Enclosure 2
Summary of Fire Protection Issues at Fort Calhoun Station, San Onofre Nuclear Generating Station, and Crystal River Unit 3

Inspection Report/Site/Date/Severity	Issue Summary
ML18219B607 – San Onofre Nuclear Generating Station NRC Inspection Report 05000361/2018-002 and 05000362/2018-002 Date of Report: 8/10/2018 Date of Occurrence: 7/12/2018 Severity Level: Level IV NCV (Since the licensee placed the deficiency into its corrective action program, the safety significance of the issue was determined to be low, and because the violation was not willful or repetitive) (pg.13)	The inspectors concluded that the licensee was not effectively controlling combustible materials around ignition sources and impairments. On July 12, 2018, the licensee failed to maintain the Unit 3 Penetration Room free of combustible material, including but not limited to waste and debris following the completion of the work. The licensee stored combustible materials in inactive cable trays that were below active cable trays without the required 10 feet vertical separation of combustible materials from cable trays. Specifically, the licensee had bags of waste throughout the Unit 3 Penetration Room and the licensee had a bag of waste and leftover distribution cables stored in an inactive cable tray that was located directly under an active cable tray that supported plant equipment. (pg. 12-13) The NRC determined that one Severity Level IV NCV of Technical Specifications, Section 5.5.1.1.d, occurred based on the licensee's failure to maintain the Unit 3 Penetration Room free of combustible material and improperly storing combustible materials in inactive cable trays that were below active cable trays without the required 10 feet vertical separation of combustible materials from cable trays. (pg. 14)
ML19031C919 – Fort Calhoun Station NRC Inspection Report 050-00285/2019-001 Date of Report: 2/12/2019 Date of Occurrence: 1/16/2019 Severity Level: None (No violation identified)	During the inspection week, on the night of January 16, 2019, there was a fire outside the protected area in an unoccupied Exclusion Area Opening (EAO) shack. Blair Fire Department responded to the site within 15 minutes and extinguished the fire. FCS entered AOP-6, "Fire Emergency," Revision 35, and followed the steps as required. FCS contacted the NRC Operations Center on January 16, 2019, per 10 CFR 50.72(b)(2) to report the event (NRC Event Number 53831). The cause of the fire was determined to be a malfunctioning heating element in a climate unit. The NRC inspectors reported to the EAO shack the following day, to observe the current condition of the EAO shack and to evaluate the steps taken by FCS in response to the event. The NRC inspectors determined that FCS followed

	its procedure as required and the reporting requirements of 10 CFR 50.72. There was no release of radioactive or hazardous material. (pg. 5)
ML21048A322 – Fort Calhoun Station NRC Inspection report 050-00285/2021-001 Date of Report: 2/17/2021 Date of Occurrence: 9/23/2020 Severity Level: None (No violation identified)	On September 23, 2020, a fire was started in the containment because of hot work. The licensee was performing torch cutting on the reactor head lift ring when a piece of slag from the cutting fell multiple elevations down into a High Radiation Area, which resulted in a piece of wood and insulation catching on fire. The fire was quickly extinguished by the onsite fire watch with a fire extinguisher and the Blair and Fort Calhoun offsite fire departments responded promptly to the site. The offsite fire departments overhauled the area and verified the fire was extinguished. The inspectors reviewed the fire event report, toured the containment to review the hazards in the field, and reviewed the corrective actions taken to prevent re-occurrence. The licensee has increased the use of fire blankets around the hot work activities. The inspectors did not identify a violation of NRC requirements, due to the fire at the site. (pg. 8)
ML22011A005 – Crystal River Unit 3 NRC Inspection Report No. 05000302/2021004 Date of Report: 1/24/2022 Date of Occurrence: 9/24/2021 Severity Level: Level IV NCV the violation was of very low safety significance and was entered into Crystal River's CAP (2021000123), this violation is being treated as an NCV consistent with Section 2.3.2 of the Enforcement Policy. (NCV 05000302/2021004-01 (pg. ii)	The NRC determined that one Severity Level IV non-cited violation of 10 CFR 50.48(f)(1), was identified based on the licensee's failure to reasonably prevent fires from occurring. Specifically, the site did not properly implement procedure FIR-0003, "Control of Hot Work and Ignition Sources" to store combustible material in the Unit 3 Sea Water Room at a minimum distance of 35 feet of hot work or otherwise protected, which resulted in a fire. (pg. 3) On September 24, 2021, hot work was being performed by several individuals in the seawater room on the 95' elevation of the auxiliary building. A fire watch had recently left the site, so the nearby fire watch was given additional responsibility to oversee two burners performing hot work in separate areas. The fire watch noticed smoke coming from an area proximal to a concrete column out of sight. An investigation found two 5- yard disposal bags on fire. The fire was extinguished by a site employee using an ABC fire extinguisher. Upon identification, hot work was immediately suspended, and the licensee entered the issue into its corrective action program as condition report 2021000123. The licensee took the following immediate corrective actions: (1) stopped hot work; (2) performed a housekeeping check and clean up; and (3) performed a stand-down with craft personnel to re-train and reinforce expectations on fire watch, and (4) modified the procedure to require the

	burner (hot worker) to sign the hot work permit prior to commencing work. (pg. 3-4) the licensee failed perform required work area inspections to ensure combustible material in the Unit 3 Sea Water Room were maintained at an adequate distance of hot work, which resulted in a fire. (pg. 4)
ML22068A233 – San Onofre Nuclear Generating Station NRC Inspection Report 05000361/2022-001 and 05000362/2022-001 Date of Report: 3/14/2022 Date of Occurrence: 2/16/2022 Severity Level: Level IV NCV Violation was not willful or repetitive; therefore, this violation was treated as a non-cited violation (NCV), consistent with Section 2.3.2.a of the NRC Enforcement Policy (NCV 05000362/2022001-01 (pg. 8)	The NRC evaluated the licensee's implementation of procedures and determined that the licensee's failure to implement the control of ignition source procedure was a violation of 10 CFR 50.48(f)(1), which requires, in part, that licensees maintain a fire protection program to address the potential for fires that could cause the release or spread of radioactive materials, including reasonable preventing these fires. The SDS Procedure, SDS-FP1-PCD-0015, "Control of Ignition Sources," Revision 8, Step 4.1.8, requires, to verify all Class "A" combustibles within 35 feet of hot work have been removed or are shielded with approved welding curtains, welding blankets, or welding pads." (pg. 7) Contrary to the above, on February 16, 2022, during the NRC inspectors walkdown of the Unit 2 Containment, the inspectors identified multiple pieces of Class "A" combustible material, to include non-covered wood and a plastic bag of radiation protection trash within the 35 feet of the hot work activity. The inspectors also identified multiple pieces of 4x4 wood planks directly under a steel plate where the crew was performing the hot work activity. The 4x4 wood planks were not covered in fire blankets to prevent sparks from catching the wood on fire. (pg. 7) Upon identification, the licensee entered the issue into its corrective action program as SDS Condition Report # SDS-001299. The licensee took the following immediate actions: (1) removed the combustible materials from the area; (2) performed walkdowns through containment to verify any other combustible materials that potentially could be in an area where hot work will be performed; and (3) performed a stand-down with craft personnel to reinforce expectations on combustible materials around hot work activities. (pg. 7)
ML22116A183 – Crystal River Unit 3 NRC Inspection Report No. 05000302/2022001	The inspectors determined that one Severity Level IV NCV of Title 10 of the Code of Federal Regulations (10 CFR) 50.48(f)(1), was identified based on the licensee's

Date of Report: 5/3/2022 Date of Occurrence: 1/10/2022 Severity Level: Level IV NCV However, because the violation was of very low safety significance and was entered into Crystal River's CAP (2022000007), this violation is being treated as an NCV consistent with Section 2.3.2 of the Enforcement Policy. (pg. 2)	failure to prevent fires from occurring on-site. Specifically, the site did not properly implement FIR-0003, "Control of Hot Work and Ignition Sources" to (1) ensure combustible material meets the required minimum distance from ignition sources, and (2) assure no outbreak of fire by having an individual assigned to fire watch duties remain in the area after completion of hot work activities for 30 minutes. This failure resulted in fire, which started shortly after the completion of hot work when nearby combustible materials became ignited, going undetected for a period of time until fortuitously identified by an individual passing through the area. (pg. 2) Specific follow up to a fire that occurred on January 10, 2022, was performed, including interviews with personnel, review of initial corrective actions, and site walkdowns of areas where hot work will be performed. (pg. 3) On January 10, 2022, a crew in the Radioactive Materials Area-6 (RMA-6) room on the 119' elevation of the auxiliary building conducted hot work and left the area, including the fire watch. Soon after, a site employee conducting other activities noticed smoke on elevation 143' of the auxiliary building and investigated the 119' level where the fire was discovered in the RMA-6 area. The site employee sought assistance from radiation protection personnel, extinguished the fire using a fire extinguisher, and notified management. Initial investigation determined that the material that was on fire included a safety harness, air hoses, plasma cutting tools, and extension cords, all located within the 35' required minimum distance from ignition sources. The licensee took immediate corrective actions, including: (1) stopping all hot work; (2) performing an investigation of the fire; and (3) holding a stand-down with craft personnel to re-train and reinforce expectations on fire watch, and (4) implementing site wide housekeeping and hazard recognition walkdowns. (pg. 6) The inspectors reviewed the site fire protection program as defined by Crystal River Unit 3 Fire Protection Plan, Revision 38 and associated procedures and fire hazards analysis for compliance with regulatory and license requirements. The inspectors' initial review focused on the January 10, 2022, fire to evaluate the site's immediate corrective actions. During the subsequent inspection, the inspectors' focus included a review of the site's ongoing and planned corrective actions. At the time of the review, the site had recommenced hot work with

	numerous corrective actions in place, including a daily sign-off instead of weekly sign-off of hot work permits and a required work area walk down by a knowledgeable individual. The inspectors observed several of these work area walkdowns, including one in the 'B' decay heat vault and noted that the knowledgeable individual appropriately identified combustibles that required them to be removed or covered prior to hot work being conducted. Additional corrective actions included weekly field observations by responsible managers and assignment of knowledgeable staff members to each major work area for the purpose of increasing knowledge transfer between work groups. The inspectors will continue to follow up on these corrective actions during future inspections. (pg. 3)
ML22112A158 – Fort Calhoun Station NRC Inspection Report 050-00285/2022-002 Date of Report: 4/28/2022 Date of Occurrence: Not given Severity Level: None (No violation Identified)	The inspectors attended a meeting with management from the licensee, contractor, and subcontractor to clarify the events leading up to the stand-down. The subcontractor was involved with the demolition of non-radiologically impacted structures, and the negative observations were related to industrial safety hazards. One negative observation was related to a small fire on a piece of compact loading equipment being used by the subcontractor for internal demolition of the Auxiliary Building. A piece of hot slag apparently dripped onto a greasy spot of the loading equipment which sparked a small fire. The subcontractor immediately used a fire extinguisher to put the fire out. (pg. 5) The inspectors inquired if use of a fire extinguisher required notification of the licensee's designated on-site fire marshal. The licensee had expectations that use of a fire extinguisher should require a conversation with the on-site fire marshal, although this action was not proceduralized, nor was the subcontractor informed. The inspectors determined that a lack of communications regarding expectations existed between the licensee, contractor, and subcontractor. Although there were no radiologically significant issues identified in this situation, the inspectors stressed the importance of licensee oversite of its contractors and subcontractors and making expectations clear. (pg. 5) At the time of the inspection, there was only one recent condition report of significance requiring an investigation. This item of significance was the January 2022 fire at the intake structure. This incident was reviewed during the previous inspection (NRC Inspection Report 050-00285/2022-001, ADAMS Accession No. ML22055A979).

	Although deemed to be significant, this incident was subsequently determined to be primarily related to industrial safety. (pg. 8) (Another incident not covered in this summary)
ML22055A979 – Fort Calhoun Station NRC Inspection Report 050-00285/2022-001 Date of Report: 2/252022 Date of Occurrence: 1/5/2022 Severity Level: None (No violation identified)	On January 5, 2022, the licensee notified the NRC, in accordance with 10 CFR 50.72(b)(2)(xi), of a small fire that occurred in the Intake Structure during internal demolition work. The fire was started when a contractor used a torch to punch a hole in a traveling river water screen to allow for removal. The Fire Watch immediately responded, although due to the inaccessibility of the flames, an offsite fire department was required to extinguish the fire. The fire occurred in the non-Radiological area of the plant and there was no release of radioactivity or hazardous materials. There were no injuries reported. To evaluate the licensee's response to the event, the inspectors conducted interviews with contractors and site personnel, observed the Intake Structure, and evaluated the licensee's Condition Report and follow-up actions. The fire occurred because the contractors mistakenly believed the screens were constructed of stainless steel, which would not have reacted to the use of a torch. Upon further investigation, the licensee identified that the screens had been purchased in a poly-type material to prevent rusting from contact with river water. To prevent a recurrence of this event, the licensee committed to closer scrutiny of the composition of materials being demolished. The inspectors concluded that the licensee had responded to the fire in accordance with their Station Fire Plan and took appropriate corrective actions. (pg. 5) The licensee was implementing the decommissioning activities in accordance with the regulations and license requirements. The inspectors determined that the licensee was adequately controlling decommissioning activities and radiological work areas at the facility. The licensee had responded to and took appropriate corrective actions after a small fire occurred in the Intake Structure during January 2022. (pg. 6)