



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II**

245 PEACHTREE CENTER AVENUE NE, SUITE 1200
ATLANTA, GEORGIA 30303-1257

December 09, 2016

Mr. Tom Simril
Site Vice President
Duke Energy Carolinas, LLC
Catawba Nuclear Station
4800 Concord Road
York, S.C. 29745-9635

**SUBJECT: CATAWBA NUCLEAR STATION – NRC PROBLEM IDENTIFICATION AND
RESOLUTION INSPECTION REPORT 05000413/2016007 AND
05000414/2016007**

Dear Mr. Simril:

On November 10, 2016, the Nuclear Regulatory Commission (NRC) completed a Problem Identification and Resolution inspection at your Catawba Nuclear Station, Units 1 and 2 and discussed the results of this inspection with you and other members of your staff. The results of this inspection are documented in the enclosed report.

The NRC inspection team reviewed the station's corrective action program and the station's implementation of the program to evaluate its effectiveness in identifying, prioritizing, evaluating, and correcting problems, and to confirm that the station was complying with NRC regulations and licensee standards for corrective action programs. Based on the samples reviewed, the team determined that your staff's performance in each of these areas adequately supported nuclear safety.

The team also evaluated the station's processes for use of industry and NRC operating experience information and the effectiveness of the station's audits and self-assessments. Based on the samples reviewed, the team determined that your staff's performance in each of these areas adequately supported nuclear safety.

Finally the team reviewed the station's programs to establish and maintain a safety-conscious work environment, and interviewed station personnel to evaluate the effectiveness of these programs. Based on the team's observations and the results of these interviews the team found no evidence of challenges to your organization's safety-conscious work environment. Your employees appeared willing to raise nuclear safety concerns through at least one of the several means available.

The NRC inspectors did not identify any findings or violations of more than minor significance.

This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at <http://www.nrc.gov/reading-rm/adams.html> and at the NRC Public Document Room in accordance with 10 CFR 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

/RA/

Bradley J. Davis, Acting Chief
Reactor Projects Branch 7
Division of Reactor Projects

Docket Nos.: 50-413, 50-414
License Nos.: NPF-35, NPF-52

Enclosure:
IR 05000413/2016007 and 05000414/2016007
w/Attachment: Supplemental Information

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Letter to Tom Simril from Bradley Davis dated December 09, 2016.

SUBJECT: CATAWBA NUCLEAR STATION – NRC PROBLEM IDENTIFICATION AND
RESOLUTION INSPECTION REPORT 05000413/2016007 AND
05000414/2016007

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U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket No.: 50-413, 50-414

License No.: NPF-35, NPF-52

Report No: 05000413/2016007, 05000414/2016007

Licensee: Duke Energy Carolinas, LLC

Facility: Catawba Nuclear Station, Units 1 and 2

Location: York, SC 29745

Dates: October 24 - 28, 2016
November 7 - 10, 2016

Inspectors: J. Worosilo, Senior Project Engineer, Team Leader
M. Toth, Project Engineer
N. Pitoniak, Senior Fuel Facility Project Inspector
N. Coover, Senior Construction Inspector
C. Scott, Resident Inspector

Approved by: Bradley J. Davis, Branch Chief
Reactor Projects Branch 7
Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

IR 05000413/2016007, 05000414/2016007; 10/24/2016 – 11/10/2016 Catawba Nuclear Station, Units 1 and 2; Biennial Inspection of the Problem Identification and Resolution Program.

The inspection was conducted by one senior project engineer, one senior fuel facility project inspector, one senior construction inspector, one project engineer, and one resident inspector. No findings were identified. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision (Rev.) 6.

Identification and Resolution of Problems

The inspectors concluded that, in general, problems were properly identified, evaluated, prioritized and corrected. The licensee effectively identified problems and entered them into the corrective action program (CAP) for resolution. Generally, prioritization and evaluation of issues were adequate, cause evaluations were adequate, and corrective actions specified for problems were acceptable. Overall, corrective actions developed and implemented for issues were generally effective and implemented in a timely manner.

The inspectors determined that overall audits and self-assessments were adequate in identifying deficiencies and areas for improvement in the CAP, and appropriate corrective actions were developed to address the issues identified. The licensee appropriately evaluated industry operating experience for relevance to the facility and entered applicable items in the CAP. The licensee appropriately incorporated industry and internal operating experience in its cause evaluations.

Based on discussions and interviews conducted with plant employees from various departments, the team determined that personnel at the site felt free to raise safety concerns to management and use the CAP to resolve those concerns.

The NRC inspectors did not identify any findings or violations of more than minor significance.

REPORT DETAILS

4OA2 Problem Identification and Resolution

1. Corrective Action Program Effectiveness

a. Inspection Scope

The team reviewed the licensee's corrective action program (CAP) procedures which described the administrative process for initiating and resolving problems primarily through the use of nuclear condition reports (NCRs). To verify that problems were being properly identified, appropriately characterized, and entered into the CAP, the team reviewed a sample of NCRs that had been issued between October 2014 and September 2016, including a detailed review of selected NCRs associated with the following risk-significant systems and components: component cooling water, nuclear service water, and safe shutdown facility. Where possible, the team independently verified that the corrective actions were implemented as intended. The team also reviewed selected common causes and generic concerns associated with root cause evaluations (RCEs) to determine if they had been appropriately addressed. To help ensure that samples were reviewed across all cornerstones of safety identified in the reactor oversight process (ROP), the team selected a representative number of NCRs that were identified and assigned to the major plant departments, including quality assurance, health physics, chemistry, emergency preparedness and security. These NCRs were reviewed to assess each department's threshold for identifying and documenting plant problems, thoroughness of evaluations, and adequacy of corrective actions. The team reviewed selected NCRs, verified corrective actions were implemented, and attended meetings where NCRs were evaluated for significance to determine whether the licensee was identifying, accurately characterizing, and entering problems into the CAP at an appropriate threshold.

Plant walkdowns of equipment within the selected systems listed above and other plant areas were conducted by inspectors to assess the material condition and to identify deficiencies that had not been previously entered into the CAP. The team reviewed NCRs, maintenance history, completed work orders (WOs) for the systems, and reviewed associated system health reports. These reviews were performed to verify that problems were being properly identified, appropriately characterized, and entered into the CAP. Items reviewed generally covered a two-year period of time; however, a five-year review was performed for selected systems to identify trends and age related issues.

Control room walkdowns were also performed to assess the main control room (MCR) deficiency list and to ascertain if deficiencies were being tracked to resolution. A sample of operator workarounds and operator burden screenings were reviewed and the team verified compensatory measures for deficient equipment were being implemented in the field.

Detailed reviews of selected NCRs were performed by the inspectors to assess the adequacy of root cause and apparent cause evaluations for identified problems. The team reviewed these evaluations against the descriptions of the problems described in the NCRs and the guidance in licensee procedures AD-PI-ALL-0101, "Root Cause Evaluation," and AD-PI-ALL-0102, "Apparent Cause Evaluation." The team assessed if the licensee had adequately determined the cause(s) of identified problems, and addressed operability, reportability, common cause, generic concerns, extent-of-condition, and extent-of-cause. The review also assessed if the licensee had appropriately identified and prioritized corrective actions to prevent recurrence as applicable.

The team reviewed selected industry operating experience (OE) items, including NRC generic communications and Part 21 reports, to verify that they had been appropriately evaluated for applicability or used in licensee activities and that issues identified through these reviews had been entered into the CAP.

The team reviewed site trend reports to determine if the licensee effectively trended identified issues and initiated appropriate corrective actions when adverse trends were identified.

The inspectors reviewed licensee audits and self-assessments, including those which focused on problem identification and resolution programs and processes, to verify that findings were entered into the CAP and to verify that these audits and assessments were consistent with the NRC's assessment of the licensee's CAP. The inspectors attended various plant meetings to observe management oversight functions of the corrective action process.

Documents reviewed are listed in the Attachment.

b. Assessment

Problem Identification

The team determined that the licensee was generally effective in identifying problems and entering them into the CAP and there was a low threshold for entering issues into the CAP. This conclusion was based on a review of the requirements for initiating NCRs as described in licensee procedure AD-PI-ALL-0100, "Corrective Action Program," including management's expectation that employees were encouraged to initiate NCRs for any reason, and the lack of deficiencies identified by the team during plant walkdowns not already entered into the CAP. Trending was generally effective in monitoring equipment performance. Site management was actively involved in the CAP and focused appropriate attention on significant plant issues. Based on reviews and walkdowns of accessible portions of the selected systems, the team determined that system deficiencies were being identified and placed in the CAP.

Problem Prioritization and Evaluation

Based on the review of NCRs sampled by the inspection team during the onsite period, the team concluded that problems were generally prioritized and evaluated in accordance with the licensee's CAP procedures as described in AD-PI-ALL-0100, "Corrective Action Program." Each NCR was assigned a severity level at the centralized screening team (CST) meeting, and this determination was reviewed at the CAP review meeting. Adequate consideration was given to system or component operability and associated plant risk.

The team determined that station personnel had conducted root cause and apparent cause analyses in compliance with the licensee's CAP procedures and the assigned cause determinations were appropriate, considering the significance of the issues being evaluated. A variety of formal causal-analysis techniques were used depending upon the type and complexity of the issue consistent with licensee procedures AD-PI-ALL-0101, "Root Cause Evaluation," AD-PI-ALL-0102, "Apparent Cause Evaluation," and AD-PI-ALL-0103, "Quick Cause Evaluation."

Corrective Actions

Based on a review of corrective action documents, interviews with licensee staff, and verification of completed corrective actions, the team determined that generally, corrective actions were timely, commensurate with the safety significance of the issues, and effective, in that conditions adverse to quality were corrected. For significant conditions adverse to quality, the corrective actions directly addressed the cause and effectively prevented recurrence in that a review of performance indicators, NCRs, and effectiveness reviews demonstrated that the significant conditions adverse to quality had not recurred. Effectiveness reviews for corrective actions to prevent recurrence (CAPRs) were sufficient to ensure corrective actions were properly implemented and effective.

2. Use of Operating Experience

a. Inspection Scope

The team examined the licensee's use of industry OE to assess the effectiveness of how external and internal operating experience information was used to prevent similar or recurring problems at the plant. In addition, the team selected operating experience documents (e.g., NRC generic communications, 10 CFR Part 21 reports, licensee event reports, vendor notifications, and plant internal operating experience items, etc.), which had been issued since October 2014 to verify whether the licensee had appropriately evaluated each notification for applicability to the Catawba Nuclear Station, and whether issues identified through these reviews were entered into the CAP.

b. Assessment

Based on a review of documentation related to OE issues, the team determined that the licensee was generally effective in screening operating experience for applicability to the plant. Industry OE was screened by the corporate OE coordinator and relevant information was then forwarded to the site's OE coordinator. Operating experience issues requiring action were entered into the CAP for tracking and closure. In addition,

operating experience was included in root cause evaluations and apparent cause evaluations in accordance with licensee procedures AD-PI-ALL-0101, "Root Cause Evaluation," and AD-PI-ALL-0102, "Apparent Cause Evaluation."

3. Self-Assessments and Audits

a. Inspection Scope

The team reviewed audit reports and self-assessment reports, including those which focused on problem identification and resolution, to assess the thoroughness and self-criticism of the licensee's audits and self-assessments, and to verify that problems identified through those activities were appropriately prioritized and entered into the CAP for resolution in accordance with licensee procedure AD-PI-ALL-0300, "Self-Assessment and Benchmark Programs."

b. Assessment

The team determined that the scopes of assessments and audits were adequate. Self-assessments were generally detailed and critical, as evidenced by findings consistent with the inspector's independent review. The team verified that NCRs were created to document areas for improvement and findings resulting from the self-assessments, and verified that actions had been completed consistent with those recommendations. Generally, the licensee performed evaluations that were technically accurate.

4. Safety-Conscious Work Environment

a. Inspection Scope

During the course of the inspection, the team assessed the station's safety-conscious work environment (SCWE) through review of the station's employee concerns program (ECP) and interviews with various departmental personnel. The team reviewed a sample of ECP issues to verify that concerns were being properly reviewed and identified deficiencies were being resolved and entered into the CAP when appropriate.

b. Assessment

Based on the interviews conducted and the NCRs reviewed, the team determined that licensee management emphasized the need for all employees to identify and report problems using the appropriate methods established within the administrative programs, including the CAP and ECP. These methods were readily accessible to all employees. Based upon interviews conducted with a sample of plant employees from various departments, the team determined that employees felt free to raise issues, and that management encouraged employees to place issues into the CAP for resolution. The team did not identify any reluctance on the part of the licensee staff to report safety concerns.

4OA6 Meetings, Including Exit

On November 10, 2016, the inspectors presented the inspection results to you and other members of the site staff. The inspectors confirmed that all proprietary information examined during the inspection had been returned to the licensee.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee personnel:

S. Andrews, Regulatory Affairs Senior Engineer
C. Bigham, Organizational Effectiveness Director
M. Brigman, Primary System Engineering Manager
T. Byrne, Fleet Regulatory Affairs
M. Carroll, Safety Analysis
B. Cauthen, System Engineer
C. Curry, Plant Manager
C. Fletcher, Regulatory Affairs Manager
B. Foster, Operations Manager
L. Fredrich, Fleet Equipment Reliability CFAM
T. Garrison, Operations Procedures Supervisor
K. Hear, Battery System Engineer
R. Herring, System Engineer
T. Hinkle, System Engineer
L. Keller, General Manager Nuclear Engineering
K. Lyall, Engineering
J. Marcum, Electrical System Engineer
A. Michalski, Operator Workaround Coordinator
S. Milton, Shift Manager
S. Myers, Engineering Design Director
T. Poetzsch, System Engineering Director
D. Powell, Performance Improvement Manager
T. Robinson, Electrical EDG System Engineer
P. Simpson, Design Manager
W. Snyder, Senior Nuclear Engineer
M. Swim, Diesel System Engineer
L. Vukelja, Performance Improvement
B. Woolweber, I&C Design Engineering
D. Yang, Regulatory Affairs - Engineer
M. Young, Equipment Reliability Lead

NRC personnel:

J. Austin, Senior Resident Inspector

LIST OF REPORT ITEMS

Opened and Closed

None

LIST OF DOCUMENTS REVIEWED

Procedures:

AD-BO-ALL-0005, Asset Risk Based Scoring Approach, Rev. 1
AD-BO-ALL-0202, Nuclear Project Review and Approval, Rev. 0
AD-EG-ALL-1104, Obsolescence Program, Rev. 3
AD-EG-ALL-1130, Activation of Engineering Changes, Rev. 2
AD-EG-ALL-1202, Preventative Maintenance and Surveillance Testing Administration, Rev. 4
AD-EG-ALL-1207, Plant Health Process, Rev. 3
AD-EG-ALL-1208, Life Cycle Management, Rev. 3
AD-EG-ALL-1209, System, Component, and Program Health Reports and Notebooks, Rev. 5
AD-EG-ALL-1211, System Performance Monitoring and Trending, Rev. 3
AD-EG-ALL-1311, Failure Investigation Process, Rev. 0
AD-NO-ALL-0202, Employee Concerns Program, Rev. 0
AD-NS-ALL-1001, Conduct of Refueling, Rev. 3
AD-OP-ALL-0105, Operability Determinations and Functionality Assessments, Rev. 3
AD-OP-ALL-0202, Aggregate Operator Impact Assessment, Rev. 1
AD-OP-ALL-1000, Conduct of Operations, Rev. 6
AD-PI-ALL-0100, Corrective Action Program, Rev. 6
AD-PI-ALL-0101, Root Cause Evaluation, Rev. 2
AD-PI-ALL-0102, Apparent Cause Evaluation, Rev. 2
AD-PI-ALL-0103, Quick Cause Evaluation, Rev. 2
AD-PI-ALL-0201, Corrective Action Program (CAP) Trending, Rev. 0
AD-PI-ALL-0104, Prompt Investigation Response Team, Rev. 2
AD-PI-ALL-0105, Effectiveness Reviews, Rev. 0
AD-PI-ALL-0300, Self-Assessment and Benchmark Programs, Rev. 0
AD-PI-ALL-0400, Operating Experience Program, Rev. 0
AD-PI-ALL-1000, Performance Improvement Committee (PIOC) Charter and Conduct, Rev. 1
AD-WC-ALL-0210, Work Request Initiation, Screening, Prioritization, and Classification, Rev. 1
Directive 3.13 Regulatory Affairs/Licensing Professional Training and Qualification Plan, Rev. 7
IP/0/A/3680/007, Calibration Procedure For The D/G Power Driven Potentiometer and Static Voltage Regulator, Rev. 012
IP/0/B/3710/022, 250/125 VDC SSF Auxiliary Power System (ETM) Batteries Periodic Inspection, Rev. 050
MP/0/A/7150/027G, Repair and Troubleshooting of Fuel Handling Equipment, Reactor Head, and ISFSI Equipment, Rev. 5
NSD 512, Maintenance of RO/SRO NRC Licenses, Rev. 7
NSD 203, Operability/Functionality, Rev. 26
NSD 208, Problem Investigation Program, Rev. 38
NSC 310, Requirements for the Maintenance Rule, Rev. 12
OP/1/B/6100/010C, Annunciator Response for Panel 1AD-2, A/9, Rev. 067
Operations Management Procedure 2-29, LCO Tracking
OTMP 4.1, Operations Training Management Procedure 4.1, JPM Exam Preparation and Administration, Rev. 10
OTMP 8.1, Operations Training Management Procedure 8.1
Performance Improvement Job Aid, CST Screening Recommendations, Rev. 1
PT/1/A/4400/003E, Component Cooling Miniflow Verification, Rev. 9
PY-NO-ALL-0200, Safety Conscious Work Environment (SCWE), Rev. 0
SOMP 01-13, Operations Work List, Routine Task List, and OPS Guides, Rev. 0
WPM 701, Work Process Manual, Work Order Close-Out, Rev. 11

NCRs / ARs / PIPs:

C-05-04252, C-14-11476, C-14-11404, C-15-0297, C-15-0334, C-15-0028, C-15-0029, C-15-0220, 01438872, 01449082, 01496597, 01508311, 01523484, 01523640, 01523660, 01523699, 01523718, 01524828, 01524879, 01524908, 01525018, 01525018, 01525091, 01526528, 01526688, 01528084, 01529362, 01529458, 01529501, 01529603, 01530990, 01531090, 01532526, 01532610, 01534276, 01534287, 01535672, 01535795, 01535809, 01535866, 01537083, 01537100, 01537443, 01538917, 01540101, 01540138, 01540312, 01540857, 01541571, 01552984, 01897145, 01897393, 01897403, 01897404, 01897614, 01897677, 01897736, 01897747, 01898305, 01898443, 01898499, 01898518, 01898539, 01898617, 01898683, 01898889, 01898996, 01899064, 01899403, 01899410, 01899448, 01899505, 01900763, 01900816, 01900816, 01900970, 01901080, 01901091, 01901120, 01901128, 01901206, 01901267, 01901338, 01930126, 01930640, 01931825, 01932211, 01932558, 01934816, 01935889, 01935889, 01936273, 01940421, 01940481, 01940530, 01942481, 01947708, 01948002, 01949421, 01952246, 01954266, 01956237, 01961548, 01963209, 01964585, 01965918, 01966322, 01972704, 01973367, 01973530, 01978603, 01978614, 01978892, 01978967, 01979061, 01979480, 01979490, 01980363, 01980531, 01981764, 01984039, 01984691, 01985182, 01985375, 01985382, 01985383, 01985395, 01989562, 01992325, 01994586, 01995780, 01997046, 01997285, 02000675, 02000736, 02004646, 02007940, 02008161, 02008161, 02009895, 02013423, 02014866, 02014866, 02017246, 02017702, 02017716, 02017742, 02017845, 02020177, 02020181, 02021799, 02026131, 02030565, 02032745, 02032750, 02032845, 02034870, 02035128, 02036970, 02038184, 02041273, 02042947, 02044013, 02045805, 02051478, 02052366, 02055501, 02055694, 02057830, 02060511, 02061457, 02062216, 02064283, 02064318, 02064431, 02065253, 02065295, 02065721, 02072324, 02072520, 02075423, 02076790, 02076999

Work Orders (WO):

00856131, 00856181, 01067601, 01082185, 01097491, 01101742, 01120816, 01134807, 01704391, 01780276, 01788130, 01966914, 01985521, 02072562, 02090202, 02090339, 02090363, 02090966, 02091351, 02099309, 02099310, 02122195, 02127048, 02127063, 02127064, 02127065, 02127066, 02127189, 02127190, 02127191, 02127220, 02127221, 02127222, 02127223, 02127227, 02127259, 02127260, 02127261, 02127564, 02127565, 02127566, 02127570, 02127571, 02127572, 02127573, 02164035, 02178287, 02190665, 02198057, 02199970, 02204947, 20004614, 20009703, 20009707, 20011874, 20016792, 20017188, 20018867, 20024333, 20025239, 20029374, 20031060, 20034922, 20034958, 20035369, 20035370, 20035376, 20035377, 20045385, 20046755, 20047416, 20061935, 20061935, 20073709, 20085466, 20090781, 20090782, 20105665, 20105666, 20114286, 20114286, 20114808

Audits and Self-Assessments:

01998431-05, 2016 CNS MNT Rule A(3) Self-Assessment
 01898228, Engineering Assessment, C-ENG-SA-13-03, SSF Deep Dive, 08/05/2013
 01981662, Readiness Assessment for IP 71152 Biennial PI&R Inspection, 04/11/2016
 01985522, Catawba's Implementation of AD-EG-ALL-1208, Life Cycle Management Planning, 02/24/2016
 01998431, MNT Rule A(3) Self- Assessment, 06/01/2016
 2016-CNS-OPS-01, Nuclear Oversight Audit, Catawba Operational Focus Area, 8/25/16
 AD-PI-ALL-0300, Attachment 9, Self-Assessment and Benchmark Programs, Focused Benchmark Report; Training and Qualification for Security Systems I&C Technicians, 7/27/15
 AD-PI-ALL-0300, Attachment 9, Self-Assessment and Benchmark Programs, Focused Benchmark Report; Security Processes and Procedures, 8/21/14
 QHSA AR 02003477

Drawings

CN-1522-11.85-06, Heating – Ventilating – Air Conditioning Safe Shutdown Facility, Rev. 8
 CN-1579-4.3, Misc. Structure Ventilation System Standby Shutdown Facility, Rev. 4
 CNM 1399.05-0011, Logic Cabinet Four Loop Plants, Sht 1-14, & -18 of 20, Rev. DL

Calculation

CNC-1211.00-00-0121, Evaluation of SSF Ventilation for Hydrogen Concentration Control, Rev. 0
 CNC-1211.00-00-0032, Standby Shutdown Facility (SSF) HVAC Requirements, Rev. 4
 CNC-1381.06-00-0035, 250/125 VDC SSF Aux Power System (ETM) Battery and Battery Charger Sizing Calculation, Rev. 7
 CNC-1381.06-00-0053, Voltage Analysis for 250/125 VDC SSF Power System during Station Blackout, Rev. 01

Licensee Event Reports:

413/2016-001-01

Other Documents:

2014-CNS-EP-01
 AD-PI-ALL-0300, Attachment 8, Quick Hitter Benchmark report #1991435-04, done 3/3/16 – 4/5/16
 AD-OP-ALL-0202, Attachment 3, Aggregate Operator Impact Assessment
 ANSI/IEEE Std 450-1975, IEEE Recommended Practice for Maintenance, Testing, and Replacement of Large Lead Storage Batteries for Generating Stations and Substations
 ANSI/IEEE Std 450-1980, IEEE Recommended Practice for Maintenance, Testing, and Replacement of Large Lead Storage Batteries for Generating Stations and Substations
 CNS-114.00-EQB-0001, Design Basis Specification for the EQB System, Rev. 16
 CNS-120.01-EQC-0001, Design Basis Specification for the EQC System, Rev. 19
 CNS-1301.00-00-0002, Diesel Electric Generator Units Vendor Manual, Rev. 4
 CNS-1560.SS-00.0001, Design Basis Specification for the Standby Shutdown Facility, Rev. 37
 CNM-1301.00-0237.005, Diesel Generator Instruction Manual Vol. 5, Rev. 011
 CNM-1301.02-0011.001, SSF D/G Battery Charger Installation and Operating Instructions, Rev. D8
 CNM 1301.02-0058.002, SSF Diesel Generator Instruction Manual Volume II
 CNM-1301.02-0078.001, SSF D/G Batteries, Rev. D6
 CNM-1356.09-0004 001, 125 VDC 900 Amp SSF Charger Instruction Book, Rev. D5
 Catawba KC System Heat Exchanger Data Sheet
 Catawba Nuclear Station Selected Licensee Commitments, Rev. 9
 Catawba Nuclear Station Technical Specifications, dated 06/29/2016
 Catawba Nuclear Station UPDATED FINAL SAFETY ANALYSIS REPORT, Rev. 18
 CNS Performance Trending Report – 1st Trimester 2016
 Duke Fleet Protection Services Annual Benchmark Schedule – 2016
 EC-110969
 EC-114871
 EC-400855
 EC-401513
 EC-404080
 EC-404711

EC-8663

Engineering 2nd Trimester 2016 Performance Trend Report

E-Plan LOA #20

EP/1/A/5000/G-1 Generic Enclosures Revision 10

eSOMS Unit 1 Operations Log 3/3-3/4/2016

eSOMS Unit 2 Operations Log, 2/2/2016

G-ENG-SA-14-07, 2014 CNS Maintenance Rule (a)(3) Assessment

LCO Tracking Record T-1-16-00315

Maintenance 2nd Trimester 2016 Performance Trend Report

Maintenance Rule Function Scoping Document – EQC.1 Diesel Generator Control

Maintenance Rule Function Scoping Document – EQD.1 SSF Diesel Control

Maintenance Rule Function Scoping Document – ETM.1 250/125 VDC SSF Auxiliary

Maintenance Rule Function Scoping Document – ETM.2 250/125 VDC SSF Auxiliary

Nuclear Service Water Lesson Plan Course Code – CNOC87-N, 9/27/13

NUREG-0954, Safety Evaluation Report, Supplement No. 4, December 1984

Operations 2nd Trimester 2016 Performance Trend Report

Operator Challenge Evaluation Form for U1 Turbine Turning Gear, 2/10/16

Operator Challenge Evaluation Form for U1 Generator Hydrogen Leak, 1/6/16

Operator Challenge Aggregate Assessment Review Team Meeting minutes, 10/5/15

OPS Guide 15-06, Draining Systems that Cross the Protected Area Bounding, 4/6/15

OPS Guide 16-04, Revision 4, Interim Actions for Stagnant Loop Warming, 8/4/16

Plant Health Committee Meeting Minutes, 01/06/2015

Plant Health Committee Meeting Minutes, 04/21/2015

Plant Health Committee Meeting Minutes, 03/22/2016

PT/1/A/4700/012 Standby Shutdown Facility (SSF) Control Panel Functional Verification

Revision No.007

Security 2nd Trimester 2016 Performance Trend Report

System Health Report - Component Cooling Water System 4th Quarter 2014

System Health Report - Component Cooling Water System 1st Quarter 2015

System Health Report - Component Cooling Water System 2nd Quarter 2015

System Health Report - Component Cooling Water System 3rd Quarter 2015

System Health Report - Component Cooling Water System 4th Quarter 2015

System Health Report - Component Cooling Water System 1st Quarter 2016

System Health Report - Component Cooling Water System 2nd Quarter 2016

System Health Report - Emergency Diesel Generator 4th Quarter 2014

System Health Report - Emergency Diesel Generator 1st Quarter 2015

System Health Report - Emergency Diesel Generator 2nd Quarter 2015

System Health Report - Emergency Diesel Generator 3rd Quarter 2015

System Health Report - Emergency Diesel Generator 4th Quarter 2015

System Health Report - Emergency Diesel Generator 1st Quarter 2016

System Health Report - Emergency Diesel Generator 2nd Quarter 2016

System Health Report - Nuclear Service Water System 4th Quarter 2014

System Health Report - Nuclear Service Water System 1st Quarter 2015

System Health Report - Nuclear Service Water System 2nd Quarter 2015

System Health Report - Nuclear Service Water System 3rd Quarter 2015

System Health Report - Nuclear Service Water System 4th Quarter 2015

System Health Report - Nuclear Service Water System 1st Quarter 2016

System Health Report - Nuclear Service Water System 2nd Quarter 2016

System Health Report - Standby Shutdown Facility 4th Quarter 2014

System Health Report - Standby Shutdown Facility 1st Quarter 2015
System Health Report - Standby Shutdown Facility 2nd Quarter 2015
System Health Report - Standby Shutdown Facility 3rd Quarter 2015
System Health Report - Standby Shutdown Facility 4th Quarter 2015
System Health Report - Standby Shutdown Facility 1st Quarter 2016
System Health Report - Standby Shutdown Facility 2nd Quarter 2016
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