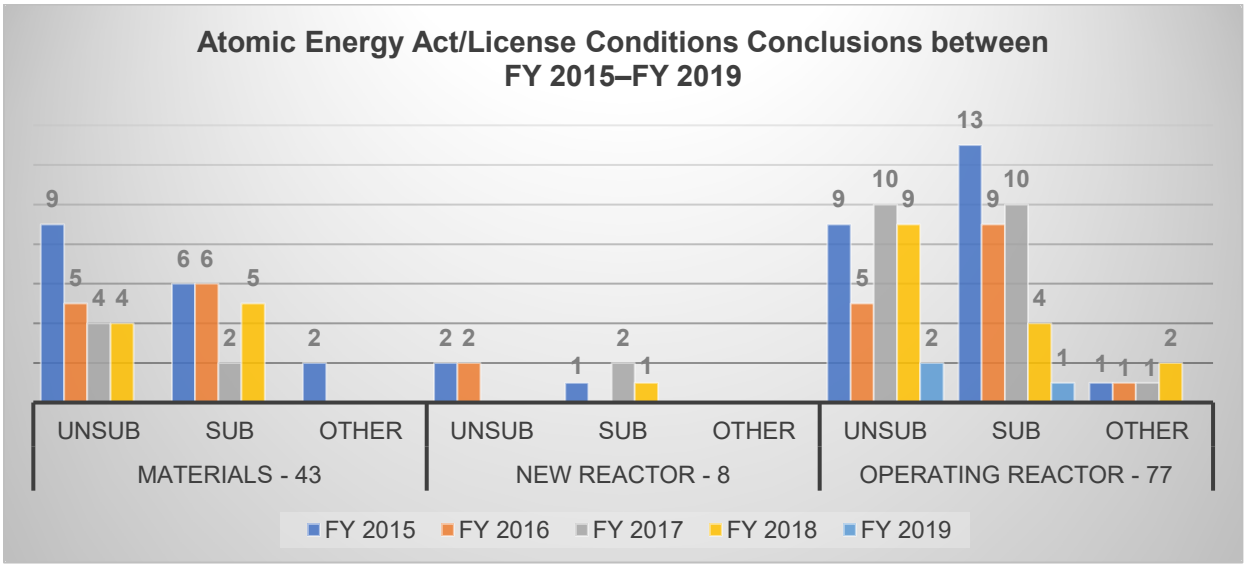

Figure 6 Yearly Breakdown of FY 2015–FY 2019 Atomic Energy Act/License Conditions Investigative Conclusions

9 FUTURES INITIATIVES

In 2020, OI adopted multiple NRC Futures and Transformation initiatives, including redesigning functions and features in the current electronic CMS; collaboration with OCIO, OE, and other agency partners to fully replace and integrate the OI CMS into a new and improved combined case management infrastructure; and efforts to fully digitize case files to increase efficiency for the entire organization.

Current Case Management System Changes

The existing OI CMS platform performs functions such as documenting investigations, tracking case status, performing case analytics, and logging agent time relevant to work on specific investigations.

Through this initiative, OI identified and reduced inefficiencies in the existing CMS by eliminating redundant documentation functions and added a Report of Investigation (ROI) writing tool function. By implementing the new ROI tool, OI has created a more efficient, paperless work process while continuing to meet agency standards.

Case Management System Replacement and Modernization

Going forward, OI continues work with OCIO to develop a new CMS that will be integrated with other agency internal platforms. OI plans for the new CMS features to advance its functionality to seamlessly access critical data essential to OI's mission from partner offices. This integration will further efficiencies and provide a better workflow.

Office of Investigations Electronic Data File Plan

In 2020, OI initiated and directed the transfer of all paper files to a digital format. The aim of the file digitization process is to streamline OI's system of record to provide a more efficient method of storing materials, to alleviate the burden on OI's stakeholders by ensuring efficient electronic file sharing practices, and to comply with government directives on the reduction of paper files by 2022.

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This report describes Office of Investigations case activities during fiscal year 2020.

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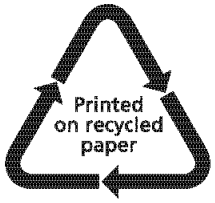

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