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OPPD
Omaha Public Power District

444 South 16th Street Mall
Omaha NE 68102-2247

August 31, 2001
LIC-01-0075

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555-0001

References: 1. Docket No. 50-285
2. NRC Bulletin 2001-01, "Circumferential Cracking of Reactor Pressure Vessel Head Penetration Nozzles"

SUBJECT: Response to NRC Bulletin 2001-01, "Circumferential Cracking of Reactor Pressure Vessel Head Penetration Nozzles"

In accordance with Reference 2, the Omaha Public Power District (OPPD) is submitting the Fort Calhoun Station response to NRC Bulletin 2001-01.

NRC Bulletin 2001-01 requires each addressee to supply information on the structural integrity of the reactor vessel head penetration (VHP) nozzles, including the basis for concluding that future plans will ensure compliance with regulatory and code requirements. The industry has developed a susceptibility ranking model based on time-at-temperature for VHP nozzle cracking, which ranks FCS as moderately susceptible to primary water stress corrosion cracking (PWSCC). An arrangement of the reactor vessel head area and associated components describing the general configuration of equipment is presented in this response. In addition, a discussion of the FCS licensing requirement related to the structural integrity for VHP is presented.

FCS intends to perform an effective reactor head visual examination of the reactor vessel head during the fall 2002 refueling outage (RFO). Following the completion of the 2002 RFO, FCS will submit the results of the inspection and associated corrective actions.

I declare under penalty of perjury that the foregoing is true and correct. (Executed on August 31, 2001)

R. P. Clemens
Plant Manager
Fort Calhoun Station

RPC/RLJ/rlj

A088

Attachment

c: E. W. Merschoff, NRC Regional Administrator, Region IV
A. B. Wang, NRC Project Manager
W. C. Walker, NRC Senior Resident Inspector
Winston & Straw

Fort Calhoun Station's
Response to NRC Bulletin 2001-01

Fort Calhoun Station's
Response to NRC Bulletin 2001-01

TABLE OF CONTENTS

Fort Calhoun Station's
Response to NRC Bulletin 2001-01

i. **Overview of FCS's Material Reliability Management**

FCS is managing the material reliability of the control element drive mechanism (CEDM) housing assemblies and VHP nozzles by an implemented program plan that defines the environmental condition and risk of each individual assembly relative to its structural integrity. The objective of the FCS program is to predict when cracking will occur in the CEDM housings and the VHP nozzles by monitoring the environmental conditioning changes.

The FCS program has been developed in conjunction with Electric Power Research Institute (EPRI) and Westinghouse. This program considers all the factors that would affect the integrity of the CEDM housing and the VHP nozzles. A systematic inspection plan within the FCS program incorporates industry experience, and input from the EPRI Material Reliability Program owners' group. The FCS program will ensure increased plant reliability and early detection of cracking.

1. **Requested Background Information (Ref. 2, para. 1)**

a. *Plant Specific PWSCC Susceptibility Ranking*

Fort Calhoun Station (FCS) has been analyzed for susceptibility relative to Oconee 3 using the time-at-temperature model where the FCS specific input data is as follows:

Vessel Head Temperature History
Table No. 1

Current Head Temp. (°F)	***Period No. 1***		***Period No. 2***		***Period No. 3***		***Period No. 4***	
	EFPYs at Temp.	Head Temp. (°F)	EFPYs at Temp.	Head Temp. (°F)	EFPYs at Temp.	Head Temp. (°F)	EFPYs at Temp.	Head Temp. (°F)
588.0	0.80	582.0	3.70	585.0	4.50	577.0	10.90	588.0

Key Parameters and Ranking
Table No. 2

Ranking	***Design and Fabrication***					***Operating Time and Temperature***					
	NSSS Design	Nozzle Material Suppler	Head Fabricator	Nozzle Interference Fit	Insulation Type and Configuration	EFPYs thru Feb. 2001	Head Temp. Range over FCS's Lifetime	Current Head Temperature	EFPY Normal to 600 °F	Remaining EFPYs to Reach Oconee 3 (3/1/01)	Histogram Group
39th of 69	Combustion Engineering	Huntington	Combustion Engineering	0.0-3.0 mils	Reflective Stepped	19.9	577-588 °F	588 °F	10.8	17.9	15-20 EPFY

This evaluation comparatively shows the difference between Oconee 3 and FCS as 17.9 EFPYs for the vessel head penetration nozzles' potential risk as of March 1, 2001.

Based on the NRC Bulletin 2001-01 groupings, FCS falls into the NRC category of plants greater than 5 EFPY and less than 30 EFPY relative to Oconee 3.

b. *Description of VHP Nozzles*

FCS has 48 reactor pressure vessel (RPV) head nozzles. The head arrangement and requested nozzle details are provided in Figure No. 1. Table No. 3 gives the dimensional data relevant to the nozzles at FCS.

Head Arrangement and Nozzle Information Table No. 3										
Min. Distance Between CEDM and ICI Nozzle		***J-Groove type VHP Nozzles***								
		CEDM Nozzles			ICI Nozzles			J-Groove Head Vent Nozzle		
CEDM Nozzle (in)	ICI Nozzle (in)	No.	OD (in)	ID (in)	No.	OD (in)	ID (in)	No.	OD (in)	ID (in)
11.57	15.57	41	3.495	2.728	6	6.625	5.189	1	1.050	0.742

c. *Description of RPV Head Insulation*

As reported in Table No. 2, FCS has reflective stepped RPV head insulation.

d. *Description of RPV Head and Nozzle Inspections Within Past Four Years*

FCS has not performed RPV head and nozzle inspections within the past four years. However, FCS has removed the insulation and/or cleaned the head during the 1983 (Ref MR-FC-79-15), 1991 (Ref. MWO 910243) and 1992 (MWO 921251) RFO, which did not report boric acid crystal build-up around the RV head nozzles.

e. *Description of Equipment and Cables on Top of Vessel Head*

The reactor vessel head is covered with 5-1/2" thick reflective step insulation and has 48 penetrations of which thirty-seven are Control Element Drive Mechanisms (CEDM), two are Heated Junction Thermal Couples (HJTC), two are spares, six are incore instrumentation (ICI) assemblies and one head vent nozzle. These assemblies are enclosed by a seismic skirt that also supports the supply and return seal water and drain header, head stud tensioner monorail, platform and hand rail. This seismic skirt also functions as a duct for cooling of the CEDM and ICI housing assemblies, which are attached to the ventilation fan units (Tag No.VA-2A & -2B) and associated ducts. The

power and instrumentation for the CEDM and incore detectors cabling is supported by a removable cable tray above the seismic skirt platform. Finally, the missile shields are just above the removable cable tray support as generalized in Figure No. 2, and a list of cables potentially impacted are provided in Table No. 4.

2. **Plans for Future Inspections (Ref. 2, para. 4(a))**

FCS plans to perform visual inspections of the RPV head and nozzles at the next scheduled Fall of 2002 RFO.

If any leaks are detected, the source will be confirmed and characterized by a non-destructive examination, and where necessary the nozzle will be repaired per ASME code guidance.

3. **Basis for Concluding that Regulatory Requirements are Met (Ref. 2, para. 4(b))**

The NRC Bulletin 2001-01 section entitled Applicable Regulatory Requirements cites the following regulatory requirements and plant commitments as providing the basis for the bulletin assessment:

- Appendix A to 10 CFR Part 50, General Design Criteria for Nuclear Power Plants
  - Criteria 14 - Reactor Coolant Pressure Boundary
  - Criteria 31 - Fracture Prevention of Reactor Coolant Boundary, and
  - Criteria 32 - Inspection of Reactor Pressure Coolant Pressure Boundary
- Plant Technical Specifications
- 10 CFR 50.55a, Codes and Standards, which incorporates by reference Section XI, Rules for Inservice Inspection of Nuclear Power Plant Components, of the ASME Boiler and Pressure Vessel Code
- Appendix B of 10 CFR Part 50, Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants, Criteria V, IX, and XVI

This section discusses how FCS meets the cited regulatory requirements and commitments affecting decisions related to NRC Bulletin 2001-01.

Fort Calhoun Station's
Response to NRC Bulletin 2001-01

a. *Design Requirements: 10CFR § 50, Appendix A - General Design Criteria (GDC)*

The Bulletin states:

> "The applicable GDC include GDC 14, GDC 31, and GDC 32. GDC 14 specifies that the reactor coolant pressure boundary (RCPB) have an extremely low probability of abnormal leakage, of rapidly propagating failure, and of gross rupture; the presence of cracked and leaking VHP nozzles is not consistent with this GDC. GDC 31 specifies that the probability of rapidly propagating fracture of the RCPB be minimized; the presence of cracked and leaking VHP nozzles is not consistent with this GDC. GDC 32 specifies that components which are part of the RCPB have the capability of being periodically inspected to assess their structural and leak tight integrity; inspection practices that do not permit reliable detection of VHP nozzle cracking are not consistent with this GDC."

However, the "General Design Criteria" was not part of FCS's licensing requirement. The criteria that is similar to GDC 14, 31 and 32 (per FCS USAR Appendix G) are the following:

· Criterion 9 - Reactor Coolant Pressure Boundary (similar to GDC 14)

"The reactor coolant pressure boundary shall be designed and constructed so as to have an exceedingly low probability of gross rupture or significant leakage throughout its design lifetime."

· Criterion 34 - Reactor Coolant Pressure Boundary Rapid Propagation Failure Prevention (similar to GDC 31)

"The reactor coolant pressure boundary shall be designed to minimize the probability of rapidly propagating type failures. Consideration shall be given (a) to the notch-toughness properties of materials extending to the upper shelf of the Charpy transition curve, (b) to the state of stress of materials under static and transient loadings, (c) to the quality control specified for materials and component fabrication to limit flaw sizes, and (d) to the provisions for control over service temperature and irradiation effects which may require operational restrictions."

· Criterion 36 - Reactor Coolant Pressure Boundary Surveillance (similar to GDC 32)

"Reactor coolant pressure boundary components shall have provisions for inspection, testing, and surveillance by appropriate means to assess the structural and leaktight integrity of the boundary components during their service lifetime. For the reactor vessel, a material surveillance program conforming with ASTM-E-185-66 shall be provided."

The following information demonstrates how FCS complies with the design criteria for the of

Fort Calhoun Station's
Response to NRC Bulletin 2001-01

RPV top head nozzles:

The components are designed and constructed in accordance with ASME Boiler & Pressure Vessel Code, Section III. The combined static and transient stress is limited, whenever the reactor vessel temperature is below NDT +60°F, to sufficiently low values to make the probability of a rapidly propagating failure extremely remote. The required stress limits are maintained by operating restrictions. The test inspection requirements were to assure that flaw sizes will be limited so that the probability of failure by rapid propagation is extremely remote. Particular emphasis is placed on the quality control applied to the reactor vessel, on which tests and inspections are imposed to meet and exceed code requirements. In addition, ECT inspections of the Control Element Drive Mechanism (CEDM) seal housing assemblies have characterized an environmental condition (stagnancy) that provides FCS with an unique definition of VHP nozzles risk. This environmental characterization in conjunction with a comparatively low material tensile strength and design stress of the VHP nozzles, and overall design considerations are therefore adequate and manageable as prescribed by ASME XI table IWB-2500-1.

b. *Operating Requirement: 10 CFR § 50.36 - Plant Technical Specifications*

The Bulletin states:

> "Plant technical specifications pertain to the issue of VHP nozzle cracking insofar as they require no through-wall reactor coolant system leakage."

Title 10 of the Code of Federal Regulations, Part 50.36 (10CFR 50.36) contains requirements for Plant Technical Specifications. Paragraphs 2 and 3 of 10CFR Part 50.36 are particularly relevant:

· 10CFR 50.36 (2) Limiting Conditions for Operation

> "Limiting conditions for operation are the lowest functional capability or performance levels of equipment required for safe operation of the facility. When a limiting condition for operation of a nuclear reactor is not met, the licensee shall shut down the reactor or follow any remedial action permitted by the technical specifications until the condition can be met.
>
> A technical specification limiting condition for operation of a nuclear reactor must be established for each item meeting one of the following criteria:

Criterion 3: A structure, system, or component that is part of the primary success path and which functions or actuates to mitigate a design basis accident or transient that either assumes the failure of or presents a challenge to the integrity of a fission product barrier.

Criterion 4: A structure, system or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety."

· 10 CFR 50.36 (3) Surveillance Requirements

"Surveillance requirements are requirements relating to test, calibration, or inspection to assure that the necessary quality of systems and components is maintained, that facility operation will be within safety limits, and that the limiting conditions will be met."

The reactor coolant pressure boundary provides one of the critical barriers that guard against the uncontrolled release of radioactivity. Therefore, plant technical specifications generally include a requirement and associated action statements addressing reactor coolant pressure boundary leakage. The limits for PWR reactor coolant pressure boundary leakage are typically stated in terms of the amount of leakage, e.g., 1 gallon per minute for unidentified leakage; 5-10 gpm for identified leakage; and no leakage from a non-isolable fault in the reactor coolant system pressure boundary.

Most leaks from reactor coolant system Alloy 600 penetrations have been well below the sensitivity of on-line leakage detection systems. FCS has evaluated this condition and has determined that visual inspections of the reactor head for boric acid deposits during plant shutdowns or NDE examination of the CEDM housing are appropriate inspections. If leakage or unacceptable indications are found, then the defect shall be evaluated by the program plan before the plant resumes operation. If through-wall boundary leaks of CEDMs increase to the point where they are picked up by the on-line leak detection systems, then the leak shall be evaluated per the specified acceptance criteria, and corrective action as specified in FCS Technical Specification, section 2.1.4 'Reactor Coolant System Leakage Limits' will be taken.

c. *Inspection Requirements: 10 CFR. § 50.55a and ASME Section XI*

The Bulletin states:

"NRC regulations at 10 CFR 50.55a state that ASME Class 1 components (which include VHP nozzles) must meet the requirements of Section XI of the ASME Boiler and Pressure Vessel Code. Table IWA-2500-1 [IWB-2500-1] of Section XI of the ASME Code provides examination requirements for VHP nozzles and references IWB-3522 for acceptance standards. IWB-3522.1(c) and (d) specify that conditions requiring correction include the detection of leakage from insulated components and discoloration or accumulated residues on

the surfaces of components, insulation, or floor areas which may reveal evidence of borated water leakage, with leakage defined as "the through-wall leakage that penetrates the pressure retaining membrane." Therefore, 10 CFR 50.55a, through its reference to the ASME Code, does not permit through-wall cracking of VHP nozzles."

For through-wall leakage identified by visual examinations in accordance with the ASME Code, acceptance standards for the identified degradation are provided in IWB-3142. Specifically, supplemental examination (by surface or volumetric examination), corrective measures or repairs, analytical evaluation, and replacement provide methods for determining the acceptability of degraded components."

Title 10 of the Code of Federal Regulations, Part 50.55a requires that inservice inspection and testing be performed per the requirements of the ASME Boiler and Pressure Vessel Code, Section XI, Inservice Inspection of Nuclear Plant Components. Section XI contains applicable rules for examination, evaluation and repair of code class components, including the reactor coolant pressure boundary.

Requirements for partial penetration welds attaching CRDM housings to the reactor vessel head are contained in Table IWB-2500-1, Examination Category B-E, Pressure Retaining Partial Penetration Welds in Vessels, Items Numbers: B4.10, Partial Penetration Welds; B4.11, Vessel Nozzles; B4.12, CRDM Nozzles; and B4.13, Instrumentation Nozzles. The Code requires a VT-2 "visual examination" of 25% of the CRDM nozzles from the external surface. Since the head is insulated, and the nozzles do not represent a bolted flange, paragraph IWA-5242(b) permits these inspections to be performed with the insulation left in place.

The acceptance standard for the visual examination is found in paragraph IWA-5250, Corrective Measures. Paragraph IWA-5250 requires repair or replacement of the affected part if a through-wall leak is found and requires an assessment of damage, if any, associated with corrosion of steel components by boric acid.

Flaws identified by nondestructive examination (NDE) methods which are beyond current requirements are evaluated in accordance with the flaw evaluation rules for piping contained in Section XI of the ASME Code. This approach has been accepted by the NRC. Any flaw not meeting requirements for the intended service period would be evaluated by the program plan before returning it to service.

Industry repairs to RPV top head nozzles have been performed in accordance with Section XI requirements, NRC-approved ASME Code Case requirements, or an alternative repair or replacement method approved by the NRC.

FCS complies with these ASME Code requirements through implementation of the plant's inservice inspection program. If a VT-2 examination detects the conditions described by IWB-3522.1(c) and (d), then corrective actions per IWB-3142 would be performed in accordance with FCS's corrective action program. No new plant actions are necessary to satisfy the cited regulatory criteria.

d. *Quality Assurance Requirements: 10 CFR. § 50, Appendix B*

The Bulletin states:

> "Criterion IX of Appendix B to 10 CFR Part 50 states that special processes, including nondestructive testing, shall be controlled and accomplished by qualified personnel using qualified procedures in accordance with applicable codes, standards, specifications, criteria, and other special requirements. Within the context of providing assurance of the structural integrity of VHP nozzles, special requirements for visual examination would generally require the use of a qualified visual examination method. Such a method is one that a plant-specific analysis has demonstrated will result in sufficient leakage to the RPV head surface for a through-wall crack in a VHP nozzle, and that the resultant leakage provides a detectable deposit on the RPV head. The analysis would have to consider, for example, the as-built configuration of the VHPs and the capability to reliably detect and accurately characterize the source of the leakage, considering the presence of insulation, preexisting deposits on the RPV head, and other factors that could interfere with the detection of leakage. Similarly, special requirements for volumetric examination would generally require the use of a qualified volumetric examination method, for example, one that has a demonstrated capability to reliably detect cracking on the OD of the VHP nozzle above the J-groove weld."

Criterion IX is a forward-looking requirement such that if inspections are performed they must be controlled and accomplished by qualified personnel. No action is required by a FCS to satisfy this criterion, unless a new inspection is proposed. However, if the bulletin response identifies a new inspection then the response should identify how Criterion IX is satisfied

The Bulletin further states:

> "Criterion V of Appendix B to 10 CFR Part 50 states that activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings. Criterion V further states that instructions, procedures, or drawings shall include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished. Visual and volumetric examinations of VHP nozzles are activities that should be documented in accordance with these requirements."

Criterion V is also a forward-looking criterion that applies should the bulletin response identify new inspections. It does not establish criteria for when or if inspections should be performed. If new inspections are performed, they will meet criterion V.

The last Appendix B criterion cited in the bulletin is:

> "Criterion XVI of Appendix B to 10 CFR Part 50 states that measures shall be established to assure that conditions adverse to quality are promptly identified and corrected. For significant conditions adverse to quality, the measures taken shall include root cause determination and corrective action to preclude repetition of the adverse conditions. For cracking of VHP nozzles, the root cause determination is important to understanding the nature of the degradation present and the required actions to mitigate future cracking. These actions could include proactive inspections and repair of degraded VHP nozzles."

Criterion XVI has two attributes that should be considered by FCS in its response to the Bulletin.

The first attribute is that measures shall be established to assure that conditions adverse to quality are promptly identified and corrected. This criterion infers FCS's responsibility to be aware of industry experience, and has been interpreted in this manner in most plant's corrective action programs. FCS should determine if an industry experience applies to its plant and what, if any, corrective actions are appropriate. This approach is consistent with the NRC's generic communication process for an Information Notice, which reports industry experience, but does not require a response to the NRC. FCS is expected to evaluate the applicability of the occurrence to their plant and document a record of the plant specific assessment for possible NRC review during inspections.

Criterion XVI provides the objectives and goals of the corrective action program, but licensees are responsible for determining a specific process to accomplish these goals and objectives. With regard to the bulletin response, Criterion XVI does not provide specific guidance as to what is an appropriate response, but rather, the FCS is responsible for determining actions necessary to maintain public health and safety. That is, the FCS must justify its actions for addressing the stress corrosion cracking of vessel head penetrations. Furthermore, the regulatory criteria of 10 CFR 50.109(a)(7), provides supporting evidence when it states that if there are two or more ways to achieve compliance . . . then ordinarily the applicant or licensee is free to choose the way which best suits its purposes.

The second attribute of Criterion XVI that should be considered is that for significant conditions adverse to quality, the measures taken shall include root cause determination and corrective action to preclude repetition of the adverse conditions. The bulletin suggests that for cracking of vessel head penetrations, the root cause determination is important in understanding the nature of the degradation and the required actions to mitigate future cracking. As part of FCS corrective

action program, FCS would determine the cause of cracks in the vessel head penetration, if they are detected. However, if no known cracks in the heads are identified through reasonable quality assurance measures or inspection and monitoring programs, this criterion would not require specific action on FCS for remaining in compliance with the regulation.

In summary, the integrated industry approach to inspection, monitoring, cause determination, and resolution of the identified CEDM nozzle cracking is clearly in compliance with the performance-based objectives of Appendix B.

4. **Reporting of Future Inspection Results (Ref. 2, para. 4)**

   FCS will provide the NRC with the following information within 30 days after plant restart following the next refueling outage if any leaks or cracks are discovered:

   a. A description of the extent of VHP nozzle leakage and cracking detected at FCS. This information will include the number, location, size and nature of each crack detected.

   b. A description of the inspections (type, scope, qualification requirements, and acceptance criteria), repairs and other corrective actions taken to satisfy applicable regulatory requirements.

Fort Calhoun Station's
Response to NRC Bulletin 2001-01

Appendix

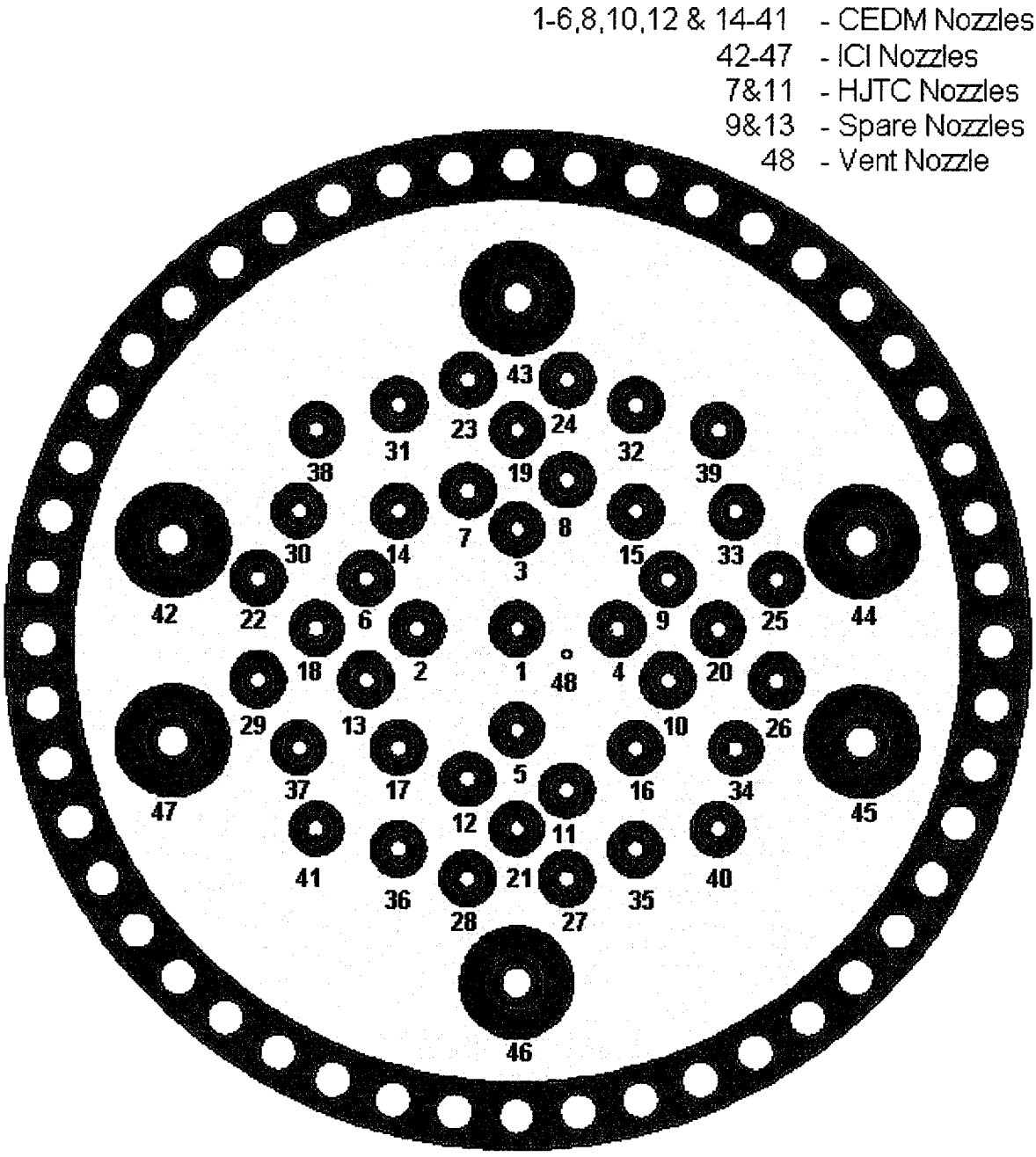
a. Figure No. 1 - Generalized Description of FCS VHP Nozzles

b. Figure No. 2 - Generalized Description of Equipment on Top of FCS Vessel Head

c. Table No. 4 - Cables within the FCS Reactor Cavity Area

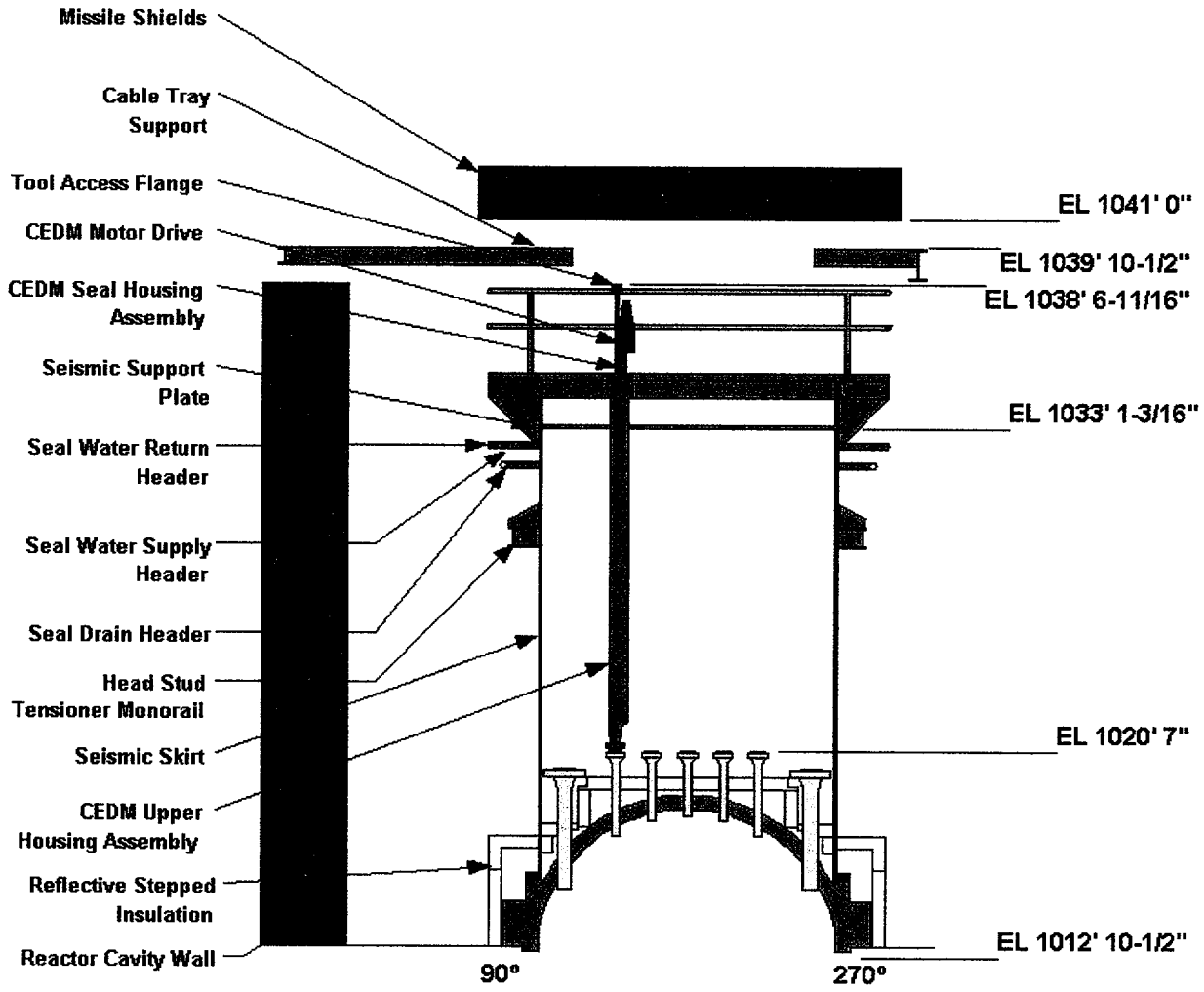
Fort Calhoun Station's
Response to NRC Bulletin 2001-01

a. *Figure No. 1 - Generalized Description of FCS VHP Nozzles*



Fort Calhoun Station's
Response to NRC Bulletin 2001-01

b. *Figure No. 2 - Generalized Description of Equipment on Top of FCS Vessel Head*



c. *Table No. 4 - Cables within the Reactor Cavity Area*

EQUIP	CABLE	SEC	SUB	ORIGIN	DESTINATION	USE
HCV-176	EC11481A	CND1	EC	E-2	HCV-176	Control & Indication (RCGVS)
HCV-177	ED11482A	CND1	ED	E-9	HCV-177	Control & Indication (RCGVS)
ICI-42	8352A	44C	I1A	E-5	PATCH-PANEL-2	Incore Instrumentation
ICI-42	8352B	45C	I1 or I1A	PATCH-PANEL-2	MI-CABLE-23866-SS-J4	Incore Instrumentation
ICI-42	8355A	44C	I1A	E-5	PATCH-PANEL-2	Incore Instrumentation
ICI-42	8355B	45C	I1 or I1A	PATCH-PANEL-2	MI-CABLE-23866-SS-L7	Incore Instrumentation
ICI-42	8358A	44C	I1A	E-5	PATCH-PANEL-2	Incore Instrumentation
ICI-42	8358B	45C	I1 or I1A	PATCH-PANEL-2	MI-CABLE-23866-SS-S9	Incore Instrumentation
ICI-42	8361A	44C	I1A	E-5	PATCH-PANEL-2	Incore Instrumentation
ICI-42	8361B	45C	I1 or I1A	PATCH-PANEL-2	MI-CABLE-23866-SS-T8	Incore Instrumentation
ICI-42	8364A	44C	I1A	E-5	PATCH-PANEL-2	Incore Instrumentation
ICI-42	8364B	45C	I1 or I1A	PATCH-PANEL-2	MI-CABLE-23866-SS-N4	Incore Instrumentation
ICI-43	8370A	44C	I1A	E-5	PATCH-PANEL-2	Incore Instrumentation
ICI-43	8370B	45C	I1 or I1A	PATCH-PANEL-2	MI-CABLE-23866-SS-S3	Incore Instrumentation
ICI-43	8373A	44C	I1A	E-5	PATCH-PANEL-2	Incore Instrumentation
ICI-43	8373B	45C	I1 or I1A	PATCH-PANEL-2	MI-CABLE-23866-SS-S13	Incore Instrumentation
ICI-43	8376A	44C	I1A	E-5	PATCH-PANEL-2	Incore Instrumentation
ICI-43	8376B	45C	I1 or I1A	PATCH-PANEL-2	MI-CABLE-23866-SS-P9	Incore Instrumentation
ICI-43	8379A	44C	I1A	E-5	PATCH-PANEL-2	Incore Instrumentation
ICI-43	8379B	45C	I1 or I1A	PATCH-PANEL-2	MI-CABLE-23866-SS-R14	Incore Instrumentation
ICI-44	8385A	30C	I1A	E-5	PATCH-PANEL-2	Incore Instrumentation
ICI-44	8385B	45C	I1 or I1A	PATCH-PANEL-2	MI-CABLE-23866-SS-N11	Incore Instrumentation
ICI-44	8388A	30C	I1A	E-5	PATCH-PANEL-2	Incore Instrumentation
ICI-44	8388B	45C	I1 or I1A	PATCH-PANEL-2	MI-CABLE-23866-SS-J14	Incore Instrumentation
ICI-44	8391A	30C	I1A	E-5	PATCH-PANEL-2	Incore Instrumentation
ICI-44	8391B	45C	I1 or I1A	PATCH-PANEL-2	MI-CABLE-23866-SS-L9	Incore Instrumentation
ICI-44	8394A	30C	I1A	E-5	PATCH-PANEL-2	Incore Instrumentation
ICI-44	8394B	45C	I1 or I1A	PATCH-PANEL-2	MI-CABLE-23866-SS-G15	Incore Instrumentation
ICI-44	8397A	30C	I1A	E-5	PATCH-PANEL-2	Incore Instrumentation
ICI-44	8397B	45C	I1 or I1A	PATCH-PANEL-2	MI-CABLE-23866-SS-N14	Incore Instrumentation
ICI-45	8400A	30C	I1A	E-5	PATCH-PANEL-2	Incore Instrumentation

EQUIP	CABLE	SEC	SUB	ORIGIN	DESTINATION	USE
HCV-176	EC11481A	CND1	EC	E-2	HCV-176	Control & Indication (RCGVS)
ICI-45	8400B	46C	I1 or I1A	PATCH-PANEL-2	MI-CABLE-23866-SS-J11	Incore Instrumentation
ICI-45	8403A	30C	I1A	E-5	PATCH-PANEL-2	Incore Instrumentation
ICI-45	8403B	46C	I1 or I1A	PATCH-PANEL-2	MI-CABLE-23866-SS-B15	Incore Instrumentation
ICI-45	8406A	30C	I1A	E-5	PATCH-PANEL-2	Incore Instrumentation
ICI-45	8406B	46C	I1 or I1A	PATCH-PANEL-2	MI-CABLE-23866-SS-E14	Incore Instrumentation
ICI-45	8409A	30C	I1A	E-5	PATCH-PANEL-2	Incore Instrumentation
ICI-45	8409B	46C	I1 or I1A	PATCH-PANEL-2	MI-CABLE-23866-SS-G9	Incore Instrumentation
ICI-45	8412A	30C	I1A	E-5	PATCH-PANEL-2	Incore Instrumentation
ICI-45	8412B	46C	I1 or I1A	PATCH-PANEL-2	MI-CABLE-23866-SS-E11	Incore Instrumentation
ICI-46	8415A	30C	I1A	E-5	PATCH-PANEL-2	Incore Instrumentation
ICI-46	8415B	45C	I1 or I1A	PATCH-PANEL-2	MI-CABLE-23866-SS-C7	Incore Instrumentation
ICI-46	8418A	30C	I1A	E-5	PATCH-PANEL-2	Incore Instrumentation
ICI-46	8418B	45C	I1 or I1A	PATCH-PANEL-2	MI-CABLE-23866-SS-C4	Incore Instrumentation
ICI-46	8421A	30C	I1A	E-5	PATCH-PANEL-2	Incore Instrumentation
ICI-46	8421B	45C	I1 or I1A	PATCH-PANEL-2	MI-CABLE-23866-SS-B13	Incore Instrumentation
ICI-46	8424A	30C	I1A	E-5	PATCH-PANEL-2	Incore Instrumentation
ICI-46	8424B	45C	I1 or I1A	PATCH-PANEL-2	MI-CABLE-23866-SS-D9	Incore Instrumentation
ICI-47	8367A	44C	I1A	E-5	PATCH-PANEL-2	Incore Instrumentation
ICI-47	8367B	45C	I1 or I1A	PATCH-PANEL-2	MI-CABLE-23866-SS-E4	Incore Instrumentation
ICI-47	8382A	44C	I1A	E-5	PATCH-PANEL-2	Incore Instrumentation
ICI-47	8382B	45C	I1 or I1A	PATCH-PANEL-2	MI-CABLE-23866-SS-B9	Incore Instrumentation
ICI-47	8427A	44C	I1A	E-5	PATCH-PANEL-2	Incore Instrumentation
ICI-47	8427B	45C	I1 or I1A	PATCH-PANEL-2	MI-CABLE-23866-SS-J7	Incore Instrumentation
ICI-47	8430A	44C	I1A	E-5	PATCH-PANEL-2	Incore Instrumentation
ICI-47	8430B	45C	I1 or I1A	PATCH-PANEL-2	MI-CABLE-23866-SS-A6	Incore Instrumentation
ICI-47	8433A	44C	I1A	F-4	PATCH-PANEL-2	Incore Instrumentation
ICI-47	8433B	45C	I1 or I1A	PATCH-PANEL-2	MI-CABLE-23866-SS-G3	Incore Instrumentation
RC-10-1	7902A	40C-1	C1	F-9	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-1	7903A	30C	I2	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-1	7905A	30C	I2	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple
RC-10-1	7906	43C	I1	PATCH-PANEL-1	ROD-CONN-2(ROD#1)	CEDM Clutch, Limit Switches & Synchros
RC-10-1	7907	43C	C1	PATCH-PANEL-1	ROD-CONN-2A(ROD#1)	CEDM Motor & Brake

EQUIP	CABLE	SEC	SUB	ORIGIN	DESTINATION	USE
HCV-176	EC11481A	CND1	EC	E-2	HCV-176	Control & Indication (RCGVS)
RC-10-1	7908	45C	I1	PATCH-PANEL-2	ROD-CONN-3(ROD#1)	CEDM Reed Switches
RC-10-1	7909	45C	I1A	PATCH-PANEL-2	ROD-CONN-1(ROD#1)	CEDM Seal Thermocouple
RC-10-1	EC7904A	44C	I1	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-1	ED7901A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-10	8001A	40C-1	C1	F-9	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-10	8002A	30C	I2	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-10	8004A	30C	I2	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple
RC-10-10	8005	42C	I1	PATCH-PANEL-1	ROD-CONN-2(ROD#10)	CEDM Clutch, Limit Switches & Synchros
RC-10-10	8006	42C	C1	PATCH-PANEL-1	ROD-CONN-2A(ROD#10)	CEDM Motor & Brake
RC-10-10	8007	46C	I1	PATCH-PANEL-2	ROD-CONN-3(ROD#10)	CEDM Reed Switches
RC-10-10	8008	46C	I1A	PATCH-PANEL-2	ROD-CONN-1(ROD#10)	CEDM Seal Thermocouple
RC-10-10	EC8003A	30C	I2A	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-10	ED8000A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-11	8012A	40C-1	C1	F-9	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-11	8013A	30C	I2	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-11	8015A	30C	I2	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple
RC-10-11	EC8014A	30C	I2A	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-11	ED8011A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-12	8023A	40C-1	C1	F-9	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-12	8024A	30C	I2	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-12	8026A	30C	I2	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple
RC-10-12	8027	42C	I1	PATCH-PANEL-1	ROD-CONN-2(ROD#12)	CEDM Clutch, Limit Switches & Synchros
RC-10-12	8028	42C	C1	PATCH-PANEL-1	ROD-CONN-2A(ROD#12)	CEDM Motor & Brake
RC-10-12	8029	46C	I1	PATCH-PANEL-2	ROD-CONN-3(ROD#12)	CEDM Reed Switches
RC-10-12	8030	46C	I1A	PATCH-PANEL-2	ROD-CONN-1(ROD#12)	CEDM Seal Thermocouple
RC-10-12	EC8025A	30C	I2A	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-12	ED8022A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-13	8034A	40C-1	C1	F-9	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-13	8035A	30C	I2	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-13	8037A	30C	I2	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple
RC-10-13	EC8036A	30C	I2A	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-13	ED8033A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections

EQUIP	CABLE	SEC	SUB	ORIGIN	DESTINATION	USE
HCV-176	EC11481A	CND1	EC	E-2	HCV-176	Control & Indication (RCGVS)
RC-10-14	8045A	40C-1	C2	F-8	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-14	8046A	30C	I1A	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-14	8048A	30C	I1A	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple
RC-10-14	8049	43C	I1	PATCH-PANEL-1	ROD-CONN-2(ROD#14)	CEDM Clutch, Limit Switches & Synchros
RC-10-14	8050	43C	C1	PATCH-PANEL-1	ROD-CONN-2A(ROD#14)	CEDM Motor & Brake
RC-10-14	8051	45C	I1	PATCH-PANEL-2	ROD-CONN-3(ROD#14)	CEDM Reed Switches
RC-10-14	8052	45C	I1A	PATCH-PANEL-2	ROD-CONN-1(ROD#14)	CEDM Seal Thermocouple
RC-10-14	EC8047A	44C	I1	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-14	ED8044A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-15	8056A	40C-1	C2	F-8	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-15	8057A	30C	I1A	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-15	8059A	30C	I1A	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple
RC-10-15	8060	43C	I1	PATCH-PANEL-1	ROD-CONN-2(ROD#15)	CEDM Clutch, Limit Switches & Synchros
RC-10-15	8061	43C	C1	PATCH-PANEL-1	ROD-CONN-2A(ROD#15)	CEDM Motor & Brake
RC-10-15	8062	45C	I1	PATCH-PANEL-2	ROD-CONN-3(ROD#15)	CEDM Reed Switches
RC-10-15	8063	45C	I1A	PATCH-PANEL-2	ROD-CONN-1(ROD#15)	CEDM Seal Thermocouple
RC-10-15	EC8058A	44C	I1	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-15	ED8055A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-16	8067A	40C-1	C1	F-8	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-16	8068A	30C	I2	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-16	8070A	30C	I2	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple
RC-10-16	8071	42C	I1	PATCH-PANEL-1	ROD-CONN-2(ROD#16)	CEDM Clutch, Limit Switches & Synchros
RC-10-16	8072	42C	C1	PATCH-PANEL-1	ROD-CONN-2A(ROD#16)	CEDM Motor & Brake
RC-10-16	8073	46C	I1	PATCH-PANEL-2	ROD-CONN-3(ROD#16)	CEDM Reed Switches
RC-10-16	8074	46C	I1A	PATCH-PANEL-2	ROD-CONN-1(ROD#16)	CEDM Seal Thermocouple
RC-10-16	EC8069A	30C	I2A	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-16	ED8066A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-17	8078A	40C-1	C1	F-8	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-17	8079A	30C	I2	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-17	8081A	30C	I2	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple
RC-10-17	8082	42C	I1	PATCH-PANEL-1	ROD-CONN-2(ROD#17)	CEDM Clutch, Limit Switches & Synchros
RC-10-17	8083	42C	C1	PATCH-PANEL-1	ROD-CONN-2A(ROD#17)	CEDM Motor & Brake

EQUIP	CABLE	SEC	SUB	ORIGIN	DESTINATION	USE
HCV-176	EC11481A	CND1	EC	E-2	HCV-176	Control & Indication (RCGVS)
RC-10-17	8084	46C	I1	PATCH-PANEL-2	ROD-CONN-3(ROD#17)	CEDM Reed Switches
RC-10-17	8085	46C	I1A	PATCH-PANEL-2	ROD-CONN-1(ROD#17)	CEDM Seal Thermocouple
RC-10-17	EC8080A	30C	I2A	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-17	ED8077A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-18	8089A	40C-1	C1	F-8	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-18	8090A	30C	I2	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-18	8092A	30C	I2	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple
RC-10-18	8093	42C	I1	PATCH-PANEL-1	ROD-CONN-2(ROD#18)	CEDM Clutch, Limit Switches & Synchros
RC-10-18	8094	42C	C1	PATCH-PANEL-1	ROD-CONN-2A(ROD#18)	CEDM Motor & Brake
RC-10-18	8095	46C	I1	PATCH-PANEL-2	ROD-CONN-3(ROD#18)	CEDM Reed Switches
RC-10-18	8096	46C	I1A	PATCH-PANEL-2	ROD-CONN-1(ROD#18)	CEDM Seal Thermocouple
RC-10-18	EC8091A	30C	I2A	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-18	ED8088A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-19	8100A	40C-1	C2	F-8	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-19	8101A	30C	I1A	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-19	8103A	30C	I1A	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple
RC-10-19	8104	43C	I1	PATCH-PANEL-1	ROD-CONN-2(ROD#19)	CEDM Clutch, Limit Switches & Synchros
RC-10-19	8105	43C	C1	PATCH-PANEL-1	ROD-CONN-2A(ROD#19)	CEDM Motor & Brake
RC-10-19	8106	45C	I1	PATCH-PANEL-2	ROD-CONN-3(ROD#19)	CEDM Reed Switches
RC-10-19	8107	45C	I1A	PATCH-PANEL-2	ROD-CONN-1(ROD#19)	CEDM Seal Thermocouple
RC-10-19	EC8102A	44C	I1	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-19	ED8099A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-2	7919	46C	I1	PATCH-PANEL-2	ROD-CONN-3(ROD#2)	CEDM Reed Switches
RC-10-2	7913A	40C-1	C1	F-9	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-2	7914A	30C	I2	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-2	7916A	30C	I2	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple
RC-10-2	7917	42C	I1	PATCH-PANEL-1	ROD-CONN-2(ROD#2)	CEDM Clutch, Limit Switches & Synchros
RC-10-2	7918	42C	C1	PATCH-PANEL-1	ROD-CONN-2A(ROD#2)	CEDM Motor & Brake
RC-10-2	7920	46C	I1A	PATCH-PANEL-2	ROD-CONN-1(ROD#2)	CEDM Seal Thermocouple
RC-10-2	EC7915A	30C	I2A	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-2	ED7912A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-20	8111A	40C-1	C2	F-8	PATCH-PANEL-1	CEDM Manfactures Internal Connections

EQUIP	CABLE	SEC	SUB	ORIGIN	DESTINATION	USE
HCV-176	EC11481A	CND1	EC	E-2	HCV-176	Control & Indication (RCGVS)
RC-10-20	8112A	30C	I1A	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-20	8114A	30C	I1A	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple
RC-10-20	8115	43C	I1	PATCH-PANEL-1	ROD-CONN-2(ROD#20)	CEDM Clutch, Limit Switches & Synchros
RC-10-20	8116	43C	C1	PATCH-PANEL-1	ROD-CONN-2A(ROD#20)	CEDM Motor & Brake
RC-10-20	8117	45C	I1	PATCH-PANEL-2	ROD-CONN-3(ROD#20)	CEDM Reed Switches
RC-10-20	8118	45C	I1A	PATCH-PANEL-2	ROD-CONN-1(ROD#20)	CEDM Seal Thermocouple
RC-10-20	EC8113A	44C	I1	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-20	ED8110A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-21	8122A	40C-1	C1	F-8	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-21	8123A	30C	I2	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-21	8125A	30C	I2	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple
RC-10-21	8126	42C	I1	PATCH-PANEL-1	ROD-CONN-2(ROD#21)	CEDM Clutch, Limit Switches & Synchros
RC-10-21	8127	42C	C1	PATCH-PANEL-1	ROD-CONN-2A(ROD#21)	CEDM Motor & Brake
RC-10-21	8128	46C	I1	PATCH-PANEL-2	ROD-CONN-3(ROD#21)	CEDM Reed Switches
RC-10-21	8129	46C	I1A	PATCH-PANEL-2	ROD-CONN-1(ROD#21)	CEDM Seal Thermocouple
RC-10-21	EC8124A	30C	I2A	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-21	ED8121A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-22	8133A	40C-1	C2	F-8	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-22	8134A	30C	I1A	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-22	8136A	30C	I1A	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple
RC-10-22	8137	43C	I1	PATCH-PANEL-1	ROD-CONN-2(ROD#22)	CEDM Clutch, Limit Switches & Synchros
RC-10-22	8138	43C	C1	PATCH-PANEL-1	ROD-CONN-2A(ROD#22)	CEDM Motor & Brake
RC-10-22	8139	45C	I1	PATCH-PANEL-2	ROD-CONN-3(ROD#22)	CEDM Reed Switches
RC-10-22	8140	45C	I1A	PATCH-PANEL-2	ROD-CONN-1(ROD#22)	CEDM Seal Thermocouple
RC-10-22	EC8135A	44C	I1	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-22	ED8132A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-23	8144A	40C-1	C2	F-8	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-23	8145A	30C	I1A	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-23	8147A	30C	I1A	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple
RC-10-23	8148	43C	I1	PATCH-PANEL-1	ROD-CONN-2(ROD#23)	CEDM Clutch, Limit Switches & Synchros
RC-10-23	8149	43C	C1	PATCH-PANEL-1	ROD-CONN-2A(ROD#23)	CEDM Motor & Brake
RC-10-23	8150	45C	I1	PATCH-PANEL-2	ROD-CONN-3(ROD#23)	CEDM Reed Switches

EQUIP	CABLE	SEC	SUB	ORIGIN	DESTINATION	USE
HCV-176	EC11481A	CND1	EC	E-2	HCV-176	Control & Indication (RCGVS)
RC-10-23	8151	45C	I1A	PATCH-PANEL-2	ROD-CONN-1(ROD#23)	CEDM Seal Thermocouple
RC-10-23	EC8146A	44C	I1	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-23	ED8143A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-24	8155A	40C-1	C2	F-8	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-24	8156A	30C	I1A	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-24	8158A	30C	I1A	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple
RC-10-24	8159	43C	I1	PATCH-PANEL-1	ROD-CONN-2(ROD#24)	CEDM Clutch, Limit Switches & Synchros
RC-10-24	8160	43C	C1	PATCH-PANEL-1	ROD-CONN-2A(ROD#24)	CEDM Motor & Brake
RC-10-24	8161	45C	I1	PATCH-PANEL-2	ROD-CONN-3(ROD#24)	CEDM Reed Switches
RC-10-24	8162	45C	I1A	PATCH-PANEL-2	ROD-CONN-1(ROD#24)	CEDM Seal Thermocouple
RC-10-24	EC8157A	44C	I1	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-24	ED8154A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-25	8166A	40C-1	C2	F-8	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-25	8167A	30C	I1A	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-25	8169A	30C	I1A	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple
RC-10-25	8170	43C	I1	PATCH-PANEL-1	ROD-CONN-2(ROD#25)	CEDM Clutch, Limit Switches & Synchros
RC-10-25	8171	43C	C1	PATCH-PANEL-1	ROD-CONN-2A(ROD#25)	CEDM Motor & Brake
RC-10-25	8172	45C	I1	PATCH-PANEL-2	ROD-CONN-3(ROD#25)	CEDM Reed Switches
RC-10-25	8173	45C	I1A	PATCH-PANEL-2	ROD-CONN-1(ROD#25)	CEDM Seal Thermocouple
RC-10-25	EC8168A	44C	I1	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-25	ED8165A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-26	8177A	40C-1	C1	F-8	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-26	8178A	30C	I2	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-26	8180A	30C	I2	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple
RC-10-26	8181	42C	I1	PATCH-PANEL-1	ROD-CONN-2(ROD#26)	CEDM Clutch, Limit Switches & Synchros
RC-10-26	8182	42C	C1	PATCH-PANEL-1	ROD-CONN-2A(ROD#26)	CEDM Motor & Brake
RC-10-26	8183	46C	I1	PATCH-PANEL-2	ROD-CONN-3(ROD#26)	CEDM Reed Switches
RC-10-26	8184	46C	I1A	PATCH-PANEL-2	ROD-CONN-1(ROD#26)	CEDM Seal Thermocouple
RC-10-26	EC8179A	30C	I2A	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-26	ED8176A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-27	8188A	40C-1	C1	F-7	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-27	8189A	30C	I2	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections

EQUIP	CABLE	SEC	SUB	ORIGIN	DESTINATION	USE
HCV-176	EC11481A	CND1	EC	E-2	HCV-176	Control & Indication (RCGVS)
RC-10-27	8191A	30C	I2	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple
RC-10-27	8192	42C	I1	PATCH-PANEL-1	ROD-CONN-2(ROD#27)	CEDM Clutch, Limit Switches & Synchros
RC-10-27	8193	42C	C1	PATCH-PANEL-1	ROD-CONN-2A(ROD#27)	CEDM Motor & Brake
RC-10-27	8194	46C	I1	PATCH-PANEL-2	ROD-CONN-3(ROD#27)	CEDM Reed Switches
RC-10-27	8195	46C	I1A	PATCH-PANEL-2	ROD-CONN-1(ROD#27)	CEDM Seal Thermocouple
RC-10-27	EC8190A	30C	I2A	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-27	ED8187A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-28	8199A	40C-1	C1	F-7	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-28	8200A	30C	I2	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-28	8202A	30C	I2	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple
RC-10-28	8203	42C	I1	PATCH-PANEL-1	ROD-CONN-2(ROD#28)	CEDM Clutch, Limit Switches & Synchros
RC-10-28	8204	42C	C1	PATCH-PANEL-1	ROD-CONN-2A(ROD#28)	CEDM Motor & Brake
RC-10-28	8205	46C	I1	PATCH-PANEL-2	ROD-CONN-3(ROD#28)	CEDM Reed Switches
RC-10-28	8206	46C	I1A	PATCH-PANEL-2	ROD-CONN-1(ROD#28)	CEDM Seal Thermocouple
RC-10-28	EC8201A	30C	I2A	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-28	ED8198A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-29	8210A	40C-1	C1	F-7	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-29	8211A	30C	I2	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-29	8213A	30C	I2	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple
RC-10-29	8214	42C	I1	PATCH-PANEL-1	ROD-CONN-2(ROD#29)	CEDM Clutch, Limit Switches & Synchros
RC-10-29	8215	42C	C1	PATCH-PANEL-1	ROD-CONN-2A(ROD#29)	CEDM Motor & Brake
RC-10-29	8216	46C	I1	PATCH-PANEL-2	ROD-CONN-3(ROD#29)	CEDM Reed Switches
RC-10-29	8217	46C	I1A	PATCH-PANEL-2	ROD-CONN-1(ROD#29)	CEDM Seal Thermocouple
RC-10-29	EC8212A	30C	I2A	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-29	ED8209A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-3	7924A	40C-1	C2	F-9	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-3	7925A	30C	I1A	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-3	7927A	30C	I1A	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple
RC-10-3	7928	43C	I1	PATCH-PANEL-1	ROD-CONN-2(ROD#3)	CEDM Clutch, Limit Switches & Synchros
RC-10-3	7929	43C	C1	PATCH-PANEL-1	ROD-CONN-2A(ROD#3)	CEDM Motor & Brake
RC-10-3	7930	45C	I1	PATCH-PANEL-2	ROD-CONN-3(ROD#3)	CEDM Reed Switches
RC-10-3	7931	45C	I1A	PATCH-PANEL-2	ROD-CONN-1(ROD#3)	CEDM Seal Thermocouple

EQUIP	CABLE	SEC	SUB	ORIGIN	DESTINATION	USE
HCV-176	EC11481A	CND1	EC	E-2	HCV-176	Control & Indication (RCGVS)
RC-10-3	EC7926A	44C	I1	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-3	ED7923A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-30	8221A	40C-1	C2	F-7	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-30	8222A	30C	I1A	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-30	8224A	30C	I1A	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple
RC-10-30	8225	43C	I1	PATCH-PANEL-1	ROD-CONN-2(ROD#30)	CEDM Clutch, Limit Switches & Synchros
RC-10-30	8226	43C	C1	PATCH-PANEL-1	ROD-CONN-2A(ROD#30)	CEDM Motor & Brake
RC-10-30	8227	45C	I1	PATCH-PANEL-2	ROD-CONN-3(ROD#30)	CEDM Reed Switches
RC-10-30	8228	45C	I1A	PATCH-PANEL-2	ROD-CONN-1(ROD#30)	CEDM Seal Thermocouple
RC-10-30	EC8223A	44C	I1	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-30	ED8220A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-31	8232A	40C-1	C2	F-7	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-31	8233A	30C	I1A	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-31	8235A	30C	I1A	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple
RC-10-31	8236	43C	I1	PATCH-PANEL-1	ROD-CONN-2(ROD#31)	CEDM Clutch, Limit Switches & Synchros
RC-10-31	8237	43C	C1	PATCH-PANEL-1	ROD-CONN-2A(ROD#31)	CEDM Motor & Brake
RC-10-31	8238	45C	I1	PATCH-PANEL-2	ROD-CONN-3(ROD#31)	CEDM Reed Switches
RC-10-31	8239	45C	I1A	PATCH-PANEL-2	ROD-CONN-1(ROD#31)	CEDM Seal Thermocouple
RC-10-31	EC8234A	44C	I1	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-31	ED8231A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-32	8243A	40C-1	C2	F-7	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-32	8244A	30C	I1A	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-32	8246A	30C	I1A	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple
RC-10-32	8247	43C	I1	PATCH-PANEL-1	ROD-CONN-2(ROD#32)	CEDM Clutch, Limit Switches & Synchros
RC-10-32	8248	43C	I1	PATCH-PANEL-1	ROD-CONN-2A(ROD#32)	CEDM Motor & Brake
RC-10-32	8249	45C	I1	PATCH-PANEL-2	ROD-CONN-3(ROD#32)	CEDM Reed Switches
RC-10-32	8250	45C	I1A	PATCH-PANEL-2	ROD-CONN-1(ROD#32)	CEDM Seal Thermocouple
RC-10-32	EC8245A	44C	I1	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-32	ED8242A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-33	8254A	40C-1	C2	F-7	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-33	8255A	30C	I1A	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-33	8257A	30C	I1A	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple

EQUIP	CABLE	SEC	SUB	ORIGIN	DESTINATION	USE
HCV-176	EC11481A	CND1	EC	E-2	HCV-176	Control & Indication (RCGVS)
RC-10-33	8258	43C	I1	PATCH-PANEL-1	ROD-CONN-2(ROD#33)	CEDM Clutch, Limit Switches & Synchros
RC-10-33	8259	43C	C1	PATCH-PANEL-1	ROD-CONN-2A(ROD#33)	CEDM Motor & Brake
RC-10-33	8260	45C	I1	PATCH-PANEL-2	ROD-CONN-3(ROD#33)	CEDM Reed Switches
RC-10-33	8261	45C	I1A	PATCH-PANEL-2	ROD-CONN-1(ROD#33)	CEDM Seal Thermocouple
RC-10-33	EC8256A	44C	I1	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-33	ED8253A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-34	8265A	40C-1	C1	F-7	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-34	8266A	30C	I2	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-34	8268A	30C	I2	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple
RC-10-34	8269	42C	I1	PATCH-PANEL-1	ROD-CONN-2(ROD#34)	CEDM Clutch, Limit Switches & Synchros
RC-10-34	8270	42C	C1	PATCH-PANEL-1	ROD-CONN-2A(ROD#34)	CEDM Motor & Brake
RC-10-34	8271	46C	I1	PATCH-PANEL-2	ROD-CONN-3(ROD#34)	CEDM Reed Switches
RC-10-34	8272	46C	I1A	PATCH-PANEL-2	ROD-CONN-1(ROD#34)	CEDM Seal Thermocouple
RC-10-34	EC8267A	30C	I2A	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-34	ED8264A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-35	8276A	40C-1	C1	F-7	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-35	8277A	30C	I2	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-35	8279A	30C	I2	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple
RC-10-35	8280	42C	I1	PATCH-PANEL-1	ROD-CONN-2(ROD#35)	CEDM Clutch, Limit Switches & Synchros
RC-10-35	8281	42C	C1	PATCH-PANEL-1	ROD-CONN-2A(ROD#35)	CEDM Motor & Brake
RC-10-35	8282	46C	I1	PATCH-PANEL-2	ROD-CONN-3(ROD#35)	CEDM Reed Switches
RC-10-35	8283	46C	I1A	PATCH-PANEL-2	ROD-CONN-1(ROD#35)	CEDM Seal Thermocouple
RC-10-35	EC8278A	30C	I2A	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-35	ED8275A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-36	8287A	40C-1	C1	F-7	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-36	8288A	30C	I2	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-36	8290A	30C	I2	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple
RC-10-36	8291	42C	I1	PATCH-PANEL-1	ROD-CONN-2(ROD#36)	CEDM Clutch, Limit Switches & Synchros
RC-10-36	8292	42C	C1	PATCH-PANEL-1	ROD-CONN-2A(ROD#36)	CEDM Motor & Brake
RC-10-36	8293	46C	I1	PATCH-PANEL-2	ROD-CONN-3(ROD#36)	CEDM Reed Switches
RC-10-36	8294	46C	I1A	PATCH-PANEL-2	ROD-CONN-1(ROD#36)	CEDM Seal Thermocouple
RC-10-36	EC8289A	30C	I2A	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections

EQUIP	CABLE	SEC	SUB	ORIGIN	DESTINATION	USE
HCV-176	EC11481A	CND1	EC	E-2	HCV-176	Control & Indication (RCGVS)
RC-10-36	ED8286A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-37	8298A	40C-1	C1	F-7	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-37	8299A	30C	I2	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-37	8301A	30C	I2	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple
RC-10-37	8302	42C	I1	PATCH-PANEL-1	ROD-CONN-2(ROD#37)	CEDM Clutch, Limit Switches & Synchros
RC-10-37	8303	42C	C1	PATCH-PANEL-1	ROD-CONN-2A(ROD#37)	CEDM Motor & Brake
RC-10-37	8304	46C	I1	PATCH-PANEL-2	ROD-CONN-3(ROD#37)	CEDM Reed Switches
RC-10-37	8305	46C	I1A	PATCH-PANEL-2	ROD-CONN-1(ROD#37)	CEDM Seal Thermocouple
RC-10-37	EC8300A	30C	I2A	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-37	ED8297A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-38	8309A	40C-1	C2	F-7	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-38	8310A	30C	I1A	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-38	8312A	30C	I1A	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple
RC-10-38	8313	43C	I1	PATCH-PANEL-1	ROD-CONN-2(ROD#38)	CEDM Clutch, Limit Switches & Synchros
RC-10-38	8314	43C	C1	PATCH-PANEL-1	ROD-CONN-2A(ROD#38)	CEDM Motor & Brake
RC-10-38	8315	45C	I1	PATCH-PANEL-2	ROD-CONN-3(ROD#38)	CEDM Reed Switches
RC-10-38	8316	45C	I1A	PATCH-PANEL-2	ROD-CONN-1(ROD#38)	CEDM Seal Thermocouple
RC-10-38	EC8311A	44C	I1	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-38	ED8308A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-39	8320A	40C-1	C2	F-7	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-39	8321A	30C	I1A	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-39	8323A	30C	I1A	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple
RC-10-39	8324	43C	I1	PATCH-PANEL-1	ROD-CONN-2(ROD#39)	CEDM Clutch, Limit Switches & Synchros
RC-10-39	8325	43C	C1	PATCH-PANEL-1	ROD-CONN-2A(ROD#39)	CEDM Motor & Brake
RC-10-39	8326	45C	I1	PATCH-PANEL-2	ROD-CONN-3(ROD#39)	CEDM Reed Switches
RC-10-39	8327	45C	I1A	PATCH-PANEL-2	ROD-CONN-1(ROD#39)	CEDM Seal Thermocouple
RC-10-39	EC8322A	44C	I1	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-39	ED8319A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-4	7935A	40C-1	C2	F-9	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-4	7936A	30C	I1A	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-4	7939	43C	I1	PATCH-PANEL-1	ROD-CONN-2(ROD#4)	CEDM Clutch, Limit Switches & Synchros
RC-10-4	7940	43C	C1	PATCH-PANEL-1	ROD-CONN-2A(ROD#4)	CEDM Motor & Brake

EQUIP	CABLE	SEC	SUB	ORIGIN	DESTINATION	USE
HCV-176	EC11481A	CND1	EC	E-2	HCV-176	Control & Indication (RCGVS)
RC-10-4	7941	45C	I1	PATCH-PANEL-2	ROD-CONN-3(ROD#4)	CEDM Reed Switches
RC-10-4	7942	45C	I1A	PATCH-PANEL-2	ROD-CONN-1(ROD#4)	CEDM Seal Thermocouple
RC-10-4	EC7937A	44C	I1	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-4	ED7934A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-40	8331A	40C-1	C1	F-6	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-40	8332A	30C	I2	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-40	8334A	30C	I2	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple
RC-10-40	8335	42C	I1	PATCH-PANEL-1	ROD-CONN-2(ROD#40)	CEDM Clutch, Limit Switches & Synchros
RC-10-40	8336	42C	C1	PATCH-PANEL-1	ROD-CONN-2A(ROD#40)	CEDM Motor & Brake
RC-10-40	8337	46C	I1	PATCH-PANEL-2	ROD-CONN-3(ROD#40)	CEDM Reed Switches
RC-10-40	8338	46C	I1A	PATCH-PANEL-2	ROD-CONN-1(ROD#40)	CEDM Seal Thermocouple
RC-10-40	EC8333A	30C	I2A	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-40	ED8330A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-41	8342A	40C-1	C1	F-6	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-41	8343A	30C	I2	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-41	8345A	30C	I2	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple
RC-10-41	8346	42C	I1	PATCH-PANEL-1	ROD-CONN-2(ROD#41)	CEDM Clutch, Limit Switches & Synchros
RC-10-41	8347	42C	C1	PATCH-PANEL-1	ROD-CONN-2A(ROD#41)	CEDM Motor & Brake
RC-10-41	8348	46C	I1	PATCH-PANEL-2	ROD-CONN-3(ROD#41)	CEDM Reed Switches
RC-10-41	8349	46C	I1A	PATCH-PANEL-2	ROD-CONN-1(ROD#41)	CEDM Seal Thermocouple
RC-10-41	EC8344A	30C	I2A	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-41	ED8341A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-5	7946A	40C-1	C1	F-9	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-5	7947A	30C	I2	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-5	7949A	30C	I2	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple
RC-10-5	7950	42C	I1	PATCH-PANEL-1	ROD-CONN-2(ROD#5)	CEDM Clutch, Limit Switches & Synchros
RC-10-5	7951	42C	C1	PATCH-PANEL-1	ROD-CONN-2A(ROD#5)	CEDM Motor & Brake
RC-10-5	7952	46C	I1	PATCH-PANEL-2	ROD-CONN-3(ROD#5)	CEDM Reed Switches
RC-10-5	7953	46C	I1A	PATCH-PANEL-2	ROD-CONN-1(ROD#5)	CEDM Seal Thermocouple
RC-10-5	EC7948A	30C	I2A	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-5	ED7945A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-6	7957A	40C-1	C2	F-9	PATCH-PANEL-1	CEDM Manfactures Internal Connections

EQUIP	CABLE	SEC	SUB	ORIGIN	DESTINATION	USE
HCV-176	EC11481A	CND1	EC	E-2	HCV-176	Control & Indication (RCGVS)
RC-10-6	7958A	30C	I1A	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-6	7960A	30C	I1A	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple
RC-10-6	7961	43C	I1	PATCH-PANEL-1	ROD-CONN-2(ROD#6)	CEDM Clutch, Limit Switches & Synchros
RC-10-6	7962	43C	C1	PATCH-PANEL-1	ROD-CONN-2A(ROD#6)	CEDM Motor & Brake
RC-10-6	7963	45C	I1	PATCH-PANEL-2	ROD-CONN-3(ROD#6)	CEDM Reed Switches
RC-10-6	7964	45C	I1A	PATCH-PANEL-2	ROD-CONN-1(ROD#6)	CEDM Seal Thermocouple
RC-10-6	EC7959A	44C	I1	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-6	ED7956A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-7	7968A	40C-1	C2	F-9	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-7	7969A	30C	I1A	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-7	7971A	30C	I1A	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple
RC-10-7	EC7970A	44C	I1	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-7	ED7967A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-8	7979A	40C-1	C2	F-9	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-8	7980A	30C	I1A	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-8	7982A	30C	I1A	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple
RC-10-8	7983	43C	I1	PATCH-PANEL-1	ROD-CONN-2(ROD#8)	CEDM Clutch, Limit Switches & Synchros
RC-10-8	7984	43C	C1	PATCH-PANEL-1	ROD-CONN-2A(ROD#8)	CEDM Motor & Brake
RC-10-8	7985	45C	I1	PATCH-PANEL-2	ROD-CONN-3(ROD#8)	CEDM Reed Switches
RC-10-8	7986	45C	I1A	PATCH-PANEL-2	ROD-CONN-1(ROD#8)	CEDM Seal Thermocouple
RC-10-8	EC7981A	44C	I1	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-8	ED7978A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-9	7990A	40C-1	C2	F-9	PATCH-PANEL-1	CEDM Manfactures Internal Connections
RC-10-9	7991A	30C	I	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-9	7993A	30C	I1A	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple
RC-10-9	EC7992A	44C	I1	E-4	PATCH-PANEL-2	CEDM Manfactures Internal Connections
RC-10-9	ED7989A	40C-1	I2	E-10	PATCH-PANEL-1	CEDM Manfactures Internal Connections
TE-735B	B4540B	CND1	B	TERM-BOX	TE-735B	RTD For Neutron Detector Well Air Temp
TE-738	A4545A	CND1	A	C-4	PATCH-PANEL-1	RTD for Control Rod Drive Mech & VA-2A
TE-739	A4546A	CND1	A	C-4	PATCH-PANEL-1	RTD for Control Rod Drive Mech & VA-2A
TE-740	B4547A	CND1	B	C-11	PATCH-PANEL-1	RTD for Control Rod Drive Mech & VA-2B
TE-741	B4548A	CND1	B	C-11	PATCH-PANEL-1	RTD for Control Rod Drive Mech & VA-2B

EQUIP	CABLE	SEC	SUB	ORIGIN	DESTINATION	USE
HCV-176	EC11481A	CND1	EC	E-2	HCV-176	Control & Indication (RCGVS)
VA-2A	4557A	CND1	N	C-4	PATCH-PANEL-2	Mtr Fan VA-2B INBD Brg Vib Det (Y3412)
VA-2A	4557B	CND1	N	PATCH-PANEL-1	VA-2A	Mtr Fan VA-2B INBD Brg Vib Det (Y3412)
VA-2A	A412A	CND1	A	D-1	PATCH-PANEL-1	Motor Leads - CEDMs Cooling Fan
VA-2A	A412B	CND1	A	PATCH-PANEL-1	M	Motor Leads - CEDMs Cooling Fan
VA-2A	A4545B	CND1	A	PATCH-PANEL-1	TE-738	RTD for Control Rod Drive Mech & VA-2A
VA-2A	A4546B	CND1	A	PATCH-PANEL-1	TE-739	RTD for Control Rod Drive Mech & VA-2A
VA-2B	4559A	CND1	N	C-11	PATCH-PANEL-1A	Mtr Fan VA-2B INBD Brg Vib Det (Y3412)
VA-2B	4559B	CND1	N	PATCH-PANEL-1A	VA-2B	Mtr Fan VA-2B INBD Brg Vib Det (Y3412)
VA-2B	B381A	CND1	B	D-6	PATCH-PANEL-1	Motor Leads - CEDMs Cooling Fan
VA-2B	B381B	CND1	B	PATCH-PANEL-1	M	Motor Leads - CEDMs Cooling Fan
VA-2B	B4547B	CND1	B	PATCH-PANEL-1	VA-2B	RTD for Control Rod Drive Mech & VA-2B
VA-2B	B4548B	CND1	B	PATCH-PANEL-1	TE-741	RTD for Control Rod Drive Mech & VA-2B
VE-1400-2	3570C	CND1	N	JB-53C	JB-54C	Vibration & Loose Parts Monitoring - CH. 2
VE-1400-2	3570D	CND1	N	JB-54C	VE-1400-2	Vibration & Loose Parts Monitoring - CH. 2
VE-1400-3	3254C	CND1	N	JB-55C	JB-56C	Vibration & Loose Parts Monitoring - CH. 3
VE-1400-3	3254D	CND1	N	JB-56C	VE-1400-3	Vibration & Loose Parts Monitoring - CH. 3
VM-1400-2	3570B	CND1	N	VM-1400-2	JB-53C	Vibration & Loose Parts Monitoring - CH. 2
VM-1400-3	3254B	CND1	N	VM-1400-3	JB-56C	Vibration & Loose Parts Monitoring - CH. 3
	7938A	30C	I1A	F-4	PATCH-PANEL-2	CEDM Seal Thermocouple