Vogtle PEmails

From: Hoellman, Jordan
Sent: Wednesday, May 24, 2017 8:51 AM
To: Vogtle PEmails
Subject: Licensee Responses for ICN and UIN Discussion on May 25, 2017
Attachments: 2017-05-18 UIN ICN comment status sheet responses.docx; Response to NRC Review Comments UIN for ITAAC 2.2.01.08 (109) 2017-05-17.pdf; Uncompleted ITAAC 2.2.01.08 (109) Proposed Rev_05-22-17.pdf; ITAAC 514 ICN 2017-05-23 final.pdf; Response to NRC comments on ITAAC 2 Item #4.docx

Attached are Licensee documents in preparation for the ITAAC Closure Notification (ICN) and Uncompleted ITAAC Notification (UIN) discussion at the public call on May 25, 2017.

This file contains, in order:

1. Updated UIN ICN comments status sheet responses
2. Response to NRC comments on UIN 109
3. Proposed revision to UIN 109
4. Proposed revised ICN 514 – applicable to both SNC and SCANA
5. Response to NRC comments on ICN 2

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MESSAGE	493	5/24/2017 8:50:48 AM
2017-05-18 UIN ICN comment status sheet responses.docx	22862	
Response to NRC Review Comments UIN for ITAAC 2.2.01.08 (109) 2017-05-17.pdf	75791	
Uncompleted ITAAC 2.2.01.08 (109) Proposed Rev_05-22-17.pdf	188890	
ITAAC 514 ICN 2017-05-23 final.pdf	123374	
Response to NRC comments on ITAAC 2 Item #4.docx	26780	

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ITEM #	ICN UIN	TOPIC	ITAAC INDEX #	ISSUE	Licensee Comment
1	UIN	Containment electrical penetrations	V3 109	The UIN does not adequately describe which method of protection will be utilized. The Staff's comments on this UIN were previously provided. ACTION: Licensee respond to staff comments.	Responses and revised UIN provided to NRC prior to 5/25/17 call

ITEM #	ICN UIN	TOPIC	ITAAC INDEX #	ISSUE	Licensee Comment
3	ICN	Cl 1E equipment qualification for SWC, EMI, RFI, ESD	S2 514 S3 514	SNC has informed NRC staff of their intent to withdraw and revise ICNs for ITAAC 514. The staff would like confirmation if SCE&G plans to withdraw and revise their ICNs for ITAAC 514. ACTION: SCE&G confirm whether or not they intend to withdraw the ICNs for Unit 2 and 3 ITAAC 514.	SNC provided proposed revised ICN for 514 prior to 5/25 meeting

ITEM #	ICN UIN	TOPIC	ITAAC INDEX	ISSUE	Licensee Comment
4	ICN	FHS RM, FHM and Racks	V3 2	This ITAAC has been submitted prematurely. The component currently do not exist in the plant. ITAAC are intended to verify the as-built facility. This ITAAC was completed based upon document reviews. Action: Licensee to respond to comment	ITAAC 2 Design Commitment states "The FHS **has** the refueling machine (RM), the fuel handling machine (FHM), and the new and spent fuel storage racks." An inspection was performed to verify that system drawings had been released for construction which included the noted equipment. Further inspection was performed to verify that the specified equipment had been delivered to the site (including the Waynesboro warehouse). The ITA of #2 states that "Inspection of the system will be performed." Per the COL Appendix C, the definition of inspection includes "…visual observation, physical examinations, or reviews of records…". It is noted here that "document reviews" is considered synonymous with "review of records". Based on this, the AC requirement "The FHS has the refueling machine (RM), the fuel handling machine (FHM), and the new and spent fuel storage racks." was met. With respect to the "intended" meaning of ITAAC 2 to "verify the as-built facility", this as-built verification is performed for this same equipment in ITAAC 1 (ITA states "Inspection of the as-built system will be performed", noting that all of this equipment is included in Design Description of section 2.1.1).

ITEM #	ICN UIN	TOPIC	ITAAC INDEX #	ISSUE	Licensee Comment
5	UIN	Functional arrangement of seismic monitoring equipment	V3 575	Similar to the other FA comments, the IDB does not tie back to the definition of FA (i.e. the components are arranged to provide the service intended). Action: Licensee to respond to comment	UIN 575 U3 will be withdrawn

SNC Responses to NRC

Review of UIN for ITAAC 2.2.01.08, Index No. 109

(1) The UIN, in attachment A, should identify how the ITAAC was performed for each penetration (i.e. whether ensuring that load currents are always less than the continuous current rating of the containment electrical penetration assembly or by installing redundant protective devices in each circuit passing through the electrical penetration assembly).

The analyses for protection of the penetrations are presently not complete. The preliminary results of the analyses will determine if redundant protective devices will be necessary. The UIN has been revised to clarify this determination.

(2) The second sentence of first paragraph of UIN description states that the circuits have redundant protective devices in series. The UIN should indicate whether that means each circuit passing through a penetration assembly has redundant protective devices in series or just some circuits.

The preliminary results of the analyses will determine which circuits require redundant circuit protective devices. Each circuit that requires redundant protection will be identified in the analysis for the system (ECS, IDS & EDS). Any circuit that requires redundant protection will be identified in the principle closure document(s) that are referenced in the ITAAC Closure Notification. The UIN has been revised to clarify this information.

(3) The second sentence of first paragraph for item (2) of UIN description states that redundant current protection devices are coordinated with the containment electrical penetration assembly's rated short circuit thermal capacity data. This seems unclear because it is difficult to coordinate protective devices with just data. Typically, protective devices are coordinated with each other based on time current curves with there being the required gap between the curves for the entirety of those curves. The UIN could state that the protective devices trip prior to exceeding the time current curve of the rated short-circuit thermal capacity (I^2t) of an electrical penetration assembly at least in the continuous current range. If there is no time current curve, the UIN could also state that the protective devices trip in the continuous current range prior to exceeding the short circuit thermal capacity of a containment electrical penetration assembly. That rated short-circuit thermal capacity (I^2t) is discussed in Sections 4.2.5 and 4.3.4 of IEEE 317.

The phrase “redundant protection devices in series and that the redundant current protection devices are coordinated with the containment electrical penetration assembly's rated short circuit thermal capacity data” is a verbatim statement which cites a portion of the ITAAC Inspection / Tests / Analysis (ITA). This sentence will not be revised. The first paragraph of the UIN has been revised to elaborate on the ITA statement.

(4) The second sentence of first paragraph for item (2) of UIN description states that the redundant protective devices “prevent” current from exceeding the continuous current rating of the containment electrical penetration assembly. It seems unclear what current the UIN refers to in this sentence. In addition, protective devices do not prevent currents from exceeding the continuous current rating of the penetration assembly, but what they do is interrupt the excessive currents after a certain time to prevent damage to the containment electrical penetration assembly. Excessive currents can occur in any circuit for a variety of reasons. The excessive currents will flow even though for a short time until interrupted by the protective devices after a certain time.

The phrase “prevent current from exceeding the continuous current rating of the containment electrical penetration assembly” is a verbatim statement which cites a portion of the ITAAC Inspection / Tests / Analysis (ITA). This sentence will not be revised. The first paragraph of the UIN has been revised to elaborate on the ITA statement.

(5) The third sentence of second paragraph of UIN description states that the analysis of the as-built containment electrical penetration assemblies include the applicable coordination calculations. It is unclear as to how the supporting coordination calculations factor into the analysis performed for the electrical penetration assemblies.

The UIN has been revised to clarify this statement.

Subject: Uncompleted ITAAC 2.2.01.08 [Index No. 109]

ITAAC Statement

Design Commitment

8. Containment electrical penetration assemblies are protected against currents that are greater than the continuous ratings.

Inspections/Tests/Analyses

An analysis for the as-built containment electrical penetration assemblies will be performed to demonstrate (1) that the maximum current of the circuits does not exceed the continuous rating of the containment electrical penetration assembly, or (2) that the circuits have redundant protection devices in series and that the redundant current protection devices are coordinated with the containment electrical penetration assembly's rated short circuit thermal capacity data and prevent current from exceeding the continuous current rating of the containment electrical penetration assembly.

Acceptance Criteria

Analysis exists for the as-built containment electrical penetration assemblies and concludes that the penetrations are protected against currents which are greater than their continuous ratings.

ITAAC Completion Description

An analysis for the as-built containment electrical penetration assemblies is performed to demonstrate (1) that the maximum current of the circuits does not exceed the continuous rating of the containment electrical penetration assembly, or (2) that the circuits have redundant protection devices in series and that the redundant current protection devices are coordinated with the containment electrical penetration assembly's rated short circuit thermal capacity data and prevent current from exceeding the continuous current rating of the containment electrical penetration assembly.

Most low voltage instrumentation and communication circuits are self-limiting in that circuit resistance limits the fault current to a level that does not damage the penetration. The energy levels in the instrumentation and communication systems are such that damage cannot occur to the containment penetration. For circuits that are not self-limiting, an analysis is performed to verify the as-built containment electrical penetration assemblies are protected against currents that are greater than the manufacturer's continuous ratings. The analysis demonstrates that the maximum current of the circuits does not exceed the continuous rating of the containment electrical penetration assembly, or in circuits with high short circuit current, that each circuit has redundant protection devices in series and that the redundant current protection devices are coordinated with the containment electrical penetration assembly rated short circuit thermal

capacity curves, and the fault current does not exceed the penetration assembly rated short circuit thermal capacity curve in the continuous current time range. Each circuit that requires redundant protective devices is identified in the applicable fault coordination calculations for the Main AC Power System (ECS), the Class 1E DC and Uninterruptible Power Supply System (IDS), and the Non-Class 1E DC and Uninterruptible Power Supply System (EDS). The containment electrical penetration assemblies analyzed are listed in Attachment A. Spare penetrations or penetrations containing low voltage instrumentation and communication circuits which are excluded from the analysis are noted in Attachment A.

The electrical penetrations are designed in accordance with IEEE Standard 317-1983 (Reference 1). Qualification testing of the electrical penetrations is performed in accordance with IEEE Standard 317-1983 and IEEE Standard 323-1974 (Reference 2). The analysis of the as-built containment electrical penetration assemblies are contained in the applicable coordination calculations for the Main AC Power System (ECS), the Class 1E DC and Uninterruptible Power Supply System (IDS), and the Non-Class 1E DC and Uninterruptible Power Supply System (EDS) The analysis results are contained in the As-Built Containment Electrical Penetration Assemblies Engineering Analysis Report XXX (Reference 3) which includes the supporting calculations. The analysis results exist for the as-built containment electrical penetration assemblies and conclude that the penetrations are protected against fault currents which are greater than their continuous current ratings.

The As-Built Containment Electrical Penetration Assemblies Engineering Analysis Report XXX is available for NRC inspection as part of the ITAAC Completion Package (Reference 4).

List of ITAAC Findings

In accordance with plant procedures for ITAAC completion, Southern Nuclear Operating Company (SNC) performed a review of all findings pertaining to the subject ITAAC and associated corrective actions. This review found there are no relevant ITAAC findings associated with this ITAAC.

References (available for NRC inspection)

1. IEEE Standard 317-1983, “IEEE Standard for Electrical Penetration Assemblies in Containment Structures for Nuclear Power Generating Stations”
2. IEEE Standard 323-1974, “IEEE Standard for Qualifying Class 1E Equipment for Nuclear Power Generating Stations”
3. As-Built Containment Electrical Penetration Assemblies Engineering Analysis Report XXX
4. ITAAC 2.2.01.08 Completion Package
5. NEI 08-01, “Industry Guideline for the ITAAC Closure Process Under 10 CFR Part 52”

Attachment A

Containment System Electrical Penetration Assemblies (EPAs)

Tag No.	EPA Description – Equipment Name
DAS-EY-P03Z (*)	Electrical Penetration P03
ECS-EY-P01X	Electrical Penetration P01
ECS-EY-P02X	Electrical Penetration P02
ECS-EY-P06Y	Electrical Penetration P06
ECS-EY-P07X	Electrical Penetration P07
ECS-EY-P09W	Electrical Penetration P09
ECS-EY-P10W	Electrical Penetration P10
IDSA-EY-P11Z (*)	Electrical Penetration P11
IDSA-EY-P12Y	Electrical Penetration P12
IDSA-EY-P13Y	Electrical Penetration P13
IDSD-EY-P14Z (*)	Electrical Penetration P14
IDSD-EY-P15Y	Electrical Penetration P15
IDSD-EY-P16Y	Electrical Penetration P16
ECS-EY-P17X	Electrical Penetration P17
ECS-EY-P18X	Electrical Penetration P18
ECS-EY-P19Z (*)	Electrical Penetration P19
ECS-EY-P20Z (*)	Electrical Penetration P20
EDS-EY-P21Z (*)	Electrical Penetration P21
ECS-EY-P22X	Electrical Penetration P22
ECS-EY-P23X	Electrical Penetration P23
ECS-EY-P24 (Spare)	Electrical Penetration P24
ECS-EY-P25W	Electrical Penetration P25
ECS-EY-P26W	Electrical Penetration P26
IDSC-EY-27Z (*)	Electrical Penetration P27
IDSC-EY-28Y	Electrical Penetration P28
IDSC-EY-29Y	Electrical Penetration P29
IDSB-EY-30Z (*)	Electrical Penetration P30
IDSB-EY-31Y	Electrical Penetration P31
IDSB-EY-32Y	Electrical Penetration P32

(*) Denotes penetration containing low voltage instrumentation and communication circuits

ITAAC Statement

Design Commitment:

3.d) The DAS has electrical surge withstand capability (SWC), and can withstand the electromagnetic interference (EMI), radio frequency (RFI), and electrostatic discharge (ESD) conditions that exist where the DAS equipment is located in the plant.

Inspections, Tests, Analyses:

Type tests, analyses, or a combination of type tests and analyses will be performed on the equipment.

Acceptance Criteria:

A report exists and concludes that the DAS equipment can withstand the SWC, EMI, RFI and ESD conditions that exist where the DAS equipment is located in the plant.

ITAAC Determination Basis

Electromagnetic Compatibility qualification of the non-safety related Diverse Actuation System (DAS) was performed by a combination of type tests and analyses to demonstrate that the equipment has electrical surge withstand capability (SWC), and can withstand electromagnetic interference (EMI), radio frequency interference (RFI), and electrostatic discharge (ESD) , conditions that exist where the DAS equipment is located in the plant (i.e., Auxiliary Building). The DAS equipment is shown in Combined License (COL) Appendix C, Table 2.5.1-5 (Attachment A).

The DAS equipment were qualified by a combination of type testing and analysis in accordance with Regulatory Guide 1.180, "Guidelines for Evaluating Electromagnetic and Radio-Frequency Interference in Safety-Related Instrumentation and Control Systems" (Reference 1) and the methodology in APP-GW-G1-002, "API 000 Plant Equipment Qualification Methodology" (Reference 2) to demonstrate that DAS equipment can withstand the SWC, EMI, RFI and ESD conditions that exist where the DAS equipment is located in the plant.

Regulatory Guide 1.180 defines a range of tests that satisfy the SWC, EMI, and RFI requirements. The RG 1.180 baseline program (MIL-STD) is used in its entirety for emissions testing as described in Attachment B, and shows the EMC type test, the test standard, and the application. The RG 1.180 alternate program (IEC) is used in its entirety for susceptibility testing as described in similar fashion in Attachment C.

APP-GW-G1-002 used the guidance of EPRI TR-102323 (Reference 3). EPRI TR-102323 specifies the criteria and test methods for the emissions and susceptibility tests, including the use of IEC 61000-4-2 (Reference 4) to satisfy the ESD requirement.

Emissions and susceptibility testing was performed on the qualification test cabinets by completing the prescribed tests under conditions representing the auxiliary building. The equipment under test was monitored to confirm it operates as designed during and after EMC testing, with no degradation or loss of required functions, or spurious actuation.

A reconciliation analysis on the differences between the qualification test cabinet configuration and the production DAS cabinets was performed to show that test configuration was representative of the production cabinets. Operating and installation restrictions were established based on test results to ensure DAS continues to meet EMC qualification in its final location.

The results of the tests and analyses are documented in the Equipment Qualification Summary Report (Reference 5) and Equipment Qualification Data Package (Reference 6) and conclude that the DAS equipment can withstand the SWC, EMI, RFI and ESD conditions that exist where the DAS equipment is located in the plant.

ITAAC Finding Review

In accordance with plant procedures for ITAAC completion, Southern Nuclear Operating Company (SNC) performed a review of all ITAAC findings pertaining to the subject ITAAC and associated corrective actions. This review found that there are three relevant ITAAC findings associated with this ITAAC.

- Notice of Non conformance (NON) 99901043/2012-201-03
- Notice of Non conformance (NON) 99901043/2012-201-04
- Unresolved Item (URI) 99901043/2012-201-05

The corrective actions for each finding have been completed and each finding is closed. The ITAAC completion review document number is included in the Vogtle Unit 3 ITAAC Completion Package for ITAAC 2.5.01.03d (Reference 7) and available for NRC inspection.

ITAAC Completion Statement

Based on the above information, SNC hereby notifies the NRC that ITAAC 2.5.01.03d was performed for Vogtle Unit 3 and that the prescribed acceptance criteria are met.

Systems, structures, and components verified as part of this ITAAC are being maintained in their as-designed, ITAAC compliant condition in accordance with approved plant programs and procedures.

References (available for NRC inspection)

1. Regulatory Guide 1.180, “Guidelines for Evaluating Electromagnetic and Radio-Frequency Interference in Safety-Related Instrumentation and Control Systems”

2. APP-GW-G1-002 Revision 4, “AP1000 Equipment Qualification Methodology”

3. EPRI Report TR-102323, Revision 2, “Guidelines for Electromagnetic Interference Testing of Power Plant Equipment,” Electric Power Research Institute, Inc., Final Report, November 2000.

4. IEC 61000-4-2, “Electromagnetic Compatibility (EMC), Part 4: Testing and Measurement Techniques, Section 2: Electrostatic Discharge Immunity Test,” 2008

5. APP-DAS-VBR-002, Revision 4, “Equipment Qualification Summary Report for the Diverse Actuation System for Use in the AP1000 Plant”

6. APP-DAS-VBR-003, Revision 3, “Equipment Qualification Data Package for the Diverse Actuation System for Use in the AP1000 Plant”

7. SVP_SV0_004211, Attachment 1 “Submittal of Inspections, Test, Analyses and Acceptance Criteria (ITAAC) Completion Package for Unit 3 ITAAC 2.5.01.03d [COL Index Number 514] (DAS Equipment Qualification EMI RFI and ESD)”

Attachment A

Equipment Qualification ITAAC Compliance Table

***Excerpt from COL Appendix C, Table 2.5.1-5**

SYSTEM: DIVERSE ACTUATION SYSTEM (DAS)

Component Name*	Tag No.*	Component Location*	Type of Qualification	Equipment Qualification Report
DAS Processor Cabinet 1	DAS-JD-001	Auxiliary Building	Type Testing and Analysis	APP-DAS-VBR-002 APP-DAS-VBR-003
DAS Processor Cabinet 2	DAS-JD-002	Auxiliary Building	Type Testing and Analysis	APP-DAS-VBR-002 APP-DAS-VBR-003
DAS Squib Valve Control Cabinet	DAS-JD-003	Auxiliary Building	Type Testing and Analysis	APP-DAS-VBR-002 APP-DAS-VBR-003

Attachment B:

DAS Applicable Test Standards, Baseline (MIL-STD) Emissions Testing Program

EMC Type Test	Test Standard	Application
Conducted Emissions, Low Frequency (EMI/ RFI)	MIL-STD-461E (CE101) "Requirements for the Control of Electromagnetic Interference Characteristics of Subsystems and Equipment," U.S. Department of Defense, August 1999.	Power Leads (Note 1)
Conducted Emissions, High Frequency (EMI/ RFI)	MIL-STD-461E (CE102), "Requirements for the Control of Electromagnetic Interference Characteristics of Subsystems and Equipment," U.S. Department of Defense, August 1999.	Power Leads
Radiated Emissions, Magnetic Field (EMI/ RFI)	MIL-STD-461E (RE101), "Requirements for the Control of Electromagnetic Interference Characteristics of Subsystems and Equipment," U.S. Department of Defense, August 1999.	DAS Cabinet
Radiated Emissions, Electric Field (EMI/ RFI)	MIL-STD-461E (RE102), "Requirements for the Control of Electromagnetic Interference Characteristics of Subsystems and Equipment," U.S. Department of Defense, August 1999.	DAS Cabinet

Attachment C:

DAS Applicable Test Standards, Alternate (IEC) Susceptibility Testing Program

EMC Type Test	Test Standard	Application
Conducted Susceptibility, Low Frequency, 15 Hz to 150 kHz (EMI/ RFI)	IEC 61000-4-16, "Electromagnetic Compatibility (EMC), Part 4: Testing and Measurement Techniques, Section 16: Test for Immunity to Conducted, Common Mode Disturbances in the Frequency Range of 0 Hz to 150 kHz," 1998.	Power & Signal Leads
Conducted Susceptibility, Low Frequency, 16 Hz to 2.4 kHz (EMI/ RFI)	IEC 61000-4-13, "Electromagnetic Compatibility (EMC), Part 4: Testing and Measurement Techniques, Section 13: Harmonics and Interharmonics Including Mains Signaling at AC Power Port, Low Frequency Immunity Tests," 2002.	AC Power Leads

Conducted Susceptibility, High Frequency (EMI/ RFI)	IEC 61000-4-6, "Electromagnetic Compatibility (EMC), Part 4: Testing and Measurement Techniques, Section 6: Immunity to Conducted Disturbances, Induced by Radio-Frequency Fields," 1996 & 2008.	Power & Signal Leads
Radiated Susceptibility, Magnetic Field, 50 Hz & 60 Hz (EMI/ RFI)	IEC 61000-4-8, "Electromagnetic Compatibility (EMC), Part 4: Testing and Measurement Techniques, Section 8: Power Frequency Magnetic Field Immunity Test," 1993 & 2009.	DAS Cabinet
Radiated Susceptibility, Magnetic Field, 50/60 Hz to 50kHz (EMI/ RFI)	IEC 61000-4-9, "Electromagnetic Compatibility (EMC), Part 4: Testing and Measurement Techniques, Section 9: Power Frequency Magnetic Field Immunity Test," 1993 & 2009.	DAS Cabinet
Radiated Susceptibility, Magnetic Field, 100 kHz and 1 MHz (EMI/ RFI)	IEC 61000-4-10, "Electromagnetic Compatibility (EMC), Part 4: Testing and Measurement Techniques, Section 10: Damped Oscillatory Magnetic Field Immunity Test," 1993.	DAS Cabinet
Radiated Susceptibility, Electrical Field, 26 MHz to 1 GHz (EMI/ RFI)	IEC 61000-4-3, "Electromagnetic Compatibility (EMC), Part 4: Testing and Measurement Techniques, Section 3: Radiated, Radio-Frequency, Electromagnetic Field Immunity Test," 1995 & 2010.	DAS Cabinet
Radiated Susceptibility, Electrical Field, 1 GHz to 10 GHz (EMI/ RFI) (Note 2)	MIL-STD-461E (RS103), "Requirements for the Control of Electromagnetic Interference Characteristics of Subsystems and Equipment," U.S. Department of Defense, August 1999.	DAS Cabinet
Electrical Fast Transient (SWC)	IEC 61000-4-4, "Electromagnetic Compatibility (EMC), Part 4: Testing and Measurement Techniques, Section 4: Electrical Fast Transient/Burst Immunity Test," 1995 & 2010.	Power & Signal Leads
Surge, Combination Wave (SWC)	IEC 61000-4-5, "Electromagnetic Compatibility (EMC), Part 4: Testing and Measurement Techniques, Section 5: Surge Immunity Test," 1995 & 2005.	Power & Signal Leads
Surge, 100kHz Ring Wave (EMI/ RFI)	IEC 61000-4-12, "Electromagnetic Compatibility (EMC), Part 4: Testing and Measurement Techniques, Section 12: Oscillatory Waves Immunity Test," 1995.	Power & Signal Leads

Electrostatic Discharge Immunity (ESD)	IEC 61000-4-2, "Electromagnetic Compatibility (EMC), Part 4: Testing and Measurement Techniques, Section 2: Electrostatic Discharge Immunity Test," 2008.	DAS Cabinet DAS Blasting Device (Note 3)

Notes:

1. Voltage Total Harmonic Distortion (VTHD) tests were performed to support exemption of these power leads from CE101 tests under Regulatory Guide 1.180 Position 3.1.
2. MIL-STD-461E RS103 (Radiated susceptibility, electric field) test is used to extend the alternative (IEC) test range of the radiated electrical fields susceptibility above 1 GHz, as indicated in RG 1.180 Position 6.
3. Supplemental testing was performed on the blasting device located in the DAS squib controller cabinet. The device provides an alternate manual means of actuating the squib valves from the DAS cabinets if onsite power is lost and all other PMS and DAS components become inoperable.

ITEM #	ICN UIN	TOPIC	ITAAC INDEX #	ISSUE	Licensee Comment
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