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February 1, 1985
RBG-20062
File No. G9.5,
G9.8.6.2

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Denton:

River Bend Station-Unit 1
Docket No. 50-458

Enclosed is the Gulf States Utilities Company (GSU) response to Safety Evaluation Report (SER) Confirmatory Item #19 - Hydrogen Control (SER Section 6.2.5, Page 6-32/33.) Attachment 1 contains the GSU endorsements for various Hydrogen Control Owners Group (HCOG) submittals. These letters should be utilized to provide background and reference material for SER Confirmatory Item #19. Attachment 2 contains a revision to the Request for Additional Information (RAI) on the Hydrogen Ignition System (HIS) transmitted to W. J. Cahill (GSU) by A. Schwencer (Nuclear Regulatory Commission - NRC) on December 2, 1983 and supercedes the original GSU response from J. E. Booker (GSU) to H. R. Denton (NRC) dated December 30, 1983 (GSU Letter No. RBG-16679).

Enclosure 1 contains a revised response to FSAR Question 480.40 (Section 6.2) providing additional information on a RBS-specific Hydrogen Control Program. An FSAR description of the Hydrogen Ignition System based on the information noted above will be provided to the Staff by March 29, 1985. In addition, GSU will submit the results of the CLASIX-3 Computer Code (used to predict containment temperature and pressure) by February 15, 1985. Also the results of a limited equipment survivability analysis and a specific program plan addressing the generic HCOG efforts will be provided by March 15, 1985.

Sincerely,

J. E. Booker
Manager-Engineering,
Nuclear Fuels & Licensing
River Bend Nuclear Group

JEB/WJR/JWL/kt

Attachments (2)
Enclosure (1)

B001
1/40

ATTACHMENT 1

HYDROGEN CONTROL OWNERS GROUP (HCOG) SUBMITTALS
APPLICABLE TO RIVER BEND STATION

HGN-001, January 15, 1982, from J. D. Richardson (Chairman, HCOG) to H. R. Denton (Director, NRC-NRR) "Hydrogen Control Owners Group (HCOG) BWR-6 Mark III Containment Sensitivity Study for Hydrogen Generation Event".

HGN-003, April 8, 1982, from Richardson (Chairman, HCOG) to Denton (Director, NRC-NRR) "Hydrogen Control Owners Group (HCOG) BWR-6 Mark III Report on Hydrogen Control Accident Scenarios, Hydrogen Generation Rates and Equipment Requirements".

HGN-014, February 9, 1984, from S. H. Hobbs (Chairman, HCOG) to Denton (Director, NRC-NRR) "Hydrogen Control Owners Group BWR-6 Mark III Final 1/20th Scale Test Report".

HGN-016, April 2, 1984, from Hobbs (Chairman, HCOG) to Denton (Director, NRC-NRR) "Hydrogen Control Owners Group Responses to NRC Requests for Additional Information".

HGN-017, June 7, 1984, from Hobbs (Chairman, HCOG) to Denton (Director, NRC-NRR) "Mark III Hydrogen Control Owners Group Final Whiteshell Ignition Test Report".

HGN-024, December 14, 1984, from Hobbs (Chairman, HCOG) to Denton (Director, NRC-NRR) "Hydrogen Control Program Plan".

ATTACHMENT 2

REQUEST FOR ADDITIONAL INFORMATION FOR USE IN THE EVALUATION OF THE HYDROGEN IGNITION SYSTEM FOR THE RIVER BEND STATION, UNIT 1 MARK III CONTAINMENT

1. Provide a detailed description of the Hydrogen Ignition System (HIS) and its power supplies; include the total number of igniters, the numbers of circuit breakers, and a simplified electrical system schematic showing all the above stated items and any other major components.

RESPONSE

The design of the Hydrogen Control System (HCS) is based on the concept of providing distributed ignition sources so that hydrogen combustion is accomplished in a controlled manner. The HCS consists of a total of 104 igniters, powered by two physically separate and electrically independent divisions each containing 52 igniters. Division I is powered from motor control center 1EHS*MCC2A and Division II is powered from motor control center 1EHS*MCC2K. A simplified electrical schematic showing the HCS power distribution and associated circuit breakers is provided in TAB I. The HCS power distribution for the HCS includes combination starters with remote control switches for each electrical division in the main control room. The main transformers for each division are 15 KVa, 480 Volt to 120 Volt transformers. The main distribution panels are 120 Volt with five molded case circuit breakers utilized in each panel.

The control circuits for the igniters are provided in TAB II

2. Provide the following igniter information:

a. Vendor;

b. Model;

c. Qualification Program; and

d. Design Criteria

RESPONSE

The HCS igniter assembly is supplied by the Power Systems Division of Morrison-Knudson (Model No. 6043). These igniters meet the QA requirements of GSU's 10CFR50, Appendix B program and are qualified to IEEE-323-1974 and IEEE-344-1975, ("Hydrogen Igniter Nuclear Environmental Qualification Report", No. A-554-83, by Power Systems Division).

3. Provide a detailed description of the preoperational surveillance and periodic testing programs, as expected to be reflected in the River Bend Technical Specifications of the HIS. Specifically, the response should include the following information:

   a. How will the system be tested? Specifically, what indication will be available to show that a particular igniter is or is not functioning properly?

   b. Specify the frequency of testing.

   RESPONSE

   GSU and the Hydrogen Control Owners Group (HCOG) are participating in a joint effort to address HCS Technical Specifications. Limiting Conditions for Operation and Surveillance Requirements will be addressed by this joint effort. Igniter operability will be demonstrated by direct observation of energized igniters in accessible areas of the containment or by measurement of current demand for igniters in inaccessible areas. The minimum number of igniters required to be operable will be based on RBS igniter locations and acceptance criteria. When the HCOG effort is complete, this information will be used to revise the RBS HCS technical specification.

4. Describe the glow plug igniter selection program; i.e., how will actual igniters be selected for installation in the assemblies.

   RESPONSE

   Igniters are tested to demonstrate acceptable performance prior to installation in the assemblies. Each of the installed General Motors AC Division Model 7G igniter glow plugs is required to attain a minimum surface temperature of 1500°F at a normal input voltage of 120 Vac $\pm$ 10%, 60 Hz $\pm$ 10% before installation. After installation at RBS, the igniters will be tested to demonstrate that the minimum surface temperature of 1700°F is maintained with a nominal 120 Vac, 60 Hz input.

5. Provide construction drawings for several typical igniter mounts in the wetwell and containment regions. Also, provide a complete list of the approximate elevation, azimuthal and radial coordinates for each igniter in containment, and the corresponding elevation coordinate of the nearest ceiling (include a description of the nearest ceiling, i.e., open, solid, grated). Indicate whether all enclosed regions of the containment are served by redundant igniters.

RESPONSE

RBS has finalized the igniter locations in the containment and drywell. The hydrogen igniters have been located in accordance with the following location criteria.

a. Hydrogen can be released to the containment atmosphere through the safety relief valves or through the drywell vents. In both cases hydrogen exhausts through the suppression pool. Therefore, igniter assemblies are located in a ring above the suppression pool as well as at other locations throughout the containment.

b. Hydrogen can be released to the drywell atmosphere through a pipe break in the drywell. Therefore, igniter assemblies are located throughout the drywell.

c. In open areas of the containment and the drywell, igniter assemblies are located in accordance with the following criteria:

   i. Assuming only one Class 1E divisional power supply is functional following an accident, a maximum distance of 60 ft. exists between the operable igniters.

   ii. Assuming both Class 1E divisional power supplies are functional following an accident, a maximum distance of 30 ft. exists between the operable igniters.

d. Igniters are located in all enclosed volumes/areas within the containment subject to possible hydrogen accumulation and pocketing. At least two igniters are located in each volume/area and are powered from separate Class 1E divisional power sources.

e. Hydrogen has a very large difference between the upward and downward flame propagation limits (4.1% hydrogen by volume for upward, 9% for downward and 6% for horizontal - refer to NUREG/CR-2530 (SAND82-0218) draft report "Review of the Grand Gulf Igniter System", Sandia National Laboratory). Igniter assemblies at RBS are positioned so that they can burn out large volumes of lean mixtures with upward propagation of flames (with the exception of igniters which are located close to the surface of the containment dome because of lack of structural supports in the dome). Igniters are located near or below the mid-plane regions of volumes/areas being protected and, where possible, away from large, solid surfaces, including surfaces above the igniters (i.e., ceilings or other structures).

f. In open spaces in the containment and the drywell, locations of the igniter assemblies at the same elevation are alternated with respect to their Class 1E divisional power source. In addition, igniter assemblies are symmetrically staggered in azimuthal positions with respect to those located on the next lower and higher elevations in order to maximize the number of likely hydrogen ignition points.

g. Two igniters, powered from separate Class 1E divisional power sources, will be located within 30 ft. of each hydrogen mixing system inlet terminal. Two igniters located within 30 ft. of each hydrogen mixing system fan exhaust and each of these two igniters is powered from separate Class 1E divisional power source.

h. Igniters are located in the chimneys (hoist space and staircases at aximuth positions 150^{o}, 225^{o}, and 315^{o}) at each floor elevation and powered by either Class 1E divisional power sources.

TAB III gives the igniter locations. The igniter locations are approximate since some relocation may be necessary to facilitate mounting. All enclosed regions within the containment are served by redundant igniters. Mounting details for the igniters in the containment dome are provided in TAB IV.

6. For each floor level within the containment annular region and within the drywell, provide the cross-sectional flow area through the floor and identify the various areas, such as gratings, solid regions, or equipment blockages.

RESPONSE

A tabular list for each floor elevation in the containment and drywell indicating total surface area and total clear area is provided in TAB V.

7. Discuss the adequacy of the igniter assembly design to withstand the effects of pool swell events and the drywell negative pressure transient.

RESPONSE

The hydrogen igniter assemblies are qualified to withstand LOCA loads. The ability of the igniter assembly to withstand a negative pressure transient is being evaluated by HCOG (see RAI No. 15).

8. Provide full size (Size E) sectional drawings of the containment; and identify on these drawings the location of each igniter, its electrical division, the location of the drywell mixing system lines and the containment fan coolers/ducting.

Also, provide a list, including the location on the sectional drawings of the equipment required to accommodate hydrogen burning.

RESPONSE

The locations of the hydrogen igniters are included in TAB VI. The locations of the hydrogen mixing/purge system and the containment fan cooler and ducting are provided in TAB VII. A list of equipment required to survive a hydrogen burn is given in TAB VIII. This equipment was selected based on the following criterion.

- Equipment and systems required to mitigate the consequences of the event
- Equipment and structures required to maintain the integrity of the containment pressure boundary
- Systems and components required to recover the core
- Instrumentation and systems required to monitor the course of the event

The effects of hydrogen combustion are limited to the containment and drywell. Only equipment located in these two compartments has been evaluated for inclusion on the survivability list.

In addition, components have been excluded from the list of equipment required to survive a hydrogen generation event based on their failure mode or prior operation. Degraded core accidents evolve over a relatively long period of time before zircaloy oxidation begins. Many components will have performed their safety function before hydrogen combustion can begin. If these components are not required to function during or after hydrogen combustion, and if failure of the component will not compromise plant safety, then the component is not required to survive these accidents.

Specific exclusions used in developing the RBS equipment list are as follows:

- Components which have performed their active safety function prior to a hydrogen burn.
- Isolation valves which remain in the closed position; i.e., fail closed or "as is."
- Isolation valves which are open post-LOCA, fail in the "as is" position and also have a redundant motor-operated isolation valve outside containment for functional backup.

- Check valves which are qualified for reactor pressure and temperature with no safety-related instrumentation or electrical function are assumed to mechanically survive a hydrogen burn.

- Equipment and/or components which fail in a safe condition with no subsequent functional requirement.

- Manually operated valves or dampers which remain in the "as is" position (i.e., normally open or normally closed) are assumed to survive a hydrogen burn.

9. Discuss the consideration of the effects of local jet impingement on the igniter assembly due to the LOCA break.

RESPONSE

The hydrogen igniter locations are being evaluated for the effects of local jet impingement in the RBS high energy line break (HELB) analysis. The effect of local jet impingement on overall HCS performance will be evaluated. If the analysis indicates that the hydrogen igniter system function would be adversely affected by local jet impingement due to a LOCA break, it will be included and evaluated in the HELB analyses.

10. Discuss the effect of temporary water submergence on igniter performance. For these igniters, describe the testing which will be performed to assure igniter performance before, during and after being subjected to submerged conditions.

RESPONSE

The hydrogen igniters are required to be operable after being temporarily submerged in water. Testing procedure and test results are as reported in Morrison-Knudsen's Power Systems Report #A-554-83.

11. Considering the actuation criteria for safety systems, including operator action:

a. Under what conditions are the containment fan coolers activated?

b. How long after the containment fan coolers are actuated do the fan coolers attain full flow rate?

c. During an emergency situation, when would the HIS be activated?

d. What role, if any, would the hydrogen recombiner play with respect to the HIS?

RESPONSE

The containment unit coolers operate continuously under normal conditions. The unit coolers are automatically loaded onto the emergency diesels within 10 minutes following a loss of offsite power. Two of the three unit coolers are engineered safety features and operate automatically within 10 minutes after receiving a high drywell pressure signal (see FSAR Section 6.2.2.2). No operator action is required to actuate the containment unit coolers. The unit cooler fans attain full flow rate within 8 seconds of being actuated. GSU is participating in the BWROG Emergency Procedure Committee along with the other HCOG members in developing a generic Mark I, II, and III Emergency Procedure Guideline for hydrogen control. When the generic guideline is finalized, it will be incorporated into the RBS Emergency Operating Procedures. These procedures will contain guidance for the operator on activation of the HCS and the operation of the hydrogen recombiners.

12. Regarding the containment atmosphere mixing/cooling mechanisms:

a. Describe the distribution of the flow rate and the expected flow patterns of the containment unit coolers in the containment/wetwell regions. Discuss the differences if either Train A or Train B is activated and if both trains are activated at the same time.

b. What are the elevations and radial positions of the ducting?

c. Describe the sprays, fans or other systems. Identify and include available non-safety systems, e.g., fire protection devices or drywell coolers that could move air or provide cooling in the drywell, containment or wetwell regions and estimate the air velocities and the cooling effects in the respective regions due to these systems. If non-ESF systems are assumed to be available during the accident period, discuss the operator action necessary to actuate/ operate such systems.

RESPONSE

a. The containment ventilation system consists of three 50% capacity unit coolers each capable of providing 50,000 cfm. During normal operation two of the three unit coolers operate to maintain design ambient conditions. Following a LOCA, one containment cooler (two of the three are designed as engineered safety features) is required to operate (with the second on standby) as part of the containment heat removal system to condense steam. The ventilation system ductwork provides for distribution of the flow throughout the containment as shown on FSAR Figure 9.4-7c. Following a LOCA, if the duct distribution

system is available, approximately 15,000 cfm is distributed above the refueling floor (el 186'3"). Approximately 8,000 cfm is supplied directly into the wetwell region via 4 ducts attached to the grating at the HCU floor (el 114'0"). The remaining 27,000 cfm is distributed at various locations in the containment between el 114'0" and 186'3". Flow distribution is nearly identical no matter which unit cooler is in operation. During normal operation, when two unit coolers are in operation concurrently, all flow rates are approximately doubled.

It should be noted that the containment ventilation system distribution network is seismically supported but is not designed for post-LOCA service. Pressure relief dampers are located in the safety related portion of the ductwork connecting the two ESF coolers. These dampers open under a positive differential pressure of 15" WG and remain open to protect the ESF fans and motors from a post-LOCA containment pressurization transient. After the relief dampers open, the operating ESF unit cooler recirculates air from the containment volume between el 162'3" and 186'3".

b. The Reactor Plant Ventilation System P&ID is shown in FSAR Figure 9.4-7c. The referenced drawings of TAB VII list the elevations, radial positions, flow rate and flow direction of the release points.

c. Four non safety related recirculation fans are located above the polar crane. These fans, which are described in FSAR Section 9.4.6.2.1, provide continued movement of air in the containment dome when operating. These fans are not designed to operate post LOCA.

The drywell ventilation system as described in FSAR Section 9.4.6.2.2 is not nuclear safety related and would not be operable immediately following a LOCA but would be available following loss of offsite power. There are no fire protection sprinklers in the containment or drywell. The systems assumed to be available during an accident period are discussed in the FSAR Section 6.2.2.

13. Describe the operation of the Combustible Gas Control System (CGCS), e.g., drywell mixing fans, and the containment fan coolers during hydrogen burns. Include the conditions leading to and consequences from these systems on the burning of hydrogen; such as, will the fan coolers promote hydrogen burning or will the ducting for the fan coolers be crushed by a pressure pulse?

RESPONSE

The Combustible Gas Control System (CGCS) will be operational as will the containment unit coolers during hydrogen burns. In addition, the Hydrogen Mixing System will continue to operate after initiation since the flow path is pipe rather than ducting. The containment ventilation system is protected from external overpressure transients by relief dampers. In addition, localized crushing of ducting does not affect the heat removal function of the unit coolers or their mixing function. Portions of the containment ductwork may deform in the vicinity of local burning but general crushing is not expected for scenarios with diffusion burning. Operation of these systems promotes mixing of the containment and drywell volumes. The operation of the containment ventilation system enhances the natural convection patterns and supply of oxygen to areas of diffusive burning.

The potential for existence of combustion phenomena unique to the drywell will be evaluated by HCOG. The RBS hydrogen mixing system design and operation will be included in this evaluation. If the HCOG criteria for the existence of inverted diffusion flames in the drywell is satisfied, a program will be established to quantify the effect of inverted diffusion flames.

14. Provide the following plant specific CLASIX-3 (with the recommended passive heat transfer model described in NUREG-0588) containment transient analysis. Also, provide and justify the assumptions to be used.

a. SORV Base Case Transient

b. Small Break LOCA Base Case

c. Provide plant unique parametrics; i.e., the effects on pressure/temperature of: 1) the various containment safety systems; and 2) the various input assumptions that need to be made.

RESPONSE

The HCOG is currently evaluating whether to incorporate the NUREG-0588 heat transfer model or some less conservative model into the CLASIX-3 computer code. GSU is incorporating the NUREG-0588 heat transfer model in our CLASIX-3 analysis even though we believe that the 8% revaporization given in this NUREG is overly conservative and that bases exist can be made for using a 12% revaporization based on the Carolina-Virginia Test Reactor (CVTR) experiments. GSU has not performed our base case CLASIX-3 analyses. But, when completed, this analysis will include the SORV Base Case Transient and the Small Break LOCA Base Case. These analyses will incorporate our plant unique safety systems and containment design.

Plant unique parametrics due to variations in input assumptions will not be performed. GSU feels that these parametrics are not required since the HCOG Containment Sensitivity Study (HGN-001) adequately addressed the variation of temperature and pressure with input assumptions.

The RBS containment analysis will utilize more conservative hydrogen burn parameters than the proposed HCOG containment response analysis acceptance criteria. The parameters to be used are:

1)	Minimum hydrogen volume fraction required for ignition.	0.08
2)	Minimum hydrogen volume fraction to support flame propagation.	0.08
3)	Hydrogen fraction burned (Burn completeness)	0.85
4)	Minimum oxygen volume fraction to support ignition.	0.05
5)	Minimum oxygen volume fraction to support combustion.	0.0
6)	Speed of propagation (flame speeds)	6 ft/sec

GSU feels that the hydrogen burn parameters used in the HCOG acceptance criteria are more realistic and can be justified based on current experimental evidence; however, GSU has elected to use higher values for additional conservatism.

Initial conditions for analysis for oxygen, nitrogen and steam partial pressures will be calculated from compartment temperatures, pressures and relative humidities.

Hydrogen release histories generated by a recognized industry code, such as MARCH or BWR HEATUP CODE will be used as input to the containment response analysis.

15. Provide an evaluation of the consequences of the most severe pool dynamic loads created by the combustion of hydrogen. It is necessary to address the effects on both structures and equipment. Your evaluation should consider the effects of combustion in the drywell and combustion in the wetwell and containment. For events which produce combustion in the containment and which cause pool water to reverse flow into the drywell, your analysis should consider the cooling effect of the spilled water acting as a spray to the drywell atmosphere and its effects on the pressure transient.

RESPONSE

The HCOG is evaluating the potential for positive and negative pool swell. If this evaluation concludes that loads are in excess of those currently predicted for DBA conditions, then GSU will determine if any essential drywell structures or equipment required to survive a hydrogen burn should be reanalyzed for pool swell loads.

16. Provide an evaluation of the consequences of the most severe negative and positive pressure differentials created by the combustion of hydrogen considering the following:

a. The steel containment structure and penetrations (include the long term effects of oxygen depletion).

b. The drywell structure

c. Personnel air locks and equipment hatches

d. The equipment between the drywell and containment (e.g., drywell mixing system).

RESPONSE

The evaluation of the ultimate pressure retaining capacity of the containment, drywell, equipment hatches, personnel air locks and penetrations was provided in a letter submittal dated September 30, 1983 from J. E. Booker to H. R. Denton. This evaluation demonstrated that the containment can withstand 56 psig which compares favorably with 26.3 psig obtained from the preliminary River Bend Station specific CLASIX-3 analysis. The ability to withstand negative pressure differentials was provided in a letter submittal dated June 25, 1984 from J. E. Booker to H. R. Denton. The ultimate negative (reverse) pressure capability of the containment is -4.82 psid. The maximum calculated negative containment pressure resulting from complete combustion of an amount of hydrogen corresponding to a 75% metal-water reaction, oxygen depletion and subsequent cooldown of the containment atmosphere is -3.1 psid. This is a very conservative estimate of the negative containment pressure due to the assumption of zero relative humidity both before and after the hydrogen burn event and the assumption that there was no additional positive pressure due to hydrogen or steam remaining in the containment. The design negative pressure for the drywell including the drywell wall, hatches, doors, and penetrations is -20.0 psid. When the Base Case CLASIX-3 analysis is complete the negative pressures produced by hydrogen burns will be compared with these pressure differentials.

The hydrogen mixing system, as well as other penetrations, has the same integrity as the remainder of the drywell boundary. When initiating the mixing system inlet valves must be opened prior to the actuation of the exhuast valves. The mixing system fan cannot be activated until the inlet and outlet valves are

open. When the drywell and containment pressures are equalized by opening the inlet valves and when the outlet valves are opened the differential pressure across the fan is negligible.

17. Are there accident sequences that might lead to the introduction of hydrogen and steam directly into the containment without having passed through the suppression pool? Include the potential of using the drywell mixing fans and the associated drywell line penetrations which provide a bypass path around the pool.

RESPONSE

There are no credible accident sequences that might lead to the introduction of hydrogen and steam directly into the containment without having passed through the suppression pool. All sequences evaluated require multiple equipment failures and/or operator error and are therefore not considered to be credible. Operation of the hydrogen mixing system will be addressed in the River Bend Station Emergency Operating Procedures.

18. Provide an evaluation of the potential and consequences of flame acceleration in the various containment regions including consideration of circumstances leading to a transition to detonation.

RESPONSE

No areas of the River Bend Station containment were identified that are conducive to flame acceleration or which will provide conditions leading to a transition to detonation.

19. Provide a discussion of the emergency procedure guidelines to be followed for actuation of the igniter system, the Combustible Gas Control System, the containment fan coolers, ADS, and post-accident purging/venting. This discussion should address the evaluation of the following items:

a. Justification for manual instead of automatic actuation

b. Interfaces with existing BWR EPG package (Rev. 2)

c. Justification for the time available for operator action

d. Justification for the signals/setpoints intended to direct action and the impact of using such signals both on core recovery procedures and containment environmental transients.

RESPONSE

GSU is participating in a joint HCOG/BWROG effort to develop a generic hydrogen control Emergency Procedure Guideline. This

guideline will be incorporated into the RBS Emergency Operating Procedures when finalized.

20. Considering River Bend's unique containment safety system with respect to other Mark III's, discuss how the HCOG research program will be applicable to the River Bend design.

RESPONSE

The unique River Bend Station containment design features (unit coolers instead of sprays and the RBS containment configuration) are included in the Quarter Scale Test Program being conducted by the Hydrogen Control Owners Group (HCOG) of which Gulf States Utilities is a member. Other aspects of the HCOG Hydrogen Control Program which address RBS plant unique features are the evaluation of the drywell response to degraded core accidents and generation of a combustible gas control EPG.

21. Discuss how the results of the HCOG tests and plant specific analysis will be used to determine the most severe thermal environment in the drywell and containment/wetwell regions of River Bend for evaluating the thermal response of the equipment required to survive hydrogen burning.

RESPONSE

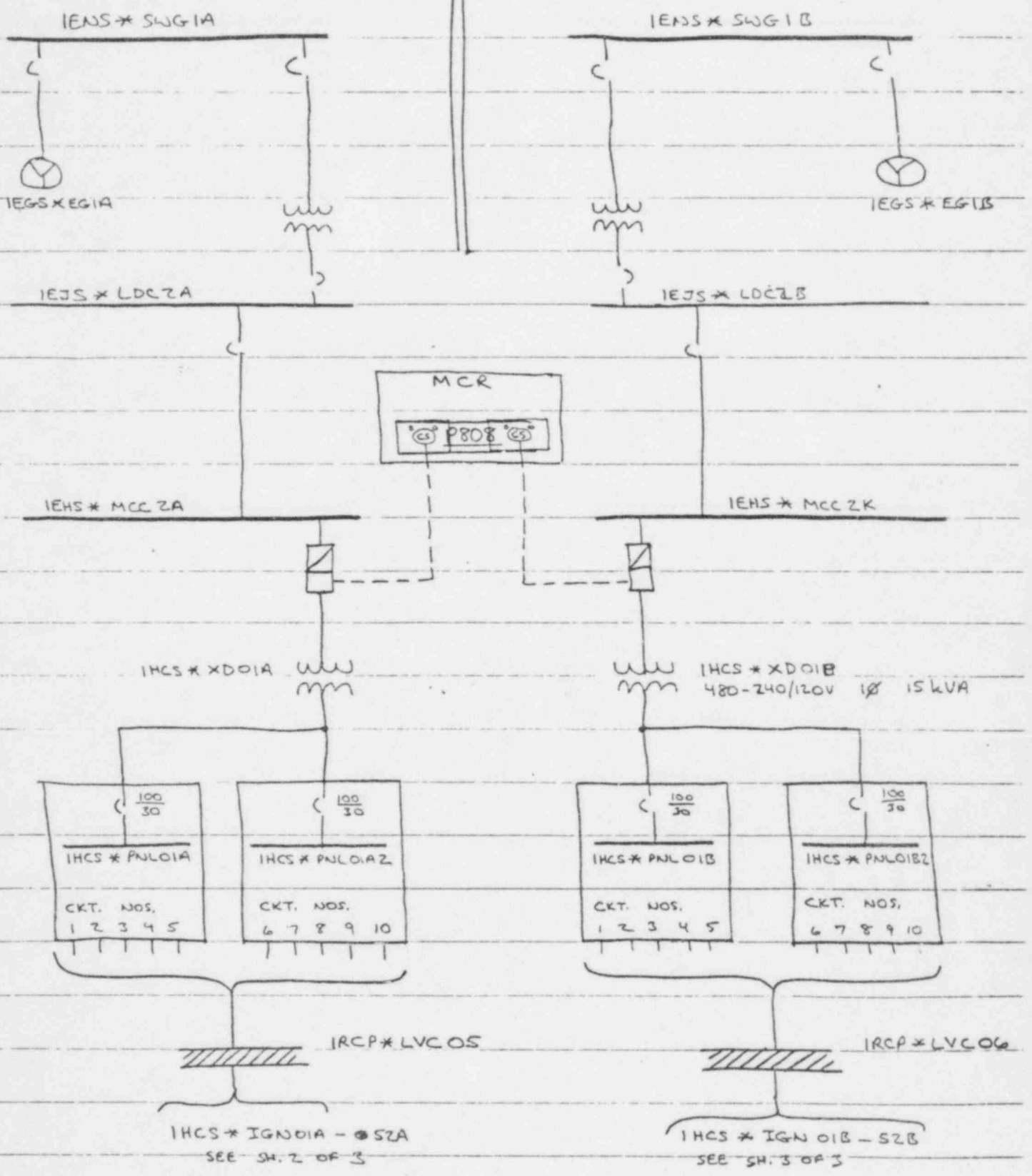
The results of the HCOG tests and the River Bend Station specific CLASIX-3 analysis will be used to determine the thermal environment within the containment and drywell to demonstrate equipment survivability. The thermal environments produced by diffusion flames, deflagrations and if necessary inverted diffusion flames shall be defined as appropriate for the locations of equipment required to survive a hydrogen generation event. The most severe environment will be the case which results in the most severe thermal loading on the equipment analyzed. The thermal profiles used in the survivability analysis will be based on realistic empirical data and/or analysis. Factors of conservatism will not be applied to the definition of the thermal environment.

TAB I

SIMPLIFIED ELECTRICAL SCHEMATIC

CLASS 1E — SAFETY RELATED SYSTEM

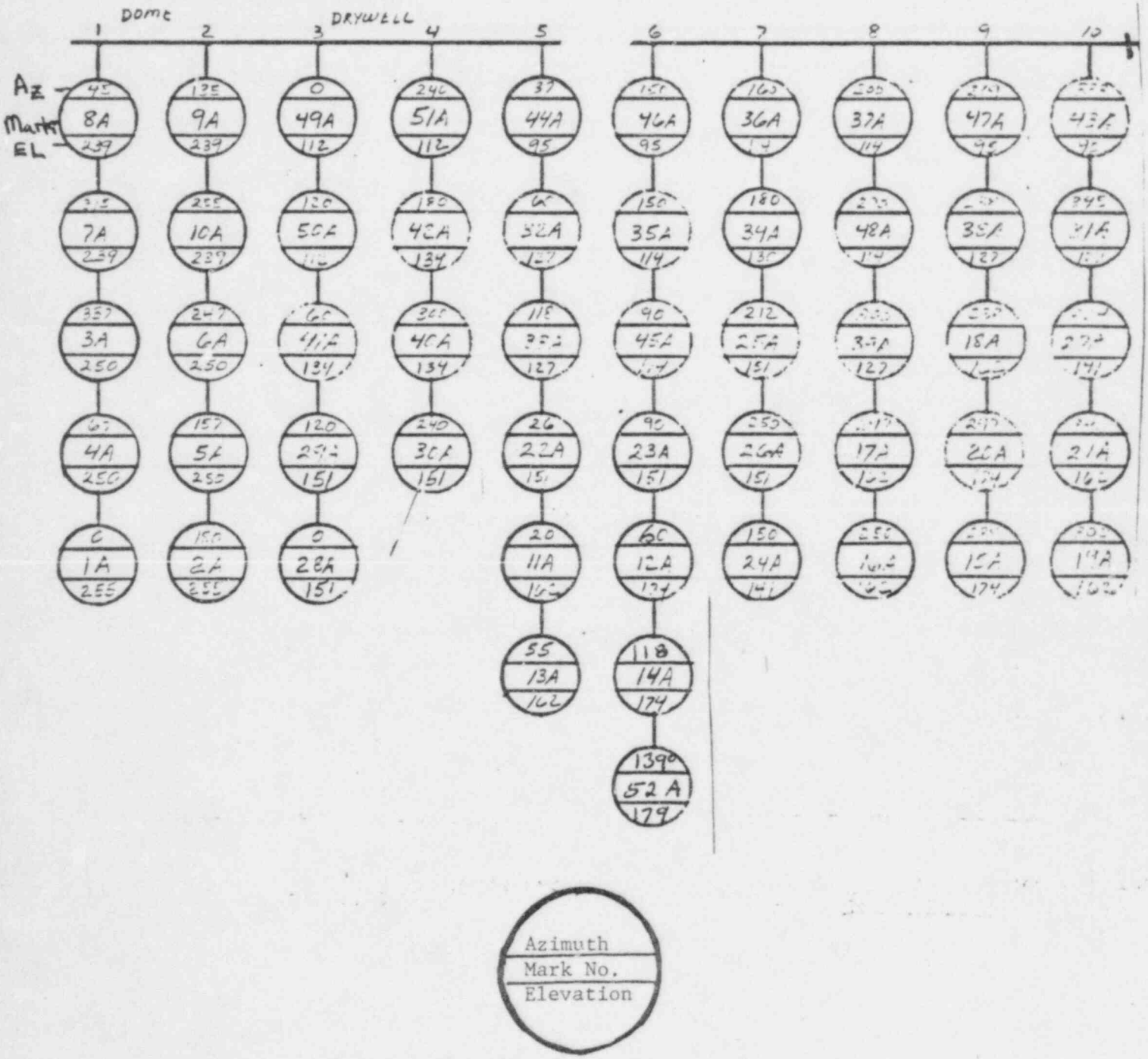
DIVISION I ◄ ► DIVISION II



HYDROGEN IGNITERS – ONE LINE SKETCH

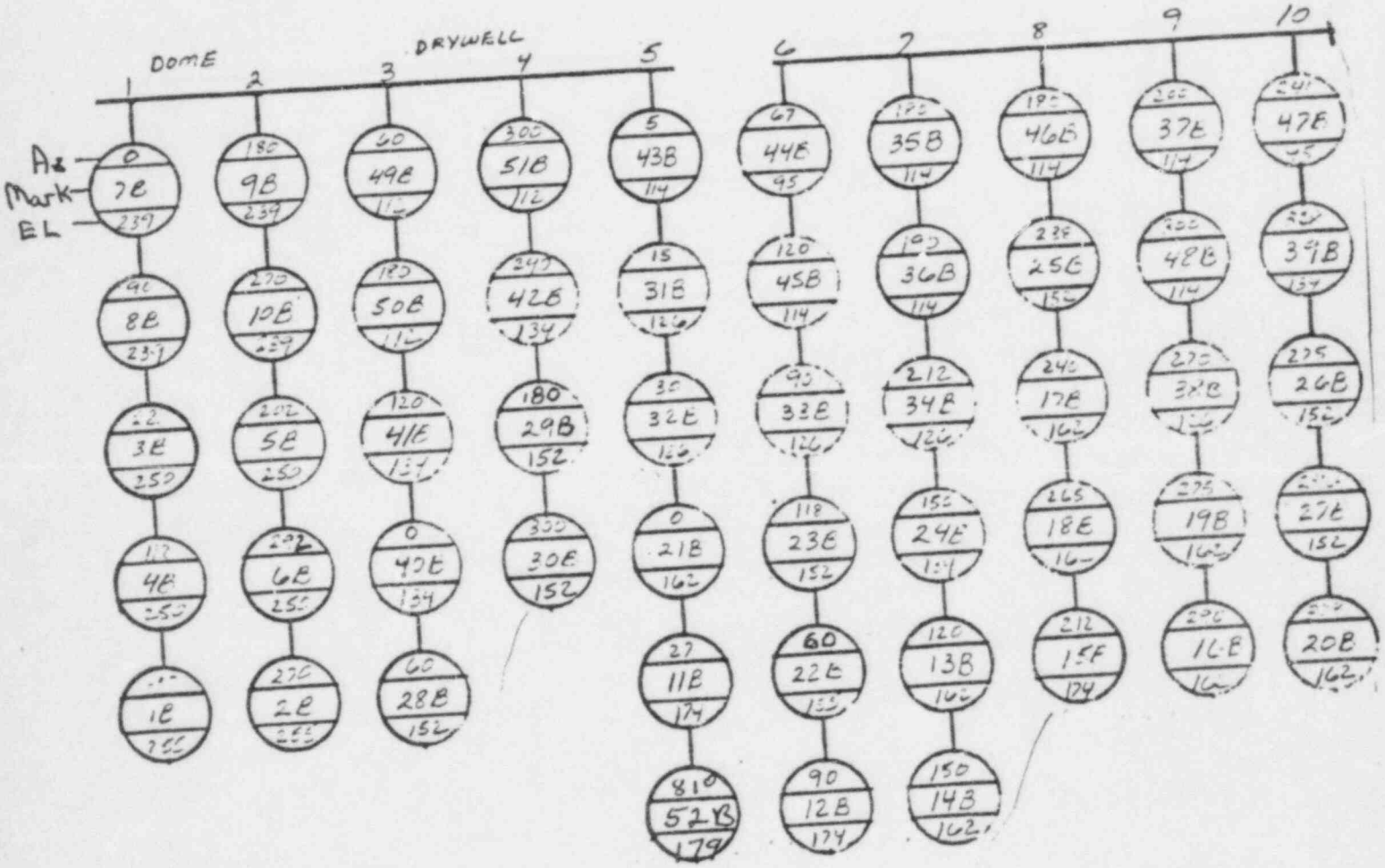
SH 1 OF 3

Hydrogen Igniter System
Division I



SH 2 of 3

Hydrogen Igniter System
Division II



SH 3 of 3

TAB II

HCS 480 V CONTROL CIRCUIT

ELEMENTARY DIAGRAM

12210-ESK-6HCS04

DOCUMENT PAGE PULLED

* OVERSIZE DUPLICATE DRAWINGS

SEE APERTURE CARDS

APERTURE CARD NO# 8401130391

AVAILABILITY ✓ PDR ___ CF ___ HOLD ___

NUMBER OF PAGES. 1

ADDITIONAL APERTURE CARD NUMBERS BELOW.

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_____ _____

TAB III

HYDROGEN IGNITER LOCATIONS

HYDROGEN IGNITER SYSTEM

Igniter Number	Igniter Location Elevation	Azimuth (degrees)	Radius	Power Source
Drywell				
HCS*IGN49A	113'	0°	24'-8 1/2"	Division I
HCS*IGN49B	113'	60°	24'-8 1/2"	Division II
HCS*IGN50A	113'	120°	24'-8 1/2"	Division I
HCS*IGN50B	113'	180°	24'-8 1/2"	Division II
HCS*IGN51A	113'	240°	24'-8 1/2"	Division I
HCS*IGN51B	113'	300°	24'-8 1/2"	Division II
HCS*IGN40B	134'	0°	24'-8 1/2"	Division II
HCS*IGN41A	134'	60°	24'-8 1/2"	Division I
HCS*IGN41B	134'	120°	24'-8 1/2"	Division II
HCS*IGN42A	134'	180°	24'-8 1/2"	Division I
HCS*IGN42B	134'	240°	24'-8 1/2"	Division II
HCS*IGN40A	134'	300°	24'-8 1/2"	Division I
HCS*IGN28A	151'	0°	24'-8 1/2"	Division I
HCS*IGN28B	151'	60°	24'-8 1/2"	Division II
HCS*IGN29A	151'	120°	24'-8 1/2"	Division I
HCS*IGN29B	151'	180°	24'-8 1/2"	Division II
HCS*IGN30A	151'	240°	24'-8 1/2"	Division I
HCS*IGN30B	151'	300°	24'-8 1/2"	Division II
Containment				
HCS*IGN43B	114'	5°	49'-9"	Division II
HCS*IGN44A	95'	37°-30'	49'-9"	Division I

HYDROGEN IGNITER SYSTEM

Igniter Number	Igniter Location Elevation	Azimuth (degrees)	Radius	Power Source
HCS*IGN44B	113'	67°	49'-9"	Division II
HCS*IGN45A	114'	90°	49'-9"	Division I
HCS*IGN45B	114'	120°	49'-9"	Division II
HCS*IGN46A	114'	150°	49'-9"	Division I
HCS*IGN46B	114'	180°	49'-9"	Division II
HCS*IGN47A	95'9"	209°	49'-9"	Division I
HCS*IGN47B	95'9"	241°	49'-9"	Division II
HCS*IGN48A	114'	270°	49'-9"	Division I
HCS*IGN48B	114'	300°	49'-9"	Division II
HCS*IGN43A	110'	333°	49'-9"	Division I
HCS*IGN32B	128'	30°	49'-9"	Division II
HCS*IGN32A	128'	60°	49'-9"	Division I
HCS*IGN33B	128'	90°	49'-9"	Division II
HCS*IGN33A	128'	118°	49'-9"	Division I
HCS*IGN24B	130'	150°	51'-6"	Division II
HCS*IGN35A	130'	156°	47'	Division I
HCS*IGN36A	130'	167°	58'	Division I
HCS*IGN34A	130'	180°	49'-9"	Division I
HCS*IGN35B	130'	179°	43'-6"	Division II
HCS*IGN36B	130'	186°	57'	Division II
HCS*IGN37A	130'	198°	39'-6"	Division I
HCS*IGN37B	130'	201°	49'-9"	Division II
HCS*IGN34B	128'	212°	49'-9"	Division II

HYDROGEN IGNITER SYSTEM

Igniter Number	Igniter Location Elevation	Azimuth (degrees)	Radius	Power Source
HCS*IGN38A	128'	238°	49'-9"	Division I
HCS*IGN38B	128'	270°	49'-9"	Division II
HCS*IGN39A	128'	300°	49'-9"	Division I
HCS*IGN52A	179'	139°	33'-3"	Division I
HCS*IGN52B	179'	81°	30'-4"	Division II
HCS*IGN39B	130'	328°	49'-9"	Division II
HCS*IGN31A	128'	342°	49'-9"	Division I
HCS*IGN31B	128'	16°	49'-9"	Division II
HCS*IGN22A	151'	26°	49'-9"	Division I
HCS*IGN22B	151'	60°	49'-9"	Division II
HCS*IGN23A	151'	90°	49'-9"	Division I
HCS*IGN23B	151'	118°	49'-9"	Division II
HCS*IGN24A	151'	150°	49'-9"	Division I
HCS*IGN25A	151'	212°	49'-9"	Division I
HCS*IGN25B	151'	238°	49'-9"	Division II
HCS*IGN26A	151'	247°	50'	Division I
HCS*IGN26B	151'	275°	47'	Division II
HCS*IGN27B	151'	296°	49'-9"	Division II
HCS*IGN27A	151'	324°	49'-9"	Division I
HCS*IGN21B	174'	0°	43'-9"	Division II
HCS*IGN11A	174'	21°	49'-9"	Division I
HCS*IGN11B	174'	27°	49'-9"	Division II
HCS*IGN13A	174'	53°	32'-6"	Division I

HYDROGEN IGNITER SYSTEM

Igniter Number	Igniter Location Elevation	Azimuth (degrees)	Radius	Power Source
HCS*IGN12A	174'	60°	49'-9"	Division I
HCS*IGN12B	174'	90°	49'-9"	Division II
HCS*IGN14A	174'	118°	49'-9"	Division I
HCS*IGN13B	174'	122°	33'-6"	Division II
HCS*IGN14B	174'	150°	49'-9"	Division II
HCS*IGN15B	174'	212°	49'-9"	Division II
HCS*IGN18A	174'	238°	34'	Division I
HCS*IGN15A	174'	238°	49'-9"	Division I
HCS*IGN17B	174'	243°	44'	Division II
HCS*IGN16A	174'	250°	55'	Division I
HCS*IGN18B	174'	265°	23'-9"	Division II
HCS*IGN19B	174'	275°	23'-9"	Division II
HCS*IGN16B	174'	290°	55'	Division II
HCS*IGN17A	174'	296°	44'-6"	Division I
HCS*IGN20A	174'	297°	49'-9"	Division I
HCS*IGN19A	174'	303°	34'	Division I
HCS*IGN20B	174'	323°	49'-9"	Division II
HCS*IGN21A	174'	338°	49'-9"	Division I
HCS*IGN1A	255'	0°	20'	Division I
HCS*IGN7B	239'	0°	56'	Division II
HCS*IGN3B	250'	22.5°	38'	Division II
HCS*IGN8A	239'	45°	56'	Division I
HCS*IGN4A	250'	67.5°	38'	Division I

HYDROGEN IGNITER SYSTEM

Igniter Number	Igniter Location Elevation	Azimuth (degrees)	Radius	Power Source
HCS*IGN1B	255'	90°	20'	Division II
HCS*IGN8B	239'	90°	56'	Division II
HCS*IGN4B	250'	112.5°	38'	Division II
HCS*IGN9A	239'	135°	56'	Division I
HCS*IGN5A	250'	157.5°	38'	Division I
HCS*IGN2A	255'	180°	20'	Division I
HCS*IGN9B	239'	180°	56'	Division II
HCS*IGN5B	250'	202.5°	38'	Division II
HCS*IGN10A	239'	225°	56'	Division I
HCS*IGN6A	250'	247.5°	38'	Division I
HCS*IGN2B	255'	270°	20'	Division II
HCS*IGN10B	239'	270°	56'	Division II
HCS*IGN6B	250'	292.5°	38'	Division II
HCS*IGN7A	239'	315°	56'	Division I
HCS*IGN3A	250'	337.5°	38'	Division I

TAB IV

CONTAINMENT DOME HCS

MOUNTING DETAILS

12210-EE-460AW-1

12210-C-26,364 (ENGINEERING AND
COORDINATION DESIGN REPORT)

DOCUMENT PAGE PULLED

* OVERSIZE DUPLICATE DRAWINGS

SEE APERTURE CARDS

APERTURE CARD NO# 8401130395

AVAILABILITY (PDR) CF NMSS

NUMBER OF PAGES. 1

ADDITIONAL APERTURE CARD NUMBERS BELOW.

_____ _____

_____ _____

_____ _____

_____ _____

A 5210 66

STONE AND WEBSTER ENGINEERING CORPORATION
ENGINEERING & DESIGN COORDINATION REPORT

1/1

PAGE 1 OF 3

E & DCR NO. C-26,367

PROJECT/CLIENT 3 RIVER BEND STATION - UNIT 1 GULF STATES UTILITIES COMPANY

JOB ORDER NO. 6 12210

P.O. NO./ITEM 8 [redacted] CODE (8)

EQUIP. I.D. NO. (S)/SYS. CODE (8) 7 HCS.002

REFERENCE 9 SEE SHEET 2

SUPPLIER (OR SUBSUPPLIER) NAME 9 N/A

DESCRIPTION 10 HYDROGEN IGNITOR MTG DETAIL

REMARKS 11 N/A

PROBLEM DESCRIPTION
12 A MOUNTING DETAIL FOR HYDROGEN IGNITORS IN THE REACTOR @ 95', 125' & 141 OF DRYWELL AND 141' & 162'-3" OF CONTAINMENT IS REQUIRED. PLEASE ADVISE

TELECOPIED
TO Jimmy Lu Sumrall
FROM Brenda Cribbs
TIME _____ DATE 1-17-85
TEL. NO. _____

12

INITIATOR 13 W. D. Willis | AREA/DEPT DIV 520 | TEL EXT. 4792 | DATE 12/17/84 | DATE NEEDED BY 12/19/84 | APPROVED 14 [signature]

PROBLEM SOLUTION
15 REVISE DWG EE-460Y TO ADD MOUNTING DETAIL FOR HYDROGEN IGNITORS IN THE DRYWELL AND ABOVE ~~117'~~ 120' ELEVATION IN THE CONTAINMENT AS PER SHEET 3 OF THIS E&DCR W.D.W. 12/17/84

ADVANCED AUTHORIZATION
APPROVED
SUPT. OF ENGR [signature]
DATE 12/17/84

IEEE: YES ☒ NO ☐

16 ASME ☐ NON-ASME ☒

INTERDISCIPLINE CONCURRENCE | ENGR | DATE
DISCIPLINE: STRUCT

EOC: NO EOS: NO SC: NO

AFFECTED DOCUMENT NUMBERS 17	TYPE	STATUS
SEE SHEET 2		

STATUS
C - WILL BE INCORPORATED
N - WILL NOT BE INCORPORATED
I - NO CHANGE

RELATED ACTIVITIES 18	QA CAT 19
N/A	1

ANSWERED BY 20	DATE
Wm. D. Willis	12/17/84

RESP. LEAD ENGR. 21	DATE

MATERIALS ENGR. 22	DATE

EQUIP. SPEC. 23	DATE

QSD OR EA 24	DATE

PROJ. ENGR. 25	DATE

CLIENT APP REQ'D ☐ N/A
26 REF | DATE

SUB ITEM 27	WORK RESP 27	SUB ITEM 27	WORK RESP 27
01	EL	02	

EQ RELEASE NO. 28	EQ RELEASE NO. 28
HCS.002	

WBS NO. 29	WBS NO. 29
JRB/1A	

WORK COMPLETION 30	NWR ☐	DATE

INSP. REPORT NO/SIG 31	DATE

FINAL WORK TRACKING CLOSURE 32	DATE

DESCRIPTION (01) 33 HYDROGEN IGNITOR MTG DETAIL
REMARKS (01) 34

DESCRIPTION (02) 33
REMARKS (02) 34

TAB V

CONTAINMENT AND DRYWELL

TOTAL SURFACE AREA

AND

TOTAL CLEAR AREA

BY ELEVATION

CONTAINMENT AND DRYWELL

TOTAL SURFACE AREA AND TOTAL

CLEAR AREA BY ELEVATION

CONTAINMENT			
ELEVATION	DRAWING # (12210)	TOTAL SURFACE AREA	TOTAL CLEAR AREA
95'-4"	ES-53E-7	6408	5649
114'-0"	ES-53L-4	6408	2127
141'-0"	ES-53N-4	6408	1582
162'-3"	ES-53P-3	6408	1949
186'-3"	ES-53Q-2	6408	602
DRYWELL			
89'-11"	ES-54D-4	3033	2400
45'-9"	ES-54B-7	3033	1975
118'-3"	ES-54H-3	3033	2103
125'-10"	ES-54V-1	3033	2267
134'-10"	ES-54E-1	3033	2614
141'-0"	ES-54U-1	3033	1671

TAB VI

HCS IGNITER LOCATION

DRAWINGS

12210-EM-2A-7
12210-EM-2B-7
12210-EM-2C-7
12210-EE-460V-6

ENGINEERING & DESIGN COORDINATION REPORTS

P - 21,763B
P - 21,764A
P - 22,007
P - 22,256

Will be Revised Cov SEA+B

A52106

STONE AND WEBSTER ENGINEERING CORPORATION
ENGINEERING & DESIGN COORDINATION REPORT

PAGE 1 OF 15

1 E&DCR NO. 2 P-21,763B

PROJECT/CLIENT 3 RIVER BEND STA-UNIT 1 / GSU

JOB ORDER NO. 4 12210

P.O NO (S.F.W.) 5 N/A | REASON CODE (S) 6 F | EQUIP. I.D. NO. (S)/SYS. CODE (S) 7 N/A

REFERENCE DOCUMENTS 8 SEE PAGE 2

SUPPLIER (OR SUBSUPPLIER) NAME 9 N/A

DESCRIPTION SUMMARY 10 ADD CONDUITS

REMARKS 11 SUPERSEDES E&DCR P-21,763A

PROBLEM DESCRIPTION 12

1. CONDUITS ARE REQUIRED FOR ROUTING ADDITIONAL CABLES TO THE HYDROGEN IGNITERS INSIDE THE CONTAINMENT.
2. LOCATIONS ARE REQUIRED FOR VARIOUS IGNITERS IN REACTOR BLDG CONTAINMENT.

REASON FOR CHANGE

CONDUIT ICC500RQ1-3/4" IS CALLED OUT AS NR IWC525R04 BUT IS SHOWN GOING THRU IWC525R04 (PAGE 4).
TWO DIFFERENT CONDUIT ID'S ARE CALLED OUT GOING TO IHCS*IGN21A, ICC500RQ1-3/4 & RQ2-3/4 (PAGE 4).
IHCS*IGN21A IS AN INCORRECT EQPT CALLOUT (PAGE 4).
CONDUIT ICC500RQ8-1½ THRU IWC538R04 DOES NOT GO THRU A SLEEVE AS SHOWN (PAGE 4).
CONDUIT ICC504BF8-3/4 THRU IWC502B01 IS AN INCORRECT CALLOUT FOR THE SLEEVE (PAGE 7).
CONDUITS ICC507BC6-3/4", BC7-3/4" & BC8-3/4" ARE CALLED OUT AS NR IWC522B04 BUT ARE SHOWN GOING TO 1*JB5486

INITIATOR 13	AREA/DEPT DIV	TEL EXT.	DATE	DATE NEEDED	APPROVED 14	ENGR. RESP 15
George Barley JG	ELEC	3494	4/18/84	4/18/84		E

PROBLEM SOLUTION 16

DWGS EE-460U, V, W, X, AC, AD, AE, AF, AJ, AK & AX ARE REVISED ADDING CONDUITS, JUNCTION BOXES, AND LOCATING HYDROGEN IGNITERS AS SHOWN ON PAGES 3 THRU 14.

THIS E&DCR SUPERSEDES E&DCR P-21,763A

16

EOC: N EOS: N SC: N

AFFECTED DOCUMENT NUMBERS 17	TYPE	STATUS
EE-460U, V, W	D	C
X, AC, AD, AE	↓	↓
AF, AJ, AK, AX	↓	↓

STATUS
C - WILL BE INCORPORATED
N - WILL NOT BE INCORPORATED
I - NO CHANGE

RELATED ACTIVITIES 18 N/A | QA CAT 19 I

ANSWERED BY 20 George Barley | DATE 4/18/84
RESP LEAD ENGR. 21 [signature] for JCW | DATE 4/25/84
MATERIALS ENGR. 22 NA JG | DATE
EQUIP. SPEC. 23 NA JG | DATE
QSD OR EA 24 NA JG | DATE
PROJ. ENGR. 25 LJ Skaggs | DATE 4/24/84

CLIENT APP REQ'D ☐ NR ☒
26 REF | DATE

SUB ITEM	WORK RESP	SUB ITEM	WORK RESP
01	27 IEL	02	27 IEL
EQ RELEASE NO. 28 JRB-003		EQ RELEASE NO. 28 JRB-004	
WBS NO. 29 JRB/1A		WBS NO. 29 JRB/1A	

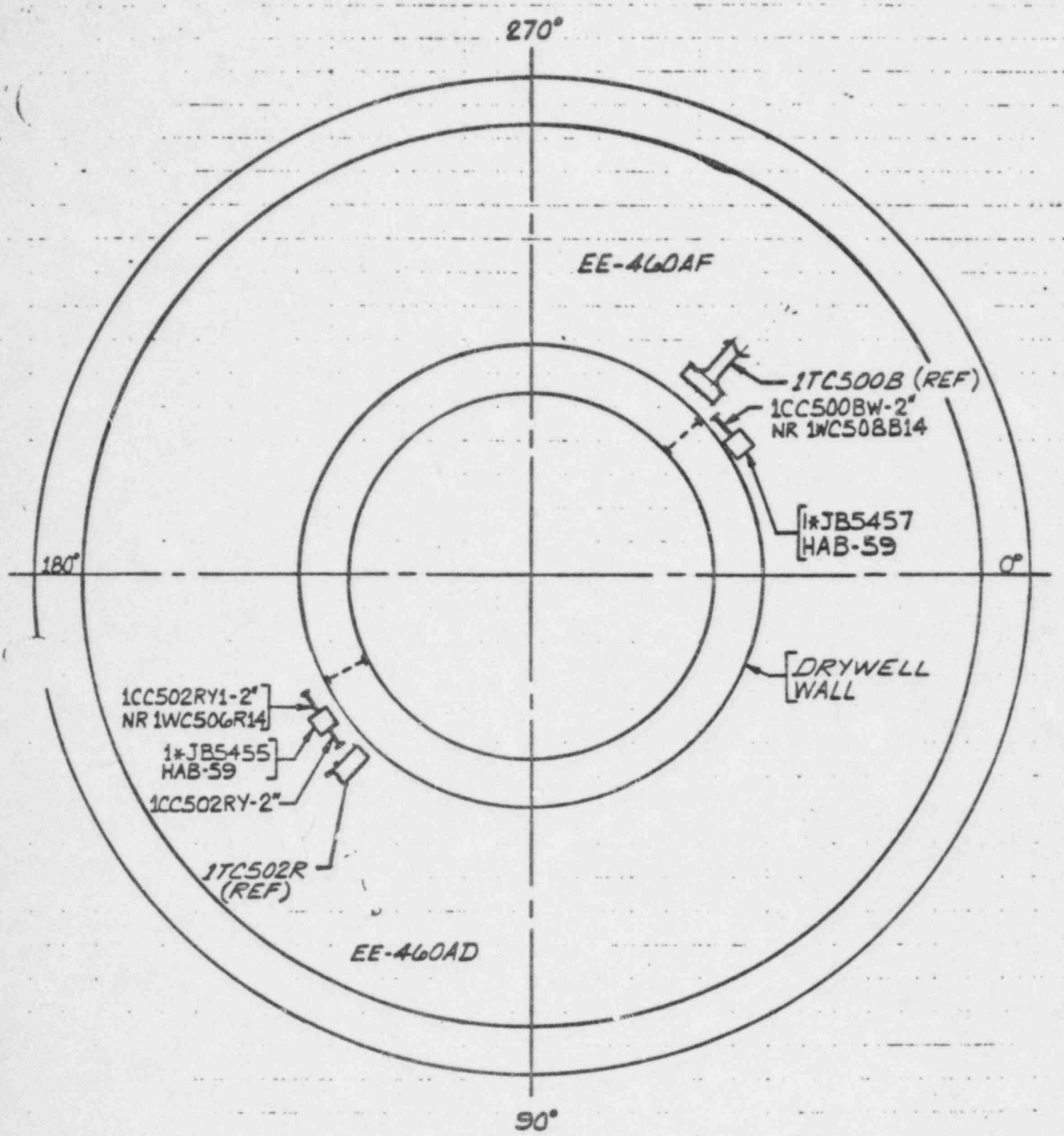
WORK COMPLETION 30 | NWR ☐ | DATE
INSP. REPORT NO/SIG 31 | DATE
FINAL WORK TRACKING CLOSURE 32 | DATE

DESCRIPTION (01) 33 ADD CONDUITS & JB's | REMARKS (01) 34
DESCRIPTION (02) 33 ADD CONDUITS & JB's | REMARKS (02) 34

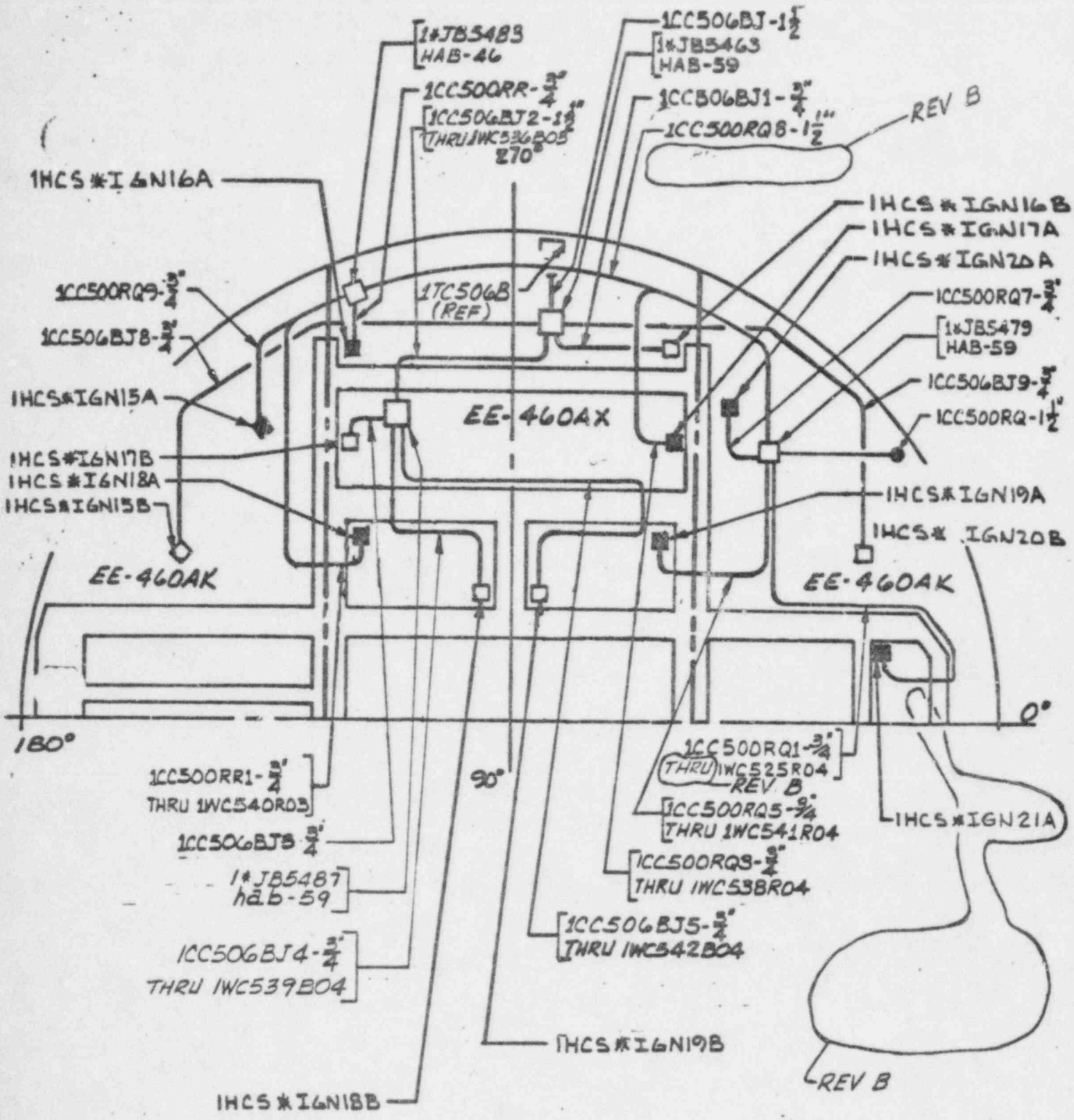
BLOCK 8

REFERENCE DOCUMENTS

EE-460 U-5, V-5, W-5, X-5, AC-4, AD-3,
AE-3, AF-4, AJ-2, AK-3, AX-2

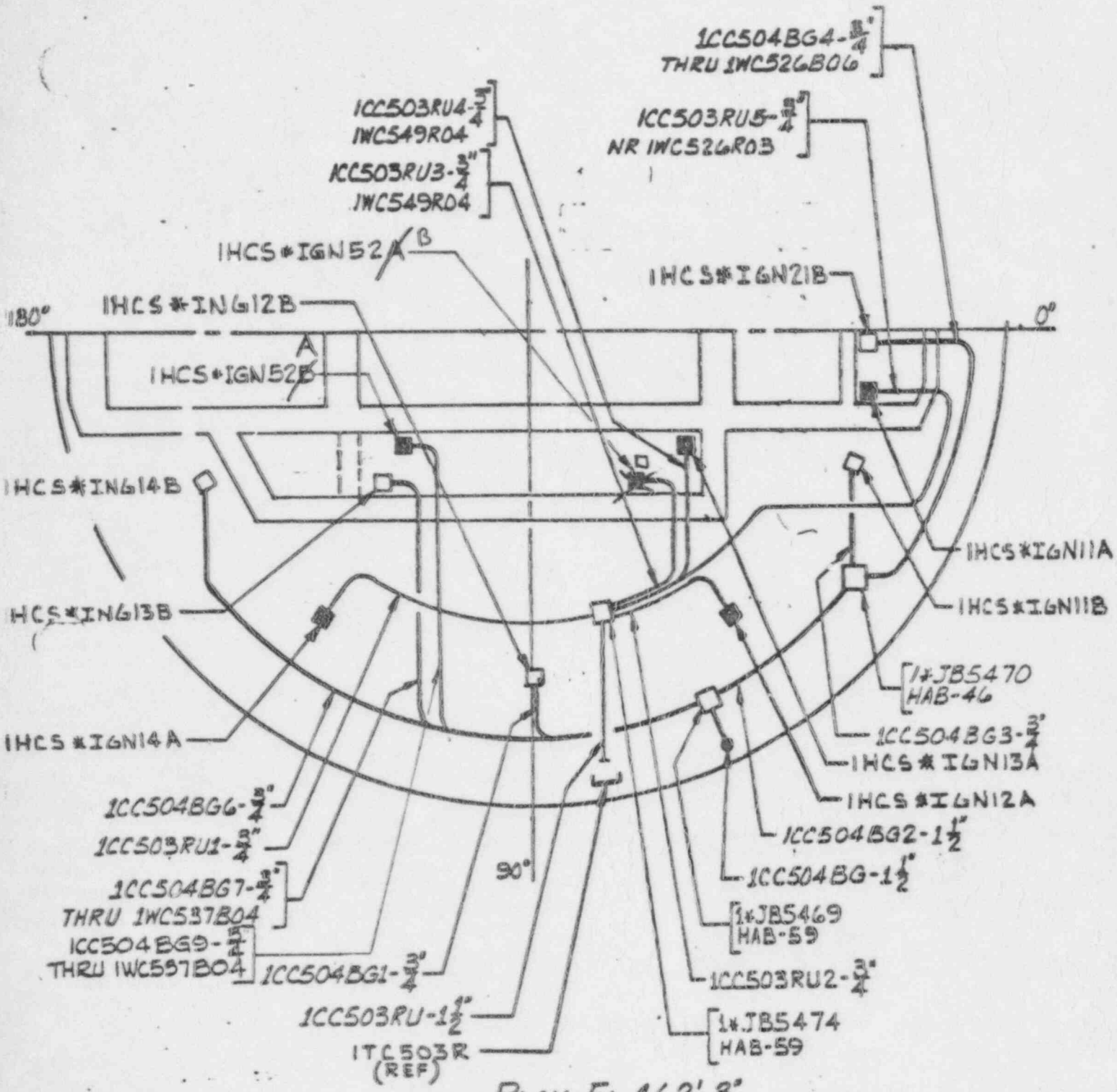


PLAN EL 141'-0"
REACTOR BLDG CONTAINMENT



PLAN EL 162'-3"
REACTOR BLDG CONTAINMENT

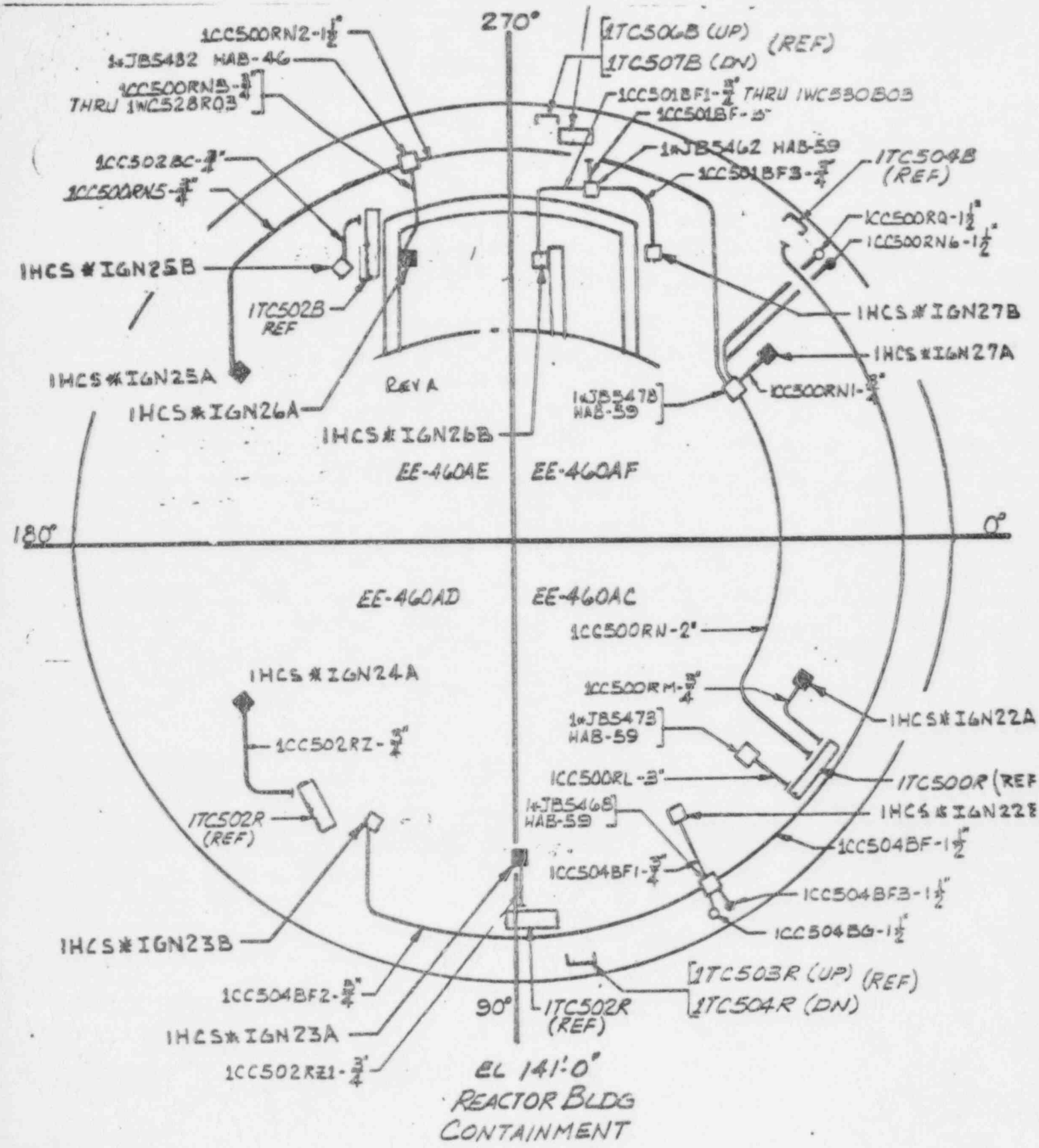
E1 DCR P-21.763B
PAGE 4 OF 15



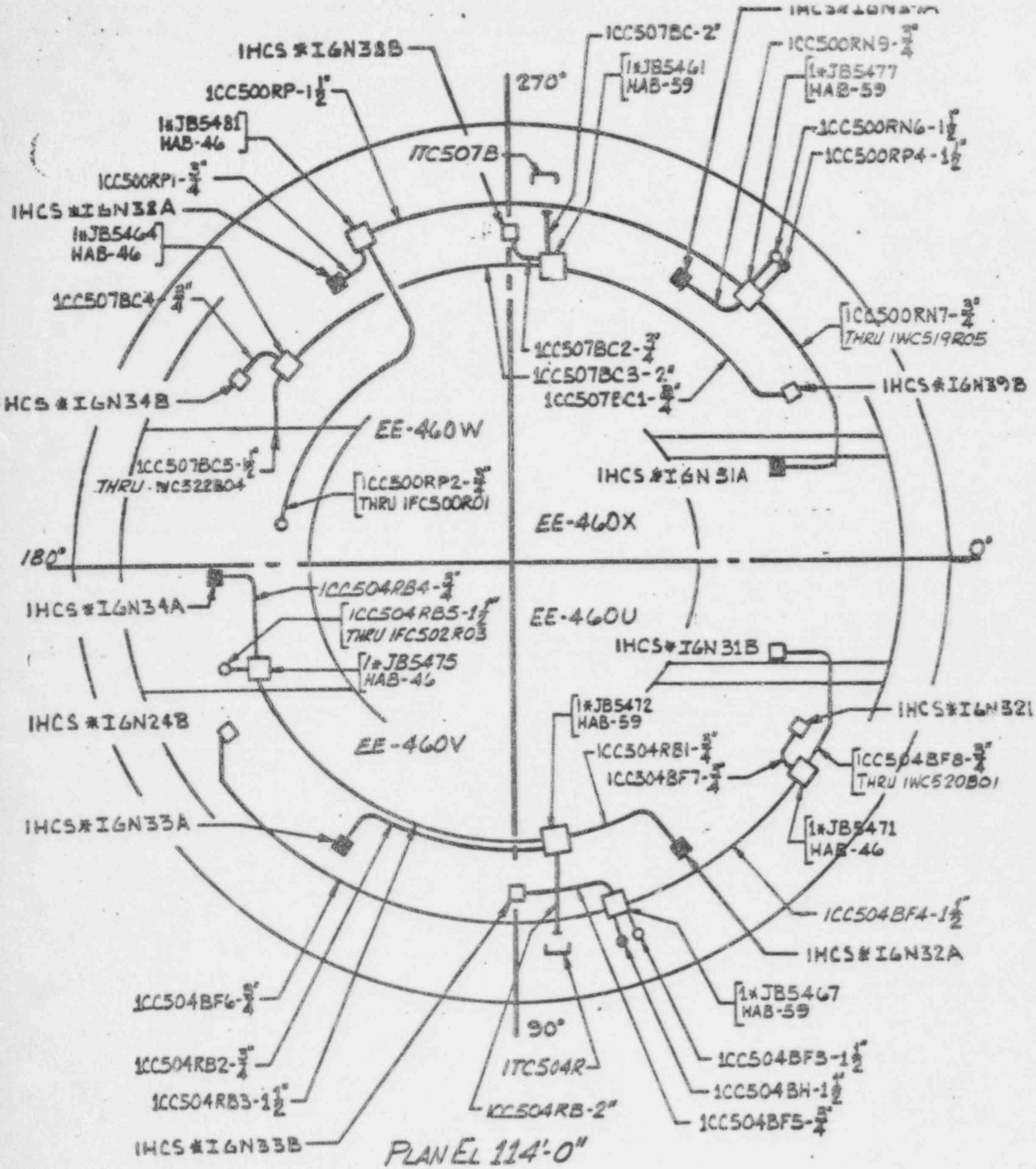
PLAN EL 162'-3"
REACTOR BLDG CONTAINMENT
EE-460AJ

C

E & DCR P-21.763 B
PAGE 5 OF 15

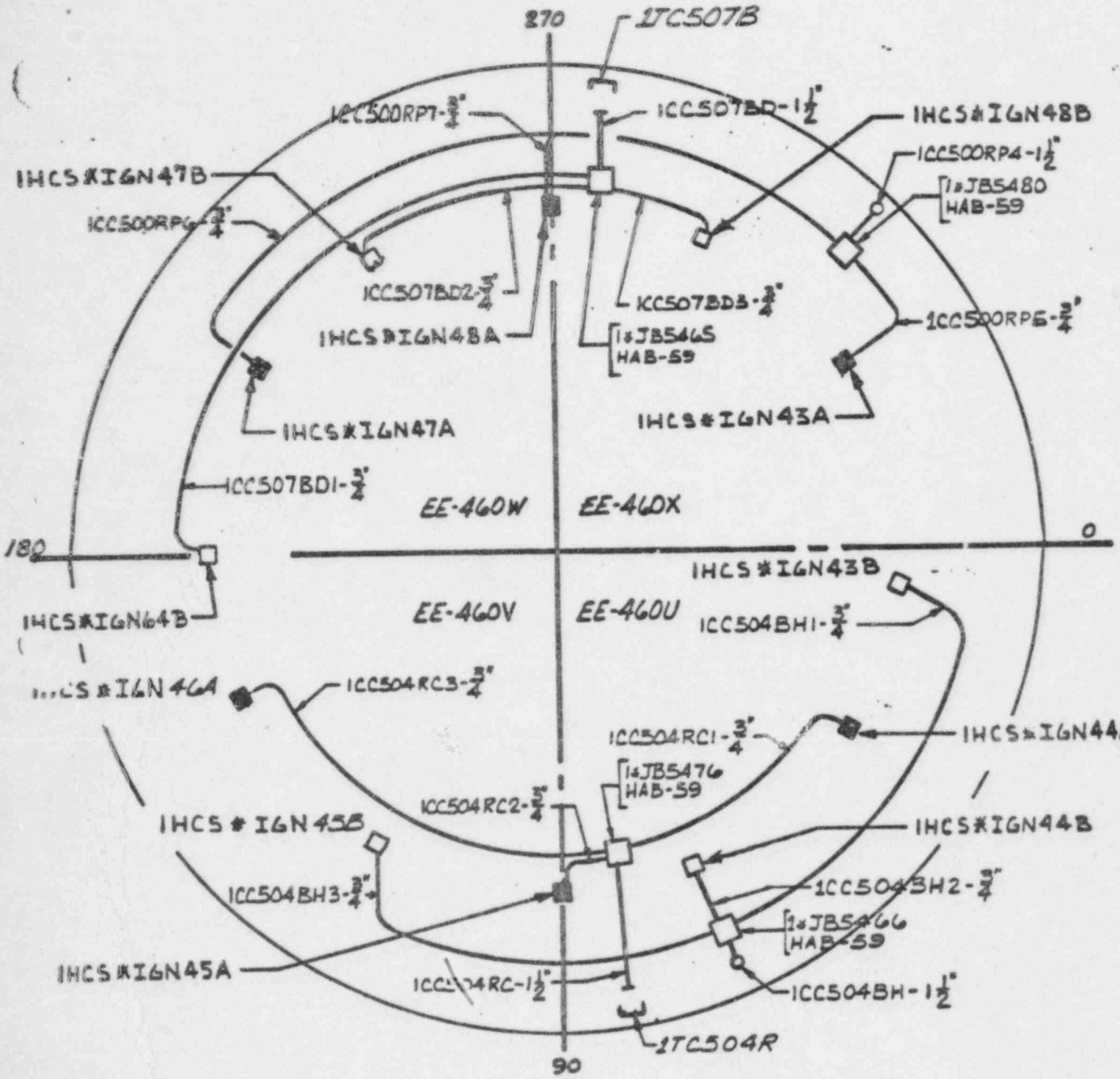


E & DCR P-21.763 B

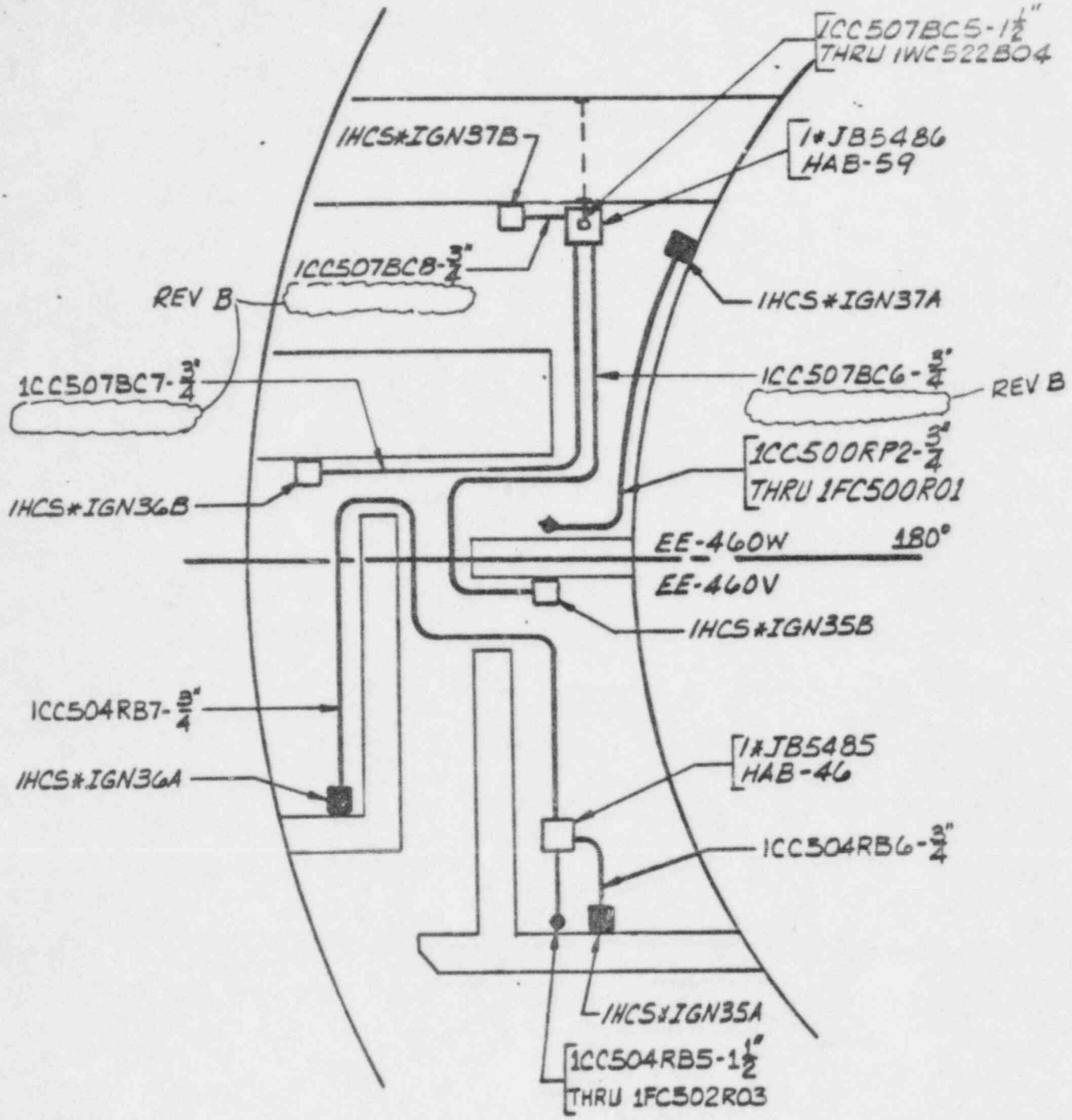


PLAN EL 114'-0"
REACTOR BLDG CONTAINMENT

E1 DCR P21.763B
PAGE 7 OF 15



EL 95'-9"
REACTOR BLDG
CONTAINMENT



PLAN EL 130'-7"
REACTOR BLDG CONTAINMENT

E&DCR# P. 21.763B
PAGE 9 OF 15

LOCATION OF HYDROGEN IGNITERS

REACTOR BLDG. CONTAINMENT EL 95'-9"

UNIT Nº	ELEV.	DIM X	DIM Y
HCS*IGN43A	EL 110'-0"	44'-0"	22'-6"
HCS*IGN43B	EL 110'-0"	49'-6"	4'-6"
HCS*IGN44A	EL 112'-4¾"	42'-0"	34'-0"
HCS*IGN44B	EL 111'-3¼"	18'-0"	45'-0"
HCS*IGN45A	EL 111'-3⅝"	0'-0"	49'-5
HCS*IGN45B	EL 112'-4¾"	23'-4"	38'-0"
HCS*IGN46A	EL 110'-0"	47'-0"	18'-0"
HCS*IGN46B	EL 112'-4¾"	49'-5"	0'-0"
HCS*IGN47A	EL 112'-4¾"	43'-4"	22'-4"
H *IGN47B	EL 112-4¾"	24'-0"	48'-0"
HCS*IGN48A	EL 111'-3⅝"	0'-0"	49'-5"
HCS*IGN48B	EL 111'-3⅝	26'-0"	47'-0"

LOCATION OF HYDROGEN IGNITERS

REACTOR BLDG. CONTAINMENT EL 114'-0"

UNIT Nº	ELEV.	DIM X	DIM Y
IHCS*IGN31A	EL 126'-0"	49'-0"	16'-0"
IHCS*IGN31B	EL 126'-0"	50'-0"	16'-0"
IHCS*IGN32A	EL 126'-0"	20'-11"	44'-10"
IHCS*IGN32B	EL 126'-0"	46'-3"	26'-8"
IHCS*IGN33A	EL 126'-0"	20'-11"	43'-0"
IHCS*IGN33B	EL 126'-0"	0'-0"	50'-0"
IHCS*IGN34A	EL 126'-0"	49'-0"	0'-0"
IHCS*IGN34B	EL 139-4	47-0"	27'-0"
IHCS*IGN35A	EL 136'-0"	42'-3"	19'-7"
IH *IGN35B	EL 136'-0"	45'-0"	1'-0"
IHCS*IGN36A	EL 136'-0"	54'-10"	16'-0"
IHCS*IGN36B	EL 136'-0"	57'-0"	4'-0"
IHCS*IGN37A	EL 135'-0"	37'-0"	15'-0"
IHCS*IGN37B	EL 135'-0"	46'-0"	16'-0"
IHCS*IGN38A	EL 139'-4"	26'-6"	47'-0"
IHCS*IGN38B	EL 126'-0"	0'-0"	51'-0"
IHCS*IGN39A	EL 126'-0"	22'-0"	43'-0"
IHCS*IGN39B	EL 130'-0"	47'-0"	29'-5"
IHCS*IGN24B	EL 126'-0"	41'-10	29'-4"

LOCATION OF HYDROGEN IGNITERS

REACTOR BLDG. CONTAINMENT EL 141'-0"

UNIT Nº	ELEV.	DIM X	DIM Y
1HCS*IGN22A	EL 150'-0"	47'-9"	22'-4"
1HCS*IGN22B	EL 153'-0"	26'-6"	48'-11"
1HCS*IGN23A	EL 159'-6"	4'-0"	50'-4"
1HCS*IGN23B	EL 152'-0"	25'-9"	44'-4"
1HCS*IGN24A	EL 155'-0"	49'-0"	25'-0"
1HCS*IGN25A	EL 150'-9"	43'-6"	25'-1"
1HCS*IGN25B	EL 151'-0"	31'-3"	50'-0"
1HCS*IGN26A	EL 155'-8"	19'-0"	45'-10"
1HCS*IGN26B	EL 150'-0"	5'-0"	46'-6"
1H *IGN27A	EL 151'-0"	36'-0"	29'-0"
1HCS*IGN27B	EL 152'-7"	22'-4"	47'-6"

LOCATION OF HYDROGEN IGNITERS

REACTOR BLDG. CONTAINMENT EL 162'-3"

UNIT Nº	ELEV.	DIM X	DIM Y
HCS*IGN11A	EL 165'-6"	48'-3"	17'-6"
HCS*IGN11B	EL 173'-0"	43'-0"	23'-0"
HCS*IGN12A	EL 172'-6"	26'-6"	46'-0"
HCS*IGN12B	EL 172'-6"	1'-0"	53'-0"
IHCS*IGN13A	EL 167'-3"	17'-0"	23'-0"
IHCS*IGN13B	EL 167'-3"	17'-0"	27'-0"
IHCS*IGN14A	EL 173'-6"	23'-3"	44'-2"
IHCS*IGN14B	EL 169'-9"	47'-0"	23'-0"
IHCS*IGN15A	EL 183'-6"	30'-0"	48'-0"
IH *IGN15B	EL 183'-6"	48'-0"	30'-0"
IHCS*IGN16A	EL 173'-0"	18'-0"	50'-0"
IHCS*IGN16B	EL 173-0"	18'-0"	49'-6"
IHCS*IGN17A	EL 172'-0"	19'-6"	38'-0"
IHCS*IGN17B	EL 173'-0"	18'-0"	37'-0"
IHCS*IGN18A	EL 173'-0"	18'-0"	26'-0"
IHCS*IGN18B	EL 173'-0"	4'-0"	23'-0"
IHCS*IGN19A	EL 172'-0"	17'-6"	26'-0"
IHCS*IGN19B	EL 173'-0"	5'-0"	23'-0"
IHCS*IGN20A	EL 172'-0"	22'-3"	49'-6"
IHCS*IGN20B	EL 170'-0"	40'-0"	33'-0"

LOCATION OF HYDROGEN IGNITERS

REACTOR BLDG. CONTAINMENT EL 162'-3"

UNIT Nº	ELEV.	DIM X	DIM Y
HCS*IGN21A	EL 165'-0"	46'-0"	17'-9"
HCS*IGN21B	EL 165'-0"	44'-0"	0'-6"
IHCS*IGN52A	EL 179'-3"	5'-0"	29'-11"
IHCS*IGN52B	EL 179'-3"	25'-0"	21'-11"

STONE & WEBSTER ENGINEERING CORPORATION

SUPPLEMENTARY CONSTRUCTION WORK ASSIGNMENT SHEET

SHEET 15 OF 15

TYPE

NO. P-21,763B

J.O. NO. 12210

PROJECT/CLIENT RIVER BEND STA - UNIT 1/GSU

WORK ITEM TYPE E

ACN

SUB ITEM NO.	DESCRIPTION	SCHED. COMP. DATE	WORK RESP.	EQUIP. REL. NO	SRI	WBS NO.	QA CAT
03	ADD CONDUITS & JB'S		IEL	JRB.005		JRB/1A	I
REMARKS							
04	ADD CONDUITS & JB'S		IEL	JRB.006		JRB/1A	I
REMARKS							
REMARKS							
REMARKS							
REMARKS							

USE FOR SIGNATURE COLLECTION WHEN REQUIRED

WORK COMPLETION	NWR ☐	DATE
INSP. REPORT NO./SIG.		DATE
FINAL WORK TRACKING CLOSURE		DATE

▲521086

STONE AND WEBSTER ENGINEERING CORPORATION
ENGINEERING & DESIGN COORDINATION REPORT

PAGE 1 OF 7
E&DCR NO. P-21,764A

PROJECT/CLIENT 5: RIVER BEND STATION - UNIT 1 GULF STATES UTILITIES COMPANY
JOB ORDER NO. 4: 12210

P.O. NO. (S&W) 5: N/A
REASON CODE (S) 6: F
EQUIP. I.D. NO. (S)/SYS. CODE (S) 7: N/A

REFERENCE DOCUMENTS 8: EE-460A-3, 460F-3, 460J-3, 460S-4, 460T-4, 460AA-3, 460AB-3
SUPPLIER(OR SUBSUPPLIER)NAME 9: N/A

DESCRIPTION SUMMARY 10: ADD CONDUITS
REMARKS 11: SUPERSEDES E&DCR P-21,764

PROBLEM DESCRIPTION 12

1. CONDUITS ARE REQUIRED FOR ROUTING ADDITIONAL CABLES TO THE HYDROGEN IGNITERS IN REACTOR BLDG DRYWELL.
2. LOCATIONS ARE REQUIRED FOR VARIOUS IGNITERS IN REACTOR BLDG DRYWELL.

REASON FOR CHANGE

NOTE REFERRED TO IN BLOCK 16 SHOULD HAVE BEEN NOTE 15 INSTEAD OF N E 14.

INITIATOR 13	AREA/DEPT DIV	TEL. EXT.	DATE	DATE NEEDED	APPROVED 14	ENGR. RESP 15
G Bennett	ELEC	3449	5/9/84	5/9/84	J Bolyard	E

PROBLEM SOLUTION 16

DWGS EE-460F, J, S, T, AA & AB ARE REVISED ADDING CONDUITS & JUNCTION BOXES & LOCATIONS OF IGNITERS AS SHOWN ON PAGES 2 THRU 7.

DWG EE-460A IS REVISED ADDING NOTE 15 AS FOLLOWS:

15. ■ HYDROGEN IGNITERS POWERED FROM DIV I
    □ HYDROGEN IGNITERS POWERED FROM DIV II

THIS E&DCR SUPERSEDES E&DCR P-21,764

IEEE: YES □ NO ☒
16 ASME □ NON-ASME ☒

INTERDISCIPLINE CONCURRENCE DISCIPLINE: VP ENGR DATE

EOC: N EOS: N SC: N

AFFECTED DOCUMENT NUMBERS 17	TYPE	STATUS
EE-460A, F,	D	C
J, S, T,	D	C
AA, AB	D	C

STATUS
C - WILL BE INCORPORATED
N - WILL NOT BE INCORPORATED
I - NO CHANGE

RELATED ACTIVITIES 18: N/A
QA CAT 19: I

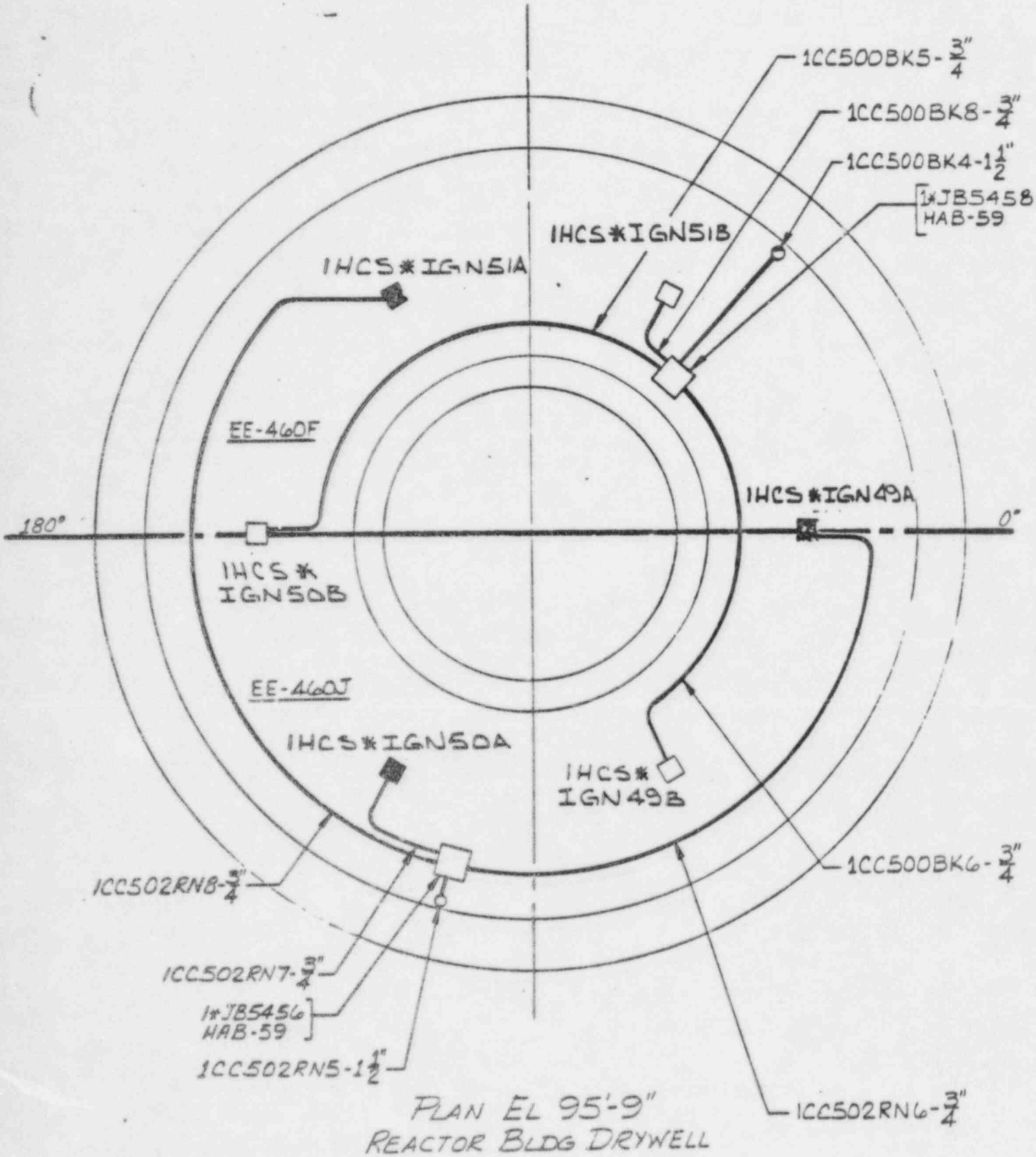
CLIENT APP REQ'D □ NR ☒
26 REF DATE

ANSWERED BY 20: G Bennett — DATE: 5-9-84
RESP. ENGR. 21: J Bolyard for JCW — DATE: 5-9-84
MATERIALS ENGR. 22: DA — DATE:
EQUIP. SPEC. 23: NA — DATE:
QSD OR EA 24: NA — DATE:
PROJ. ENGR. 25: WS Young — DATE: 5/10/84

SUB ITEM	WORK RESP	SUB ITEM	WORK RESP
01	27 IEL	02	27

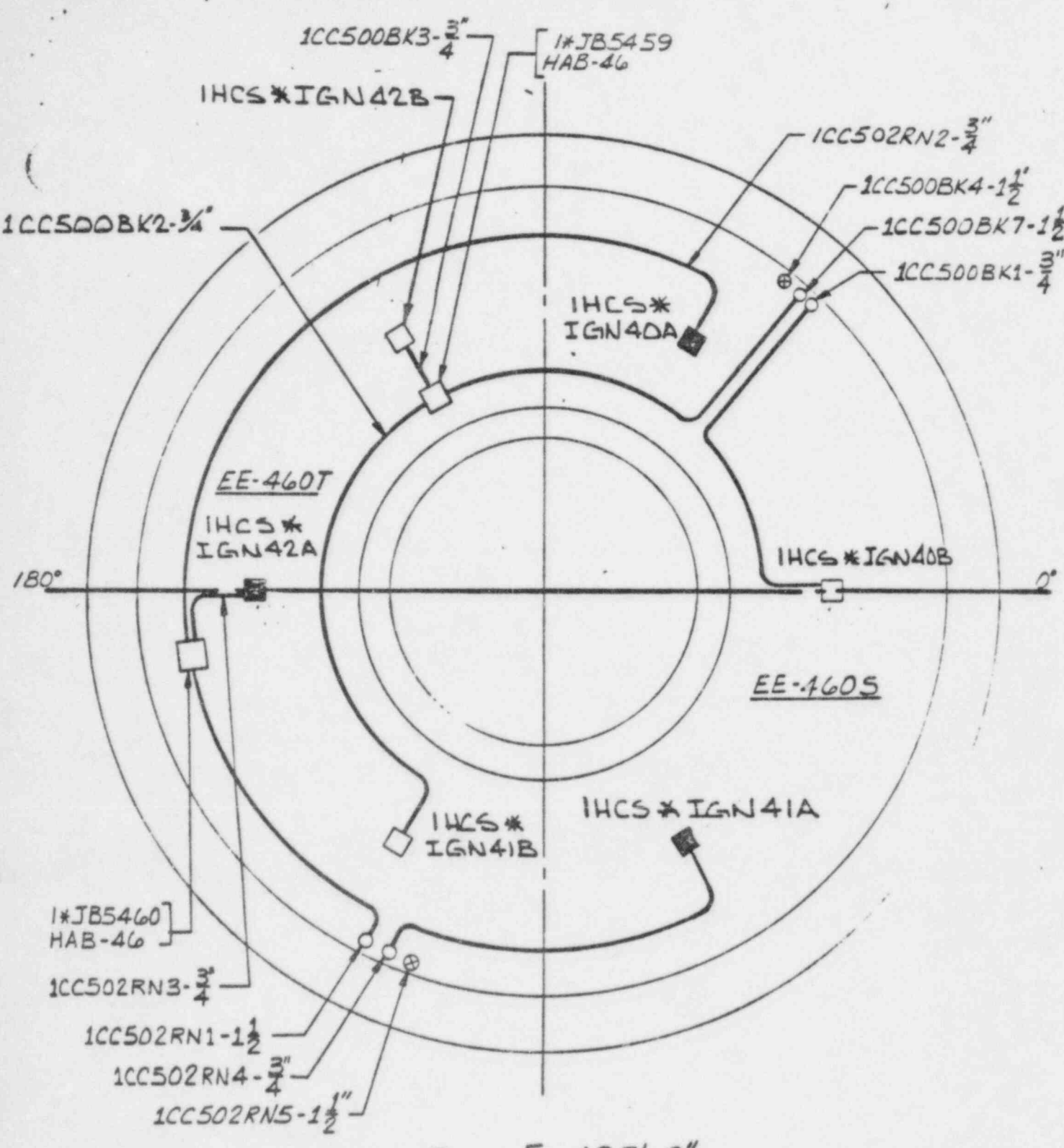
EQ RELEASE NO. 28: JRB.001 — EQ RELEASE NO. 28:
WBS NO. 29: JDW/1A — WBS NO. 29:
WORK COMPLETION 30 — NWR □ — DATE:
INSP. REPORT NO/SIG 31 — DATE:
FINAL WORK TRACKING CLOSURE 32 — DATE:

DESCRIPTION (01) 33: ADD CONDUITS & JB'S
DESCRIPTION (02) 33:
REMARKS (01) 34:
REMARKS (02) 34:

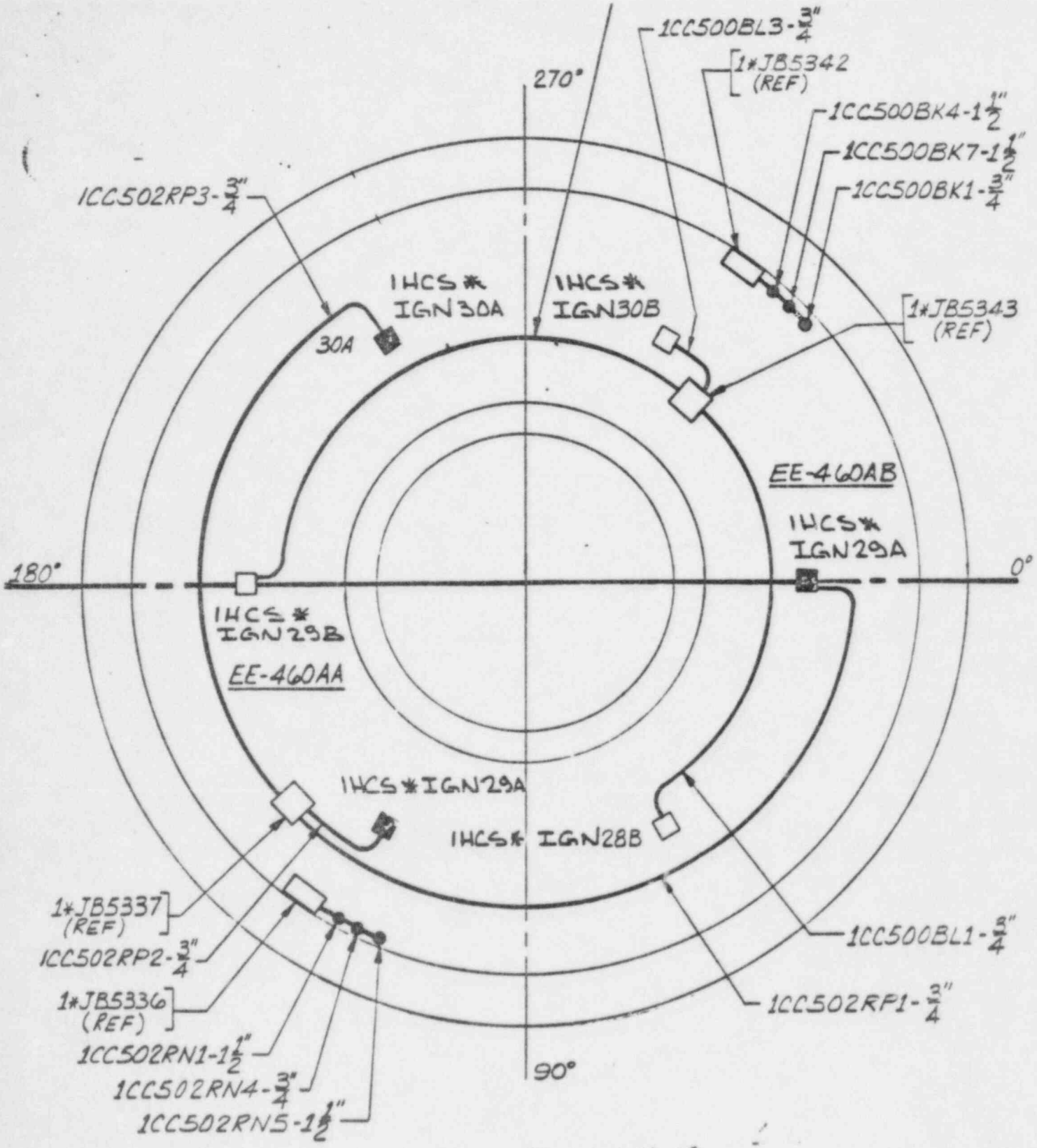


PLAN EL 95'-9"
REACTOR BLDG DRYWELL

E&DCR P-21.764A
PAGE 2 OF 7



PLAN EL 125'-0"
REACTOR BLDG DRYWELL



PLAN EL 141'-0"
REACTOR BLDG DRYWELL

LOCATION OF HYDROGEN IGNITERS

REACTOR BLDG. DRYWELL EL 95'-0"

UNIT Nº	ELEV.	DIM X	DIM Y
HCS*IGN49A	EL 116'-8"	25'-10"	2'-6"
HCS*IGN49B	EL 116'-6"	8'-3"	19'-3"
HCS*IGN50A	EL 116-7	8'-5"	19'-6"
HCS*IGN50B	EL 116'-7"	21'-0"	0'-0"
HCS*IGN51A	EL 115'-2"	8'-0"	19'-2"
HCS*IGN51B	EL 116'-6"	8'-3"	19'-6"

LOCATION OF HYDROGEN IGNITERS

REACTOR BLDG. DRYWELL EL 125'-0"

UNIT Nº	ELEV.	DIM X	DIM Y
HCS*IGN40A	EL 138'-8"	9'-10"	23'-0"
HCS*IGN40B	EL 133'-1"	18'-9"	0'-3"
HCS*IGN41A	EL 139'-10"	10'-8"	14'-9"
HCS*IGN41B	EL 133'-5"	14'-0"	16'-9"
HCS*IGN42A	EL 138'-11"	22'-10"	3'-6"
HCS*IGN42B	EL 138'-1"	9'-7"	15'-0"

EE-460S

E&DCR P21.764A

LOCATION OF HYDROGEN IGNITERS

REACTOR BLDG. DRYWELL EL 141'-0"

UNIT Nº	ELEV.	DIM X	DIM Y
HCS*IGN28A	EL 156'-0"	25'-0"	0'-0"
HCS*IGN28B	EL 156'-0"	12'-0"	19'-7"
HCS*IGN29A	EL 156'-0"	11-0"	17'-10"
HCS*IGN29B	EL 156'-0"	25'-0"	0'-0"
HCS*IGN30A	EL 156'-0"	11'-6"	18'-9"
HCS*IGN30B	EL 156'-0"	12'-6"	20'-6"

EE-460AA

E&DCR P21,764A

A 521066

STONE AND WEBSTER ENGINEERING CORPORATION

ENGINEERING & DESIGN COORDINATION REPORT

PAGE 1 OF 2

ECR NO. 2 252.007

PROJECT/CLIENT 5: RIVER BEND STATION - UNIT 1 GULF STATES UTILITIES COMPANY

JOB ORDER NO 4: 12210

P.O. NO (S.F.W.) 5: N/A

REASON CODE (S) 6: F

EQUIP I.D. NO. (S)/SYS. CODE (S) 7: N/A

REFERENCE DOCUMENTS 8: SEE PAGE 2

SUPPLIER (OR SUBSUPPLIER) NAME 9: N/A

DESCRIPTION SUMMARY 10: CONDUIT TERM DISCREPANCIES

REMARKS 11: N/A

PROBLEM DESCRIPTION 12

DISCREPANCIES EXIST BETWEEN CONDUIT TERMINATIONS SHOWN ON CONDUIT PLAN DWGS & ECSIS (ELECT CABLE SCHEDULE INFO SYSTEM)

12

INITIATOR 13	AREA/DEPT DIV	TEL EXT.	DATE	DATE NEEDED BY	APPROVED 14	ENGR RESP 15
J. ELIAS	ELEC	3449	6-6-84	6-6-84	J. DeBlanc	E

PROBLEM SOLUTION 16

DWGS EE-37W, 40A, 40B, 42G, 44A, 44E, 44AA, 45A, 45H, 48A, 50H, 53A, 53G, 53H, 55A, 55B, 55C, 55D, 55E, 55H, 55K, 56A, 56C, 420A, 450E, 460A, 460AW, 460BA, 470A, 490A, 500A & 590A ARE REVISED ADDING NOTE AS FOLLOWS:

WHEN CONDUITS SHOWN ON DWG DO NOT AGREE WITH RACEWAY TIES SHOWN IN ECSIS THE GOVERNING DOCUMENT SHALL BE ECSIS (RACEWAY TICKET).

IEEE: YES ☐ NO ☒

16 ASME ☐ NON-ASME ☒

INTERDISCIPLINE CONCURRENCE ENGR: NA DISCIPLINE: DATE:

EOC: U EOS: U SC: U

AFFECTED DOCUMENT NUMBERS 17	TYPE	STATUS
SEE PAGE 2		

STATUS
C - WILL BE INCORPORATED
N - WILL NOT BE INCORPORATED
I - NO CHANGE

RELATED ACTIVITIES 18: N/A

QA CAT 19: I & II

CLIENT APP REQ'D ☐ NR ☒

26 REF DATE

ANSWERED BY 20: James E. Elias DATE: 6-6-84

RESP LEAD ENGR 21: J. DeBlanc DATE: 6/6/84

MATERIALS ENGR 22: NA JD DATE:

EQUIP SPEC 23: NA JD DATE:

QSD OR EA 24: NA JD DATE:

PROJ ENGR 25: E. L. Berry DATE: 6/7/84

SUB ITEM 27	WORK RESP	SUB ITEM	WORK RESP
01	IEL	02	

EQ RELEASE NO. 28: N/A EQ RELEASE NO. 28:

WBS NO. 29: J99/9A WBS NO. 29:

WORK COMPLETION 30: NWR ☐ DATE:

INSP REPORT NO/SIG 31: DATE:

FINAL WORK TRACKING CLOSURE 32: DATE:

DESCRIPTION (01) 33: CONDUIT TERM DISCREPANCIES

DESCRIPTION (02) 33:

REMARKS (01) 34:

REMARKS (02) 34:

BLOCK 8 REFERENCE DOCUMENTS

EE-37W-5, 40A-2, 40B-1, 42G-5, 44A-7, 44E-5, 44AA-8, 45A-4, 45H-5, 48A-3, 50H-3, 53A-2, 53G-1, 53H-1, 55A-3, 55B-2, 55C-6, 55D-2, 55E-2, 55H-4, 55K-2, 56A-4, 56C-3, 420A-4, 450E-5, 460A-3, 460AW-1, 460BA-2, 470A-3, 490A-3, 500A-3, 590A-4

BLOCK 17

AFFECTED DOCUMENT NUMBERS	TYPE	STATUS
EE-37W, 40A, 40B, 42G, 44A, 44E, 44AA, 45A, 45H, 48A, 50H, 53A, 53G, 53H, 55A, 55B, 55C, 55D, 55E, 55H, 55K, 56A, 56C, 420A, 450E, 460A, 460AW, 460BA, 470A, 490A, 500A, 590A	D	C

E1DCR # P-22,007

▲5210.66

STONE AND WEBSTER ENGINEERING CORPORATION
ENGINEERING & DESIGN COORDINATION REPORT

PAGE 1 OF 1

E & DCR NO. P22356

PROJECT/CLIENT: RIVER BEND STATION - UNIT 1 GULF STATES UTILITIES COMPANY

JOB ORDER NO: 12210

P.O. NO. (S.F.W.)	REASON CODE (S)	EQUIP. I.D. NO. (S)/SYS. CODE (S)
N/A	F	~~NA~~ / HCS.002 IHCS*19 VARIOUS

REFERENCE DOCUMENTS: EE-460A-3

SUPPLIER(OR SUBSUPPLIER)NAME: N/A

DESCRIPTION SUMMARY: ADD NOTE ON TOLERANCE

REMARKS: N/A

PROBLEM DESCRIPTION

HYDROGEN IGNITERS IN THE REACTOR BLDG MUST BE INSTALLED WITHIN A 1'-0" RADIUS OF LOCATION GIVEN. Igniters on dome have this tolerance and those located elsewhere have no tolerance.

INITIATOR	AREA/DEPT DIV	TEL. EXT.	DATE	DATE NEEDED BY	APPROVED	ENGR RESP
A Bennett	ELEC	3494	11-7-84	11-7-84	James A Elliott	E

PROBLEM SOLUTION

DWG EE-460A IS REVISED ADDING NOTE 16

16. HYDROGEN IGNITERS IN THE DRYWELL & CONTAINMENT MUST BE INSTALLED WITHIN A 1'-0" RADIUS OF LOCATION GIVEN ON TABLES. ANY DEVIATION MUST HAVE ENGINEERING APPROVAL.

IEEE: YES ☐ NO ☒

ASME ☐ NON-ASME ☒

INTERDISCIPLINE CONCURRENCE ENGR: T Paulo DISCIPLINE: LTD DATE: 11/13/84

EOC: N EOS: N SC: N

AFFECTED DOCUMENT NUMBERS	TYPE	STATUS
EE-460A	D	C

STATUS
C - WILL BE INCORPORATED
N - WILL NOT BE INCORPORATED
I - NO CHANGE

RELATED ACTIVITIES: N/A QA CAT: I

CLIENT APP REQ'D ☐ NR ☒ REF DATE

ANSWERED BY: James A Elliott DATE: 11-7-84

RESP. LEAD ENGR: A C Thomas for PKG DATE: 11/13/84

MATERIALS ENGR: NR ACG DATE:

EQUIP. SPEC.: NR ACG DATE:

QSD OR EA: NR ACG DATE:

PROJ. ENGR: C J S Kang DATE: 11/13/84

SUB ITEM	WORK RESP	SUB ITEM	WORK RESP
01	EL	02	EL
EQ RELEASE NO.: JRB.001		EQ RELEASE NO.: JRB.003	
WBS NO.: 3DW / JRB/1A		WBS NO.: JRB / JRB/1A	

WORK COMPLETION NWR ☐ DATE:

INSP. REPORT NO/SIG DATE:

FINAL WORK TRACKING CLOSURE DATE:

DESCRIPTION (01): ~~ADD NOTE ON TOLERANCE~~ 11/13/84

REMARKS (01):

DESCRIPTION (02): ~~ADD NOTE ON TOLERANCE~~ 11/13/84

REMARKS (02):

VERIFY LOC OF IGNITERS TO BE WITHIN TOLERANCE GIVEN

SEE

APERTURE

CARDS

*OVERSIZED DRAWINGS

(ADDITIONAL DOCUMENT PAGES FOLLOW)

APERTURE CARD NO: 8502270146

AVAILIBILITY PDR CF HOLD

NUMBERS OF PAGES. 1

DOCUMENT PAGE PULLED

* OVERSIZE DUPLICATE DRAWINGS

SEE APERTURE CARDS

APERTURE CARD NO# 8401130398

AVAILABILITY (PDR) CF ___ NMSS ___

NUMBER OF PAGES. 2

ADDITIONAL APERTURE CARD NUMBERS BELOW.

8401130402

SEE

APERTURE

CARDS

*OVERSIZED DRAWINGS

(ADDITIONAL DOCUMENT PAGES FOLLOW)

APERTURE CARD NO/ 8502270156

* AVAILIBILITY PDR CF MOLD

NUMBERS OF PAGES. 1

TAB VII

AIR COOLING AND PURGING

SYSTEM DRAWINGS

FOR THE REACTOR BUILDING

12210-EB-15A-6	12210-EB-15B-5	12210-FB-15C-7	12210-EB-15D-7
12210-EB-15E-8	12210-EB-15F-8	12210-EB-15G-9	12210-EB-15H-9
12210-FB-15J-9	12210-EB-15K-9	12210-EB-15L-6	12210-EB-15M-6
12210-EB-15N-8	12210-EB-15P-8	12210-EB-15Q-7	12210-FB-15R-9

ENGINEERING & COORDINATION DESIGN REPORTS (E&DCR's) ISSUED AGAINST EB-15

EB-15A-6	EB-15B-5	EB-15C-6	EB-15D-6	EB-15E-7
C-13952A	None	C-12535	C-12535	C-12619C
		C-13976	C-13952A	C-13846
		P-12797	P-12797	C-13952A
		P-12915		P-12915

EB-15F-7	EB-15G-8	EB-15H-8	EB-15J-8	EB-15K-8
C-12535	C-12619C	C-12619C	C-12521A	C-12535
C-12619C	C-13392A	C-13392A	C-12535	C-12807
C-14170	C-13408	C-13436	C-12932	C-12866
C-14344	C-14044	C-14006A	C-13105	C-13646A
N&D-6552	C-14344	C-14285	C-14294	C-13846
	P-12266	C-14344	C-13756	C-14006A
	P-12915	P-12220D	C-14285	P-12514
	P-40882	P-12546	C-14294	P-12660
		P-12660	P-12266	
		P-12915	P-12514	
		P-40882	P-12915	
		N&D-6552	N&D-7199	

EB-15L-6	EB-15M-6	EB-15N-8	EB-15P-8	EB-15Q-7
C-12772	C-12772	C-13392A	C-13408	C-13431A
C-12857A	C-12857A	C-13436	C-13846	P-12576A
C-12932	C-13280	C-13952A	C-13952A	
	C-13846	C-14344	C-13976	
			C-14006A	
			P-12660	
			P-12915	

EB-15R-8	
C-13952A	C-6036B
C-14006A	C-12521A
C-14170	C-12619C
C-14285	C-13280
P-12915	C-13392A
	C-13408
	C-13417
	C-13756

DOCUMENT PAGE PULLED

* OVERSIZE DUPLICATE DRAWINGS

SEE APERTURE CARDS

APERTURE CARD NO# 8401130404

AVAILABILITY (PDR) CF ___ NMSS ___

NUMBER OF PAGES. 1

ADDITIONAL APERTURE CARD NUMBERS BELOW.

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_____ _____

_____ _____

A0210 00

STONE AND WEBSTER ENGINEERING CORPORATION
ENGINEERING & DESIGN COORDINATION REPORT

PAGE 1 OF 8
EDCR NO. C-13952A

PROJECT/CLIENT 3: RIVER BEND PROJECT UNIT No 1 / GS.U.
JOB ORDER NO. 12210

P.O NO (S.F.W.) 5: N/A
REASON CODE (S) 6: V
EQUIP. I.D. NO (S)/SYS. CODE (S) 7: DRS-DUCT HVR-DUCT (DRS, DUN HVR, 001)

REFERENCE DOCUMENTS 8: EB-15A-6, 15D-6, 15E-7, 15N-8, 15P-8, 15R-8
SUPPLIER(OR SUBSUPPLIER) NAME 9: N/A

DESCRIPTION SUMMARY 10: VARIOUS DUCTWORK MODIFICATION
REMARKS 50: SUPERSEDES C-13952

PROBLEM DESCRIPTION 12:

① A 24x20 DUCT LINE, EL. 93'-5" AZIMUTH 160°, IS IN INTERFERENCE WITH AN ELECTRICAL JUNCTION BOX. THE 45° ELBOW NEEDS TO BE DELETED FOR REGISTER INSTALLATION PURPOSES.

② A 24"x 26" DUCT LINE, EL. 106'-6" AZIMUTH 310° IS IN INTERFERENCE WITH A PIPE STRUT AT ITS DESIGNED LOCATION. THIS DUCT NEEDS TO BE LOWERED TWO INCHES AND MITERED FOR PROPER INSTALLATION.

③ A 32"x32" DUCT RISER AT AZIMUTH 53° IS IN INTERFERENCE WITH A ELECTRICAL CONDUIT AT EL. 131'-0" WITH TERMINATED WIRES. THIS DUCT NEEDS TO BE MITERED FOR PROPER CLEARANCE.

④ A 24"x20" DUCT RISER, AZIMUTH 133° EL. 142'-0" NEEDS TO BE MITERED WITH A 1" OFFSET FOR PROPER FLOOR PENETRATION.

REV A PROBLEM ② NEEDS TO BE REVISED TO ALSO ADDRESS AN INTERFERENCE WITH A SVV LINE WHEN THE PIPE IS IN ITS PROPER LOCATION.

INITIATOR 13	ARTS/DEPT OF	TEL EXT	DATE	DATE NEEDED BY	APPROVED	ENGR RESP 15
Brian Sievers	Piping	x4565	10/7/84	10/8/84		X

PROBLEM SOLUTION 16: THIS EDCR SUPERSEDES C-13,952

THE DESIGN DWGS. SHALL BE REVISED AS FOLLOWS:

EB DWG. #	EDCR PAGE #	CHANGE DESCRIPTION
EB-15A	2 of 8	DELETES 45° ELBOW AND RELOCATES REGISTER AS PER PROBLEM No 1.
EB-15A	3 of 8	
EB-15D	4 of 8	MODIFIES DUCT DUE TO SVV LINE AS PER REV A OF C-13,952 (PROBLEM 2)
EB-15N	5 of 8	
EB-15P	6 of 8	MODIFIES DUCT FOR CONDUIT CLEARANCE AS PER PROBLEM No 3.
EB-15E	7 of 8	OFFSETS DUCT AS PER PROBLEM No 4
EB-15R	8 of 8	

NON-ASME

EDS:N EQCN SC:N

AFFECTED DOCUMENT NUMBERS 17	TYPE	STATUS
EB-15A	D	C
EB-15D	D	C
EB-15E	D	C
EB-15N	D	C
EB-15P	D	C
EB-15R	D	C

STATUS
C - WILL BE INCORPORATED
N - WILL NOT BE INCORPORATED
I - NO CHANGE

RELATED ACTIVITIES 18: N/A
QA CAT 19: II

ANSWERED BY 20: Brian Sievers DATE 11/1/84
RESP. MECH. ENGR. 21: Clark DATE 10/31/84
MATERIALS ENGR. 22: N/A DATE
EQUIP. SPEC. 23: N/A DATE
QSD OR/EA 24: N/A DATE
PROJ. ENGR 25: [signature] DATE 10/8/84

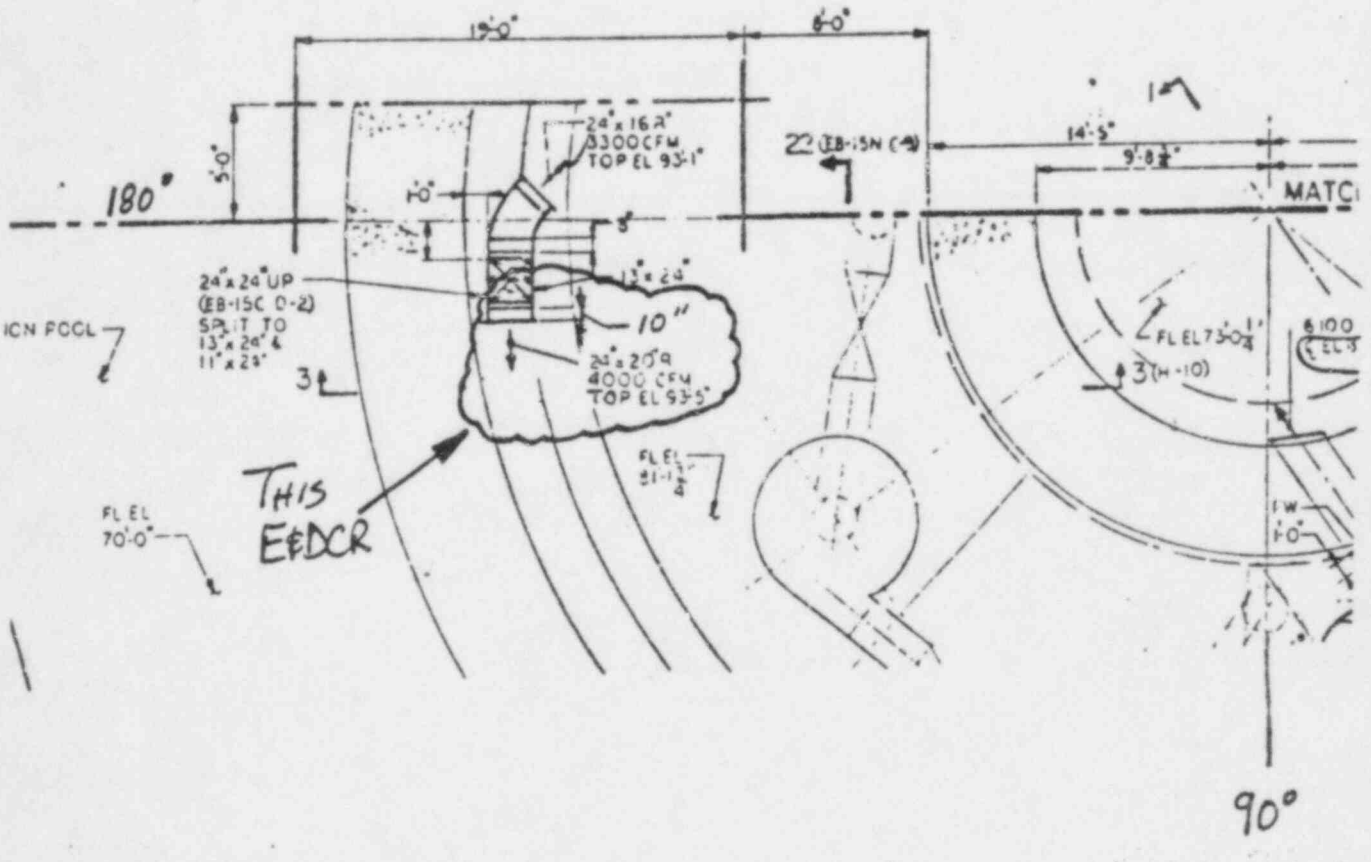
CLIENT APP REQ'D ☐ NR ☒
25 REF DATE

SUB ITEM	WORK RESP 27	SUB ITEM	WORK RESP 27
01	1SW	02	1SW

EQ RELEASE NO. 28: DRS.000 | EQ RELEASE NO. 28: HVR.001
WBS NO. 29: JRB/1A | WBS NO. 29: JRB/1A
WORK COMPLETION 30 NWR ☐ DATE
INSP. REPORT NO/SIG 31 DATE
FINAL WORK TRACKING CLOSURE 32 DATE

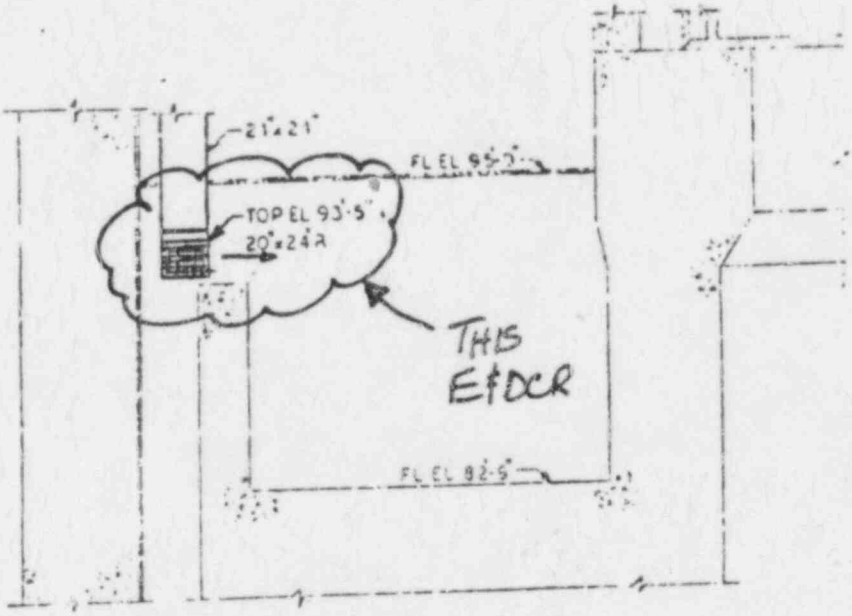
DESCRIPTION (01) 33: VARIOUS DUCTWORK MODIFICATIONS
REMARKS (01) 34: N/A
DESCRIPTION (02) 33: VARIOUS DUCTWORK MODIFICATIONS
REMARKS (02) 34: N/A

E&DCR C-13,752 A
PAGE 2 OF 8



		TITLE	REF: EB-15A-6	SCALE	
CHECKED			COOR. (D-3) PLAN EL. 70'-0"	DATE	
CORRECT					
APPROVED				SKETCH NUMBER	
REVISIONS	②	③	④	⑤	

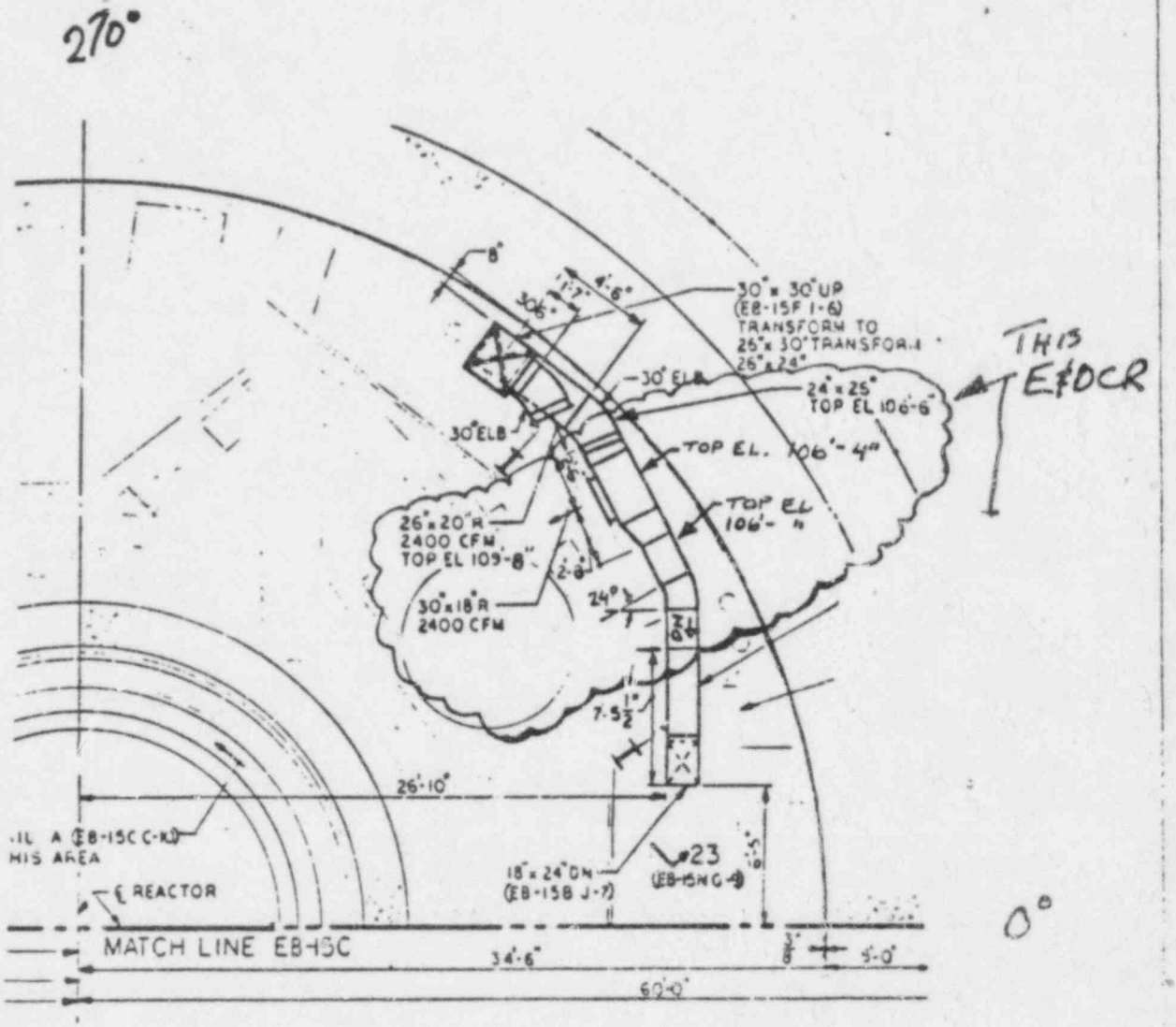
E&DCR C-13,952A
PAGE 3 OF 8



3-3
(C-1)

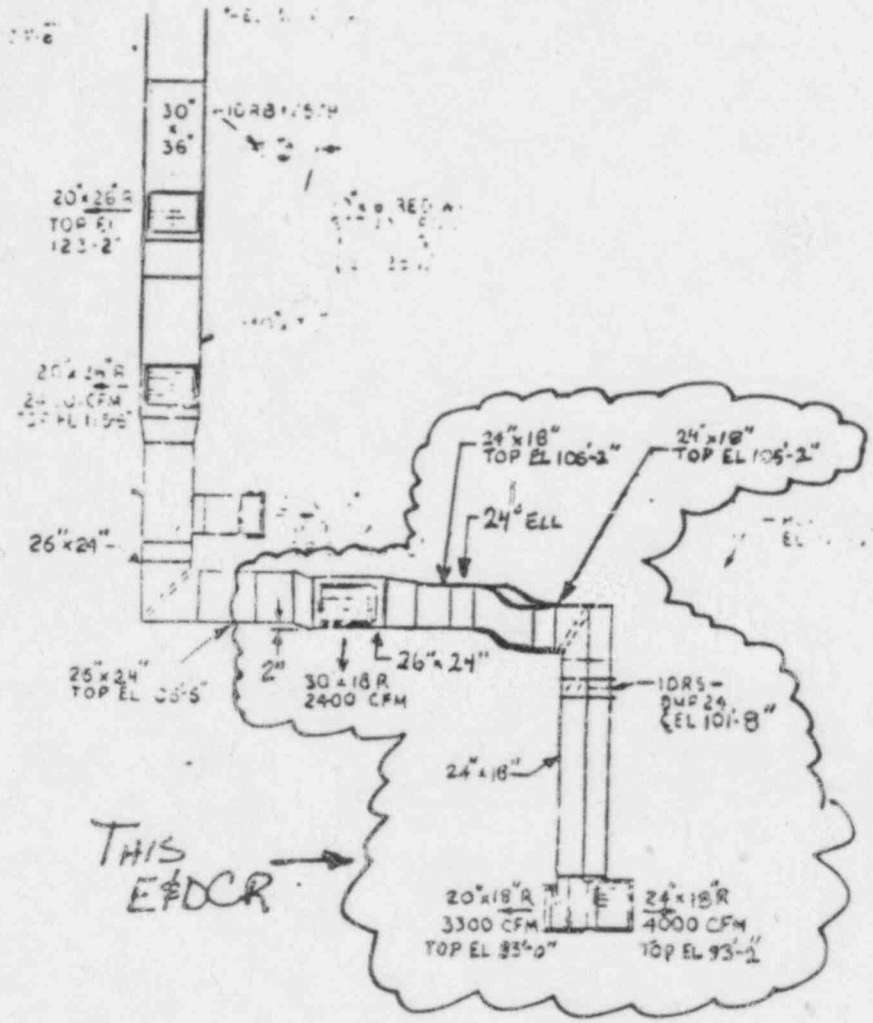
CHECKED		TITLE	REF: EB-15A-6 SECTION 3-3		SCALE
CORRECT					DATE
APPROVED					SKETCH NUMBER
REVISIONS	②	③	④	⑤	

E&DCR C-13,952 A
PAGE 4 of 8



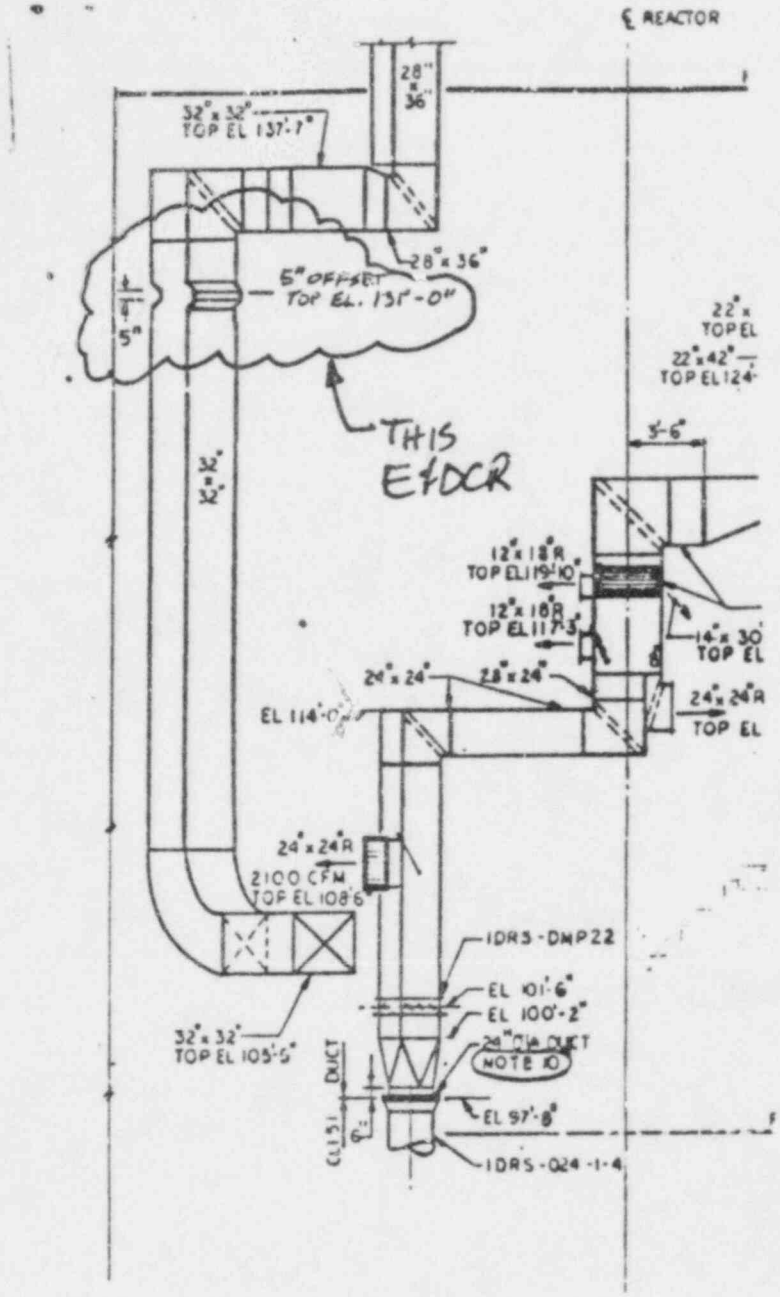
		TITLE	SCALE:
CHECKED		REF: EB-15D-6	DATE
CORRECT		PLAN EL. 95'-9"	SKETCH NUMBER
APPROVED			
REVISIONS	(2) (3) (4) (5)		

E&DCR C-13,952 A
PAGE 5 OF 8



CHECKED		TITLE	REF: EB-15N-8 SECTION 23-23	SCALE:	
CORRECT				DATE:	
APPROVED				SKETCH NUMBER	
REVISIONS	(2)	(3)	(4)	(5)	

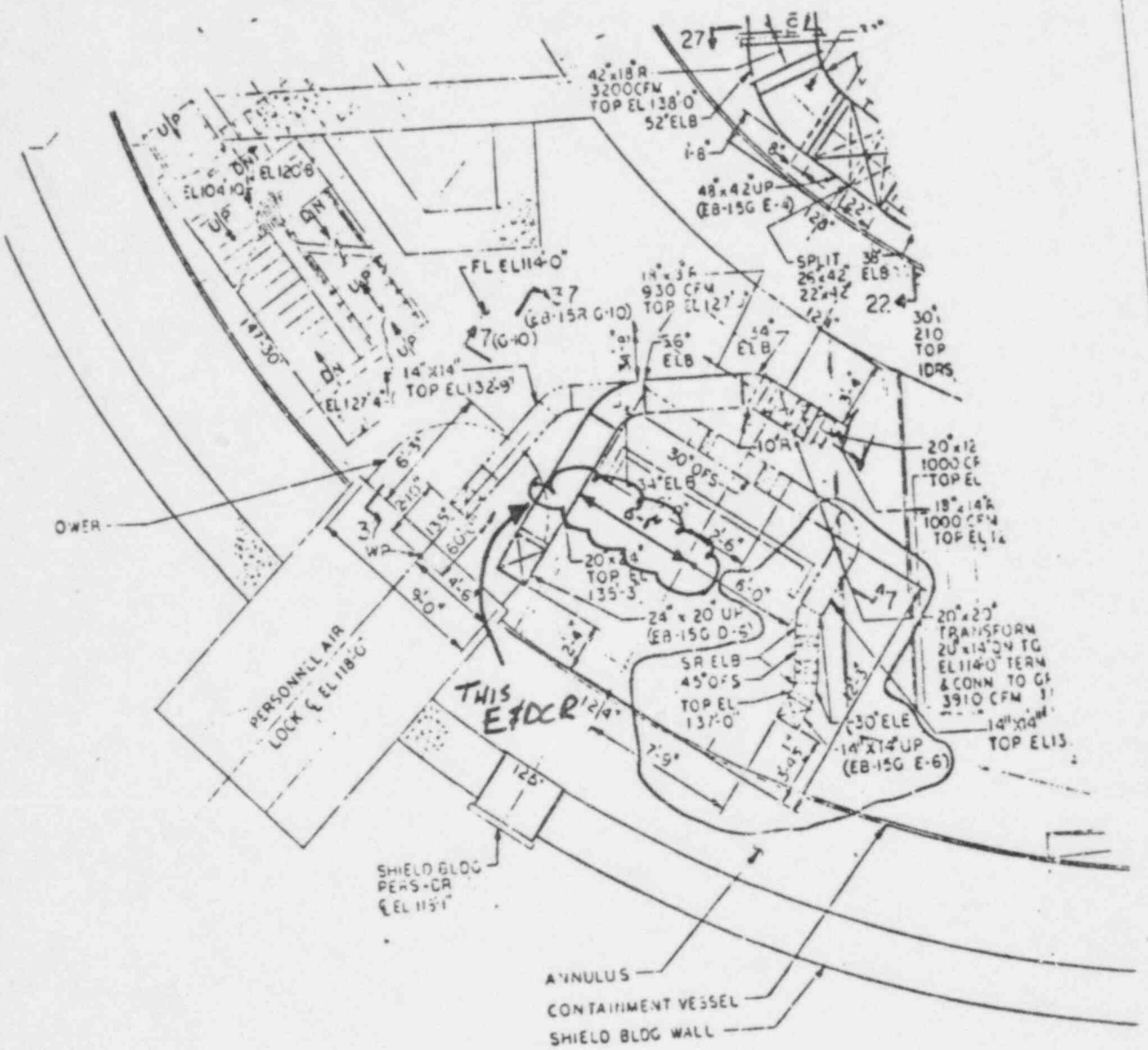
E&DCR. C-13,952A
PAGE 6 OF 8



27-27
(EB-15C F-4)
(EB-15E 1-3)

		TITLE	REF: EB-15P-8 SECT. 27-27	SCALE	
CHECKED				DATE	
CORRECT				SKETCH NUMBER	
APPROVED					
REVISIONS	②	③	④	⑤	

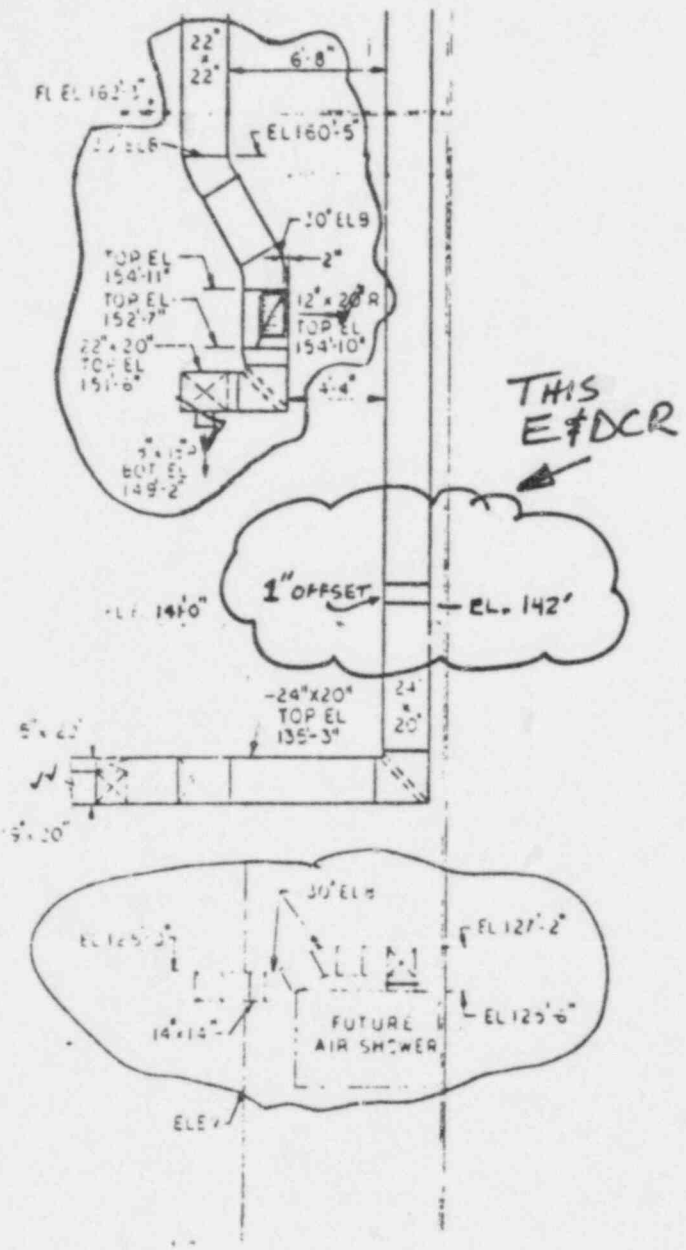
E&DCR C-13,952A
PAGE TOP 8



	TITLE		SCALE
CHECKED	REF: EB-15E-7		DATE
CORRECT	PLAN EL. 114'-0"		SKETCH NUMBER
APPROVED			

③ ④ ⑤

E&DCR C-13,952A
PAGE 8 OF 8



						TITLE	SCALE:
CHECKED						REF: EB-15R-8	DATE:
CORRECT						SECTION 37-37	SKETCH NUMBER
APPROVED							
REVISIONS	②		③		④	⑤	

SEE

APERTURE

CARDS

*OVERSIZED DRAWINGS

(ADDITIONAL DOCUMENT PAGES FOLLOW)

APERTURE CARD NO: 8502270170

AVAILIBILITY PDR CF HOLD

NUMBERS OF PAGES. 1

SEE

APERTURE

CARDS

*OVERSIZED DRAWINGS

(ADDITIONAL DOCUMENT PAGES FOLLOW)

APERTURE CARD NO# 8502270183

AVAILIBILITY PDR CF HOLD

NUMBERS OF PAGES. 1

7 A 5.

A5210 65 — STONE AND WEBSTER ENGINEERING CORPORATION — PAGE 1 OF 4

ENGINEERING & DESIGN COORDINATION REPORT — E & DCR NO. C-12,535

3 PROJECT/CLIENT: RIVER BEND PROJECT UNIT 1/GSU	4 JOB ORDER NO.: 12210
5 P.O. NO. (S.F.W.): 216-110-996	6 REASON CODE (S): V, F.
7 EQUIP. I.D. NO. (S)/SYS. CODE (S): 1HVR-DUCT	
8 REFERENCE DOCUMENTS: EB-15C/D Rev 6, 15J/K Rev 7, 15Q Rev 6	9 SUPPLIER (OR SUBSUPPLIER) NAME: MCCROSKEY SHT MTL.
10 DESCRIPTION SUMMARY: DUCTWORK Revisions	11 REMARKS: N.A.

12 PROBLEM DESCRIPTION

DUCTWORK LAY-OUT CONSISTING STRAIGHT DUCT AND ELBOW ARRANGEMENT FOR REACTOR BLDG ANNULUS AREA SHOWN ON EB-15C, D, J, K, and Q DRAWINGS SHALL BE REVISED TO CIRCULAR/RING DUCT ARRANGEMENT, TO FACILITATE DUCTWORK INSTALLATION, AND TO PROVIDE PROPER CLEARANCE FOR DUCT SUPPORT INSTALLATION.

12

13 INITIATOR	AREA/DEPT DIV	TEL EXT.	DATE	DATE NEEDED BY	14 APPROVED	15 ENGR. RESP
V. PHATAK	POWER	746	7-12-83	7-14-83	J. A. B.	XP.

16 PROBLEM SOLUTION

DRAWINGS EB-15C, 15D, 15F, 15J, 15Q 15K ARE REVISED AS INDICATED ON ATTACHED SKETCHES PAGES 2, 3 AND 4 OF 4 OF THIS E&DCR

NOTE: (PAGES 2, 3 & 4 ARE FULL SIZE SEPIA DWGS)

NON-ASME
MCCROSKEY — YES.

*P. Miktus/Site EMD CONCURS. JL 7/13/83

EOC: N EOS: N SC: N

17 AFFECTED DOCUMENT NUMBERS	TYPE	STATUS
12210-EB-15C	D	C
12210-EB-15D	D	C
12210-EB-15F	D	C
12210-EB-15J	D	C
12210-EB-15K	D	C
12210-EB-15Q	D	C

STATUS: C - WILL BE INCORPORATED; N - WILL NOT BE INCORPORATED; I - NO CHANGE

18 RELATED ACTIVITIES: N.A.	19 QA CAT: I, II, III.	CLIENT APP REQ'D ☐ NR ☒
20 ANSWERED BY: * Vaonw Phatak	DATE: 7/13/83	26 REF / DATE
21 RESP. LEAD ENGR.: J. A. Balani	DATE: 7/13/83	SUB ITEM 01 / WORK RESP * VS / SUB ITEM 02 / WORK RESP 27
22 MATERIALS ENGR.: N.R.	DATE	EQ RELEASE NO. BEP# 28 HVR-001 / EQ RELEASE NO. 28
23 EQUIP. SPEC.: N.R.	DATE	WBS NO. 1HVR 29 JRB/1A. / WBS NO. 29
24 QSD OR EA: N.R.	DATE	WORK COMPLETION 30 NWR ☐ / DATE
25 PROJ. ENGR.: [signature]	DATE 7/14/83	INSP. REPORT NO/SIG 31 / DATE
		FINAL WORK TRACKING CLOSURE 32 / DATE

DESCRIPTION (01) 33: DUCTWORK REVISIONS.	REMARKS (01) 34
DESCRIPTION (02) 33	REMARKS (02) 34

▲5210.86

STONE AND WEBSTER ENGINEERING CORPORATION
ENGINEERING & DESIGN COORDINATION REPORT

PAGE 1 OF 3

E & DCR NO. 2 C-13,976

PROJECT/CLIENT 5 RIVER BEND STATION - UNIT 1 GULF STATES UTILITIES COMPANY

JOB ORDER NO. 4 12210

P.O. NO. (S,E,W) 5 N/A

REASON CODE (S) 6 V

EQUIP. I.D. NO. (S)/SYS. CODE (S) 7 1 DRS - DUCT (DRS.000)

REFERENCE DOCUMENTS 8 EB-15P-8, 15C-6

SUPPLIER(OR SUBSUPPLIER)NAME 9 N/A

DESCRIPTION SUMMARY 10 PIPE INTERFERING WITH DUCT

REMARKS 11 N/A

PROBLEM DESCRIPTION 12

CONSTRUCTION HAS REQUESTED THE RELOCATION OF THE DUCT LINE AT 114'-0" EL., 90° IN THE REACTR DRYWELL INORDER TO PREVENT AN INTERFERENCE WITH PIPING.

12

INITIATOR 13	AREA/DEPT DIV	TEL. EXT.	DATE	DATE NEEDED BY	APPROVED 14	ENGR. RESP 15
[signature]	BWEC	4568	5/19/84	5/[illegible]/84	J. A. B.	X

PROBLEM SOLUTION 16

REVISE EB DRAWINGS 15C & 15P AS SHOWN ON PAGES 2 & 3 OF 3 OF THIS E & DCR

IEEE: YES ☐ NO ☑

16 ASME ☐ NON-ASME ☑

INTERDISCIPLINE CONCURRENCE ENGR | DATE

DISCIPLINE: NR

EOC: N EOS: N SC: N

AFFECTED DOCUMENT NUMBERS 17	TYPE	STATUS
EB-15C	D	C
EB-15P	D	C

RELATED ACTIVITIES 18 N/A | QA CAT 19 II

CLIENT APP REQ'D ☐ NR ☒
26 REF DATE

ANSWERED BY 20 [signature] DATE 5/22/84

SUB ITEM 01 | WORK RESP 27 1SW | SUB ITEM 02 | WORK RESP 27

RESPONSIBLE ENGR. 21 [signature] DATE 5/22/84

EQ RELEASE NO. 28 1BxDRS000 | EQ RELEASE NO. 28

MATERIALS ENGR. 22 NR DATE

WBS NO. 29 JRB/1A | WBS NO. 29

EQUIP. SPEC. 23 NR DATE

WORK COMPLETION 30 NWR ☐ DATE

QSD OR EA 24 NR DATE

INSP. REPORT NO/SIG 31 DATE

PROJ. ENGR. 25 [signature] DATE 5/22/84

FINAL WORK TRACKING CLOSURE 32 DATE

STATUS
C - WILL BE INCORPORATED
N - WILL NOT BE INCORPORATED
I - NO CHANGE

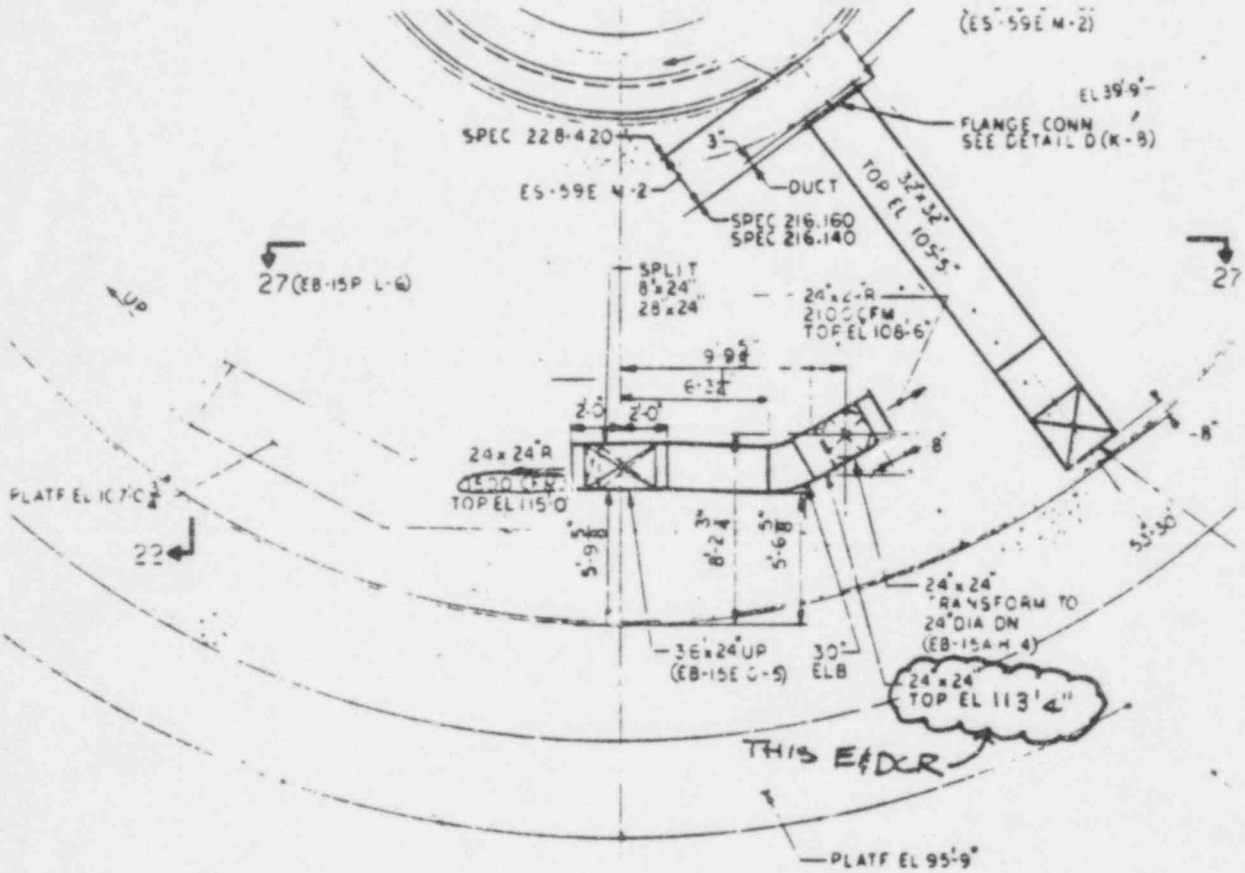
DESCRIPTION (01) 33 PIPE INTERFERING W/ DUCTWORK

REMARKS (01) 34 HP

DESCRIPTION (02) 33

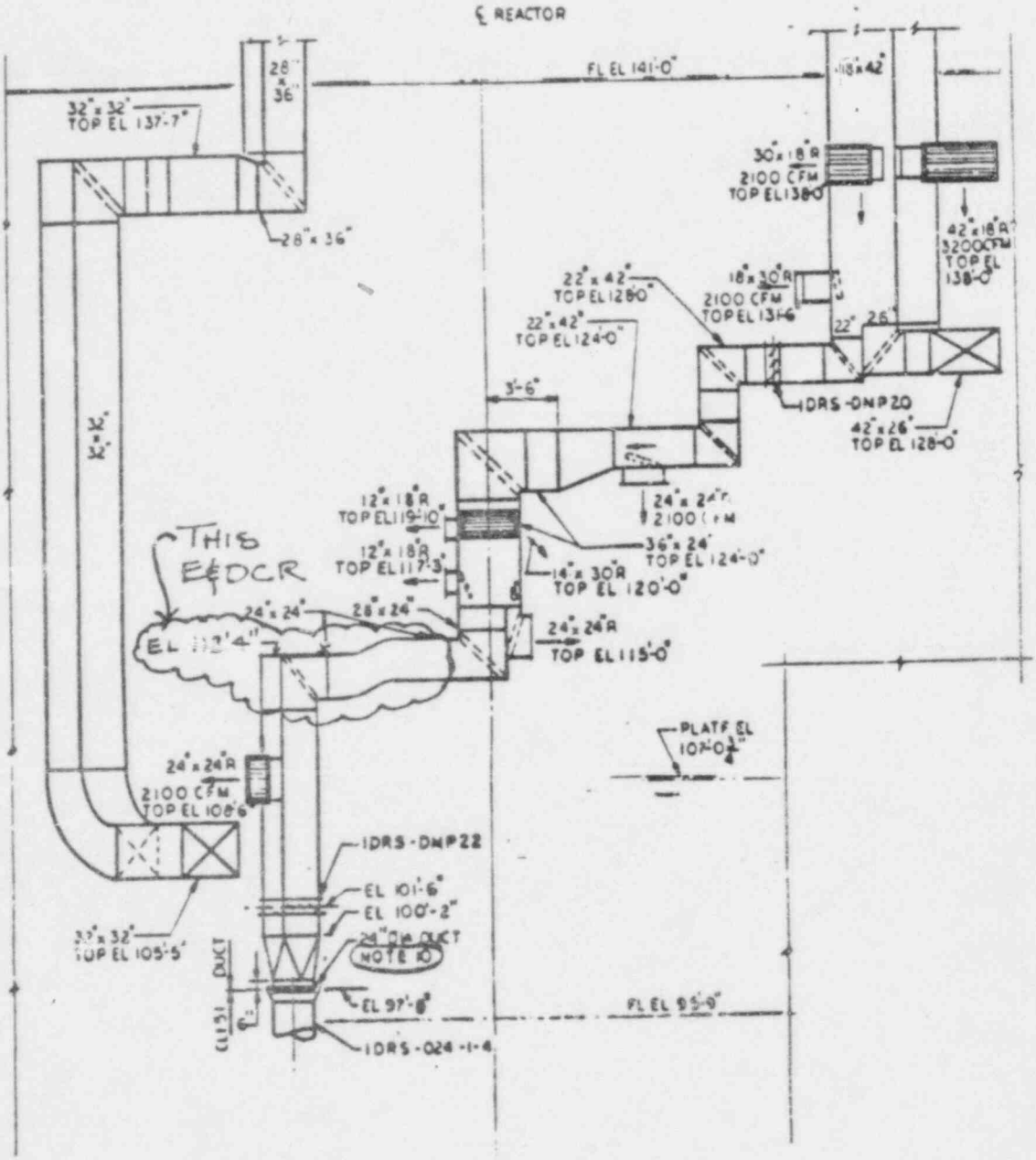
REMARKS (02) 34

PAGE 2 OF 3
E&DCR #
C-13,976



		TITLE					SCALE:	
CHECKED		REF: EB-15C					DATE:	
CORRECT								
APPROVED							SKETCH NUMBER	
REVISIONS	②		③		④		⑤	

PAGE 3 OF 3
E&DCR #
C-13,976



27-27
(EB-15C F 4)
(EB-15E 1-3)

		TITLE	SCALE:
CHECKED		REF: EB-15P	DATE:
CORRECT			SKETCH NUMBER
APPROVED			
REVISIONS	(2) (3) (4) (5)		

K Dohwarry - 4/9

A5210 05

STONE AND WEBSTER ENGINEERING CORPORATION

ENGINEERING & DESIGN COORDINATION REPORT

PAGE 1 OF 1

E & DCR NO. 2 P-12797

PROJECT/CLIENT 3 RIVER BEND STATION UNIT 1 / GULF STATES UTILITIES CO.

JOB ORDER NO. 4 12210

P.O NO (S.F.W.) 5 NA

REASON CODE (S) 6 F&D

EQUIP. I.D. NO. (S)/SYS. CODE (S) 7 RPV VENT / DRS

REFERENCE DOCUMENTS 8 12210-EB-15C-6 & 15D-6

SUPPLIER(OR SUBSUPPLIER)NAME 9 NA

DESCRIPTION SUMMARY 10 DELETE VENT COOLING DETAILS OF RPV SKIRT

REMARKS 11 NA

PROBLEM DESCRIPTION 12

AREA/BLDG CODE 1/REACTOR BLDG

RPV ~~VE~~ SKIRT VENT AIR COOLING ARRANGEMENT SHOWN INSIDE THE PRIMARY SHIELD WALL ON EB-15C MUST BE DELETED. FINAL ARRANGEMENT OF RPV VENT AIR COOLING REQUIREMENTS ARE INCORPORATED ONTO THE RPV SKIRT INSULATION SUPPORT DRAWINGS ES-54AA THRU ES-54AH.

REFERENCE DRAWINGS LISTED ABOVE HAVE BEEN ISSUED FOR FAB & CONSTRUCTION.

12

INITIATOR 13	AREA/DEPT DIV	TEL EXT	DATE	DATE NEEDED 8	APPROVED 14	ENGR. RESP 15
D Schwarzy	POWER	3429	4-11-84	4-13-84	TEQ	PB

PROBLEM SOLUTION 16

EB-15C IS REVISED AS FOLLOWS:

Coord G-2 - Delete "SEE DETAIL 'C' (C-10) FOR THIS AREA".

Coord C-10 - Delete DETAIL 'C'.

Coord H-10 - Delete SECTION 4-4

Coord G-3 - Delete "SPEC 22B.140 & ADD 'ES-54AB'.

EB-15D IS REVISED AS FOLLOWS:

Coord G-7 - Delete "SEE DETAIL 'A' (EB-15C C-10) FOR THIS AREA".

RBB

EQC: N EQS: N SC: N

AFFECTED DOCUMENT NUMBERS 17	TYPE	STATUS
12210-EB-15C	D	C
12210-EB-15D	D	C

STATUS
C - WILL BE INCORPORATED
N - WILL NOT BE INCORPORATED
I - NO CHANGE

RELATED ACTIVITIES 18 NA

QA CAT 19 II

ANSWERED BY 20 D Schwarzy DATE 4-11-84

RESP. LEAD ENGR. for F. McMorris DATE 4/10/84

MATERIALS ENGR. 22 NR DATE

EQUIP. SPEC. 23 NR DATE

QSD OR EA 24 NR DATE

PROJ. ENGR. 25 E. O. Berry DATE 4/11/84

CLIENT APP REQ'D ☐ NR ☑ 26 REF DATE

SUB ITEM 01	WORK RESP 27 NWR	SUB ITEM 02	WORK RESP 27

EQ RELEASE NO. 28 JRB.001 | EQ RELEASE NO. 28

WBS NO. 29 JRB/1A | WBS NO. 29

WORK COMPLETION 30 NWR ☐ DATE

INSP. REPORT NO/SIG 31 DATE

FINAL WORK TRACKING CLOSURE 32 DATE

DESCRIPTION (01) 33 DELETE VENT COOLING DETAILS FOR RPV SKIRT

REMARKS (01) 34

DESCRIPTION (02) 33

REMARKS (02) 34

4

A5210.00

STONE AND WEBSTER ENGINEERING CORPORATION

ENGINEERING & DESIGN COORDINATION REPORT

PAGE 1 OF 5

E & DCR NO. P-12915

PROJECT/CLIENT: RIVER BEND STATION - UNIT 1 GULF STATES UTILITIES COMPANY

JOB ORDER NO. 12210

P.O. NO. (S.C.W.)	REASON CODE (S)	EQUIP. I.D. NO. (S)/SYS. CODE (S)
NA	F	HVR

REFERENCE DOCUMENTS: M-12210-EB-15C-6, E-7, G-8, H-8, J-8, P-8 & R-8

SUPPLIER (OR SUBSUPPLIER) NAME: NA

DESCRIPTION SUMMARY: ADD 3/4" LMC VALUES & VARIOUS DWG CORRECTIONS

REMARKS: NA

PROBLEM DESCRIPTION

AREA/BLDG CODE: 1/REACTOR BLDG

(1) EB-15C - AIR QUANTITYS CHNG FROM 1450 CFM TO 1650 CFM PER FSK-22-1K-8 (E&DCR P-12679)

(2) EB-15E - COORD 1-7, SECTION INDICATOR '→ 45 (M-8)' NEEDS TO BE REMOVED (SECTION PREVIOUSLY DELETED).

(3) EB-15G & J - INSTR CABINETS IRMS-REY 111 & 112 HAVE BEEN DELETED

(4) EB-15G, H & P - LMC *V71 IS ADDED PER FSK-22-1C-9 & *U72 IS ADDED PER FSK-22-1D-8.

(5) EB-15R - NOTES 13 & 14 MUST BE REVISED TO CURRENT DUCT MOUNTED INSTRUMENT REQUIREMENTS.

INITIATOR	AREA/DEPT DIV	TEL EXT.	DATE	DATE NEEDED BY	APPROVED	ENGR. RESP
Q. Schwarz	Power	3429	6-28-84	7-3-84	GE	PB

PROBLEM SOLUTION

EB-15C, 15E, 15G, 15H, 15J, 15P & 15R ARE REVISED AS FOLLOWS:

(1) EB-15C (COORD M-4) 1450 CFM IS CHANGED TO 1650 CFM.

(2) EB-15E (COORD 1-7) SECTION INDICATOR '→ 45 (M-8)' IS DELETED.

(3) EB-15G (COORD 1-5 & J-6) & EB-15J (COORD H-10) INSTR. CABS. IRMS-REY-111 & 112 ARE DELETED.

(4) EB-15G (COORD J-5), EB-15H (COORD J-5) & EB-15P (COORD G-5) ADD 3/4" LMC VALUES *V71 & *U72 AS SHOWN ON PAGES 3 & 4 OF 4 OF THIS E&DCR.

CONTINUED ON PAGE 2 OF 2 OF THIS E&DCR.

IEEE: YES ☐ NO ☑

ASME ☑ NON-ASME ☐

INTERDISCIPLINE CONCURRENCE — ENGR | DATE

DISCIPLINE: NA

EOC: N EOS: N SC: N

AFFECTED DOCUMENT NUMBERS	TYPE	STATUS
12210-EB-15C	D	C
12210-EB-15E	D	C
12210-EB-15G	D	C
12210-EB-15H	D	C
12210-EB-15J	D	C
12210-EB-15P	D	C
12210-EB-15R	D	C

STATUS: C - WILL BE INCORPORATED; N - WILL NOT BE INCORPORATED; I - NO CHANGE

RELATED ACTIVITIES: NA

QA CAT: I & II

CLIENT APP REQ'D ☐ NR ☑ — REF — DATE

ANSWERED BY: D. Schwarz — DATE: 7-3-84

RESP. LEAD ENGR. — DATE: 7-10-84

MATERIALS ENGR.: NB — DATE

EQUIP. SPEC.: NB — DATE

QSD OR EA: NB — DATE

PROJ. — DATE: 7/11/84

SUB ITEM	WORK RESP	SUB ITEM	WORK RESP
01	1PF	02	1SW

EQ RELEASE NO.: HVR.003 | EQ RELEASE NO.: HVR.004

WBS NO.: JRB/1A | WBS NO.: JRB/1A

WORK COMPLETION — NWR ☐ — DATE

INSP. REPORT NO/SIG — DATE

FINAL WORK TRACKING CLOSURE — DATE

DESCRIPTION (01): ADD 3/4" LMC VALUES & VARIOUS DWG CORRECTIONS

DESCRIPTION (02): ADD 3/4" LMC VALUES & VAR DWG CORRECTIONS

REMARKS (01)

REMARKS (02)

PROBLEM SOLUTION
BLOCK 16 (CONTINUED)
(5) EB-15R (COORD L-8)
NOTE 13 & 14 ARE REVISED TO READ:

13. FOR MOUNTING ARRANGEMENT OF SEISMIC DUCT MOUNTED CAT I & II FLOW ELEMENTS (FE), RESISTANCE TEMPERATURE DETECTORS (RTD), SMOKE DETECTORS (SD), TEMPERATURE ELEMENTS (TE), & 3/4" SOCKET WELD COUPLINGS FOR PRESSURE DIFFERENTIAL INDICATORS & SWITCHES (PDI/PDS), PRESSURE TRANSMITTERS (PT), RADIATION MONITOR SAMPLING RETURN CONNECTIONS (SMPT) & GE LEAK DETECTION TEMPERATURE ELEMENTS (T/C), SEE SPEC. 216.140.

14. FOR DUCT REINFORCING AND SEISMIC MOUNTING DETAILS FOR ALL CAT I & II SEISMIC DUCT MOUNTED INSTRUMENT CONNECTIONS LISTED IN NOTE 13 ABOVE, SEE SPEC 216.140.

△ C/T 0091B

STONE & WEBSTER ENGINEERING CORPORATION SUPPLEMENTARY CONSTRUCTION WORK ASSIGNMENT SHEET	SHEET 3 OF 5 TYPE: NO.: P-12915

J.D. NO. 12210	PROJECT/CLIENT River Bend Station Unit 1/Gulf States Utilities Co.	
WORK ITEM TYPE	ACH	

SUB ITEM NO. 03	DESCRIPTION APP. 3/4" LMC VALVES					
SCHED. COMP. DATE	WORK RESP. 1PF	EQUIP. REL. NO. HVR.002	SRI	WBS NO. JRB/1A	QA CAT I	
REMARKS						

SUB ITEM NO.	DESCRIPTION					
SCHED. COMP. DATE	WORK RESP.	EQUIP. REL. NO.	SRI	WBS NO.	QA CAT	
REMARKS						

SUB ITEM NO.	DESCRIPTION					
SCHED. COMP. DATE	WORK RESP.	EQUIP. REL. NO.	SRI	WBS NO.	QA CAT	
REMARKS						

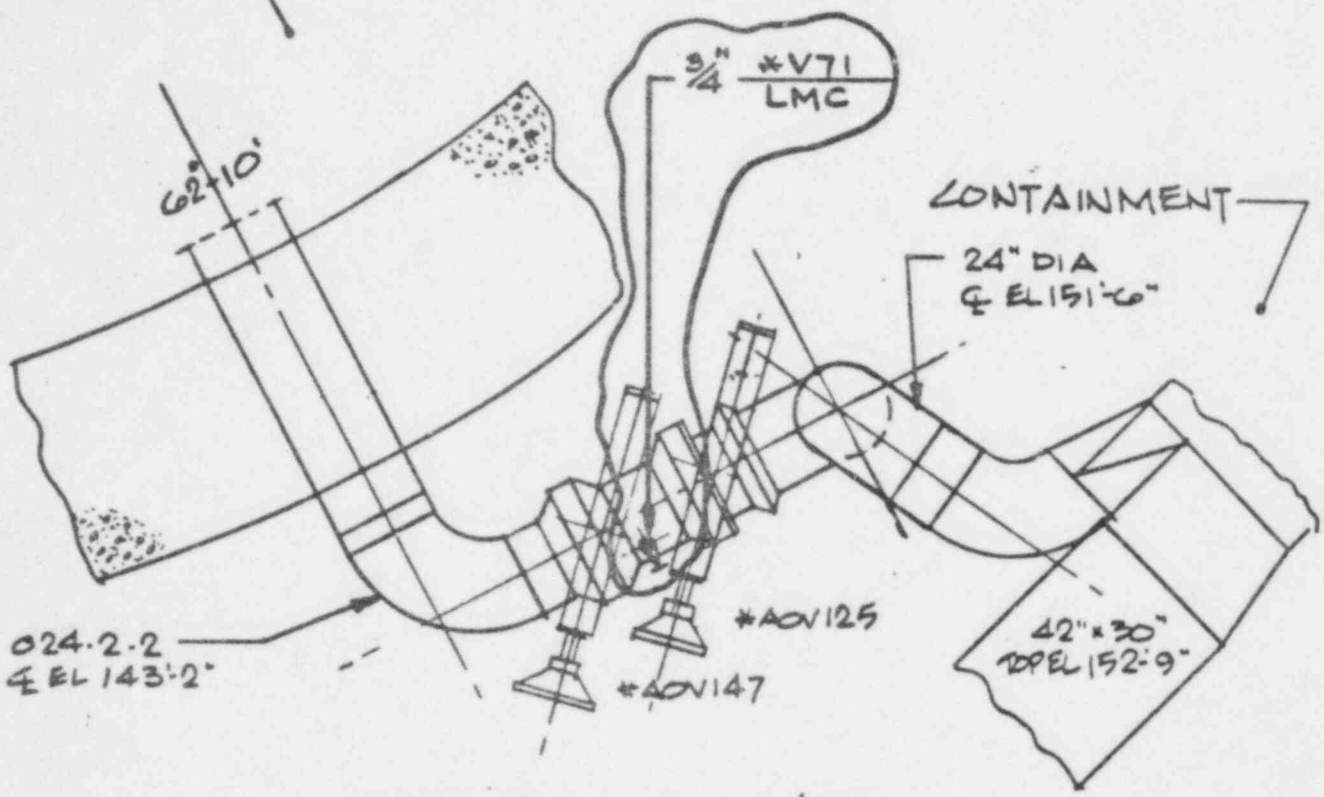
SUB ITEM NO.	DESCRIPTION					
SCHED. COMP. DATE	WORK RESP.	EQUIP. REL. NO.	SRI	WBS NO.	QA CAT	
REMARKS						

SUB ITEM NO.	DESCRIPTION					
SCHED. COMP. DATE	WORK RESP.	EQUIP. REL. NO.	SRI	WBS NO.	QA CAT	
REMARKS						

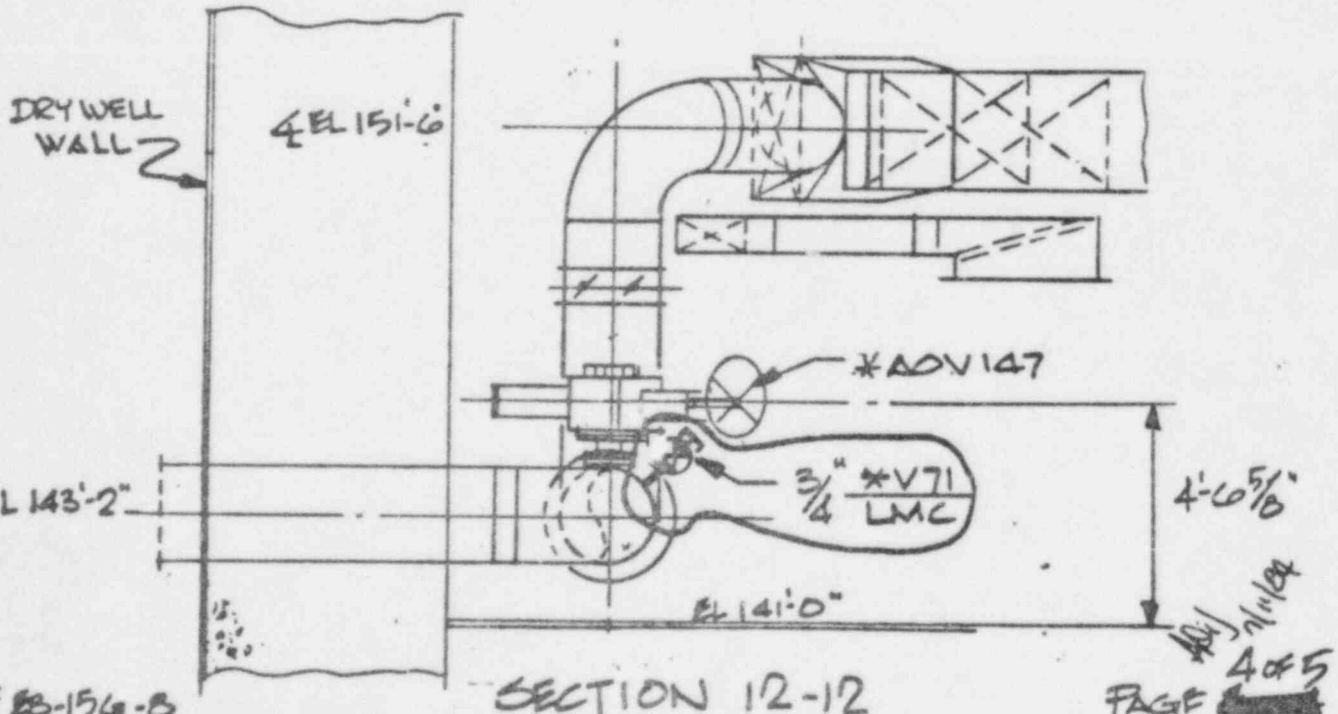
USE FOR SIGNATURE COLLECTION WHEN REQUIRED

WORK COMPLETION NUR ☐	DATE
INSP. REPORT NO./SIG.	DATE
FINAL WORK TRACKING CLOSURE	DATE

P1291S



PART. PLAN EL 141'-0"



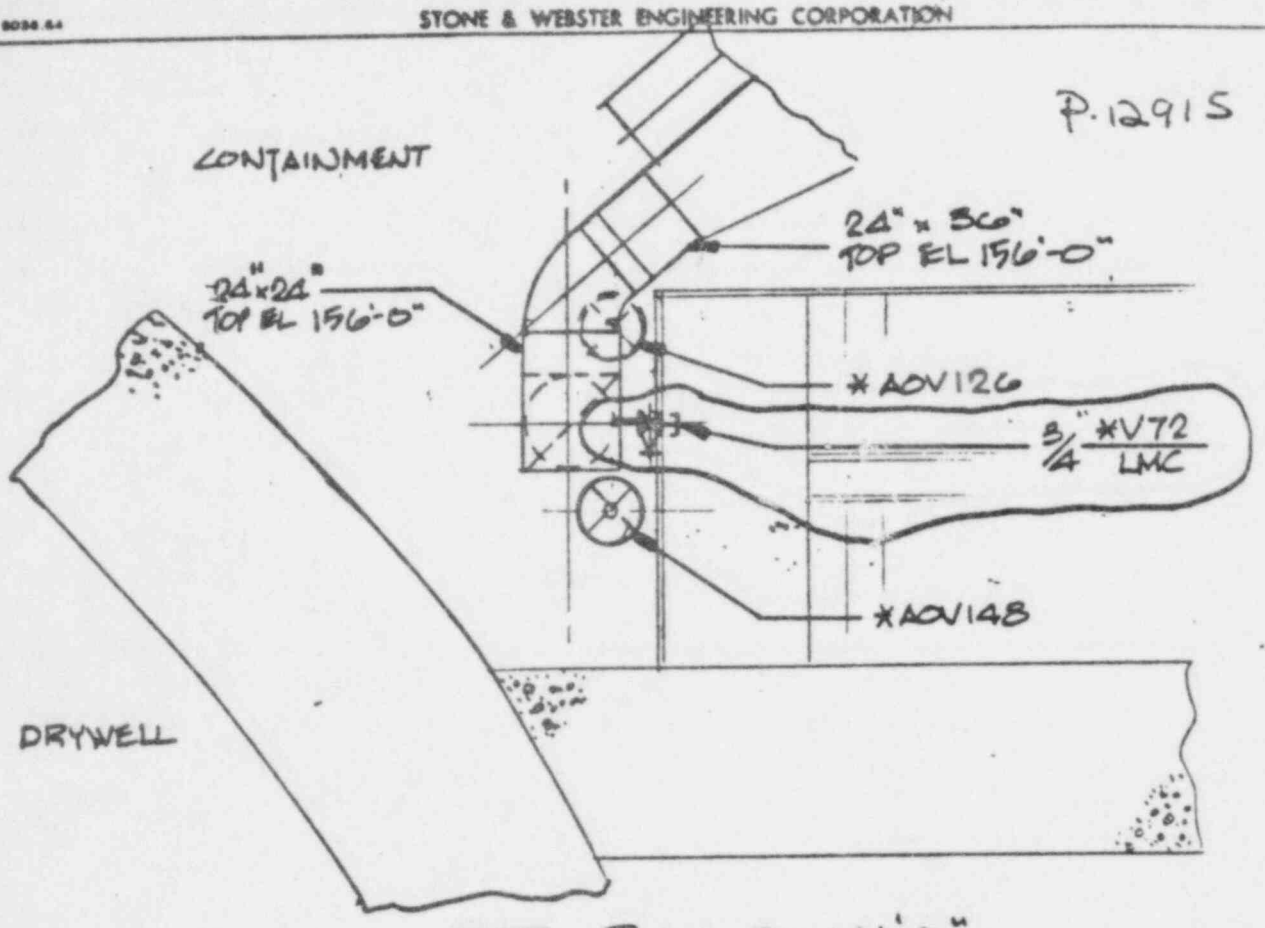
REF EB-154-B

SECTION 12-12

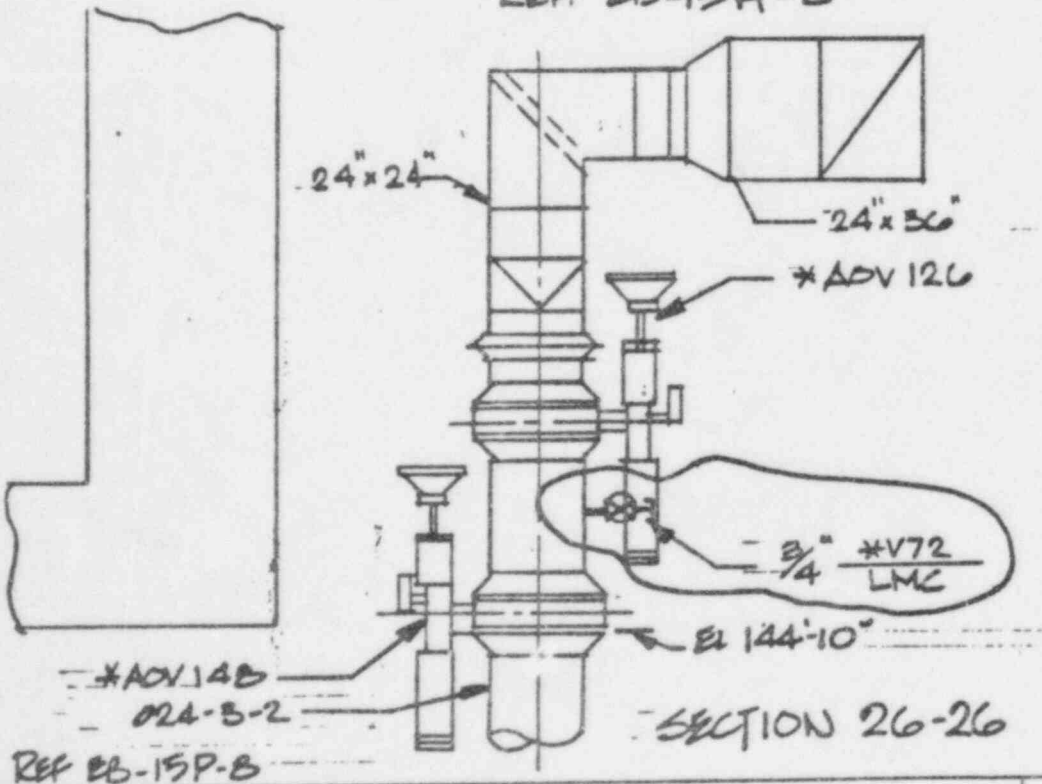
PAGE 4 of 5

12210		TITLE REACTOR BLDG VENTILATION - PURGE SYS. PIPE GSU RIVER BEND UNIT 1	SCALE: 1/4"=1'-0"
CHECKED	R. SCHWARZ		DATE: 6-21-84
CORRECT			SKETCH NUMBER
APPROVED			
REVISIONS	② ③ ④ ⑤		

P.1291 5



PART. PLAN EL 141'-0"
REF. EB-15H-8



SECTION 26-26

REF EB-15P-8

PAGE 5 OF 5

12210	TITLE REACTOR BLDG VENTILATION- PURGE SYS. PIPE GGS RIVER BEND UNIT 1		SCALE: 1/4"=1'-0"
CHECKED R. SCHWARZ			DATE: 6-21-84
CORRECT			SKETCH NUMBER
APPROVED			
REVISIONS ②	③	④	⑤

SEE

APERTURE

CARDS

*OVERSIZED DRAWINGS

(ADDITIONAL DOCUMENT PAGES FOLLOW)

APERTURE CARD NO/ 8502270189

AVAILIBILITY PDR CF HOLD

NUMBERS OF PAGES. 1

SEE

APERTURE

CARDS

*OVERSIZED DRAWINGS

(ADDITIONAL DOCUMENT PAGES FOLLOW)

APERTURE CARD NO/ 8502270194

AVAILIBILITY PDR CF HOLD

NUMBERS OF PAGES. 1

▲521046 · STONE AND WEBSTER ENGINEERING CORPORATION

ENGINEERING & DESIGN COORDINATION REPORT

PAGE 1 OF 8

E & DCR NO. 2 C-12,619 C

JOB ORDER NO. 4 12210

PROJECT/CLIENT 3 RIVER BEND STATION - UNIT 1 GULF STATES UTILITIES COMPANY

P.O. NO. (S.E.W.) 6 N/A

REASON CODE (S) 8 F

EQUIP. ID NO (S)/SYS CODE (S) 7 1HVR*S03,4,5,6,7,8,9,10 (CPM.000 HVR.002 HVR.003)

REFERENCE DOCUMENTS 9 EB-15E-7, 15F-7, 15G-8, 15H-8, 15R-8

SUPPLIER(OR SUBSUPPLIER)NAME 9 N/A

DESCRIPTION SUMMARY 10 DETAILS FOR SCREENED OPENINGS

REMARKS 11 SUPERSEDES C-12,619B

PROBLEM DESCRIPTION 12

ORIGINAL

CONSTRUCTION REQUEST INSTALLATION DETAILS FOR THE SCREENED OPENINGS ON THE "CPM" SYSTEM.

REV. A

CONSTRUCTION REQUEST INSTALLATION DETAILS FOR MOUNTING SCREENS ON OPEN ENDS OF HYDROGEN MIXING AND DRYWELL PURGE PIPING SYSTEMS.

REV. B

CONSTRUCTION REQUEST AN ALTERNATE DESIGN OTHER THAN TACK WELDING THE SCREEN TO THE PIPE ENDS.

REV. C

DUCT PIPE CLASS BREAKS AND LOCATIONS FOR CAT. I SCREENED OPENINGS 1HVR*S03,4,5,6,7,8,9, AND 10 NEED TO BE SHOWN ON THE DESIGN DRAWINGS. FABRICATION DETAILS WILL BE INCORPORATED IN SPEC. 216.140 PER E&DCR C-14,395.

INITIATOR 13	AREA/DEPT DIV	TEL EXT.	DATE	DATE NEEDED BY	APPROVED 14	ENGR RESP 15
Brian Sieved	TOWER	x4568	9-21-84	9-21-84	REB	KP

PROBLEM SOLUTION 16 SUPERSEDES C-12,619B

THE DESIGN DWGS. SHALL BE REVISED AS FOLLOWS:-

EB DWG. #	E&DCR PAGE #	REASON
EB-15R	3 OF 8	ADD NOTE TO DRAWING REFERENCING 1HVR*S03,4,5,6,7,8,9,10
EB-15H	4 OF 8	SHOW DUCT CLASS AND HVR*S03
EB-15E	5 OF 8	SHOW DUCT CLASS AND HVR*S05 & HVR*S06
EB-15F	6 OF 8	SHOW DUCT CLASS AND HVR*S07 & HVR*S08
EB-15H	7 OF 8	SHOW DUCT CLASS AND HVR*S10
EB-15G	8 OF 8	SHOW DUCT CLASS AND HVR*S04 & HVR*S09

IEEE: YES ☐ NO ☒

ASME ☒ NON-ASME ☐ 18

INTERDISCIPLINE CONCURRENCE ENGR | DATE

DISCIPLINE: N/A

EOC: N EOS: N SC: N

AFFECTED DOCUMENT NUMBERS 17	TYPE	STATUS
EB-15R	D	C
EB-15H	D	C
EB-15E	D	C
EB-15F	D	C
EB-15G	D	C

STATUS
C - WILL BE INCORPORATED
N - WILL NOT BE INCORPORATED
I - NO CHANGE

RELATED ACTIVITIES 18 N/A

QA CAT 19 I

CLIENT APP REQ'D ☐ NR ☒

26 REF DATE

ANSWERED BY 20 Brian Sieved DATE 9-21-84

RESP LEAD ENGR. 21 Richard E Bunell DATE 9/24/84

MATERIALS ENGR. 22 N/R DATE

EQUIP. SPEC. 23 N/R DATE

QSD OR EA 24 N/R DATE

PROJECT 25 DATE 9/21/84

SUB ITEM 27	WORK RESP	SUB ITEM	WORK RESP
01	1SW	02	1SW

EQ RELEASE NO. 28 HVR.002

EQ RELEASE NO. 28 HVR.003

WBS NO. 29 JRB/1A

WBS NO. 29 JRB/1A

WORK COMPLETION 30 NWR ☐ DATE

INSP. REPORT NO/BIQ 31 DATE

FINAL WORK TRACKING CLOSURE 32 DATE

DESCRIPTION (01) 33 DETAILS FOR SCREENED OPENINGS

DESCRIPTION (02) 33 DETAILS FOR SCREENED OPENINGS

REMARKS (01) 34 N/A

REMARKS (02) 34 N/A

△ C/T 00918

STONE & WEBSTER ENGINEERING CORPORATION SUPPLEMENTARY CONSTRUCTION WORK ASSIGNMENT SHEET	SHEET 2 OF 8 TYPE: E&DCR NO.: C-12,619C

J.O. NO. 12210	PROJECT/CLIENT River Bend Project / G.S.U.	
WORK ITEM TYPE	ACN	

SUB ITEM NO.	DESCRIPTION DETAILS FOR SCREENED OPENINGS					
SCHED. COMP. DATE	WORK RESP. 1SW	EQUIP. REL. NO. CPM.000	SRI	WBS NO. JRB/1A	QA CAT I	
REMARKS N/A						

SUB ITEM NO.	DESCRIPTION					
SCHED. COMP. DATE	WORK RESP.	EQUIP. REL. NO.	SRI	WBS NO.	QA CAT	
REMARKS						

SUB ITEM NO.	DESCRIPTION					
SCHED. COMP. DATE	WORK RESP.	EQUIP. REL. NO.	SRI	WBS NO.	QA CAT	
REMARKS						

SUB ITEM NO.	DESCRIPTION					
SCHED. COMP. DATE	WORK RESP.	EQUIP. REL. NO.	SRI	WBS NO.	QA CAT	
REMARKS						

SUB ITEM NO.	DESCRIPTION					
SCHED. COMP. DATE	WORK RESP.	EQUIP. REL. NO.	SRI	WBS NO.	QA CAT	
REMARKS						

USE FOR SIGNATURE COLLECTION WHEN REQUIRED

WORK COMPLETION NWR ☐	DATE
INSP. REPORT NO./SIG.	DATE
FINAL WORK TRACKING CLOSURE	DATE

CALCULATION SHEET

J.O./W.O./CALCULATION NO.	REVISION	PAGE

A5010.61

PREPARER/DATE	REVIEWER/CHECKER/DATE	INDEPENDENT REVIEWER/DATE

SUBJECT/TITLE	QA CATEGORY/CODE CLASS

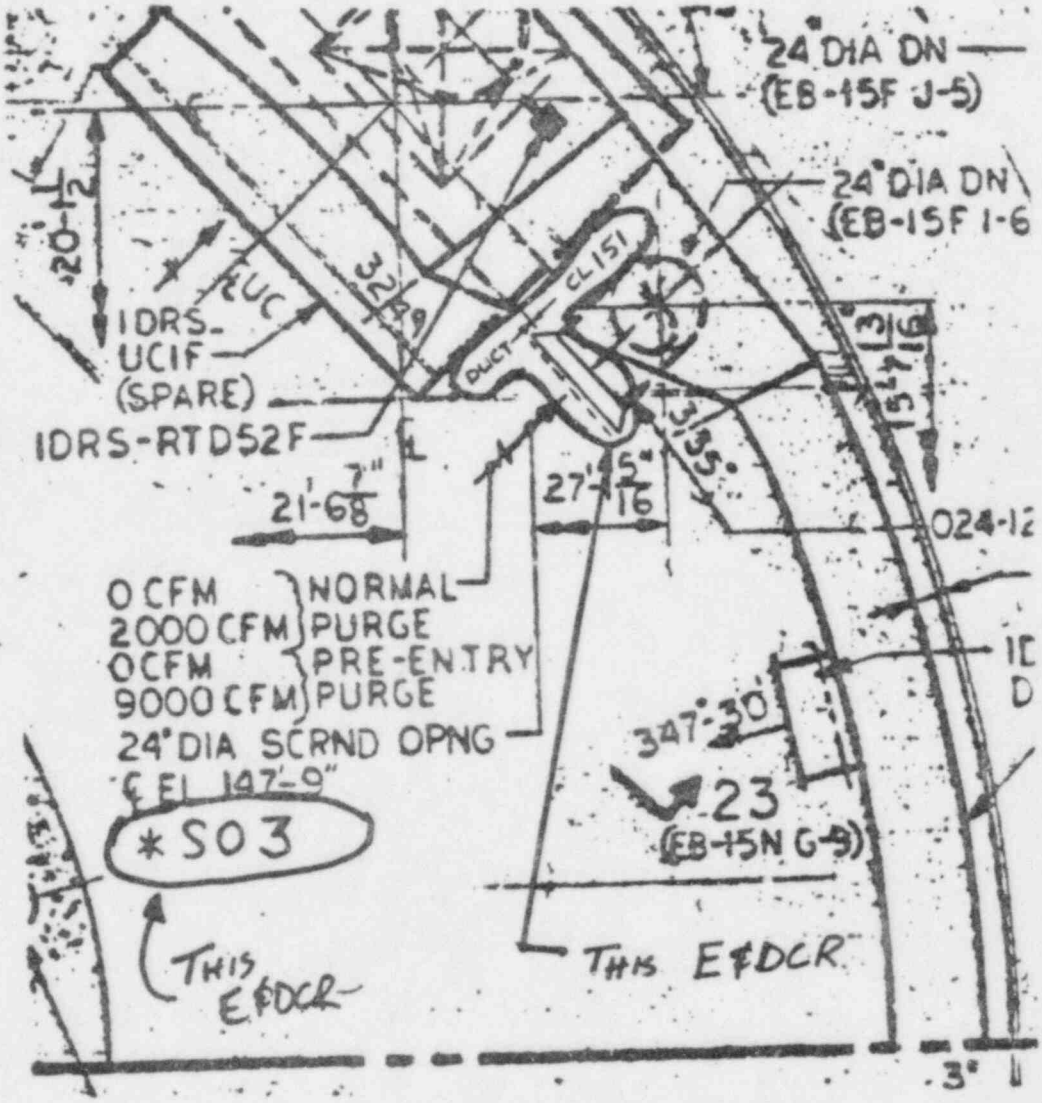
E*DCR C-12,619C

PAGE 3 OF 8

ADD NEW NOTE TO EB-15R-8

17. FOR DETAILS ON SCREENED OPENINGS 1HVR* SO 3,4,5,6,7,8,9,10 REFER TO SPEC. 216.140, FIGURES 37-1,2,3.

E&DCR C-12,619C
PAGE 4 OF 8

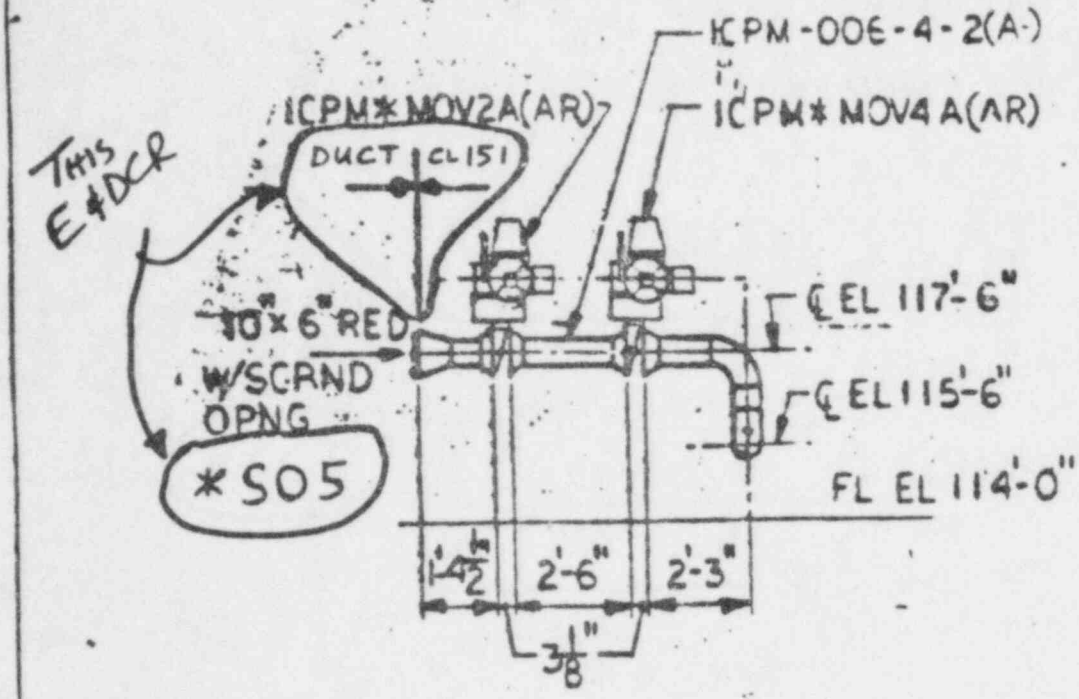


PLAN EL 141'-0"

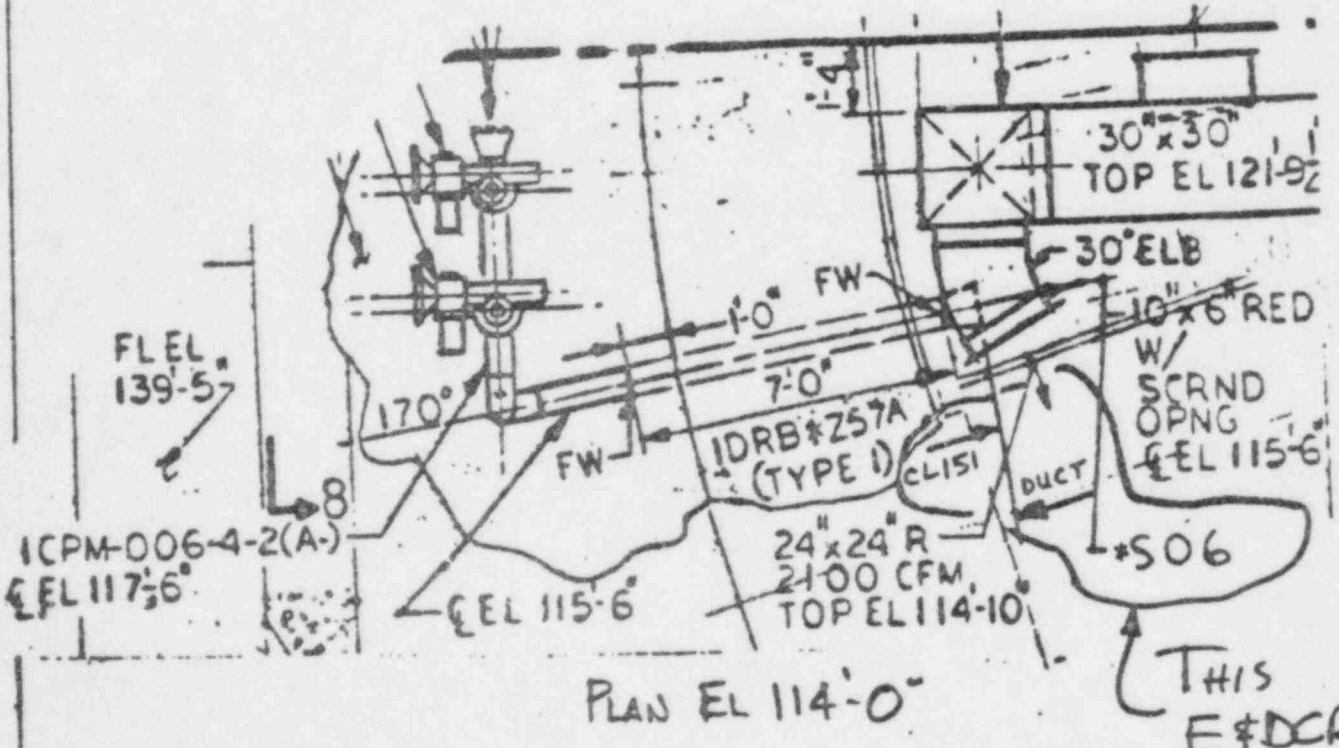
Ref EB-15H-8

12210	TITLE: REACTOR BLDG PIPING GSU RIVER BEND UNIT 1		SCALE: 1/4" = 1'-0"
CHECKED			DATE:
CORRECT			SKETCH NUMBER: E&DCR C-12619C
APPROVED			
REVISIONS	(2)	(3) (4) (5)	

E&DCR C-12,619C
PAGE 5 of 8



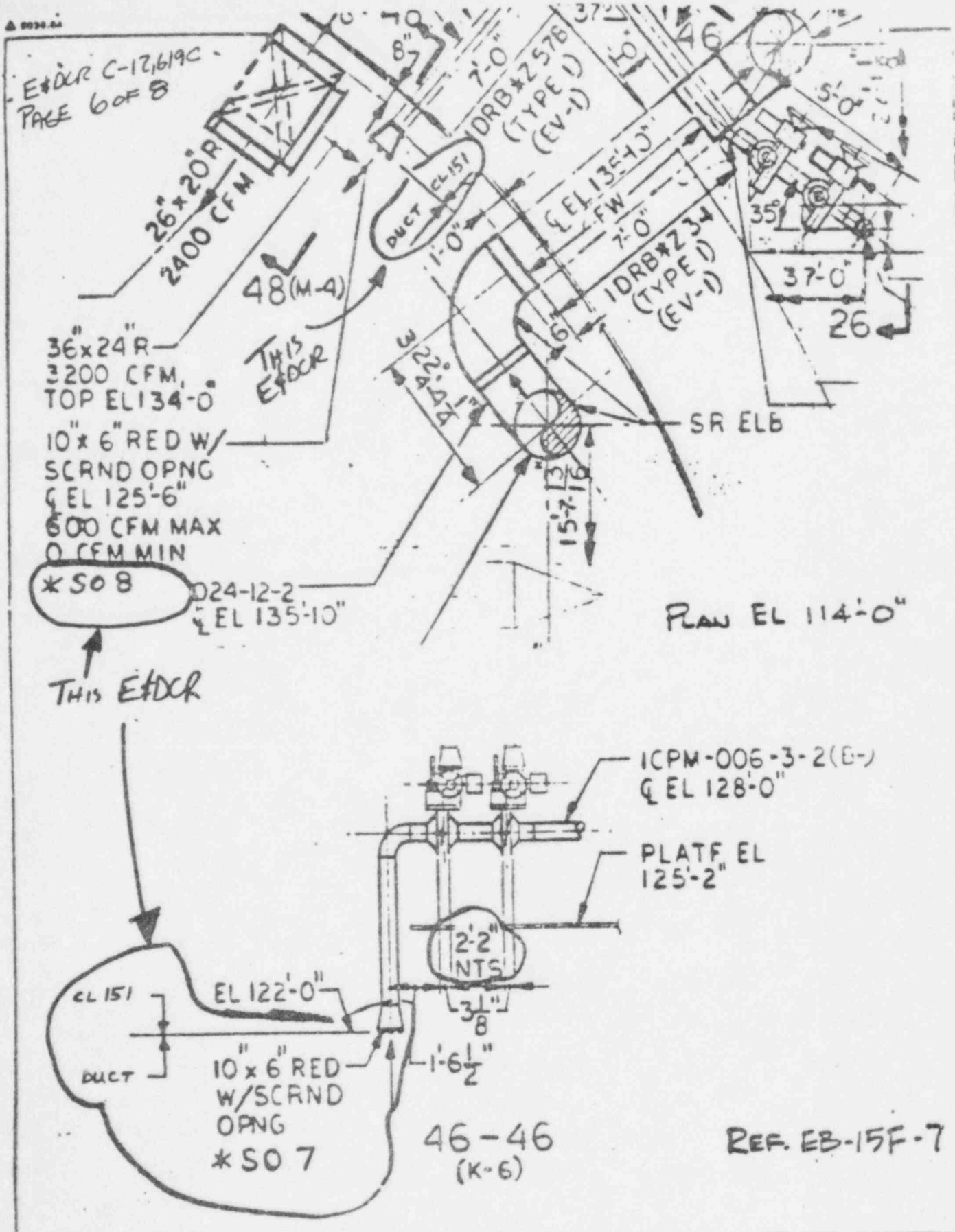
8 - 8
(C-2)



PLAN EL 114'-0"

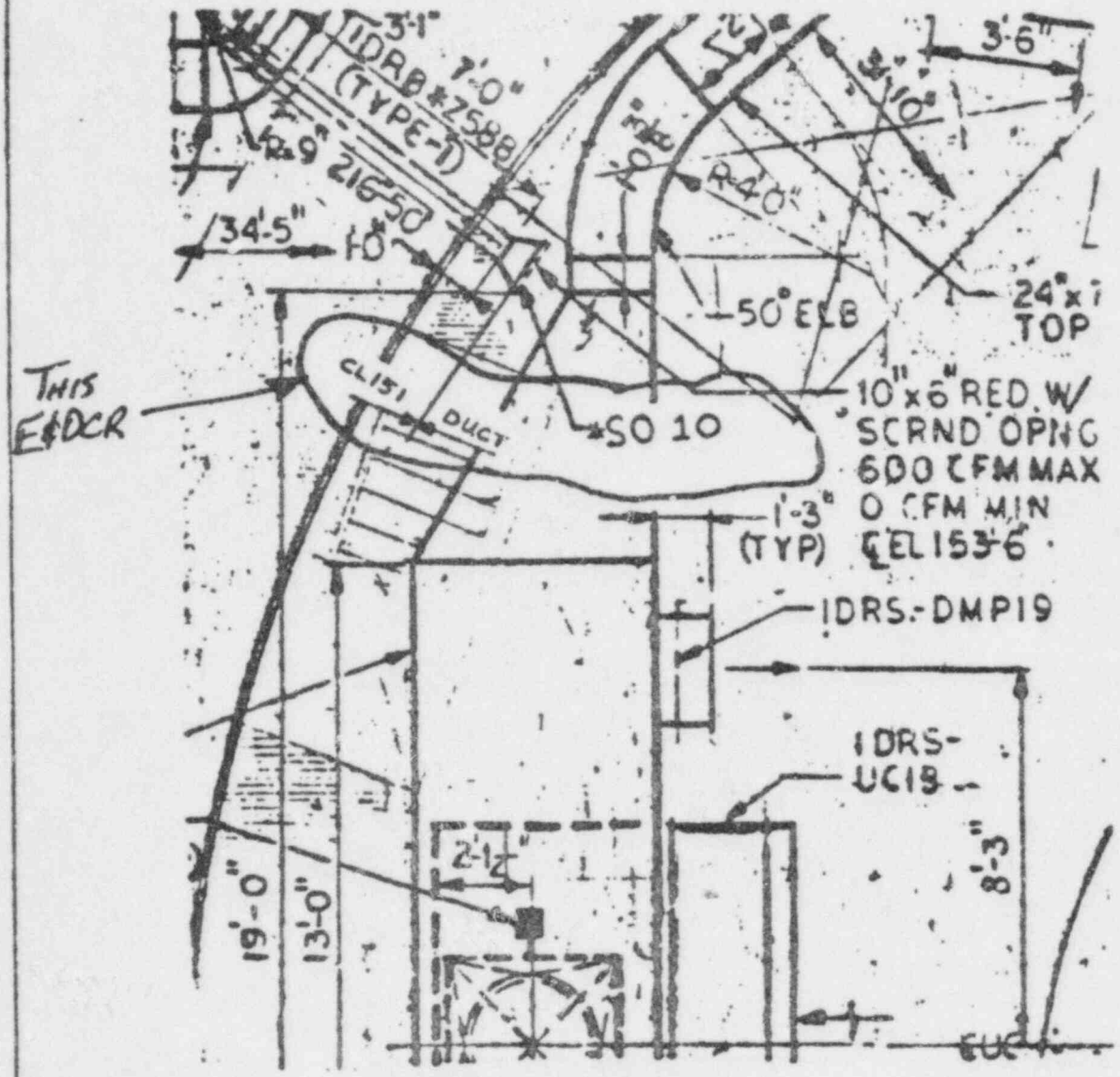
REF EB-15E-7

12210	TITLE: REACTOR BLDG PIPING 1-30 RIVER BEND UNIT 1		SCALE: ¼"=1'-0"
CHECKED			DATE:
CORRECT			
APPROVED			SKETCH NUMBER: E&DCR C-12619C
REVISIONS	②	③ ④ ⑤	



12210	TITLE: REACTOR BLDG PIPING		SCALE: 1/4" = 1'-0"
CHECKED			DATE:
CORRECT			
APPROVED	GSU RIVER BEND UNIT 1		SKETCH NUMBER: E&DCR C-12619 C
REVISIONS (2)	(3)	(4)	(5)

E#DCR C-12,619C
PAGE 7 OF 8



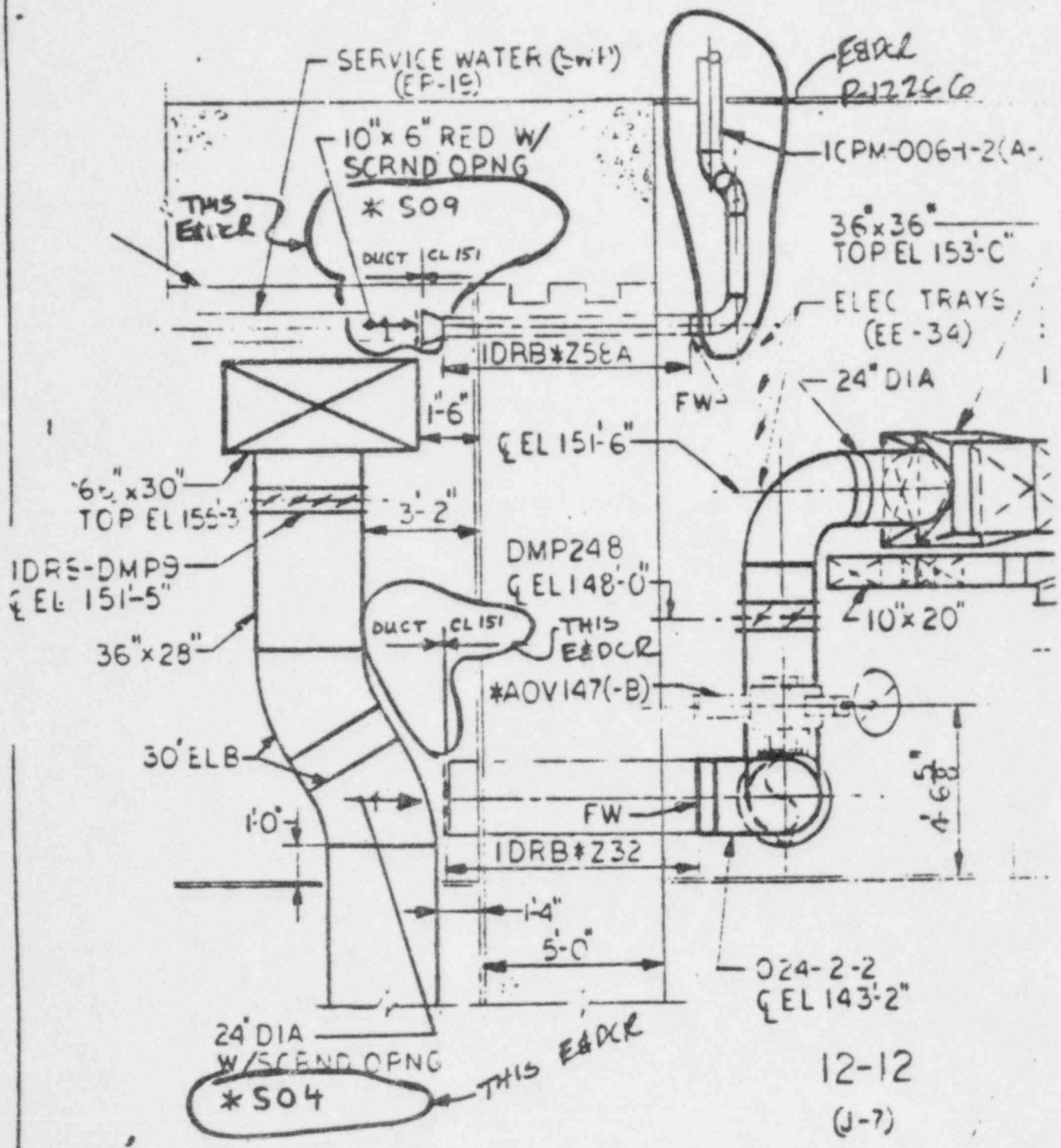
PLAN EL 141'-0"

REF EB-151H-8

12210	TITLE	REACTOR BLDG PIPING GSU RIVER BEND UNIT 1	SCALE 1/4"=1'-0"
CHECKED			DATE
CORRECT			SKETCH NUMBER E#DCR C-12619C
APPROVED			
REVISIONS	②	③ ④ ⑤	

STONE & WEBSTER ENGINEERING CORPORATION

E&DCR C-12,619C PAGE 8 OF 8



REF EB-15G-B

12210	TITLE REACTOR BLDG PIPING GSU RIVER BEND UNIT 1	SCALE: 1/4" = 1'-0"
CHECKED		DATE:
CORRECT		
APPROVED		SKETCH NUMBER E&DCR C-12619C
REVISIONS ②	③ ④ ⑤	

STONE AND WEBSTER ENGINEERING CORPORATION

ENGINEERING & DESIGN COORDINATION REPORT

PAGE 1 OF 6

E&DCR NO. C-13 846

PROJECT/CLIENT: RIVER BEND PROJECT UNIT Nº 1 / G.S.U.

JOB ORDER NO. 12210

P.O NO (S.&W.)	REASON CODE (S)	EQUIP. I.D. NO.(S)/SYS CODE (S)
N/A	V	1 HVR - DUCT

REFERENCE DOCUMENTS: EB-15E-7 EB-15K-8 EB-15P-8 EB-15M-6

SUPPLIER(OR SUBSUPPLIER)NAME: N/A

DESCRIPTION SUMMARY: DUCTWORK LOCATION CHANGES

REMARKS: N/A

PROBLEM DESCRIPTION

(1) A DUCT RISER LOCATED ON AZIMUTH 241°, EL. 175' OF THE REACTOR BLDG. NEEDS TO BE RELOCATED TO 2'-2" FROM THE CONTAINMENT WALL TO BE IN ALIGNMENT WITH THE FLOOR PENETRATION AT EL. 186'.

(2) TWO 12"×18" SUPPLY AIR REGISTERS LOCATED IN THE MAIN STEAM TUNNEL, APPROX. 20° IN THE REACTOR BLDG., NEEDS TO BE RELOCATED TO SHOW REVISED DIMENSIONS DUE TO THE CONFIGURATION OF THE VENDOR SUPPLIED DUCTWORK.

(3) THE 24"×24" DUCT SYSTEM AT APPROX. EL. 130', AZIMUTH 50° NEEDS TO BE MODIFIED DUE TO THE PHYSICAL CONFIGURATION OF THE DUCTWORK.

INITIATOR	AREA/DEPT DIV	TEL EXT	DATE	DATE NEEDED BY	APPROVED	ENGR. RESP
Brian Sievers	POWER	x4568	4/21/84	4/23/84		AP

PROBLEM SOLUTION

THE DESIGN DRAWINGS SHALL BE REVISED AS FOLLOWS:

E&DCR PAGE #	EB D.WG. #	CHANGE
2	EB-15P	REGISTER EL. CHANGES AS PER PROBLEM Nº 2.
3	EB-15M	DUCT RISER LOCATION CHANGE AS PER PROBLEM Nº 1.
4	EB-15K	DUCT RISER LOCATION CHANGE AS PER PROBLEM Nº 1.
5 & 6	EB-15E	DUCT LINE LOCATION REVISION AS PER PROBLEM Nº 3.

NON-ASME

EQS:N EQC:N SC:N

AFFECTED DOCUMENT NUMBERS	TYPE	STATUS
EB-15K	D	C
EB-15P	D	C
EB-15M	D	C
EB-15E	D	C

STATUS: C - WILL BE INCORPORATED; N - WILL NOT BE INCORPORATED; I - NO CHANGE

RELATED ACTIVITIES	QA CAT
N/A	I

ANSWERED BY	DATE
Brian Sievers	4/24/84
RESP. LEAD ENGR.	DATE
[illegible]	4/24/84
MATERIALS ENGR. N/R	DATE
EQUIP. SPEC. N/R	DATE
QSD OR EA N/R	DATE
PROJ. ENGR. [illegible]	DATE 4/24/84

CLIENT APP REQ'D ☐ NR ☒ — REF — DATE

SUB ITEM	WORK RESP	SUB ITEM	WORK RESP
01	SW	02	

EQ RELEASE NO.: 1.HVR.001

WBS NO.: JRB/1A

WORK COMPLETION — NWR ☐ — DATE

INSP. REPORT NO/SIG — DATE

FINAL WORK TRACKING CLOSURE — DATE

DESCRIPTION (01): DUCTWORK LOCATION CHANGES

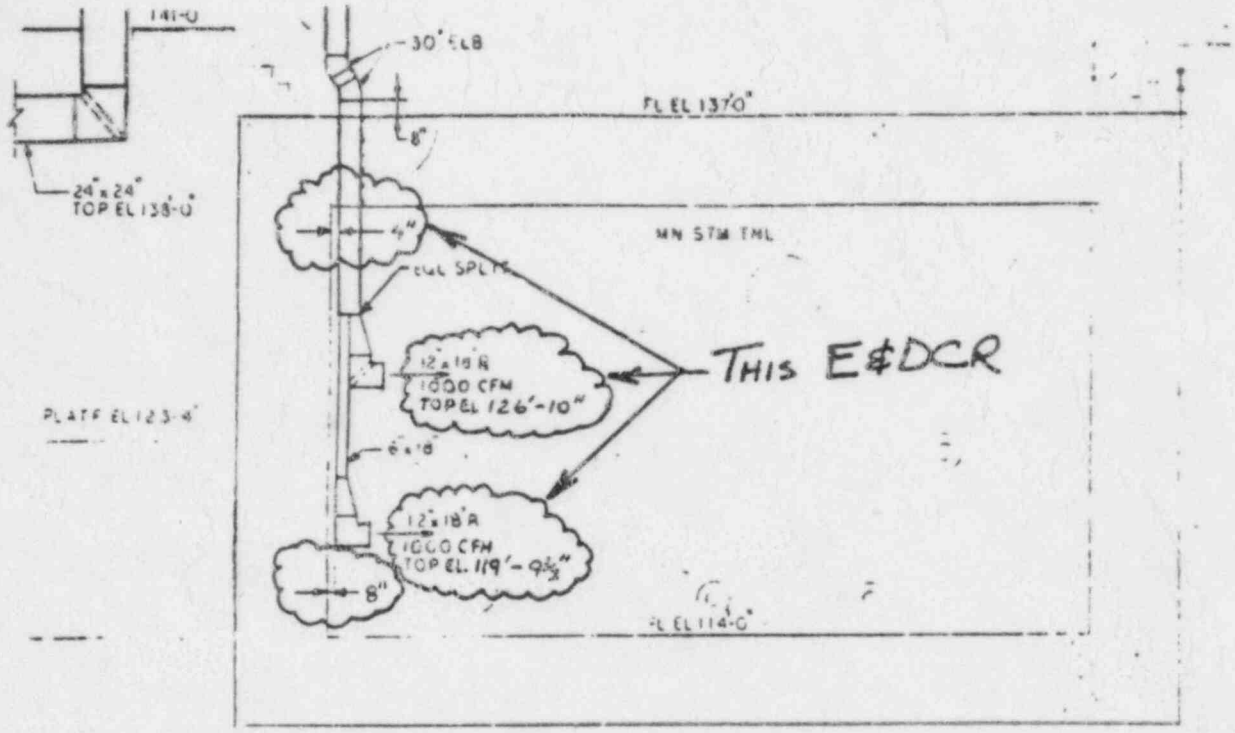
DESCRIPTION (02):

REMARKS (01): N/A

REMARKS (02):

E&DCR C-13,846

PAGE 2 OF 6



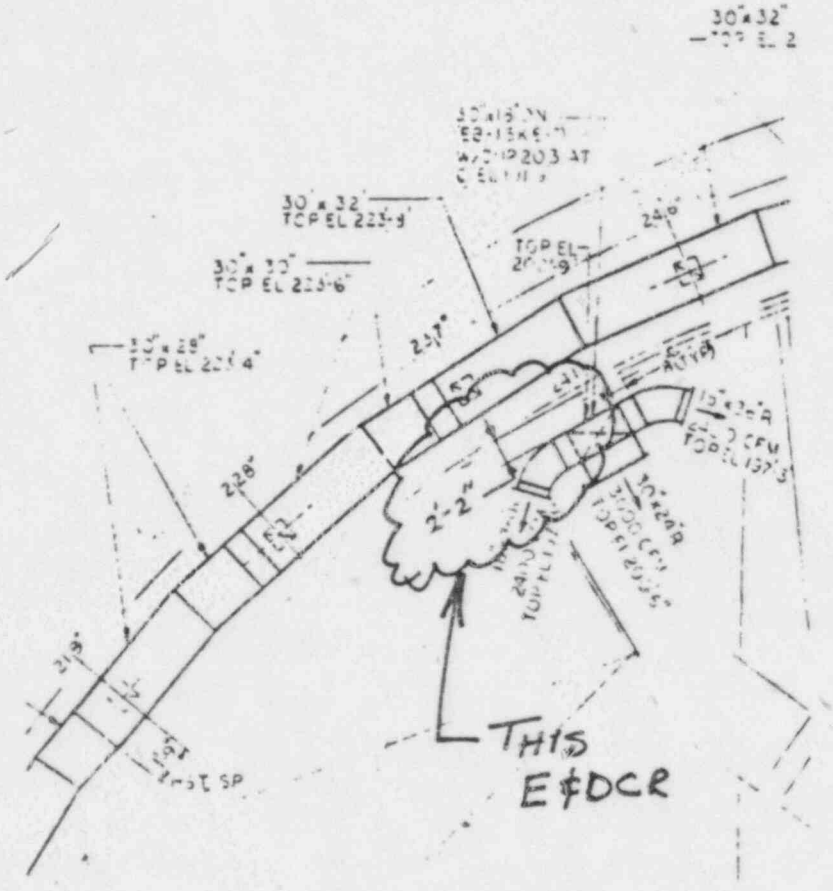
25-25
(EB-15E K-4)
(EB-15F K-6)
(EB-15G K-4)
(EB-15H K-6)
(EB-15J K-4)
(EB-15K K-6)

EB-15 P-8

SECTION 25-25

		TITLE			SCALE NONE
CHECKED		REACTOR BLDG. DUCT			DATE 4/21/84
CORRECT					SKETCH NUMBER
APPROVED					
REVISIONS	②	③	④	⑤	

E&DCR C-13,846
PAGE 3 OF 6



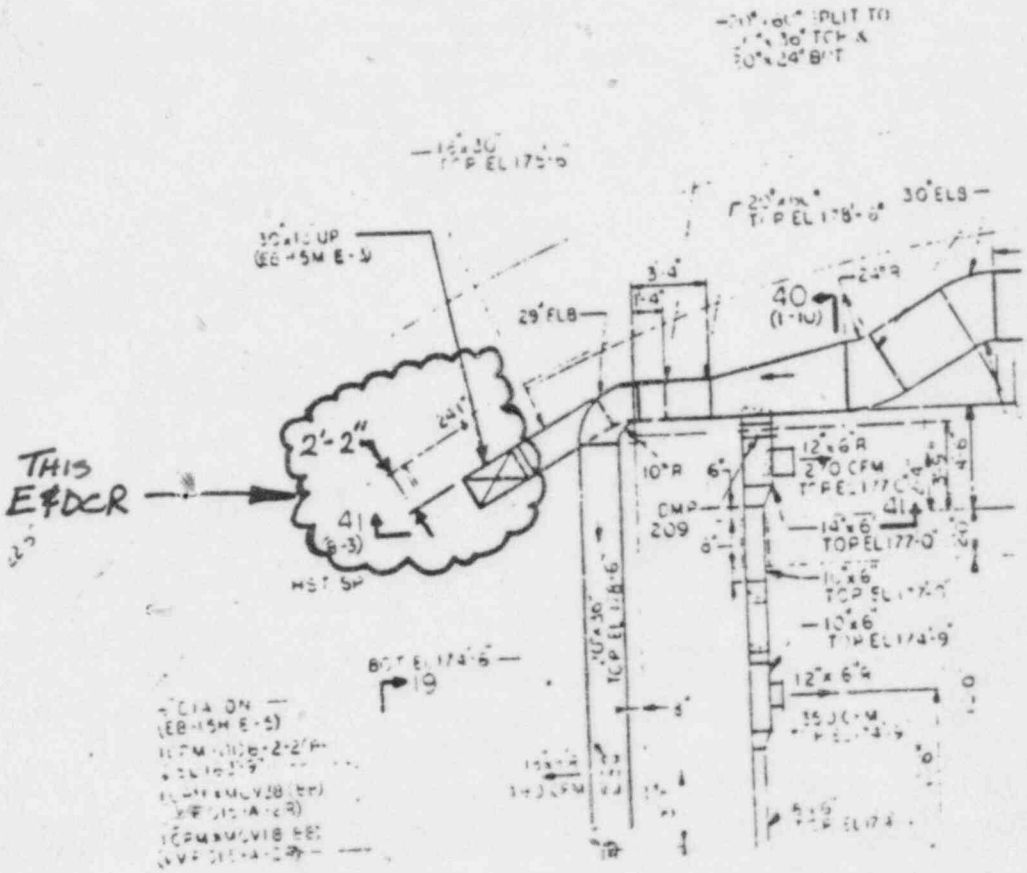
EB-15M-6

COOR. E-4

		TITLE	SCALE NONE
CHECKED		REACTOR BLDG. DUCT	DATE 4/21/84
CORRECT			SKETCH NUMBER
APPROVED			
REVISIONS	(2) (3) (4) (5)		

E&DCR C-13,846

PAGE 4 OF 6



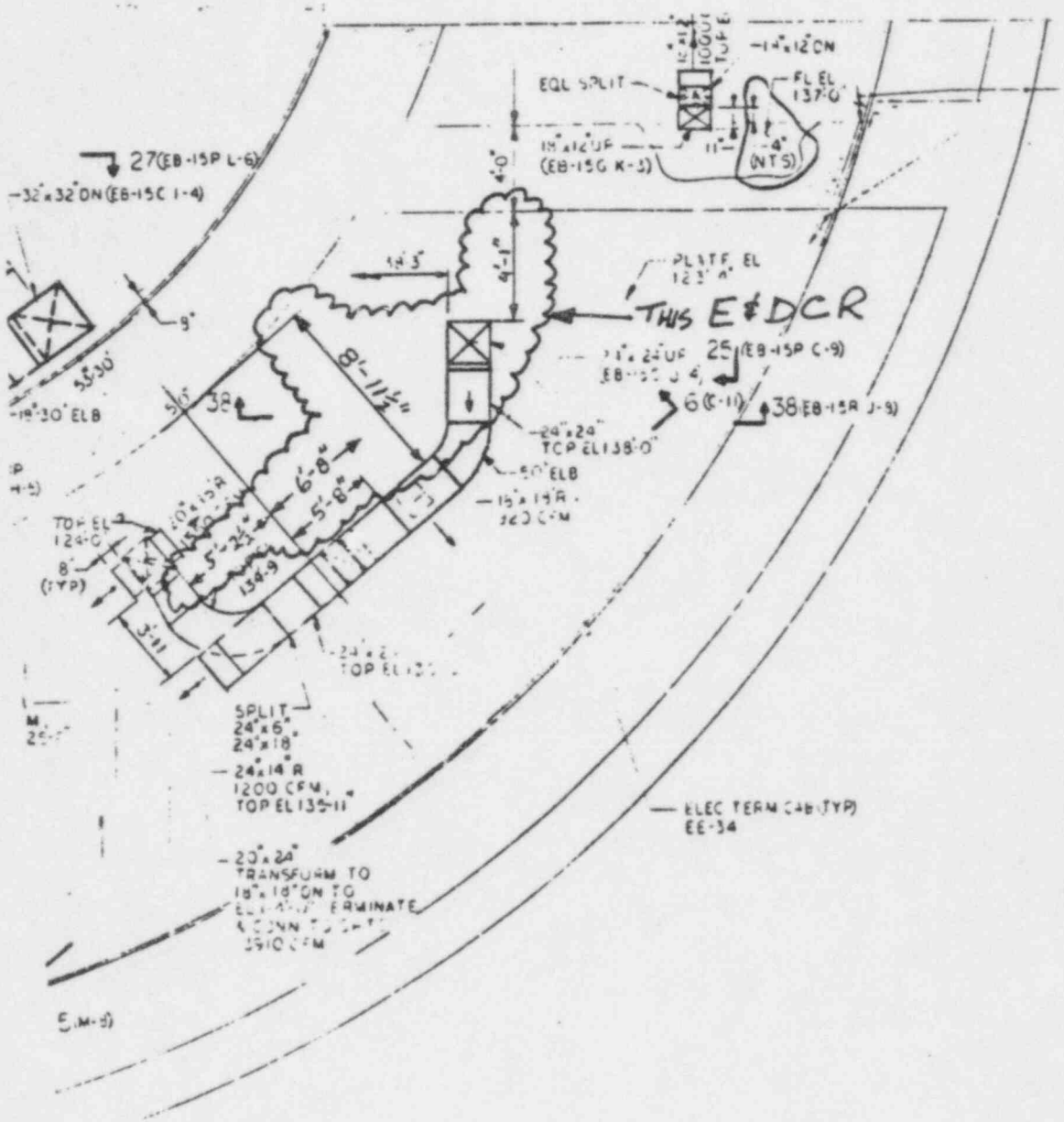
EB - 15K' - 8

COOR. E-4

CHECKED		TITLE		SCALE: NONE	
CORRECT		REACTOR BLDG. DUCT		DATE: 4/21/84	
APPROVED				SKETCH NUMBER	
REVISIONS	(2)	(3)	(4)	(5)	

E&DCR C-13,846

PAGE 5 OF 6

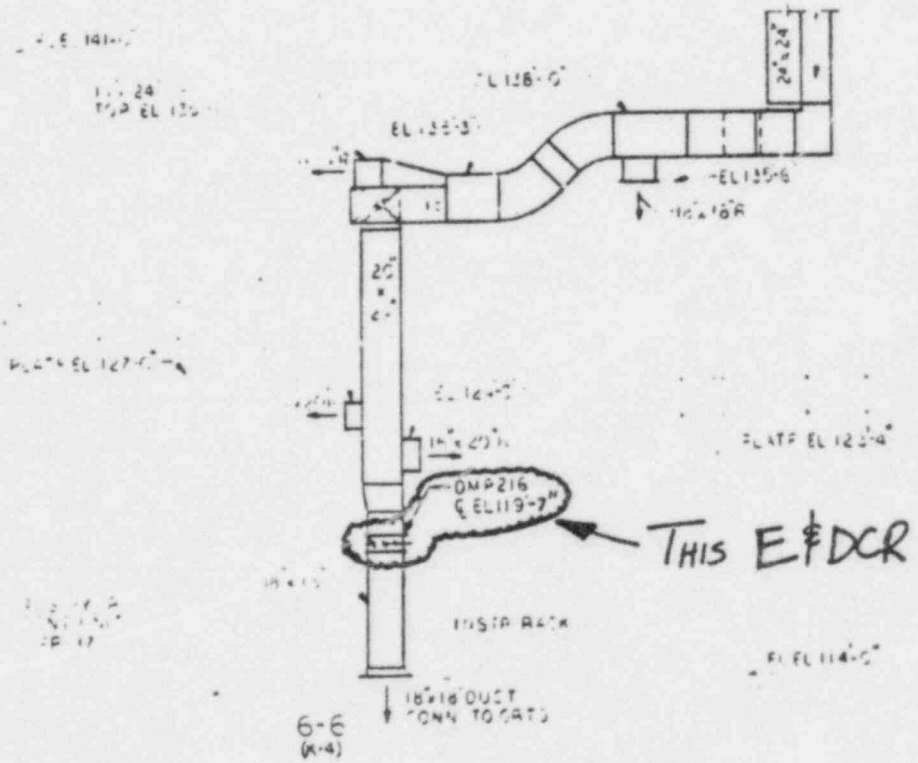


REF: EB -15E-7
COOR. J-5

		TITLE			SCALE: NONE
CHECKED		REACTOR BLDG. PLAN EL. 114'-0"			DATE 4/23/84
CORRECT					SKETCH NUMBER
APPROVED					
REVISIONS	②	③	④	⑤	

E&DCR C-13,846

PAGE 6 OF 6



REF: EB-15E-7 SECT. 6-6

COOR. C-10

		TITLE				SCALE	NONE
CHECKED		REACTOR BLDG.				DATE	4/23/84
CORRECT						SKETCH NUMBER	
APPROVED							
REVISIONS	②		③		④		⑤

SEE

APERTURE

CARDS

*OVERSIZED DRAWINGS

(ADDITIONAL DOCUMENT PAGES FOLLOW)

APERTURE CARD NO/ 8502270197

AVAILABILITY PDR CF HOLD

NUMBERS OF PAGES. 1

STONE AND WEBSTER ENGINEERING CORPORATION
ENGINEERING & DESIGN COORDINATION REPORT

PAGE 1 OF 11 (Rev 10/85)
E.D.C.R. NO. 2-14,170

PROJECT/CLIENT: RIVER BEND PROJECT UNIT Nº 1 / G.S.U.
JOB ORDER NO.: 12210
P.O. NO. (S&W): N/A
REASON CODE (S): V
EQUIP. I.D. NO. (S) / SYS. CODE (S): 1HVR-DUCT (HVR.001)
REFERENCE DOCUMENTS: EB-15F-7 EB-15R-8
SUPPLIER (OR SUBSUPPLIER) NAME: N/A
DESCRIPTION SUMMARY: DUCT INTERFERENCE WITH CONDUIT
REMARKS: N/A

PROBLEM DESCRIPTION

THE 24"x18" AND 14"x6" DUCT LINE APPROX. AT EL. 136' AND 230° AZIMUTH IN THE REACTOR BLDG. SHOWN AT COOR. D-5 TO E-4 ON EB-15F IS IN INTEFERENCE WITH CONDUITS AND CABLE TRAY SUPPORTS IF INSTALLED IN ITS DESIGNED LOCATION.
CONSTRUCTION REQUEST ~~IO~~ 8571/23/84 A RE-DESIGN OF THE DUCT ROUTING TO FIT THE EXISTING FIELD CONDITIONS.

INITIATOR	AREA/DEPT	TEL. EXT.	DATE	DATE NEEDED	APPROVED	ENGR. RESP
Brian Sievers	POWER	x4508	7/13/84	7/16/84	REB	XP

PROBLEM SOLUTION

SEE SKETCH ON PAGE TWO FOR TENTATIVE DUCTWORK RELOCATIONS.

DESIGN DWGS. EB-15F AND EB-15R WILL BE REVISED DEPICTING THE AS-BUILT CONFIGURATION.

PROBLEM SOLUTION IS CONT. ON PAGE 3 OF 11.

PAGES 3 THRU 11 ADDED 9/23/84.

ADVANCED AUTHORIZATION
APPROVED
SUPT. OF ENGR. Brian Sievers
DATE 7/16/84

NON-ASME

EOSIN EOC:N SC:N

AFFECTED DOCUMENT NUMBERS	TYPE	STATUS
EB-15F	D	C
EB-15R	D	C

STATUS
C - WILL BE INCORPORATED
N - WILL NOT BE INCORPORATED
I - NO CHANGE

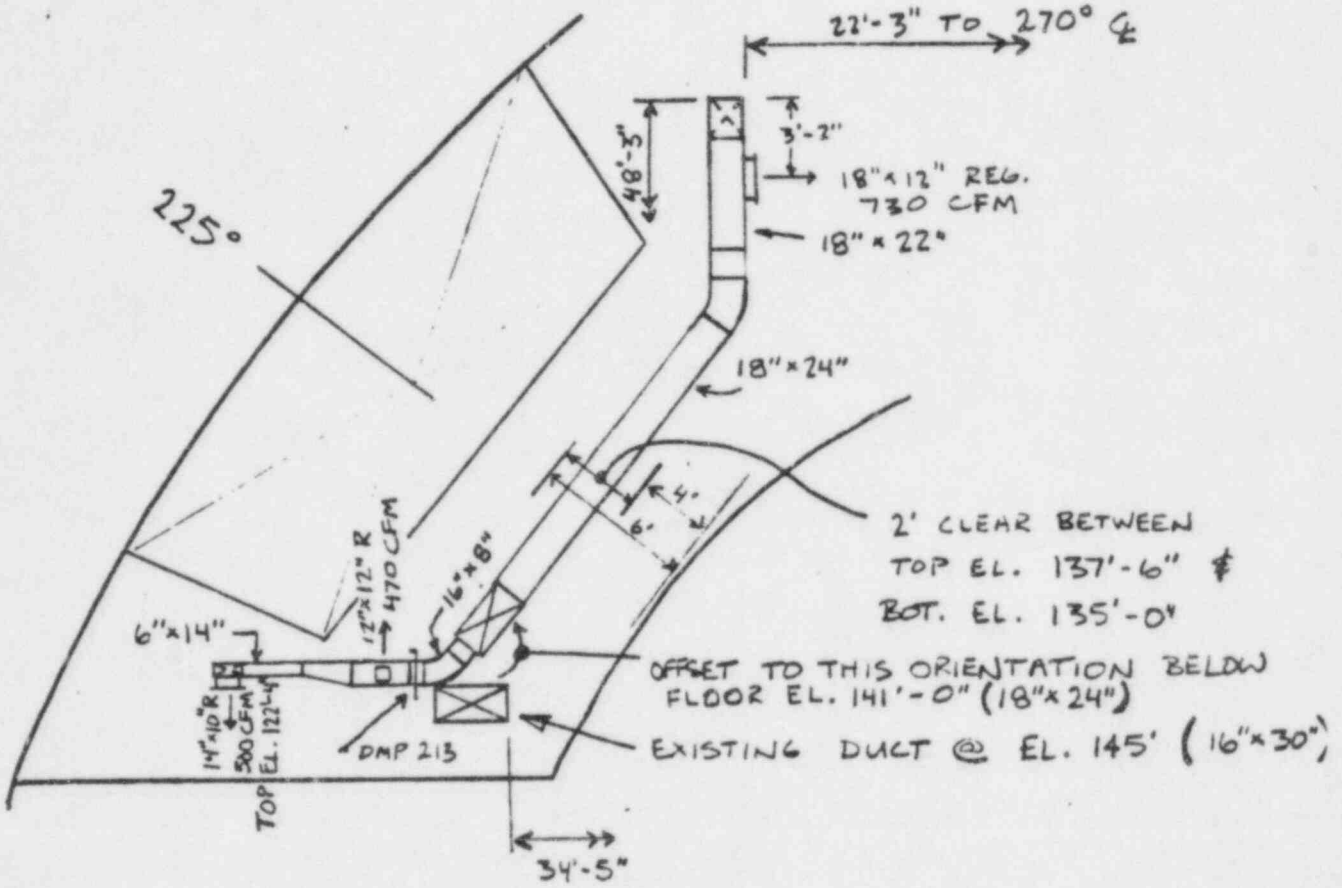
RELATED ACTIVITIES: N/A
QA CAT: II 9/24/84
ANSWERED BY: Brian Sievers 9/24/84
RESA AND ENGR.: 9/23/84
MATERIALS ENGR.: N/R DATE
EQUIP. SPEC.: N/R DATE
QSD OR QA: N/R DATE
PROJ. MGR.: DATE 9/23/84

CLIENT APP REQ'D ☐ NR ☒
REF DATE

SUB ITEM	WORK RESP	SUB ITEM	WORK RESP
01	SW	02	

EQ RELEASE NO.: HVR.001
WBS NO.: JRB/1A
WORK COMPLETION NWR ☐ DATE
INSP. REPORT NO/SIG DATE
FINAL WORK TRACKING CLOSURE DATE

DESCRIPTION (01): DUCTWORK RELOCATIONS
DESCRIPTION (02):
REMARKS (01): N/A
REMARKS (02):



NOTE: 16"x8" DUCTLINE TAP LOCATED ON HEEL SIDE OF 18"x24" ELBOW BELOW FL. EL. 141'-0".

PLAN VIEW

REFERENCE: EB-15F-7 (E-5)

TENTATIVE DUCTWORK RELOCATIONS

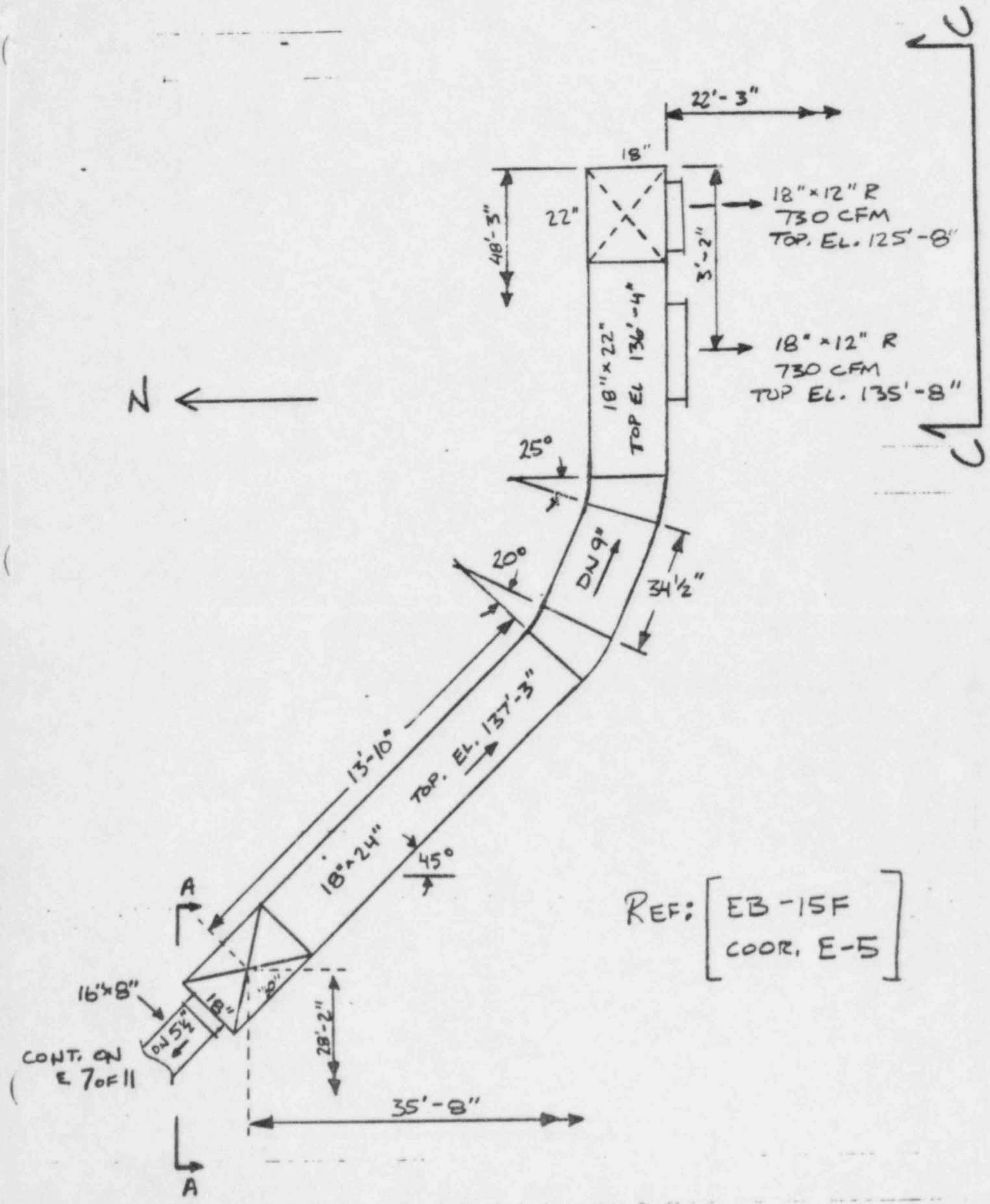
PROBLEM SOLUTION (CONT.)

THE AS-BUILT CONFIGURATION OF THE DUCT SYSTEM IN QUESTION IS AS DEPICTED ON PAGES 4 THRU 8 OF THIS E&DCR.

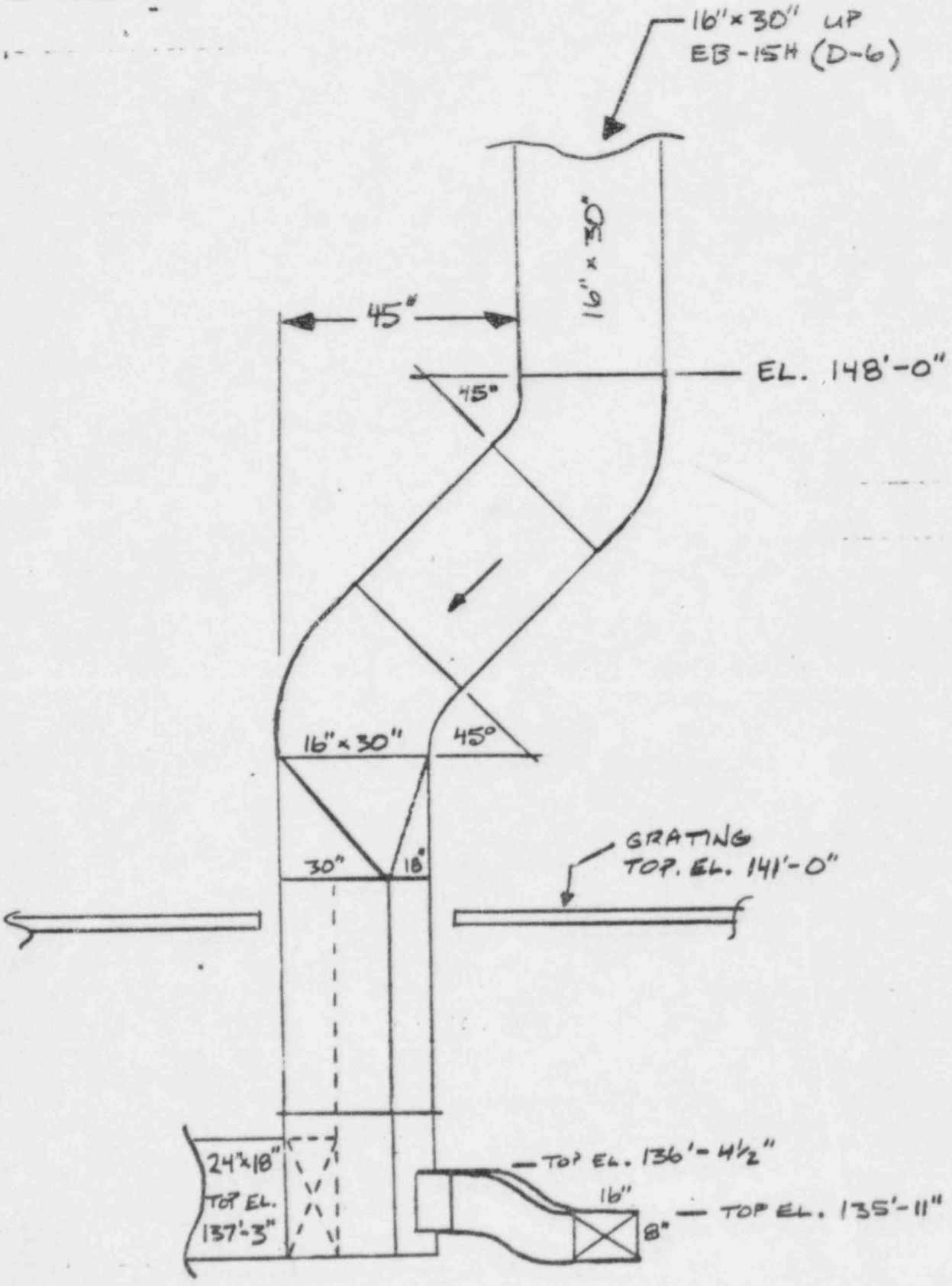
THE AFFECTED AREAS OF THE DESIGN DWGS. ARE SHOWN ON PAGES 9 THRU 11.

EB-15F AND 15R SHALL BE REVISED INCORPORATING THE INFORMATION CONTAINED ON PAGES 4 THRU 8 OF THIS E&DCR.

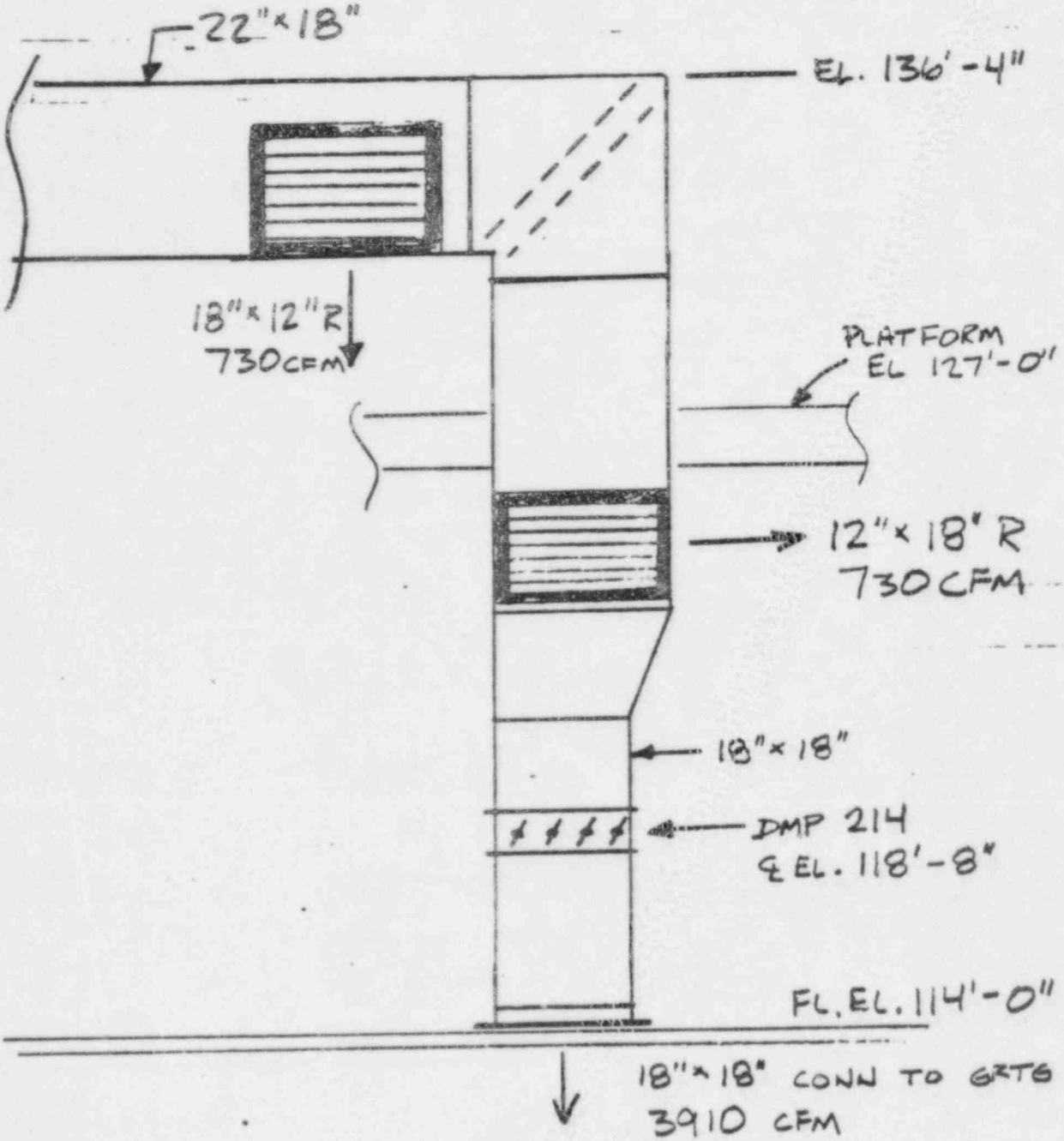
		TITLE					SCALE:	
CHECKED							DATE:	
CORRECT								
APPROVED							SKETCH NUMBER	
REVISIONS	②		③		④		⑤	



REF: [EB-15F
COOR. E-5]

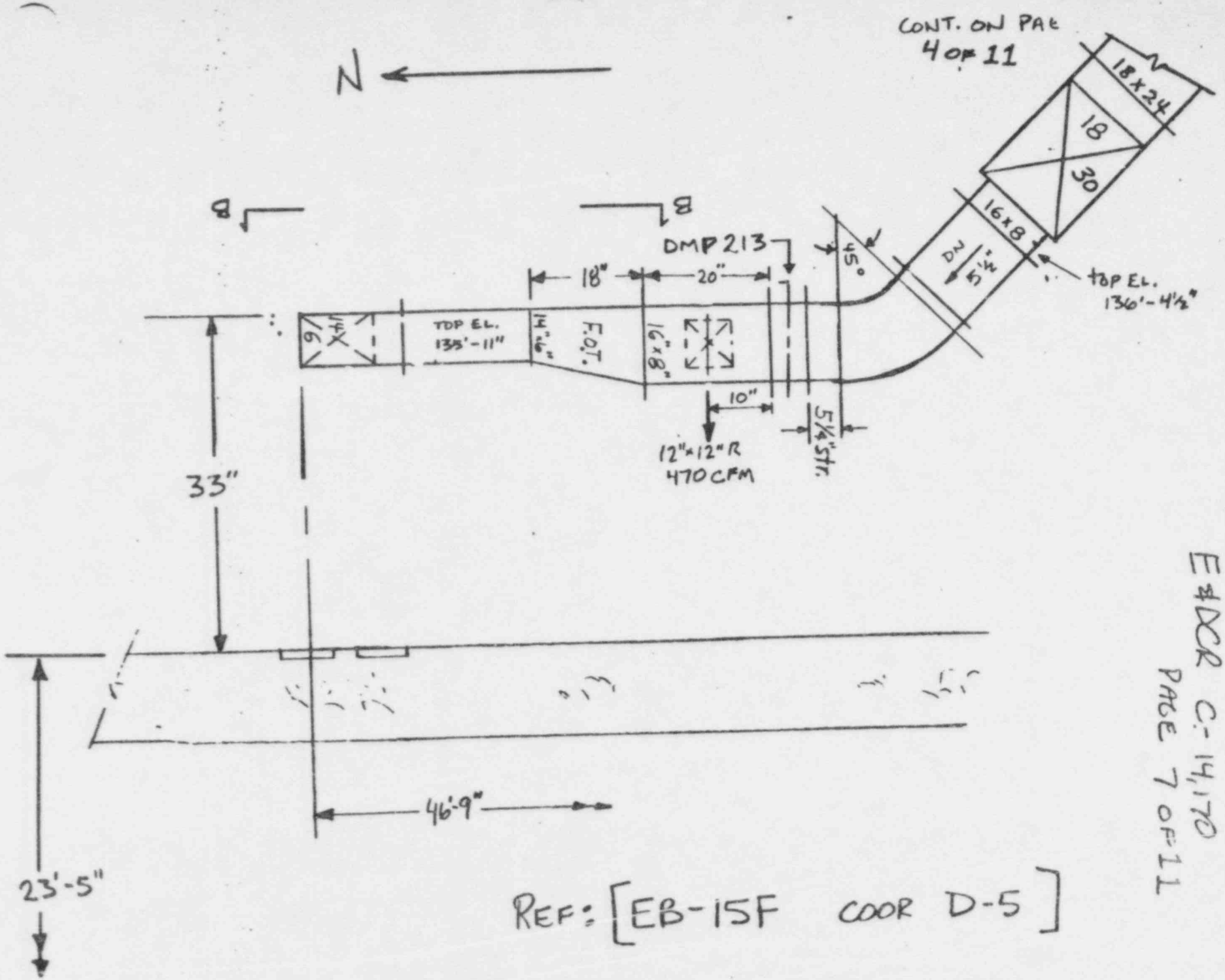

16"x30" UP
EB-15H (D-6)
16"x30"
45"
EL. 148'-0"
45°
16"x30"
45°
30"
18"
GRATING
TOP. EL. 141'-0"
24"x18"
TOP EL.
137'-3"
TOP EL. 136'-4½"
16"
8"
TOP EL. 135'-11"

SECTION A-A



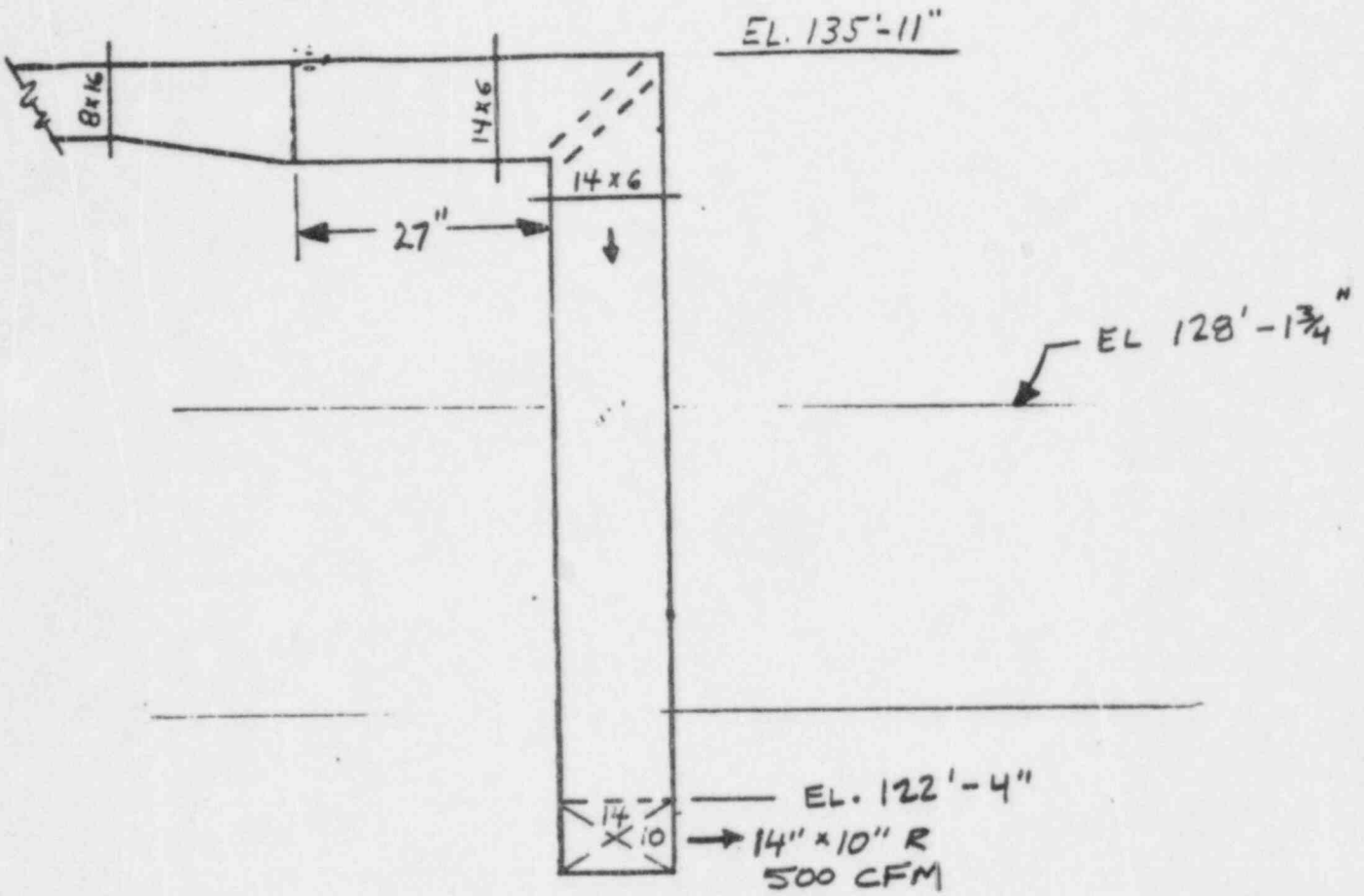
SECTION C-C

REF: [EB-15F, SECT. 10-10]



REF: [EB-15F COOR D-5]

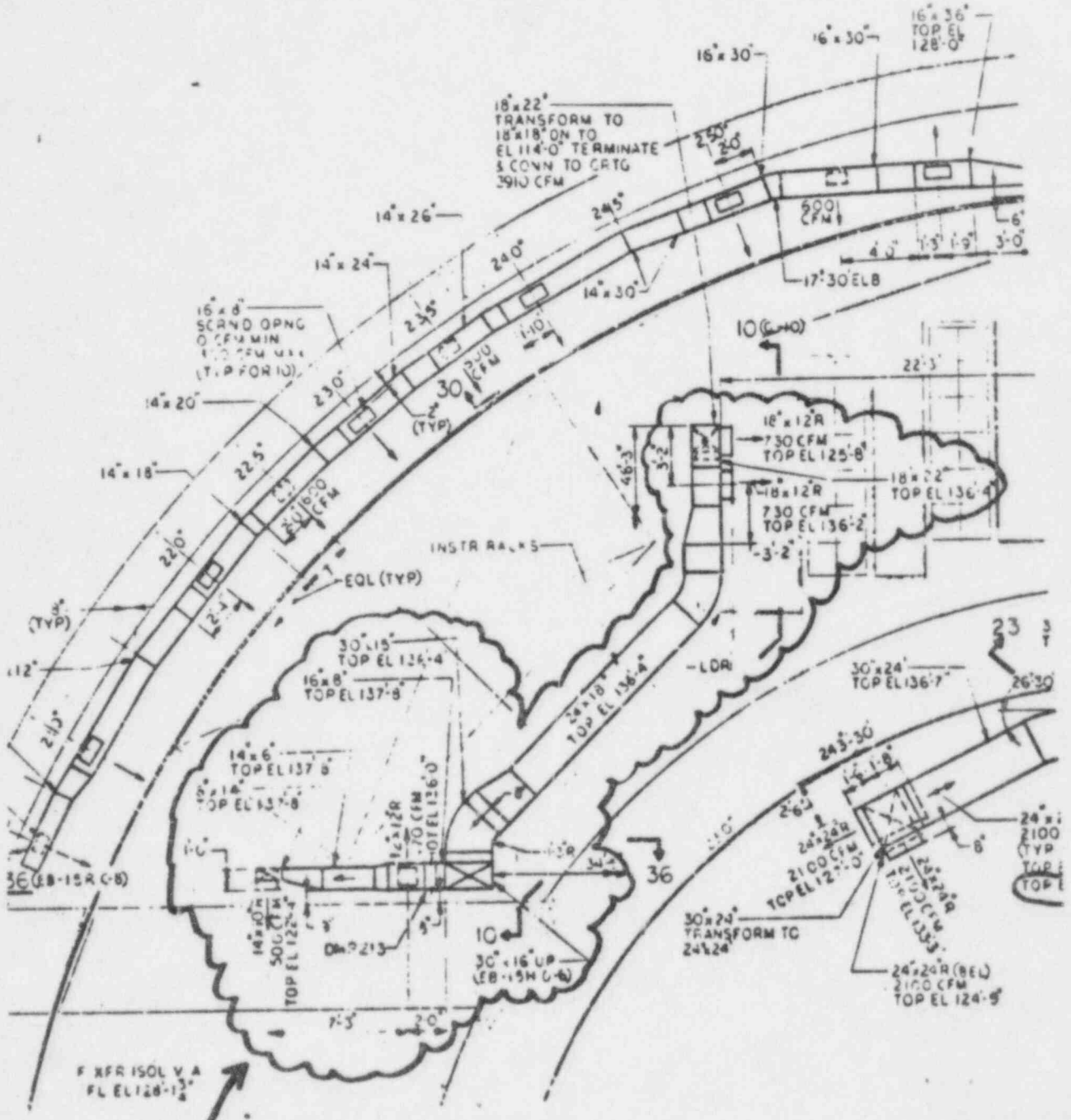
EADCR C-14,170
PAGE 7 OF 11



SECTION B-B

REF: [EB-15R SECT. 36-36
COOR. D-7]

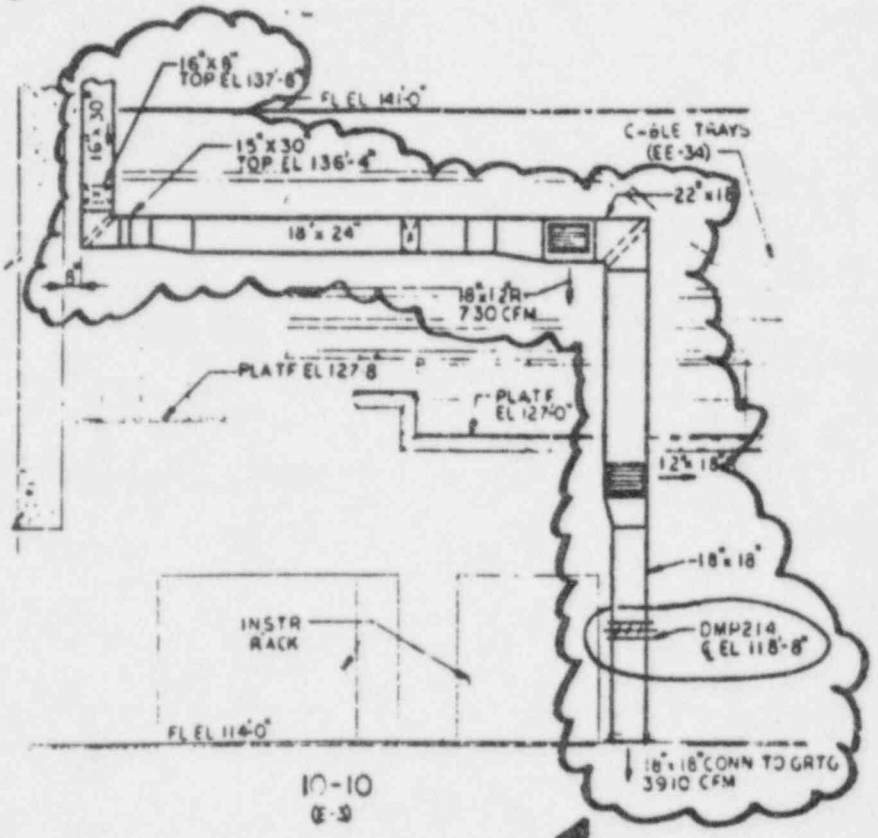
E&DCR C-14,170 PAGE 9 OF 11



THIS DUCT SYSTEM SHALL BE CHANGED AS SHOWN ON PAGES 4 THRU 8 OF THIS E&DCR

		TITLE REF: EB-15F	SCALE:
CHECKED			DATE:
CORRECT			SKETCH NUMBER
APPROVED			
REVISIONS	②	③ ④ ⑤	

E&DCR C-14,170
PAGE 10 OF 11



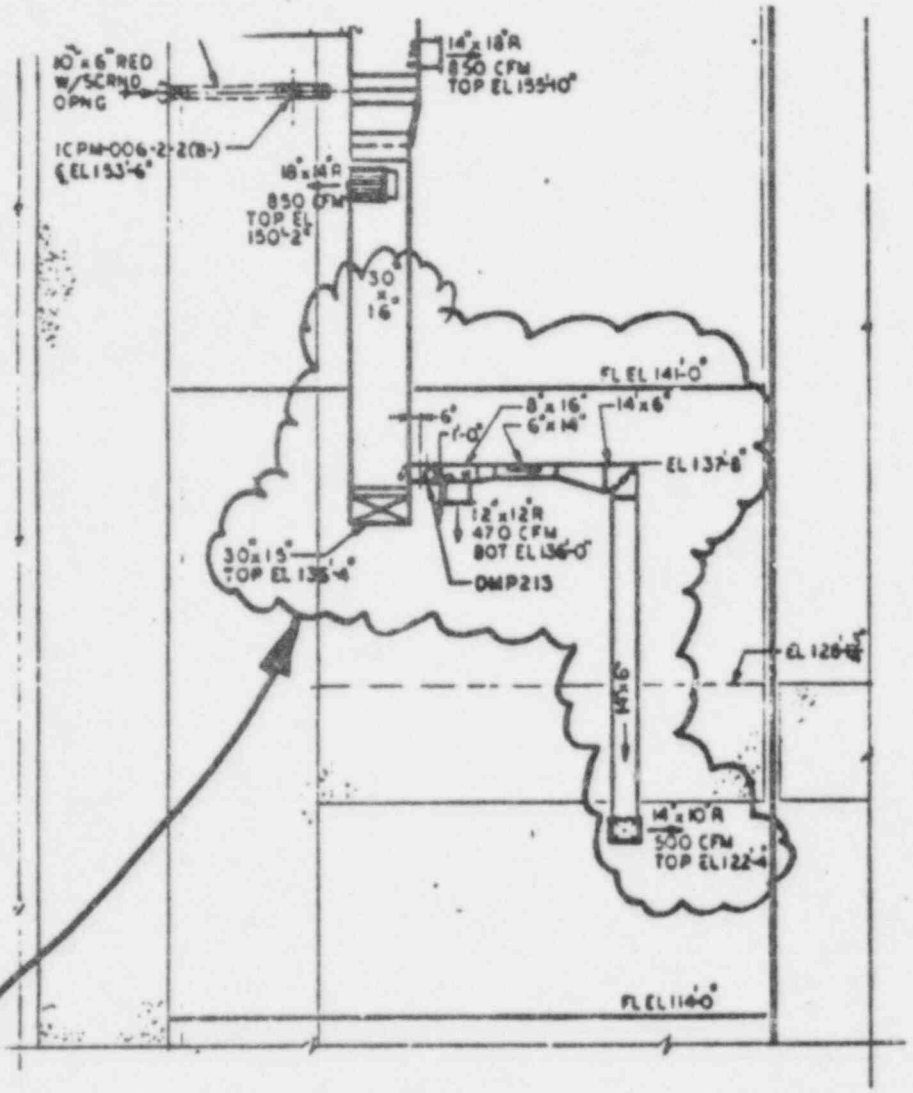
THIS DUCT SYSTEM SHALL BE CHANGED AS SHOWN ON PAGES 4 THRU 8 OF THIS E&DCR

		TITLE REF: EB-15F SECT. 10-10	SCALE:
CHECKED			DATE:
CORRECT			SKETCH NUMBER
APPROVED			
REVISIONS	②	③ ④ ⑤	

E&DCR C-14,170

PAGE 11 OF 11

STONE & WEBSTER ENGINEERING CORPORATION



36-36
(EB-15F B-5)
(EB-15H B-5)
(EB-15K F-5)

THIS DUCT SYSTEM SHALL BE CHANGED AS SHOWN ON PAGES 4 THRU 8 OF THIS E&DCR.

CHECKED		TITLE REF: EB-15R SECT. 36-36	SCALE:
CORRECT			DATE:
APPROVED			SKETCH NUMBER
REVISIONS			

A521085 STONE AND WEBSTER ENGINEERING CORPORATION

ENGINEERING & DESIGN COORDINATION REPORT

PAGE 1 OF 6

E & DCR NO. C-14,344

JOB ORDER NO. 12210

PROJECT/CLIENT 5: RIVER BEND PROJECT UNIT No 1 / G.S.U.

P.O NO. (S.F.W.) 6: N/A

REASON CODE (S) 6: V

EQUIP. I.D NO (S)/SYS. CODE (S) 7: DRS-DUCT (DRS-000)

REFERENCE DOCUMENTS 8: EB-15F-7, 15G-8, 15H-8, 15N-8

SUPPLIER(OR SUBSUPPLIER)NAME 9: N/A

DESCRIPTION SUMMARY 10: DRYWELL DUCT INTERFERENCES

REMARKS 11: N/A

PROBLEM DESCRIPTION 12

REFERENCE: REACTOR BLDG. DRYWELL DUCTWORK

① THE 14"x14" SUPPLY AIR DUCTWORK TIEING INTO THE HINGED CLOSURE AT ELEVATION 161'-7 3/4" ON A 13'-3" RADIUS AT AZIMUTHS 45° AND 270° ~~IS~~ WILL BE IN INTERFERENCE WITH THE DRYWELL INSULATION. BS 9/17/84 CONSTRUCTION REQUEST TO USE AN OFFSETTING SQUARE TO ROUND AND A SQUARE VANED ELL IN LIEU OF THE STANDARD RADIUS ELL TO PROVIDE ~~ADQU~~ BS 9/17/84 ADEQUATE CLEARANCE FROM THE INSULATION.

② THE 36"x24" DRYWELL SUPPLY AIR REGISTER AT TOP EL. 134'-0" AND AZIMUTH 305° ~~IS~~ WILL BE IN INTERFERENCE WITH AN "SVV" LINE. BS 9/17/84

INITIATOR 13	AREA/DEPT DIV	TEL EXT	DATE	DATE NEEDED BY	APPROVED	ENGR. RESP. 15
Brian Sieved	POWER	x4568	9/2/84	9/4/84	[signature]	XP

PROBLEM SOLUTION 16

THE DESIGN DWGS. WILL BE REVISED AS FOLLOWS:

E&DCR PAGE No.	EB DWG. No.	REASON
2 of 6	EB-15F	REVISE REGISTER SIZE AS PER PROBLEM ②
3 of 6	EB-15F	" " " " " " "
4 of 6	EB-15N	" " " " " " "
5 of 6	EB-15G	PROVIDE A 7" OFF-SET AS PER PROBLEM ①
6 of 6	EB-15H	" " " " " " "

16 NON-ASME

EQS:N EQC:N SC:N

AFFECTED DOCUMENT NUMBERS 17	TYPE	STATUS
EB-15F	D	C
EB-15G	D	C
EB-15H	D	C
EB-15N	D	C

STATUS
C - WILL BE INCORPORATED
N - WILL NOT BE INCORPORATED
I - NO CHANGE

RELATED ACTIVITIES 18: N/A

QA CAT 19: II

ANSWERED BY 20: Brian Sieved DATE: 9-17-84

REVIEWED BY LEAD ENGR. 21: [signature] DATE: 9/17/84

MATERIALS ENGR. 22: N/R DATE:

EQUIP. SPEC. 23: N/R DATE:

QSD OR EA 24: N/R DATE:

PROJ. MGR. 25: [signature] DATE: 9/17/84

CLIENT APP REQ'D ☐ NR ☒ 26 REF DATE

SUB ITEM 27	WORK RESP 27	SUB ITEM 27	WORK RESP 27
01	SW	02	

EQ RELEASE NO. 28: DRS-000 | EQ RELEASE NO. 28:

WBS NO. 29: JRB/1A | WBS NO. 29:

WORK COMPLETION 30 NWR ☐ DATE:

INSP. REPORT NO/SIG 31 DATE:

FINAL WORK TRACKING CLOSURE 32 DATE:

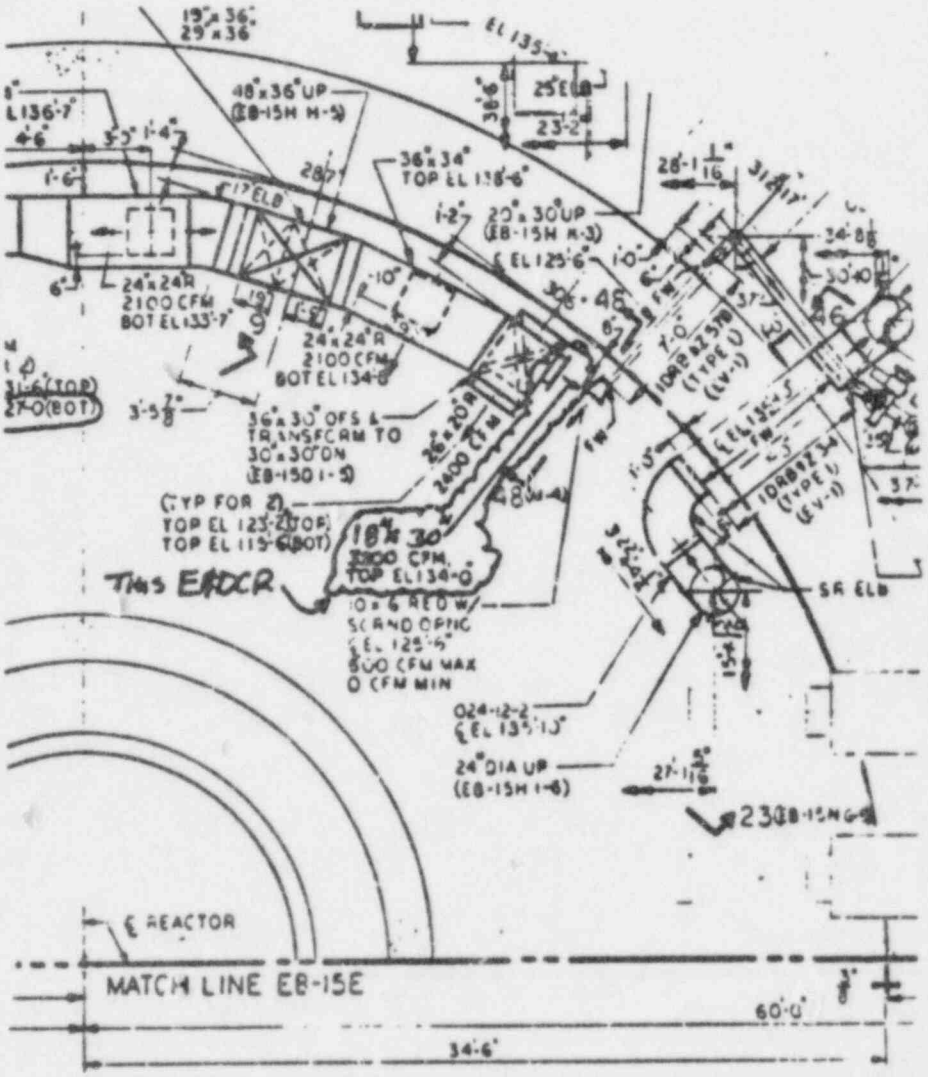
DESCRIPTION (01) 33: DRYWELL DUCTWORK REVISIONS

DESCRIPTION (02) 33:

REMARKS (01) 34: N/A

REMARKS (02) 34:

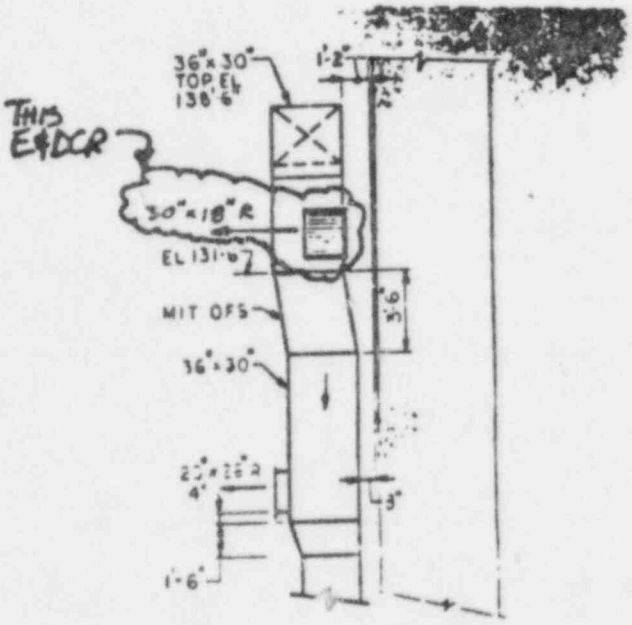
E&DCR C-P-14,344
PAGE 2 OF 6



PLAN EL 114'-0"

		TITLE					SCALE	
CHECKED		REF: EB-15F-7					DATE	
CORRECT								
APPROVED							SKETCH NUMBER	
REVISIONS	②		③		④		⑤	

E&DCR C-14,344
PAGE 3 OF 6



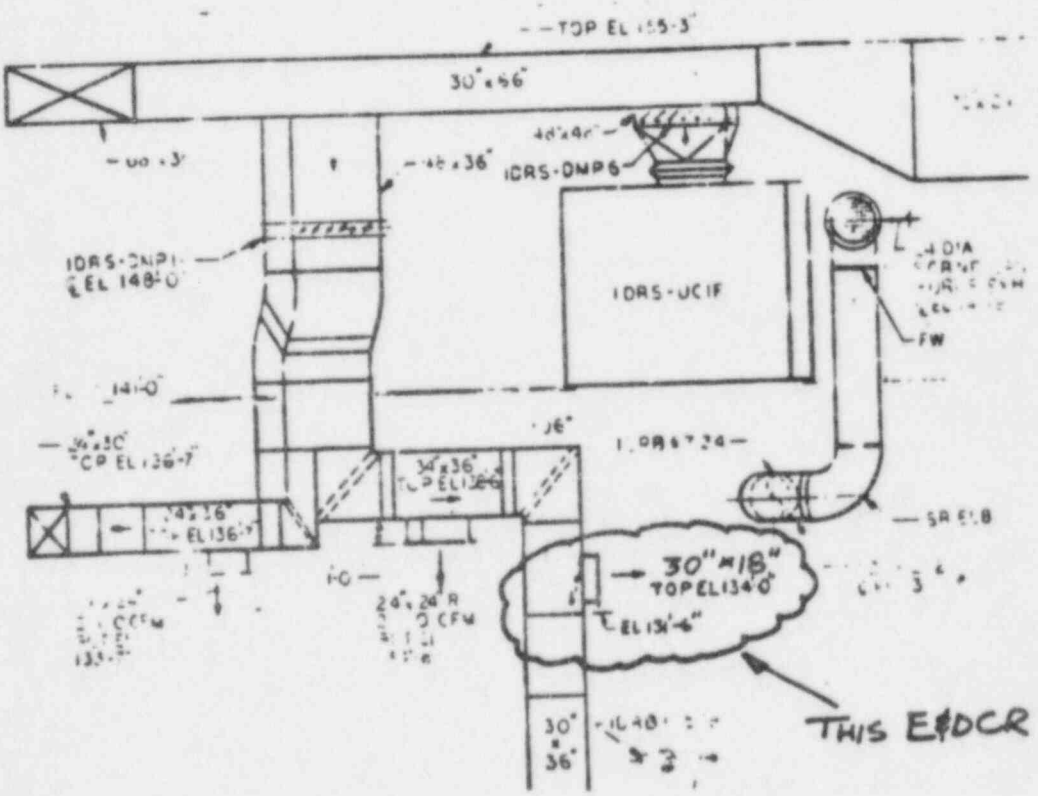
43-43
(1-6)

SECT. 48-48

		TITLE		SCALE:	
CHECKED		EB-15F-7		DATE:	
CORRECT				SKETCH NUMBER	
APPROVED					
REVISIONS	②	③	④	⑤	

STONE & WEBSTER ENGINEERING CORPORATION

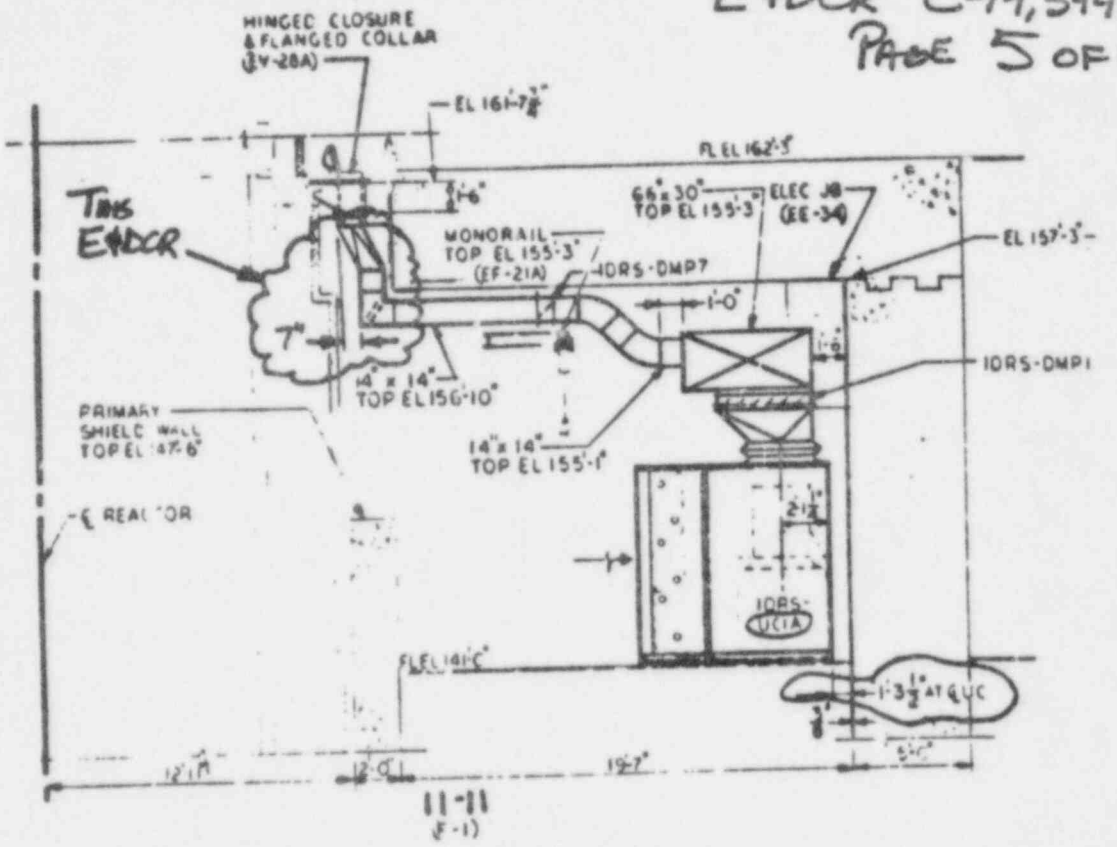
E&DCR C-14,344
PAGE 4 OF 6

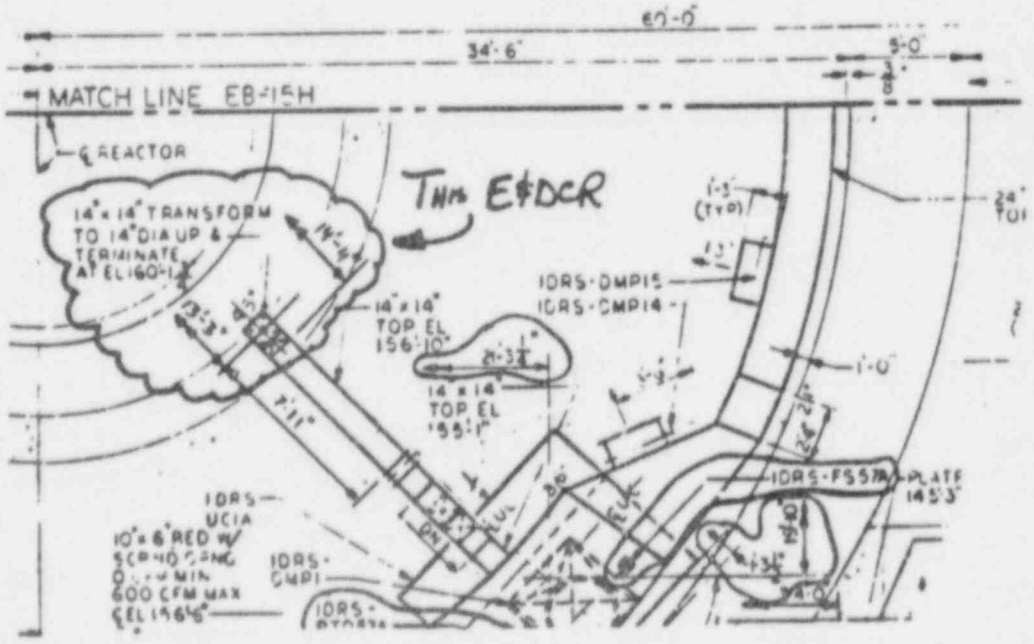


SECT. 23-23

		TITLE			SCALE
CHECKED		REF: EB-15N-B			DATE
CORRECT					SKETCH NUMBER
APPROVED					
REVISIONS	②	③	④	⑤	

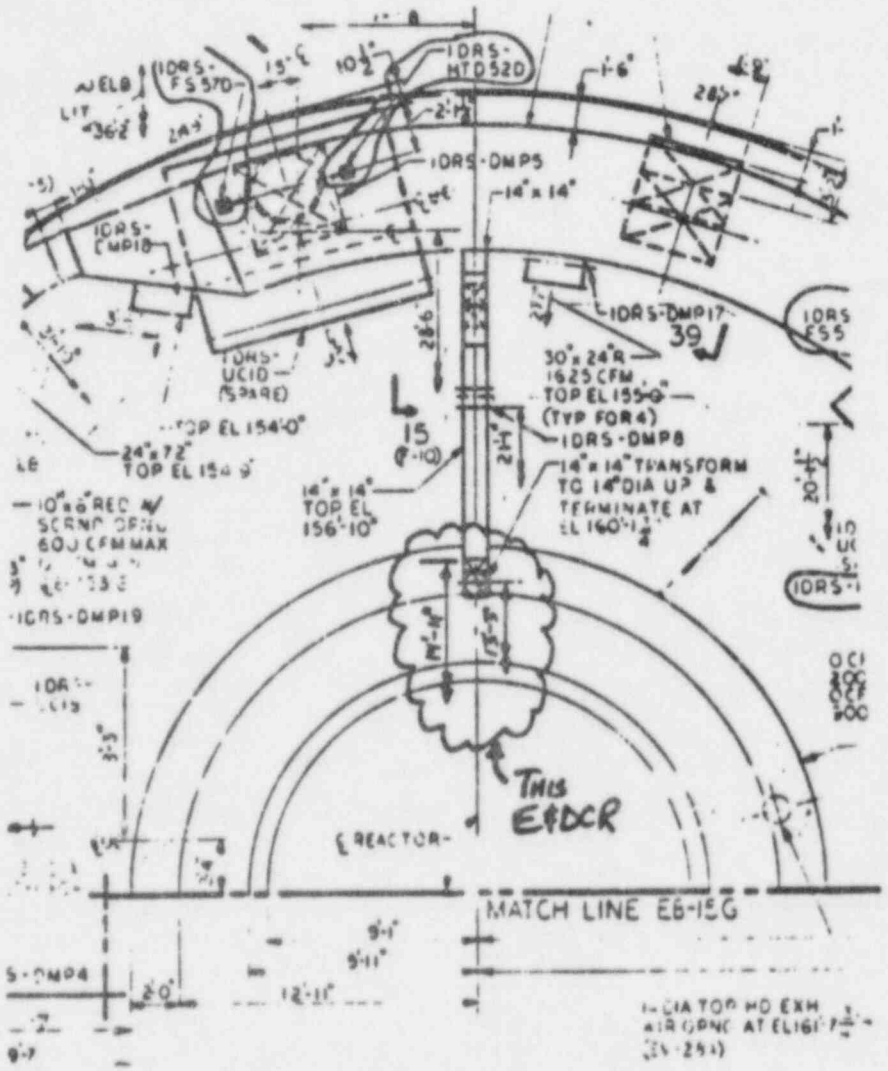
E&DCR C-14,344
PAGE 5 OF 6





		TITLE			SCALE
CHECKED		REF: EB-15G-8			DATE
CORRECT					
APPROVED					SKETCH NUMBER
REVISIONS	2	3	4	5	

E&DCR C-14,344
PAGE 6 OF 6



		TITLE			SCALE:
CHECKED		REF: EB-15H-8			DATE:
CORRECT					
APPROVED					SKETCH NUMBER
REVISIONS	②	③	④	⑤	

STONE & WEBSTER ENGINEERING CORPORATION

PAGE 1 OF 3

5040 235

NONCONFORMANCE AND DISPOSITION REPORT

JOB ORDER NO. 1 12210 | N&D NO. 2 6552

3 SHOP ☐ FIELD ☑ | DISTRICT CODE 4 N/A | SUBJECT OF N&D 5 DUCT RISER OFF LOCATION | KEYWORD H V A C X X | QA CAT 6 I

7 ASME III ☐ NON ASME III ☑ | MATL OR INFRACTION LOCATION 8 REACTOR CONT. 161'-0" 114'-0" | NONCONFORMANCE DATE 9 6/28/84 | REASON CODE 10 C | RELATED IR NUMBER 11 N/A

SELLER/SUBSELLER NAME 12 N/A | SWEC P.O. NO. 13 N/A | SELLER CODE 14 N/A | SUB SELLER CODE 15 N/A

DOCUMENTS/CODES VIOLATED	TYPE	TYPE CODES: D - DWG, M - MFR DWG, S - SPEC, C - CODE, P - PROC, X - DIAG
EB-15F-7	D	
EB-15H-8	D	

16

EQUIP ID NO(S)/SYSTEM CODE (S): HVAC DUCTWORK — 17

NONCONFORMANCE RESPONSIBILITY 18: ☐ ENG ☐ TRANSP ☒ CONST ☐ QA ☐ SELLER ☐ NOT ASSIGNED

CONDITION DETAILS 19.
THE DUCT RISER IN THE REACTOR CONTAINMENT BETWEEN AZIMUTH 287° AND 306° @ EL 155'-6" DOWN TO EL 114'-0" IS OFF LOCATION. THE EB DRAWINGS (EB-15F & 15H) SHOWN THE DUCT TO BE 38'-6" EAST OF THE CENTER LINE OF THE REACTOR. AS BUILT MEASURMENTS SHOW THE RISER TO BE ~~N/A~~ 38'-7 5/8" @ 155'-6 EL. AND 38'-10" @ 131'-2" EL. EAST OF THE CENTER LINE OF THE REACTOR.

INITIATOR 20 J.K.H. | AREA/DEPT/DIV POWER | DATE 6/28/84 | 21 INITIATOR APPROVAL Richard Brandt | RELATED ACT N/A | DATE 6/29/84

DISPOSITION DETAILS 22.

ACCEPT-AS-IS : REVISE EB-15 F & H AS SHOWN ON PAGES 2 & 3 OF 3 OF THIS N&D.

TECHNICAL JUSTIFICATION

THE CHANGE IN LOCATION WILL NOT EFFECT THE FUNTION OF THE DUCT SYSTEM.

LOGGED SEP

ENG. RESP 23 XP | DISPOSITION ASSIGNED BY 24 J.K.H. | RELATED ACT HA | DATE 7/5/84 | PLANNED COMP DATE 32 | WORK AREA/RESP 33 JFB/1A/1SW

ACTION: ☑ ACCEPT-AS-IS ☐ REPAIR ☐ SCRAP ☐ RETURN TO SELLER ☐ REWORK 25

AFFECTED DOCUMENT NO. (S)	TYPE	STATUS
EB-15F/7	D	C
EB-15H/8	D	C

26

TYPE CODES SAME AS ABOVE | STATUS CODES C-WILL BE INC. N-WILL NOT BE INC.

RESP. ENGR 27 | DATE 7/5/84 | RELEASE NO. 34 HVR.001 | CMS ACCOUNT NO. 35

CHIEF MATLS. ENGR 28 NR | DATE | CONSTRUCTION 36 | DATE

EQUIP. SPECIALIST 29 NR | DATE | ANI REVIEW FOR HOLD POINTS 37 | DATE

CHIEF ENGR. QSD 30 | DATE | OTHER ORGANIZATION GSU | DATE 7/9/84

PROJECT ENGINEER 31 | DATE 7/9/84 | QUALITY ASSURANCE 39 | DATE

DISPOSITION ACTION COMPLETE 40 | DATE

INSPECTION/VERIFICATION ☐ ACCEPTABLE ☐ UNACCEPTABLE 41 | SIGNATURE | DATE | M & TE NO. 42

REINSPECTION/REVERIFICATION ☐ ACCEPTABLE ☐ UNACCEPTABLE 43 | SIGNATURE | DATE | M & TE NO. 44 | NEW N&D NO. 45 | NEW IR NO. 46

REMARKS 47.

REQUEST DISPOSITION FROM ENGINEERING BY: 6/29/84

EOC: N EOS: N SC: N

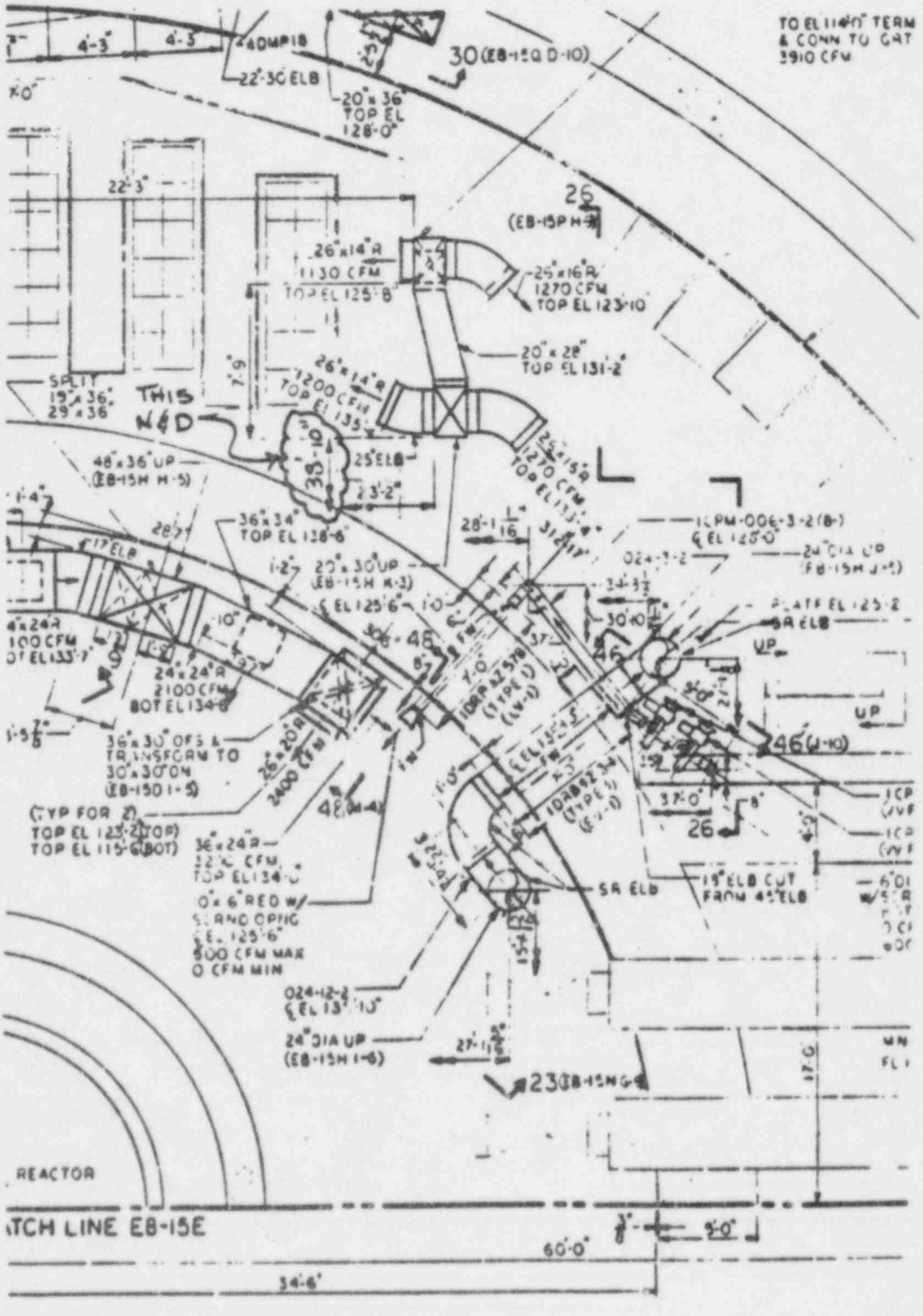
SUPERSEDES N&D 48 | N&D REVIEWED AND CLOSED 49 | DATE | N&D NUMBER 50 6553

▲5040.220A

STONE AND WEBSTER ENGINEERING CORPORATION
NONCONFORMANCE AND DISPOSITION REPORT

PAGE 2 OF 3
JOB NO. 12210
N&D NO. G552

SUPPLEMENTARY SHEET



REF: EB-15F-7

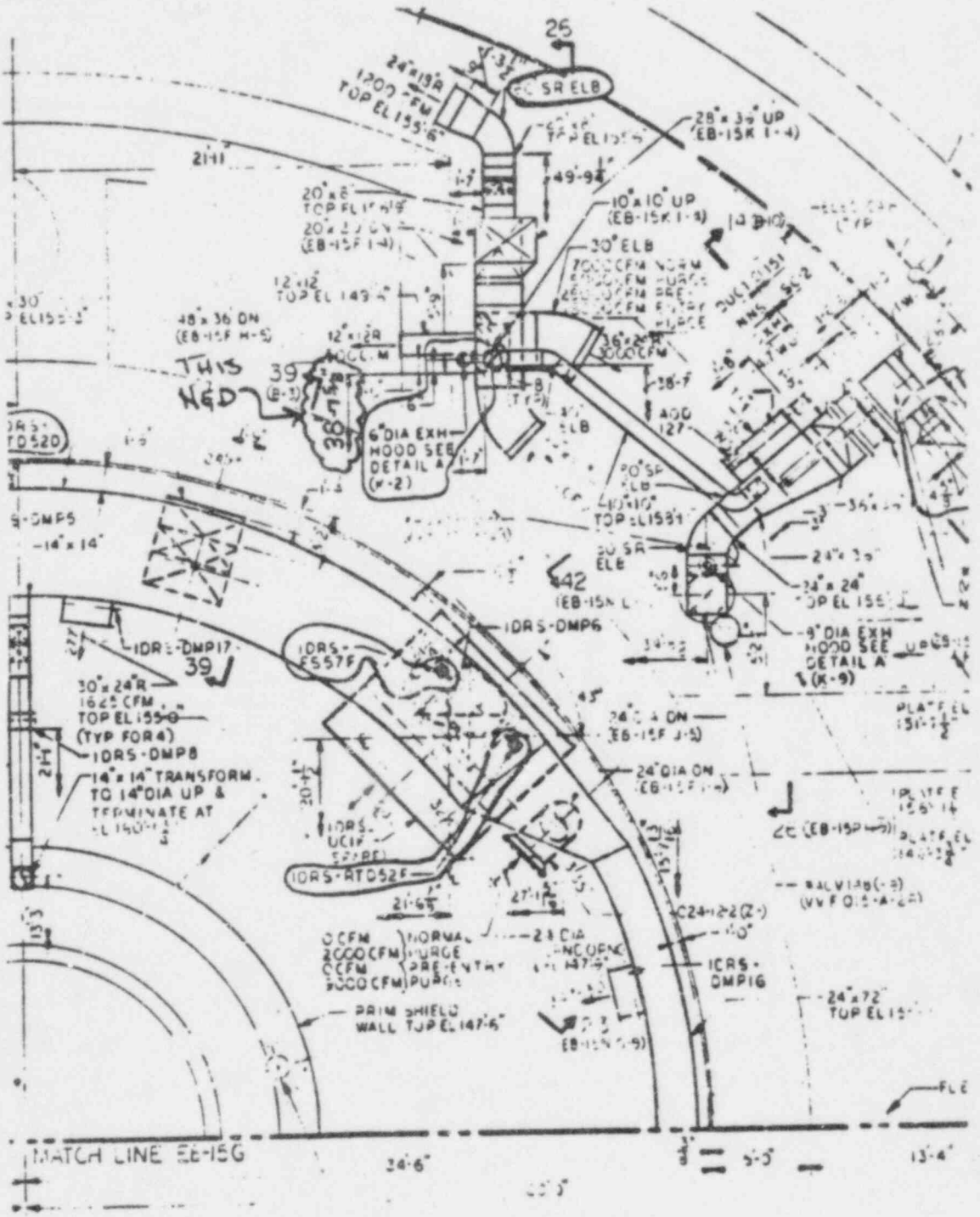
N&D NO. G552

A 5040 2704

STONE AND WEBSTER ENGINEERING CORPORATION
NONCONFORMANCE AND DISPOSITION REPORT

PAGE 3 OF 3
JOB NO. 12210
N&D NO. 6552

SUPPLEMENTARY SHEET



REF.: EB-15H-8

N&D NO. 6552

SEE

APERTURE

CARDS

*OVERSIZED DRAWINGS

(ADDITIONAL DOCUMENT PAGES FOLLOW)

APERTURE CARD NO: 8502270203

AVAILIBILITY PDR CF HOLD

NUMBERS OF PAGES. 1

A52106

STONE AND WEBSTER ENGINEERING CORPORATION
ENGINEERING & DESIGN COORDINATION REPORT

PAGE 1 OF 7
E&DCR NO. C-13,392A
JOB ORDER NO. 12210

PROJECT/CLIENT: RIVER BEND PROJECT UNIT №1 / G.S.U.

P.O. NO. (S.E.W.): N/A
REASON CODE (S): F
EQUIP. I.D. NO. (S) / SYS. CODE (S): 1HVR* DUCT

REFERENCE DOCUMENTS: EB-15R-8
EB-15G-8 EB-15H-8 EB-15N-8

SUPPLIER (OR SUBSUPPLIER) NAME: N/A

DESCRIPTION SUMMARY: ADDITION OF DEBRIS SCREENS

REMARKS: SUPERCEDES C-13,392

PROBLEM DESCRIPTION

ORIGINAL PROBLEM

TO MEET THE REQUIREMENTS OF BTP CSB 6.4, DEBRIS SCREENS ARE TO BE INSTALLED IN THE CONTAINMENT PURGE SYSTEM TO PROTECT THE CONTAINMENT ISOLATION VALVES 1HVR* AOV 123 & 128.
DETAILS SHOWING THE LOCATION OF THE DEBRIS SCREENS 1HVR* S01, S02 NEED TO BE INCORPORATED ONTHE DESIGN DRAWINGS.

REVISION A

TO IMPROVE THE CONSTRUCTABILITY THE ORIGINAL 4"x4"x¼" ANGLE RING WILL BE REPLACED WITH A ½" THICK PLATE. THE DETAILS FOR CONSTRUCTION WILL BE INCLUDED IN SPEC. 216.140 SEPARATELY.

INITIATOR	AREA/DIV	DEPT	TEL EXT	DATE	DATE NEEDED	APPROVED	ENGR RESP
BRIAN SIEVERS		POWER	x568	3/11/84	3/12/84	REB	XP

PROBLEM SOLUTION

SUPERCEDES E&DCR C-13,392

THE DESIGN DRAWINGS SHALL BE CHANGED AS FOLLOWS:

EB DWG. #	E&DCR PAGE #	DESCRIPTION OF CHANGE
EB-15G	2 OF 7	PLAN VIEW @ 35°
EB-15G	3 OF 7	REPLACES SECTION 13-13
EB-15H	4 OF 7	PLAN VIEW @ 320°
EB-15~~H~~N BS. 3/12/84	5 OF 7	ADD NEW SECTION 57-57
EB-15N	6 OF 7	REVISES SECTION 42-42
EB-15R	7 OF 7	ADD NEW NOTE 15

NON-ASME

EOS:N EOC:N SC:N

AFFECTED DOCUMENT NUMBERS	TYPE	STATUS
EB-15G	D	C
EB-15H	D	C
EB-15N	D	C
EB-15R	D	C

STATUS
C - WILL BE INCORPORATED
N - WILL NOT BE INCORPORATED
I - NO CHANGE

RELATED ACTIVITIES: N/A
QA CAT: I

ANSWERED BY: Brian Sievers — DATE: 3/12/84
REST. LEAD ENGR. — DATE: 3/12/84
MATERIALS ENGR.: N/R — DATE:
EQUIP. SPEC.: N/R — DATE:
QSD OR EA: N/R — DATE:
PROJ. ENGR. — DATE: 3/12/84

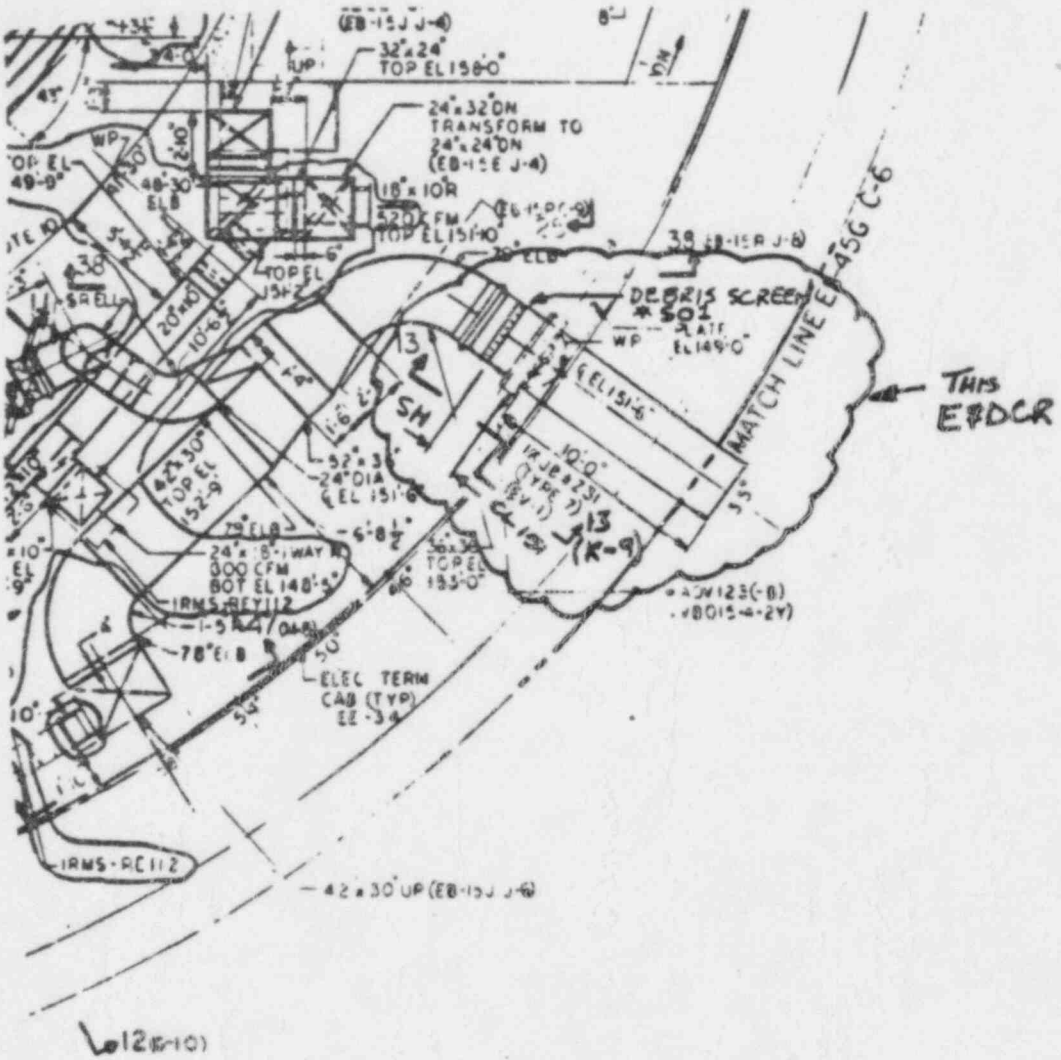
CLIENT APP REQ'D ☐ NR ☒
REF — DATE

SUB ITEM	WORK RESP	SUB ITEM	WORK RESP
01	1SW	02	

EQ RELEASE NO.: 1.B.HVR.003
EQ RELEASE NO.:
WBS NO.: JRB/1A
WBS NO.:
WORK COMPLETION — NWR ☐ — DATE
INSP. REPORT NO/SIG — DATE
FINAL WORK TRACKING CLOSURE — DATE

DESCRIPTION (01): ADDITION OF DEBRIS SCREENS
DESCRIPTION (02):
REMARKS (01): N/A
REMARKS (02):

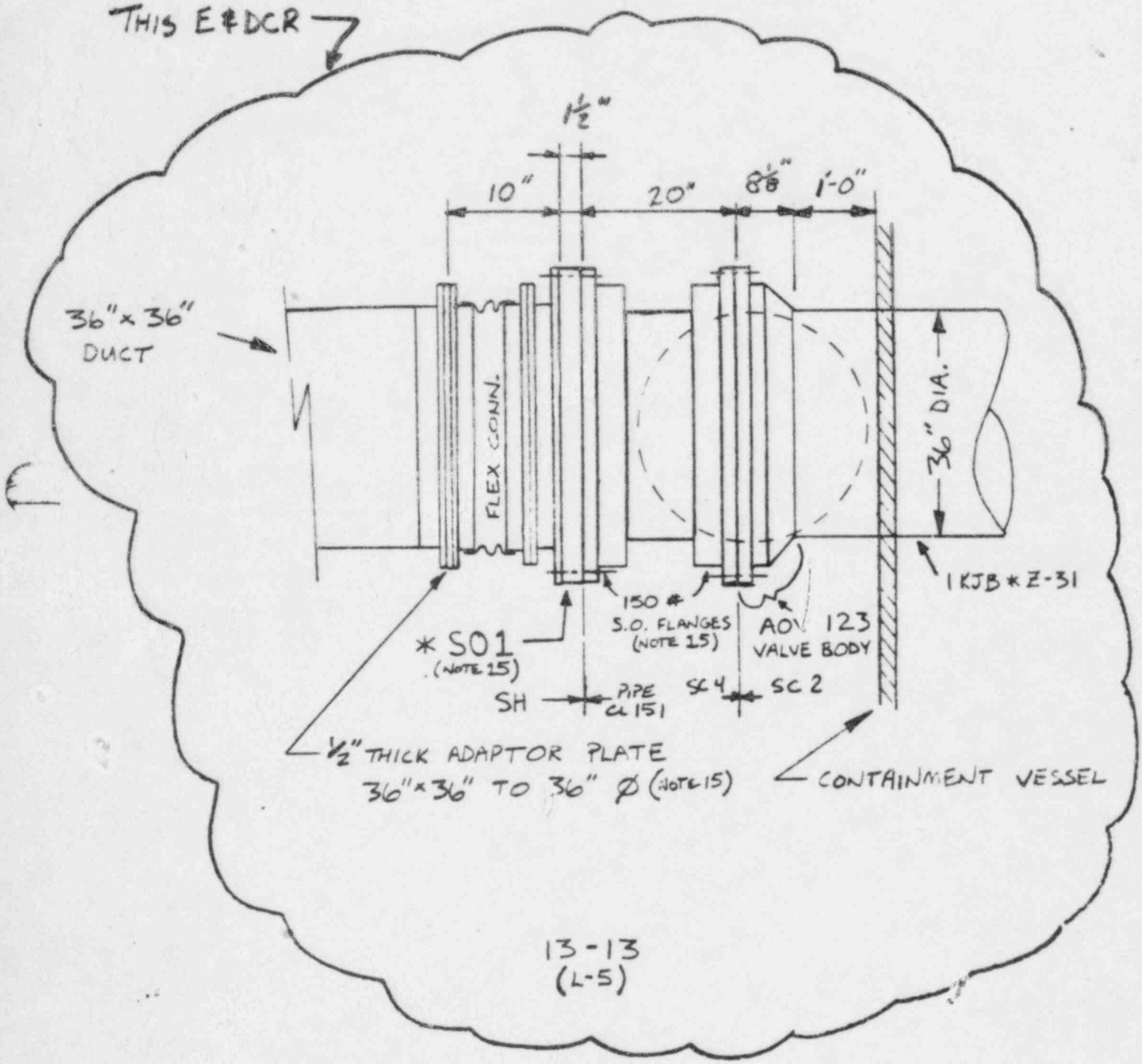
C-13,392 A
PAGE 2 OF 7



EB-15G-8

		TITLE	DEBRIS SCREEN *S01			SCALE: NONE	
CHECKED						DATE	
CORRECT						SKETCH NUMBER	
APPROVED							
REVISIONS	②		③		④		⑤

C-13,392 A
PAGE 3 OF 7

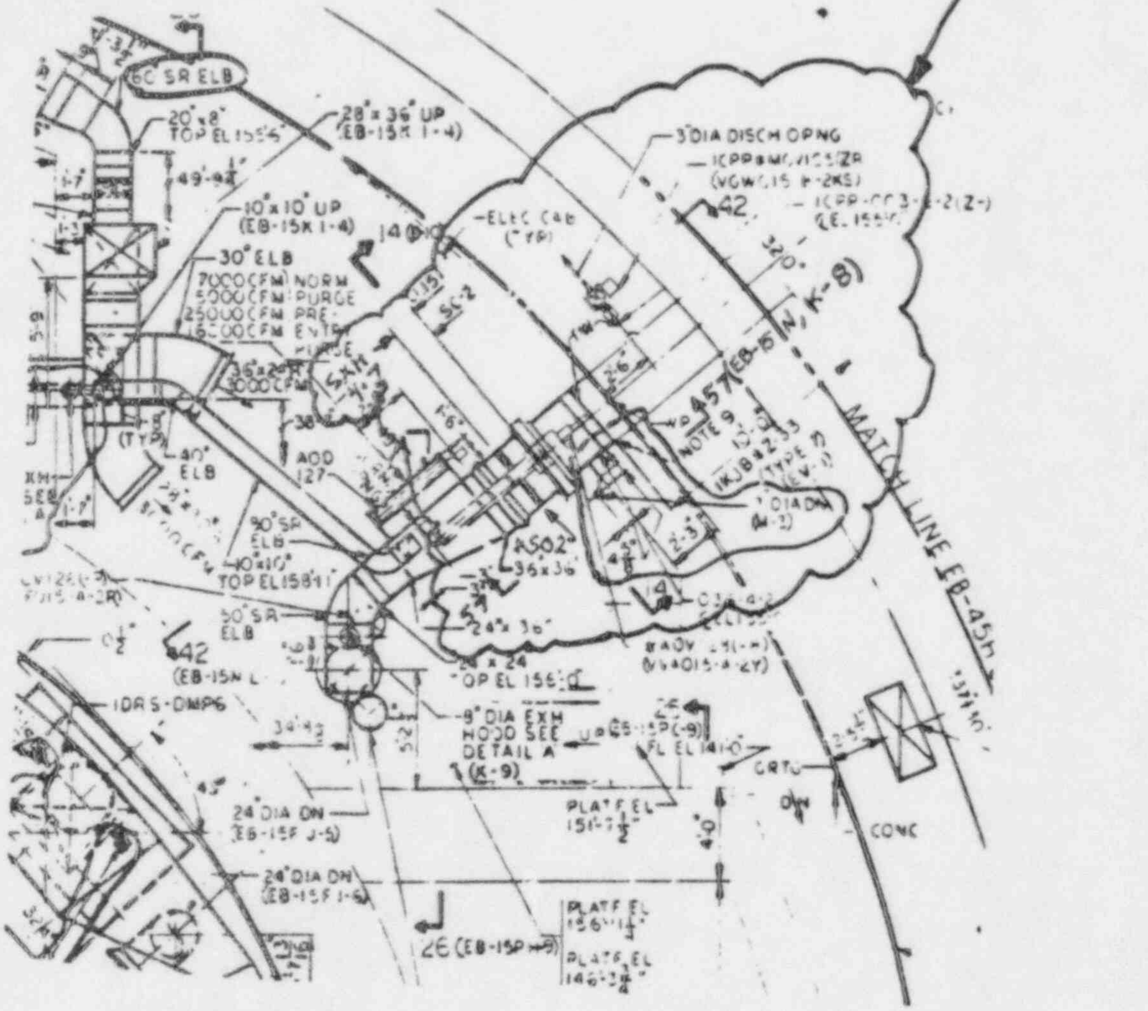


REPLACE EXISTING SECTION 13-13

EB-15G-8
(K-9)

C-13,392A
PAGE 4 OF 7

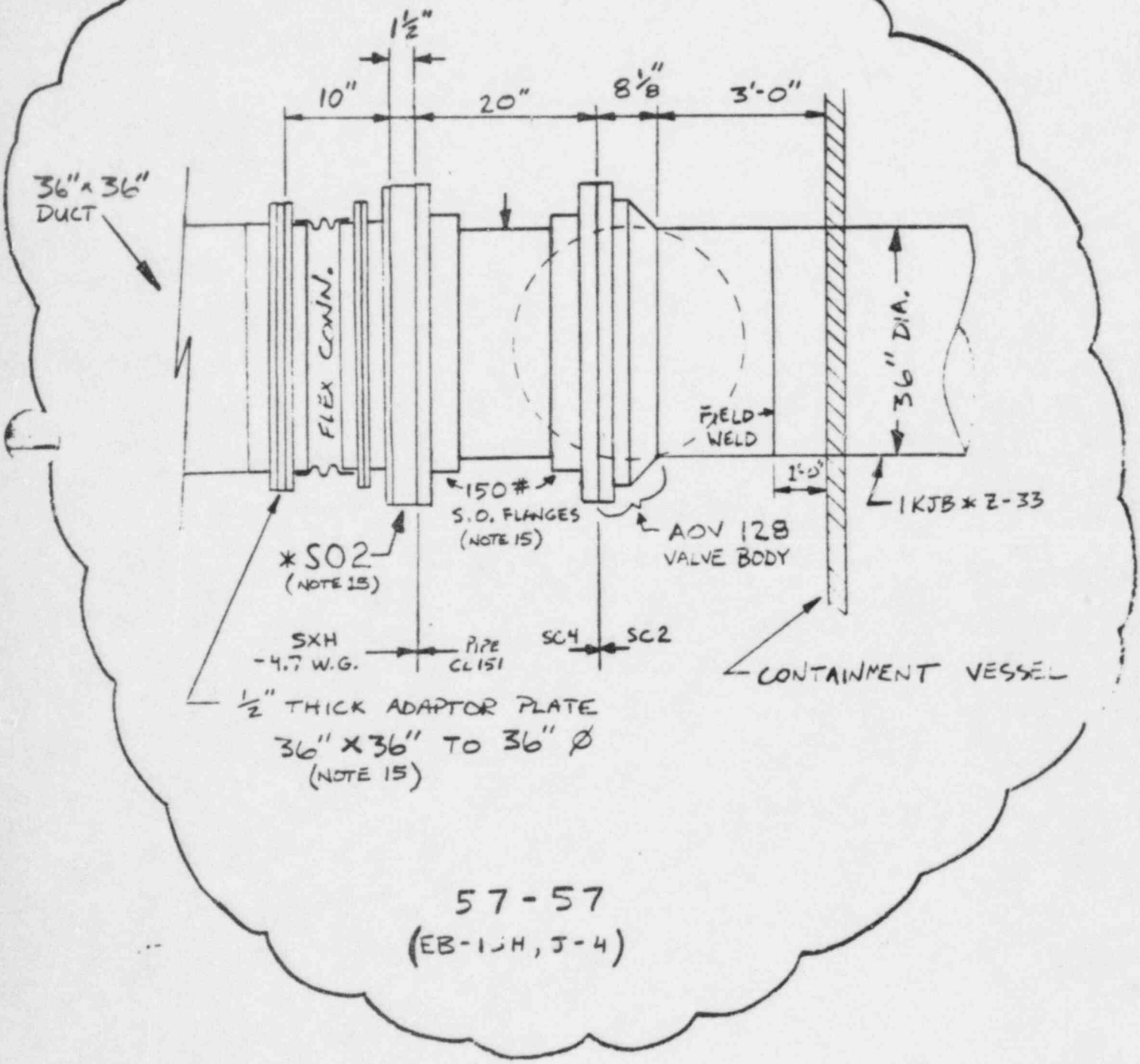
THIS E&DCR



Ref: EB-15H-8

	TITLE	
CHECKED	DEBRIS SCREEN	SCALE: NONE
CORRECT	* S02	DATE:
APPROVED		SKETCH NUMBER
REVISIONS ② ③ ④ ⑤		

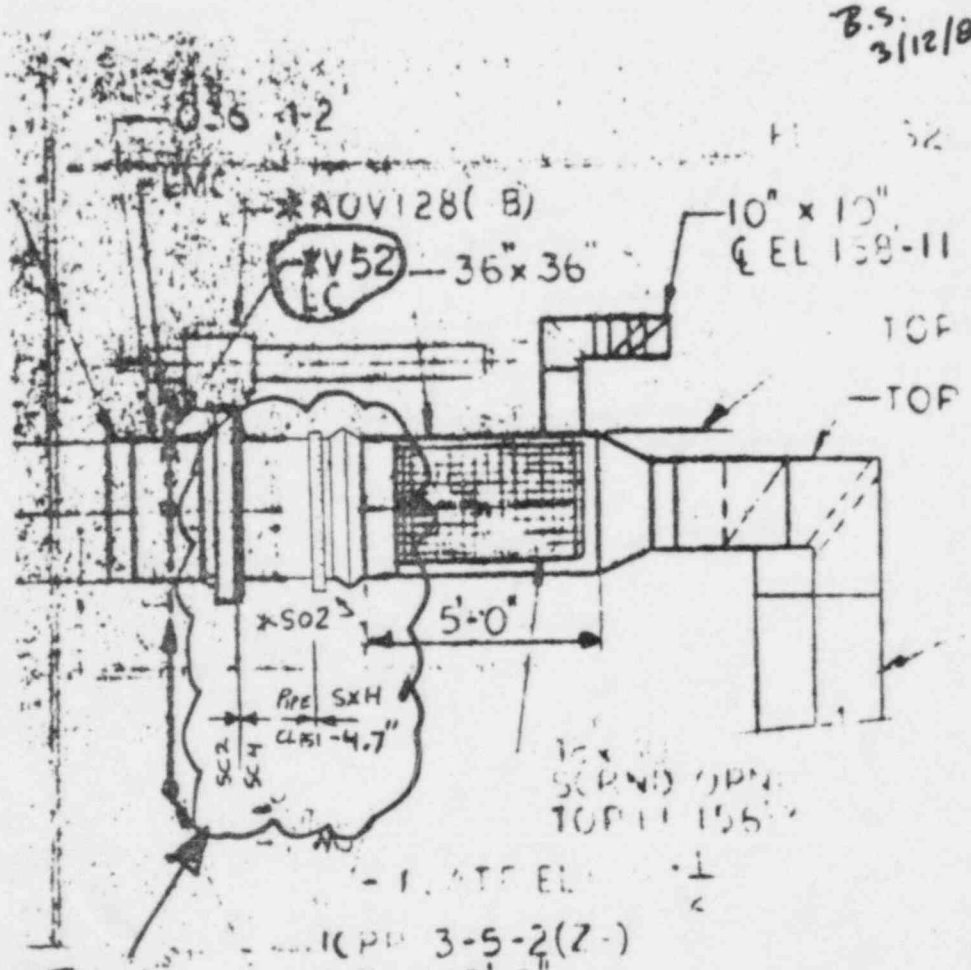
THIS E&DCR



57-57
(EB-15H, J-4)

INCORPORATE ON EB-15N-8 AT COOR. (K-8)

E ǂDCR C-13,392A
PAGE X OF 7
6
B.S. 3/12/84



42-42
(EB-15H 1-8)

REF: EB-15N-8
SECT. 42-42

CHECKED	TITLE			SCALE
CORRECT	REACTOR BLDG. DUCTWORK			DATE
APPROVED				SKETCH NUMBER
REVISIONS (2)	(3)	(4)	(5)	C-13,392A

ADD NOTE 15 ON E3-15R-8, COOR. M-8

15. FOR DETAILS ON DEBRIS SCREENS 1HVR*S01, S02 REFER TO SPEC. 216.140.

E1

STONE AND WEBSTER ENGINEERING CORPORATION
ENGINEERING & DESIGN COORDINATION REPORT

PAGE 1 OF 5
ENGR NO. C-13,408

PROJECT/CLIENT: RIVER BEND PROJECT UNIT No. 1 / G.S.U.
JOB ORDER NO: 12210

P O NO (S F W): N/A
REASON CODE (S): V
EQUIP ID NO (S) / SYS CODE (S): 1HVR * DUCT

REFERENCE DOCUMENTS: EB-15P-8 EB-15G-8 EB-15J-8 EB-15R-8
SUPPLIER OR SUBSUPPLIER NAME: N/A

DESCRIPTION SUMMARY: DUCTWORK TAP RELOCATIONS
REMARKS: N/A

PROBLEM DESCRIPTION

CONSTRUCTION REQUEST THAT THE VERTICLE SUPPLY DUCT FROM 1HVR*UC1A, 1B AND 1HVR*UC 1C LOCATED AT AZIMUTH 30° IN THE REACTOR BLDG. SPANNING FROM EL. 138'-0" TO 182'-0" BE REVISED TO SHOW DUCT TAP ELEVATION CHANGES DUE TO COORDINATING THE EXISTING DUCT PIECES WITH THE SPECIFIED SUPPORT STEEL.

VERTICAL SUPPLY

INITIATOR	AREA/DEPT DIV	TEL EXT	DATE	DATE NEEDED	APPROVED	ENGR RESP
BRIAN SIEVERS	POWER	x568	2/16/84	2/17/84	J A S.	X

PROBLEM SOLUTION

FOR SOLUTION REVISE THE DESIGN DWGS. AS FOLLOWS:

EB-15J — PAGE 2 OF 5
EB-15G — PAGE 3 OF 5
EB-15P, SECT. 25-25 — PAGE 4 OF 5
EB-15R, SECT. 38-38 — PAGE 5 OF 5

NON-ASME

EOS:N EOC:N SC:N

AFFECTED DOCUMENT NUMBERS	TYPE	STATUS
EB-15J	D	C
EB-15G	D	C
EB-15P	D	C
EB-15R	D	C

STATUS
C - WILL BE INCORPORATED
N - WILL NOT BE INCORPORATED
I - NO CHANGE

RELATED ACTIVITIES: N/A
QA CAT: I

ANSWERED BY: Brian Sievers — DATE: 2/16/84
RESP LEAD ENGR: Richard E Buell — DATE: 2/16/84
MATERIALS ENGR: N/R — DATE:
EQUIP SPEC: N/R — DATE:
QSD OR EA: N/R — DATE:
PROJ ENGR: [signature] — DATE: 2/16/84

CLIENT APP REQ'D ☐ NR ☒
REF — DATE

SUB ITEM	WORK RESP	SUB ITEM	WORK RESP
01	13W	02	

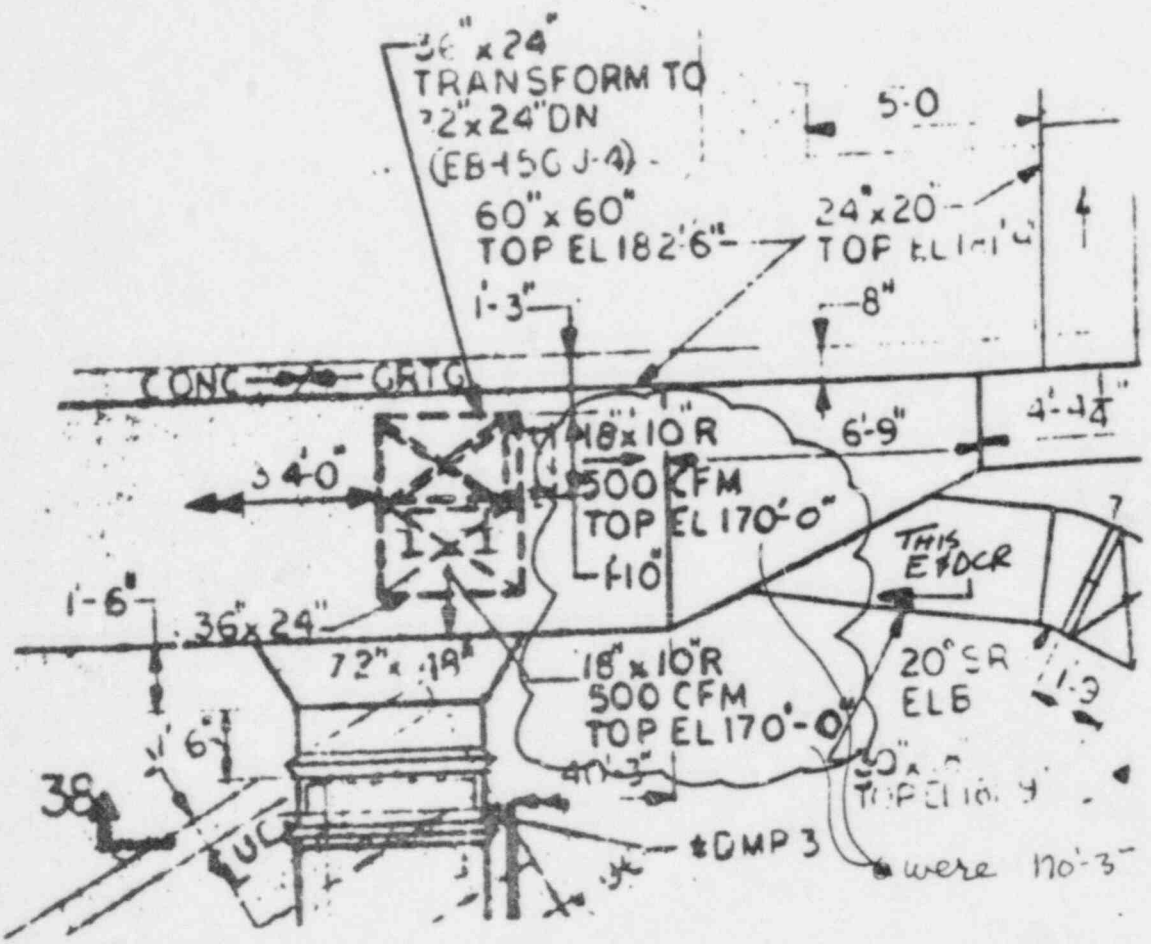
EQ RELEASE NO: 1Bx.HVR.001
WBS NO: JRB/1A

WORK COMPLETION — NWR ☐ — DATE
INSP REPORT NO/SIG — DATE
FINAL WORK TRACKING CLOSURE — DATE

DESCRIPTION (01): DUCTWORK TAP RELOCATIONS
DESCRIPTION (02):

REMARKS (01): N/A
REMARKS (02):

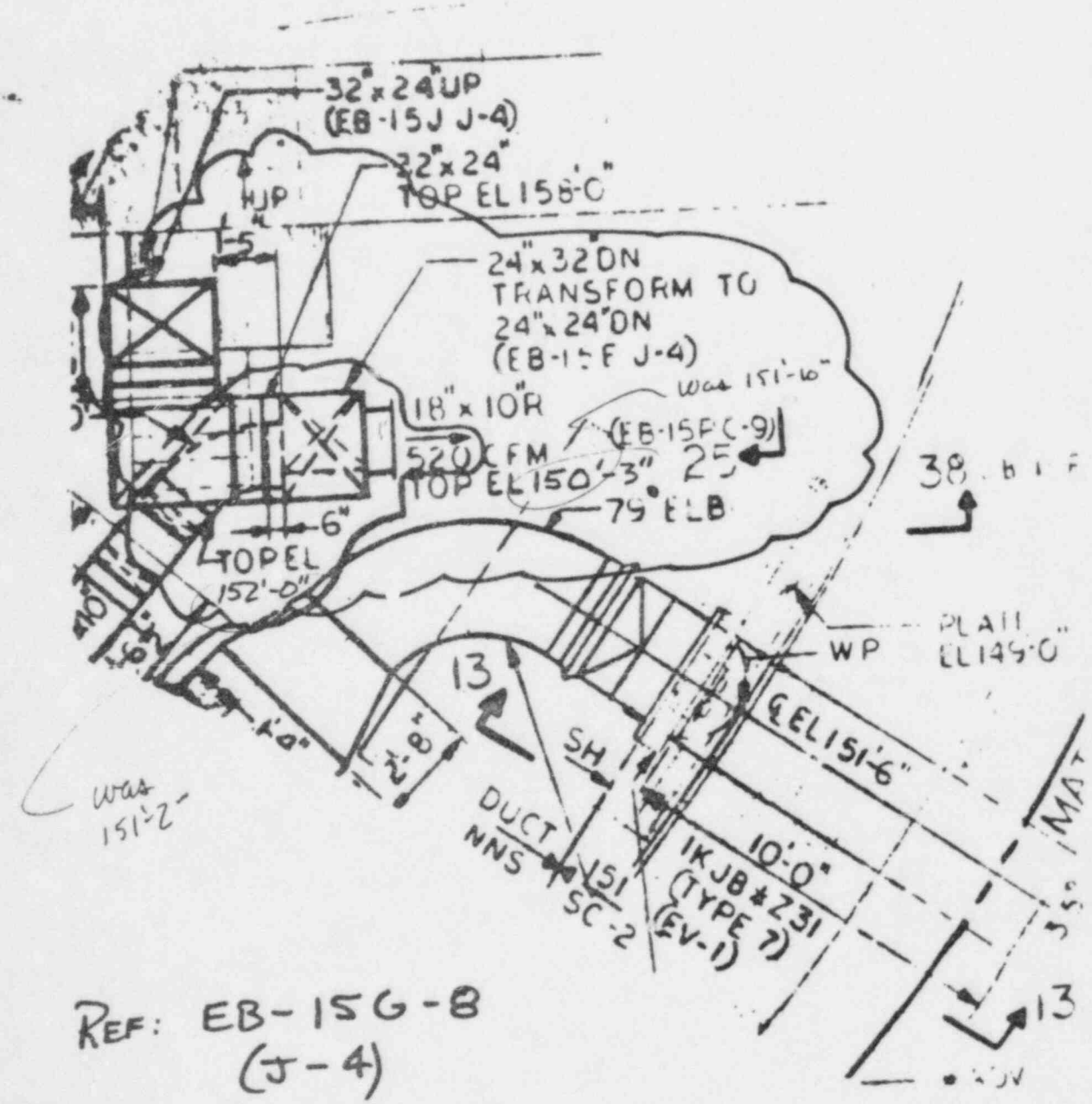
E&DCR C-13,408
PAGE 2 OF 5



REF: EB-15 J-8
(J-4)

		TITLE				SCALE:	
CHECKED		REACTOR BLDG. DUCT				DATE:	
CORRECT							
APPROVED						SKETCH NUMBER	
REVISIONS	②		③		④	⑤	C-13,408

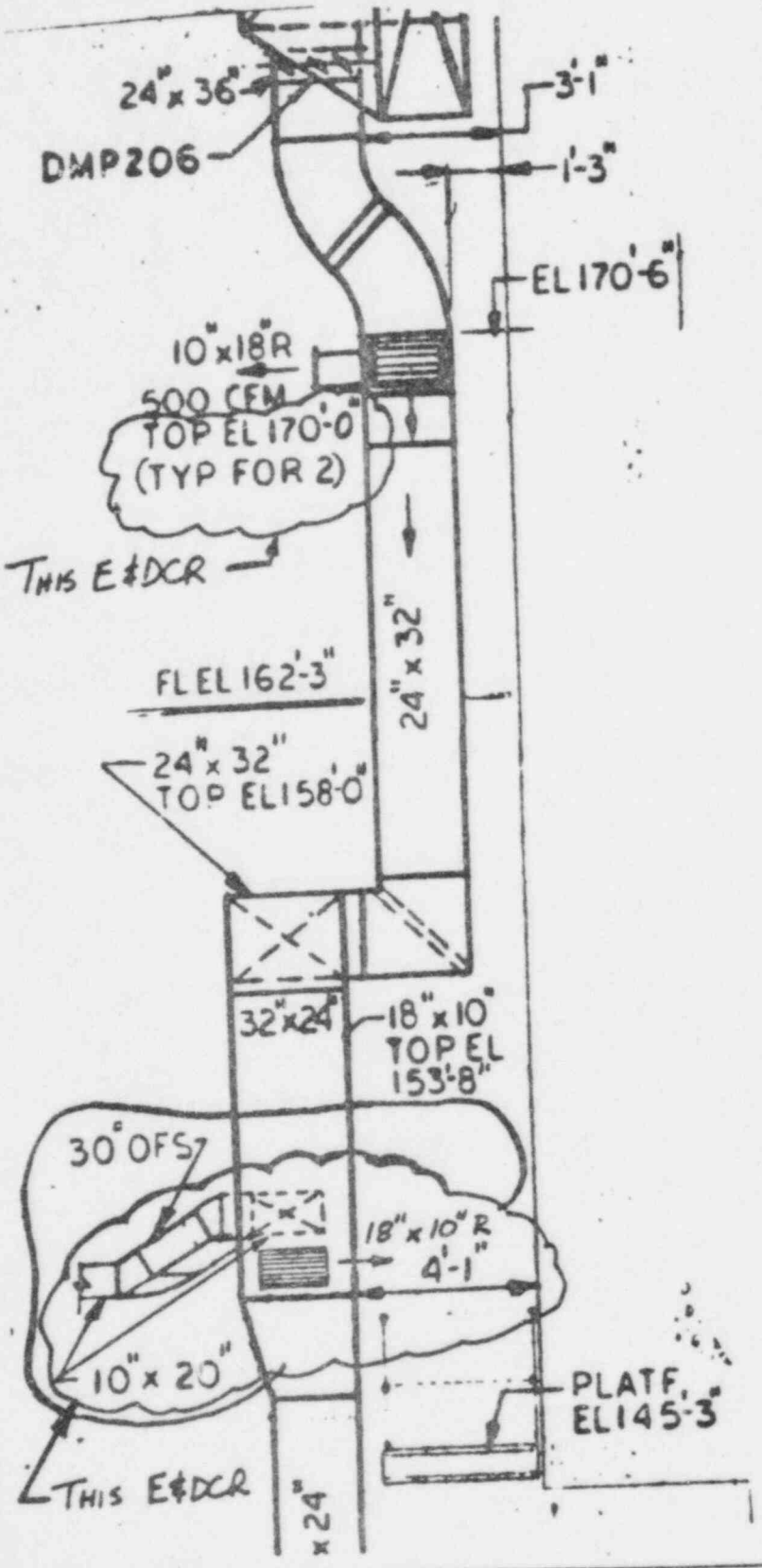
E&DCR C-13,408
PAGE 3 OF 5



CHECKED		TITLE		SCALE	
CORRECT		REACTOR BLDG. DUCT		DATE	
APPROVED				SKETCH NUMBER	C-13,408
REVISIONS	②	③	④	⑤	

STONE & WEBSTER ENGINEERING CORPORATION

E&DCR C-13,408
PAGE 4 of 5

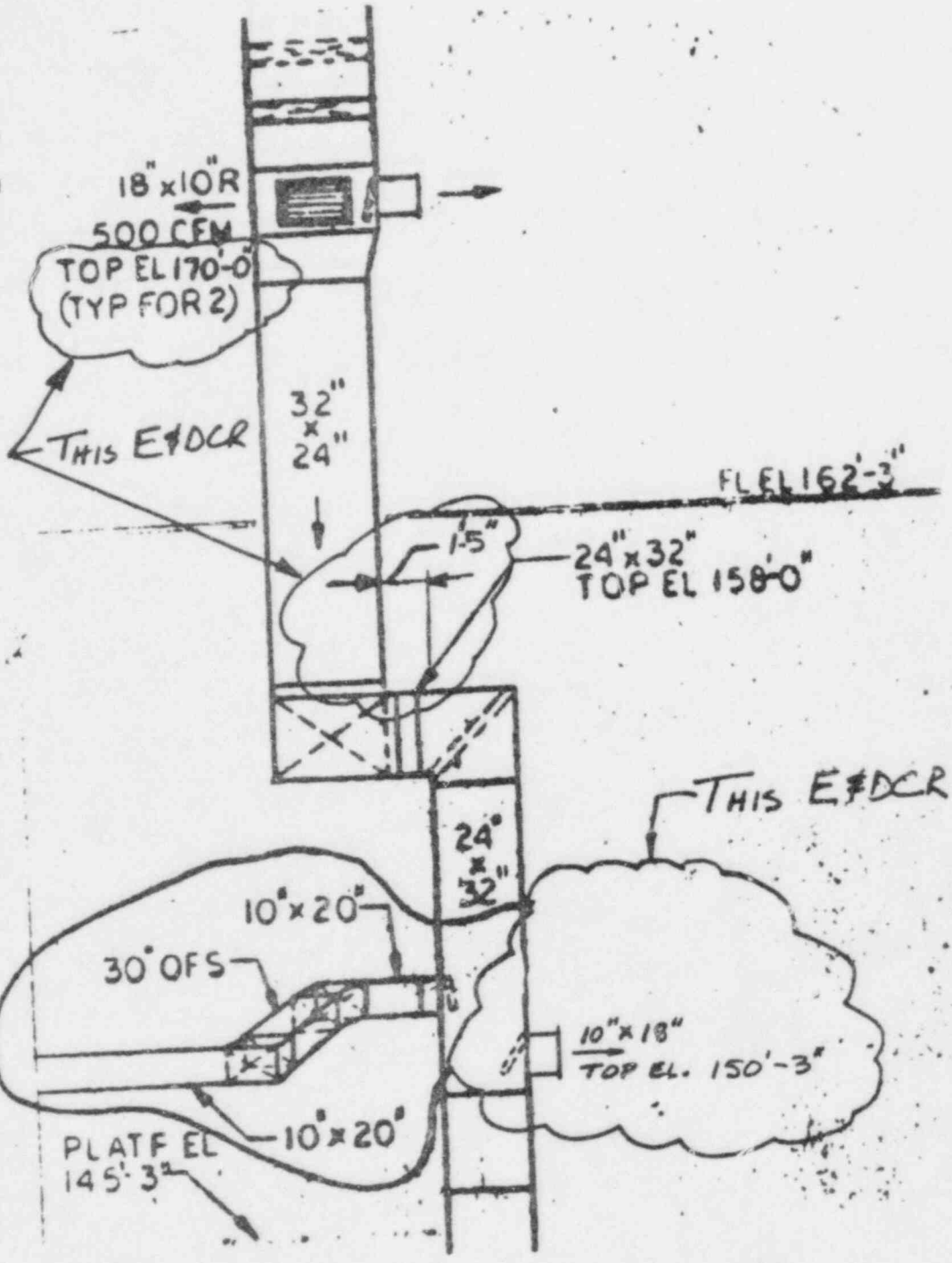


REF: EB-15P-B
SECT. 25-25

		TITLE		SCALE.	
CHECKED		REACTOR BLDG. DUCTWORK		DATE.	
CORRECT				SKETCH NUMBER	
APPROVED				C-13,408	
REVISIONS	②	③	④	⑤	

STONE & WEBSTER ENGINEERING CORPORATION

E♯DCR C-13,408
PAGE 5 OF 5



REF: EB-15R-8 SECT. 38-38

	TITLE		SCALE:
CHECKED	REACTOR BLDG DUCTWORK		DATE:
CORRECT			SKETCH NUMBER C-13,408
APPROVED			
REVISIONS (2)	(3)	(4)	(5)

A521085

STONE AND WEBSTER ENGINEERING CORPORATION

ENGINEERING & DESIGN COORDINATION REPORT

PAGE 1 OF 2

E&DCR NO. C-14,044

JOB ORDER NO. 12210

PROJECT/CLIENT: RIVER BEND PROJECT UNIT NR 1 / G.S.U.

P.O. NO (S.F.W.): N/A

REASON CODE (S): V

EQUIP. I.D. NO (S)/SYS. CODE (S): 1HVR * DUCT (HVR.001)

REFERENCE DOCUMENTS: EB-156-8

SUPPLIER(OR SUBSUPPLIER)NAME: N/A

DESCRIPTION SUMMARY: DUCTWORK RELOCATION

REMARKS: N/A

PROBLEM DESCRIPTION

① THE SUPPLY AIR DUCTWORK AT ELEVATION 151'-6", AZIMUTH 135° NEEDS TO BE RELOCATED 7" FARTHER OFF OF THE ELEVATOR SHAFT WALL.

② THE 36"x24" SUPPLY AIR REGISTER CONNECTING TO THIS DUCT IN PROBLEM ① NEEDS TO BE LOWERED 2" BECAUSE OF THE F.O.T. TRANSTION INSTEAD OF A CENTER LINE TAPER TRANSITION.

INITIATOR	AREA/DEPT DIV	TEL EXT.	DATE	DATE NEEDED BY	APPROVED	ENGR. RESP
Brian Sieves	POWER	x4568	6/7/84	6/8/84		AP

PROBLEM SOLUTION

REVISE EB-156-8 AS ON PAGE 2 OF 2 OF THIS E&DCR.

NOTED RB 7-9-84

NON-ASME

EDS:N EDC:N SC:N

AFFECTED DOCUMENT NUMBERS	TYPE	STATUS
EB-156	D	C

STATUS: C-WILL BE INCORPORATED; N-WILL NOT BE INCORPORATED; I-NO CHANGE

RELATED ACTIVITIES: N/A

QA CAT: I

ANSWERED BY: Brian Sieves DATE: 6/7/84

RESP LEAD ENGR.: J.A. Capalaci DATE: 6/11/84

MATERIALS ENGR.: N/R DATE:

EQUIP. SPEC.: N/R DATE:

QSD OR EA: N/R DATE:

PROJ. ENGR.: D. Stoeppler DATE: 6/8/84

CLIENT APP REF: R.F.C. DATE: 6/13/84 REQ'D ☐ NR ☒

SUB ITEM	WORK RESP	SUB ITEM	WORK RESP
01	15W	02	

EQ RELEASE NO.: HVR.001

WBS NO.: JRB/1A

WORK COMPLETION: NWR ☐ DATE:

INSP. REPORT NO/SIG: DATE:

FINAL WORK TRACKING CLOSURE: DATE:

DESCRIPTION (01): DUCTWORK RELOCATION

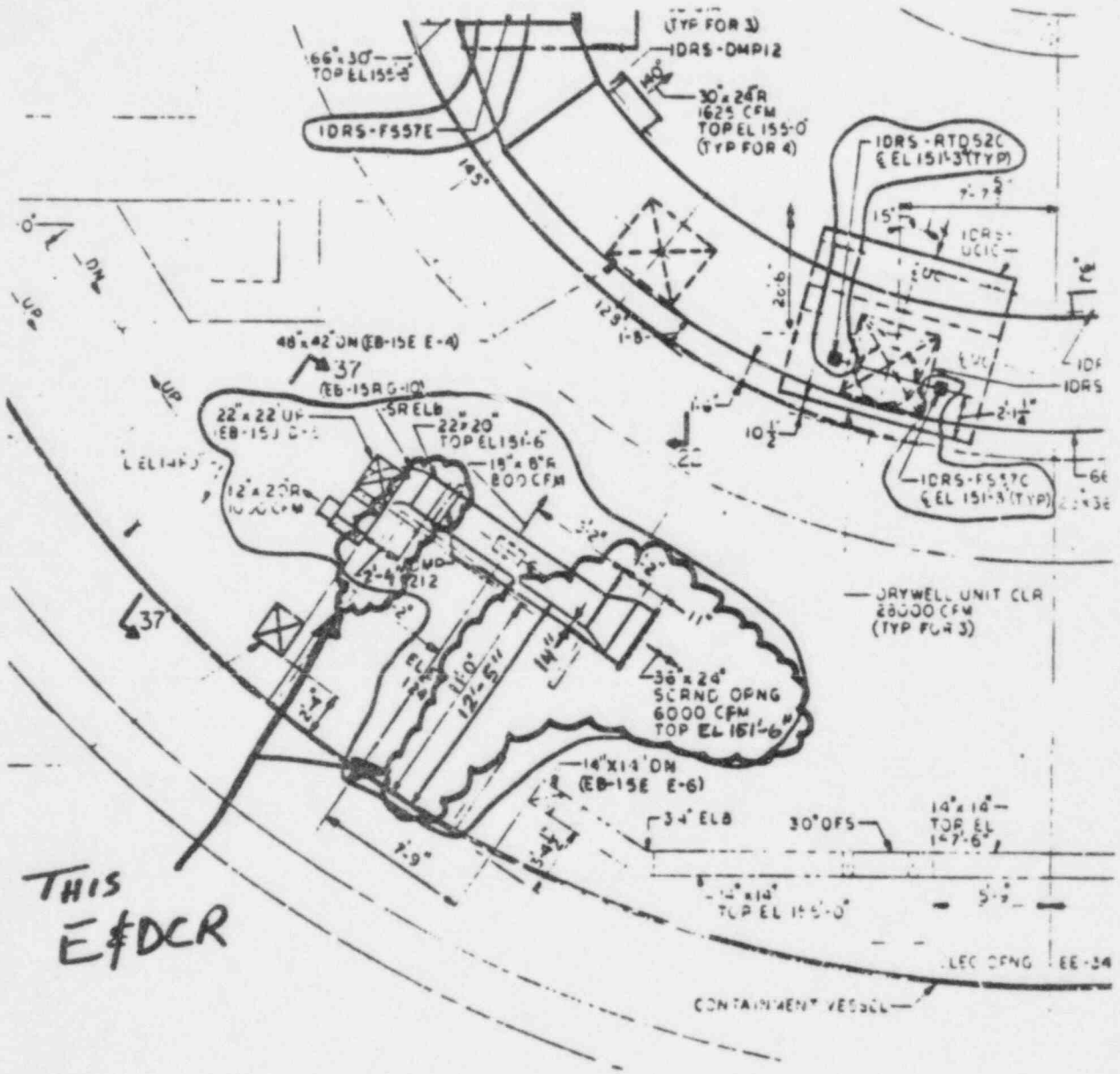
REMARKS: N/A

DESCRIPTION (02):

REMARKS (02):

STONE & WEBSTER ENGINEERING CORPORATION

PAGE 2 OF 2
E&DCR C-14044



THIS E&DCR

	TITLE		SCALE:
CHECKED	REF: EB-156-8		DATE:
CORRECT			
APPROVED			SKETCH NUMBER
REVISIONS (2)	(3)	(4)	(5)

5210.66

STONE AND WEBSTER ENGINEERING CORPORATION
ENGINEERING & DESIGN COORDINATION REPORT

PAGE 1 OF 2

E&DCR NO. P-40.882

PROJECT/CLIENT: RIVER BEND STATION - UNIT 1 GULF STATES UTILITIES COMPANY

JOB ORDER NO. 12210

P.O. NO. (S&W): N/A

REASON CODE (S): F

EQUIP. I.D. NO.(S)/SYS. CODE (S): 1DRS-FS, FE 57A,B,C,D,E&F / 1DRS SYSTEM

REFERENCE DOCUMENTS: LOOP 1DRS-57 SH 1, REV 3, FSK 22-22A-5

SUPPLIER (OR SUBSUPPLIER) NAME: N/A

DESCRIPTION SUMMARY: ADDED FLOW ELEMENT

REMARKS: N/A

PROBLEM DESCRIPTION

THE FLOW SWITCH 1DRS-FS57A (B, C, D, E & F) WAS PURCHASED AS DWYER DIFFERENTIAL PRESSURE SWITCH 1627 SERIES. IT SHOULD HAVE THE STATIC PRESSURE FLOW ELEMENT MODEL A301 CONNECTED BY TUBING.

INITIATOR	AREA/DEPT DIV	TEL EXT	DATE	DATE NEEDED BY	APPROVED	ENGR. RESP.
Eizer Gurevich	CSO	x3830	8-13-84	8-23-84	PKG/GM Doddy Jr	C.

PROBLEM SOLUTION

CHANGE LOOP DIAGRAM 1DRS-57, SH 1 AS PER MARK-UP ON PAGE 2

REVISE FSK 22-22A AT COORD: C-7, F-7, H-7, K-7, M-7, AND N-7 CHANGE 1DRS-FS 57A-F TO 1DRS-FE 57A-F IN ORDER TO SHOW THE PRIMARY ELEMENT ON THE FSK.

REVISE EB-15G & H TO SHOW NEW EQUIP. NOS. AS PER FSK REFERENCE ABOVE.

IEEE: YES ☐ NO ☒

ASME ☐ NON-ASME ☒

INTERDISCIPLINE CONCURRENCE ENGR: RSMcMul... DATE: 8/29/84 DISCIPLINE: PWR

EOC: N EOS: N SC: N

AFFECTED DOCUMENT NUMBERS	TYPE	STATUS
LOOP 1DRS-57 SH1	X	C
FSK 22-22A	X	C
EB-15G & H	D	C

STATUS: C - WILL BE INCORPORATED; N - WILL NOT BE INCORPORATED; I - NO CHANGE

RELATED ACTIVITIES: N/A

QA CAT: II

CLIENT APP: REQ'D ☐ NR ☒ REF / DATE

		DATE
ANSWERED BY	Eizer Gurevich	8-13-84
RESP. LEAD ENGR.	PKG/GM Doddy Jr	8 30 84
MATERIALS ENGR.	N/A GMD	
EQUIP. SPEC.	N/A	
QSD OR EA	N/A	
PROJ. ENGR.	[illegible]	[illegible]

SUB ITEM	WORK RESP	SUB ITEM	WORK RESP
01	IEL	02	

EQ RELEASE NO.: BRS HVR.000 EG 8/13/84

WBS NO.: JDW/IA

WORK COMPLETION NWR ☐ DATE

INSP. REPORT NO/SIG DATE

FINAL WORK TRACKING CLOSURE DATE

DESCRIPTION (01): ADDED FLOW ELEMENT

REMARKS (01)

DESCRIPTION (02)

REMARKS (02)

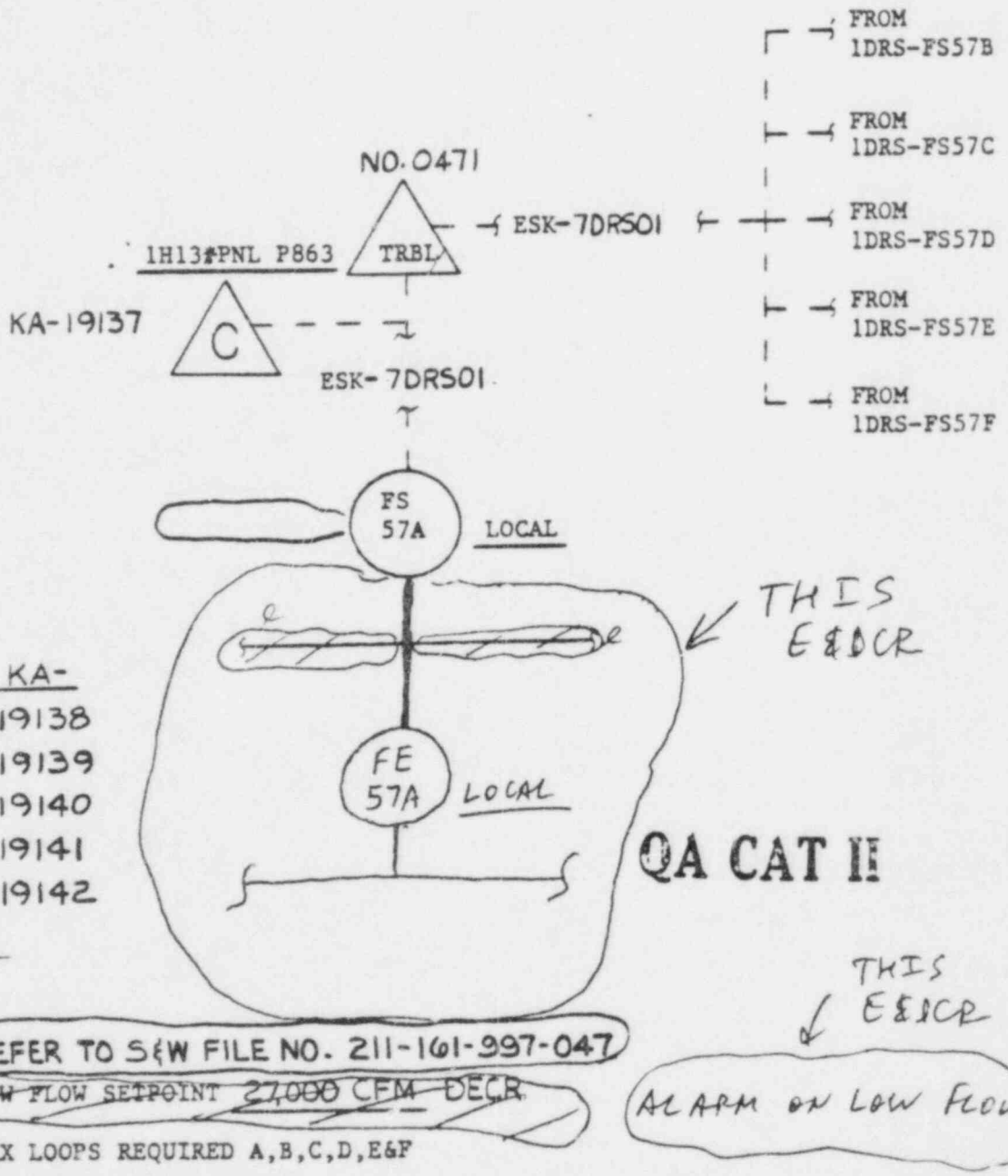
NO IMPACT DRS 8/25/84

STONE & WEBSTER ENGINEERING CORP.

DRYWELL UNIT CLR UC1A OUTLET

E&DCR No. P-40.882

PAGE 2 of 2



LIST	KA-
FS 57B	19138
FS 57C	19139
FS 57D	19140
FS 57E	19141
FS 57F	19142

SIX LOOPS REQUIRED A,B,C,D,E&F

NOTE: EXCEPT WHERE A DIFFERENT PREFIX IS SHOWN, ALL INSTRUMENT AND EQUIPMENT NUMBERS ARE TO BE PREFIXED BY 1DRS-

CHECKED		GULF STATES UTILITIES COMPANY RIVER BEND STATION UNIT 1 J.O. No. 12210 LOOP DIAGRAM	REFER DWG FSK 22-22A
CORRECT			1 DRS-57
APPROVED			
DATE	1-27-77		
ISSUE:	2	3	4

M B.P.

SEE

APERTURE

CARDS

*OVERSIZED DRAWINGS

(ADDITIONAL DOCUMENT PAGES FOLLOW)

APERTURE CARD NO/ 8502270209

AVAILIBILITY PDR CF HOLD

NUMBERS OF PAGES. 1

STONE AND WEBSTER ENGINEERING CORPORATION
ENGINEERING & DESIGN COORDINATION REPORT

EDCR NO: C-13,436
JOB ORDER NO: 12210

PROJECT/CLIENT: RIVER BEND PROJECT UNIT No 1 / G.S.U.

P.O NO (S.F.W): N/A | REASON CODE (3): ✓ | EQUIP I.D NO (S)/SYS. CODE (3): 1 DRS - DUCT

REFERENCE DOCUMENTS: EB-15H-8 EB-15N-8

SUPPLIER(OR SUBSUPPLIER)NAME: N/A

DESCRIPTION SUMMARY: DUCT TAP OUT OF LOCATION

REMARKS: N/A

PROBLEM DESCRIPTION

THE DUCT RISER TAP ON THE RING DUCT AT 287° IN THE REACTOR BLDG. AT THE DRYWELL IS LOCATED WITH ITS CENTERLINE ON 287°. THIS TAP NEEDS TO BE RELOCATED 3" NORTH OF 287° TO KEEP THE 48"x36" DUCT RISER ON LOCATION. TO GET BACK ON LOCATION CONSTRUCTION REQUEST TO OFFSET THE DUCT PIECE ADJOINING THE REFERENCED DUCT TAP.

B 2/24/84 EL. 135'-3"

INITIATOR	AREA/DEPT/DIV	TEL EXT	DATE	DATE NEEDED	APPROVED	ENGR RESP
BRIAN J SIEVERS	POWER	x568	2/24/84	2/24/84		XP

PROBLEM SOLUTION

THE DESIGN DWGS. ARE REVISED AS FOLLOWS:

DWG. #	EDCR PAGE No.	DESCRIPTION
EB-15H	PAGE 2	SHOW OFFSET IN PLAN VIEW
EB-15H	PAGE 3	SHOW OFFSET IN ELEVATION VIEW
EB-15N	PAGE 4	SHOW OFFSET IN ELEVATION VIEW

NON-ASME

EQS:N EQC:N SC:N

AFFECTED DOCUMENT NUMBERS	TYPE	STATUS
EB-15H	D	C
EB-15N	D	C

STATUS
C - WILL BE INCORPORATED
N - WILL NOT BE INCORPORATED
I - NO CHANGE

RELATED ACTIVITIES: N/A | QA CAT: II

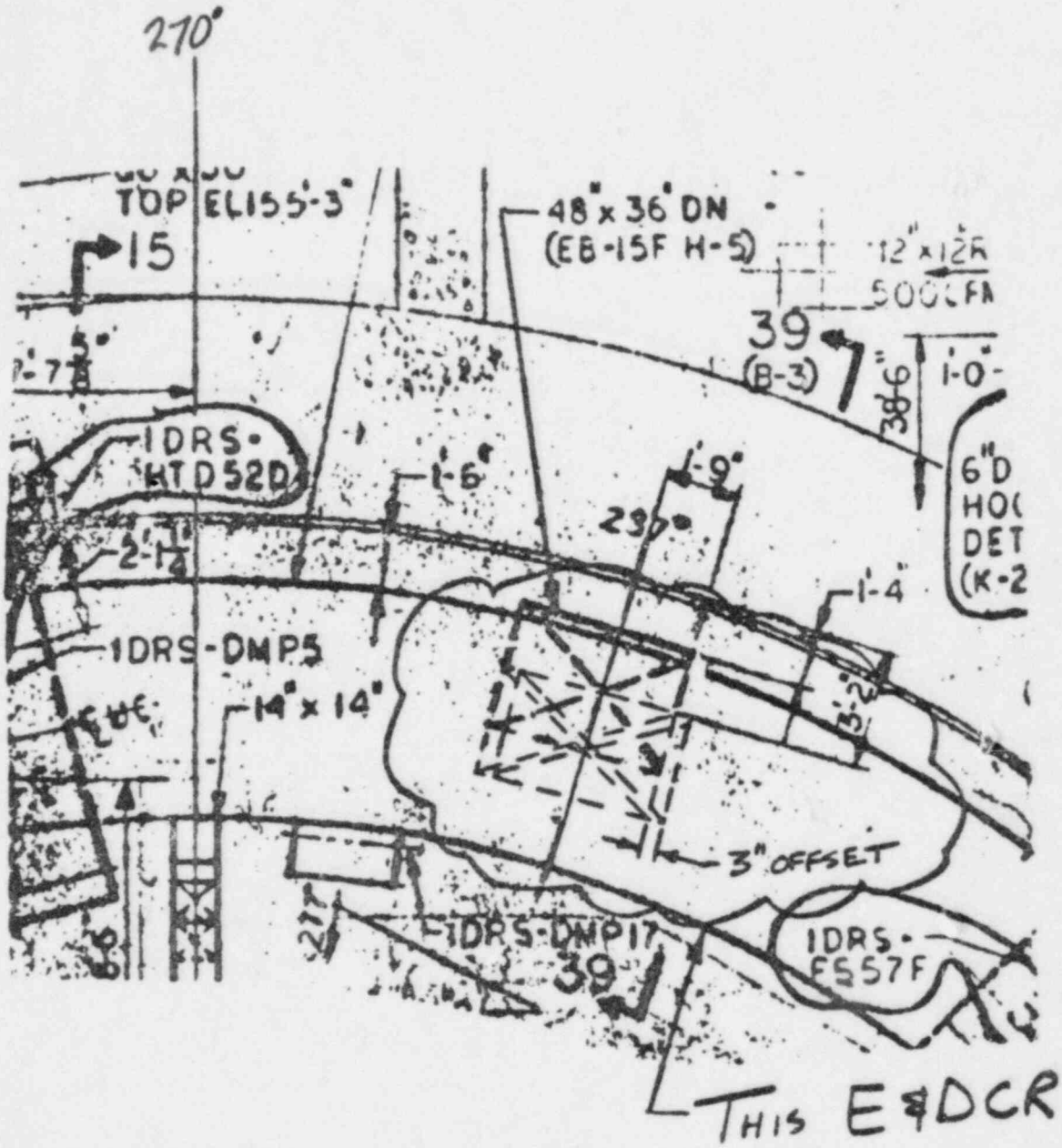
ANSWERED BY: Brian Sievers	DATE: 2/24/84	SUB ITEM: 01	WORK RESP: 2SW
RESP. LEAD ENGR.: [signature]	DATE: 2/24/84	EQ RELEASE NO.: 1.BR.DRS.001	
MATERIALS ENGR.: N/R	DATE	WBS NO: JRB/1H	
EQUIP SPEC.: N/R	DATE	WORK COMPLETION	NWR ☐ DATE
QSD OR EA: N/R	DATE	INSP. REPORT NO/BIG	DATE
PROJ. ENGR.: [signature]	DATE: 2/24/84	FINAL WORK TRACKING CLOSURE	DATE

CLIENT APP REQ'D ☐ NR ☒ | REF | DATE

SUB ITEM 02 | WORK RESP | EQ RELEASE NO. | WBS NO.

DESCRIPTION (01): DUCT TAP OUT OF LOCATION
DESCRIPTION (02):

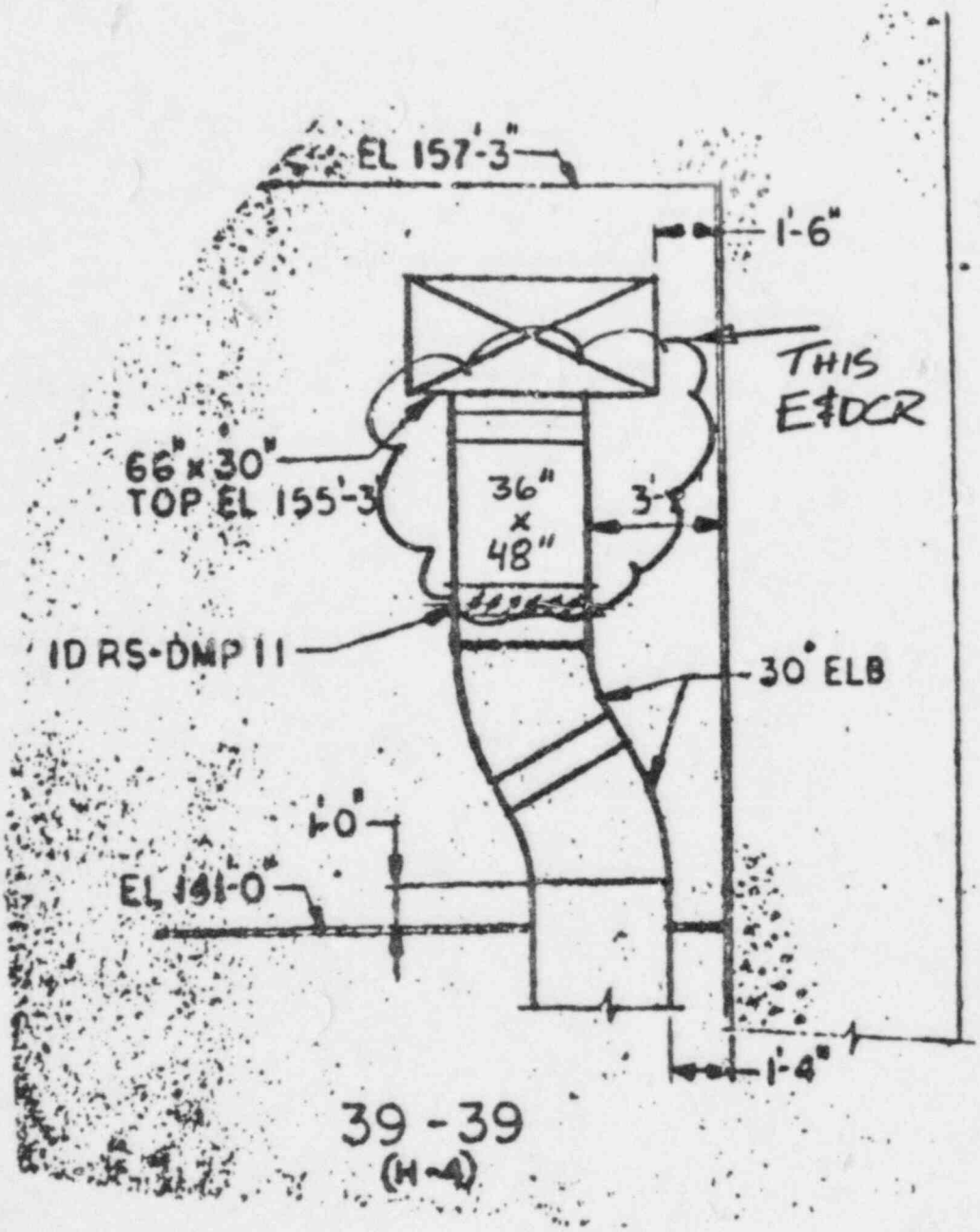
REMARKS (01): N/A
REMARKS (02):



REF: EB-15H-8
coor. H-6

CHECKED / CORRECT / APPROVED	TITLE: REACTOR BUILDING DUCT	SCALE: / DATE: / SKETCH NUMBER: C-13,436

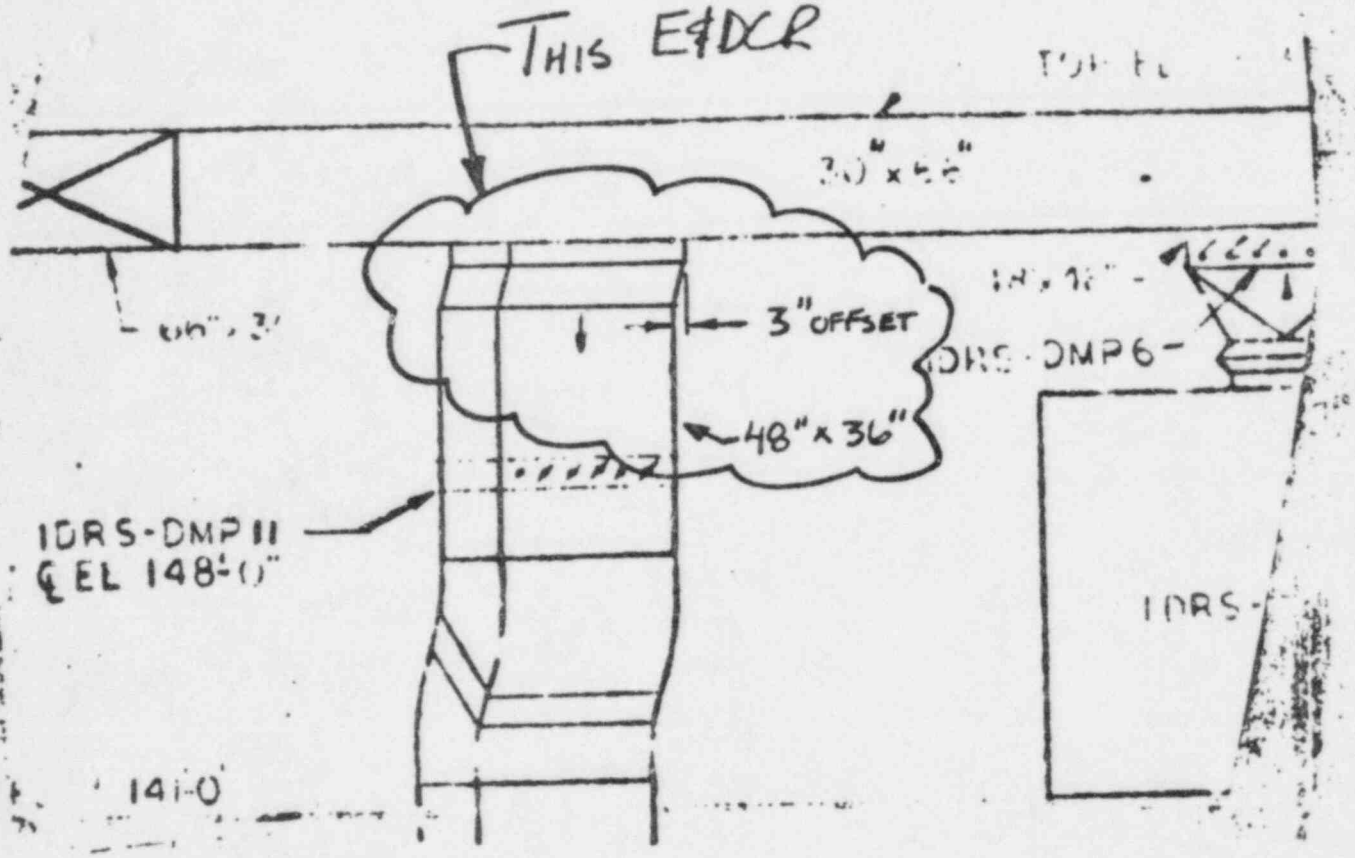
E&DCK C-13,436
PAGE 3 OF 4



REF: EB-15H-8
COOR. B-3

		TITLE				SCALE:	
CHECKED		REACTOR BLDG. DUCT				DATE:	
CORRECT							
APPROVED						SKETCH NUMBER	
REVISIONS	②	③		④	⑤	C-13,436	

E&DCR C-13,436
PAGE 4 of 4



REF: EB-15N-8
SECTION 23-23
COOR. G-9

CHECKED	TITLE: REACTOR BLDG. DUCT	SCALE:
CORRECT		DATE:
APPROV		SKETCH NUMBER: C-13,436

A5210 85

STONE AND WEBSTER ENGINEERING CORPORATION
ENGINEERING & DESIGN COORDINATION REPORT

PAGE 1 OF 5

E.D.C.R. NO. 2 C-14,006 A

PROJECT/PLANT 3 RIVER BEND PROJECT UNIT Nº 1 / G.S.U.

JOB ORDER NO. 4 12210

P.O. NO. (S.F.W.) 5 N/A

REASON CODE (S) 6 V, F

EQUIP. I.D. NO. (S)/SYS. CODE (S) 7 1HVR-DUCT (HVR.001)

REFERENCE DOCUMENTS 8 EB-15H-8 EB-15P-8 EB-15K-8

SUPPLIER(OR SUBSUPPLIER)NAME 9 N/A

DESCRIPTION SUMMARY 10 DUCTWORK MODIFICATION & SCREEN DETAILS

REMARKS 11 ~~N/A~~ 9-13-84 SUPERSEDES C-14,006

PROBLEM DESCRIPTION 12

ORIGINAL PROBLEM

(1) THE 28" x 30" 45° SUPPLY AIR ELBOW (AZIMUTH 310°, EL 151') WOULD BE IN INTERFERENCE WITH ELECTRICAL CONDUIT IF INSTALLED.

(2) ON EB-15H-8, COOR. I-5, AN INCORRECT DETAIL IS REFERENCED FOR THE 6" DIA. EXHAUST HOOD.

(3) DETAILS FOR CONSTRUCTION ARE REQUIRED FOR FOUR SCREENED OPENINGS @ AZIMUTH 270°, TOP EL. 180'-0".

REV. A

CONSTRUCTION REQUEST AN ALTERNATE METHOD ~~DETAIL~~ FOR ATTACHING THE SCREENED OPENINGS REFERENCED IN PROBLEM (3) ABOVE.

INITIATOR 13	AREA/DIV	DEPT	TEL EXT.	DATE	DATE NEEDED BY	APPROVED	ENGR RESP 15
Brian Sievers		POWER	x4568	9-13-84	9-13-84		XP

PROBLEM SOLUTION 16

THIS E#DCR SUPERSEDES C-14,006

E#DCR PAGE Nº	EB DWG. Nº	DESCRIPTION OF CHANGE
2 OF 5	EB-15H	CORRECTS HOOD DETAIL REFERENCE & DELETES 45° ELBOW.
3 OF 5	EB-15P	DELETES 45° ELBOW IN SECTIONAL VIEW.
4 OF 5	EB-15K	CHANGES SCR. OPN. SIZES AND REFERENCES NOTE 16
5 OF 5	EB-15R	ADDS NEW NOTE Nº 16

16 NON-ASME

EOS:N EOC:N SC:N

AFFECTED DOCUMENT NUMBERS 17	TYPE	STATUS
EB-15H	D	C
EB-15K	D	C
EB-15P	D	C
EB-15R	D	C

STATUS
C - WILL BE INCORPORATED
N - WILL NOT BE INCORPORATED
I - NO CHANGE

RELATED ACTIVITIES 18 N/A

QA CAT 19 I, II

ANSWERED BY 20 Brian Sievers DATE 9-13-84

RESP. LEAD ENGR. 21 [signature] DATE 9/13/84

MATERIALS ENGR. 22 N/R DATE

EQUIP. SPEC. 23 N/R DATE

QSD OR EA 24 N/R DATE

PROJ. ENGR. 25 [signature] DATE 9/13/84

CLIENT APP REQ'D ☐ NR ☒ 26 REF DATE

SUB ITEM	WORK RESP 27	SUB ITEM	WORK RESP 27
01	1SW	02	

EQ RELEASE NO. 28 HVR.001 | EQ RELEASE NO. 28

WBS NO. 29 JRB/1A | WBS NO. 29

WORK COMPLETION 30 NWR ☐ DATE

INSP. REPORT NO/SIG 31 DATE

FINAL WORK TRACKING CLOSURE 32 DATE

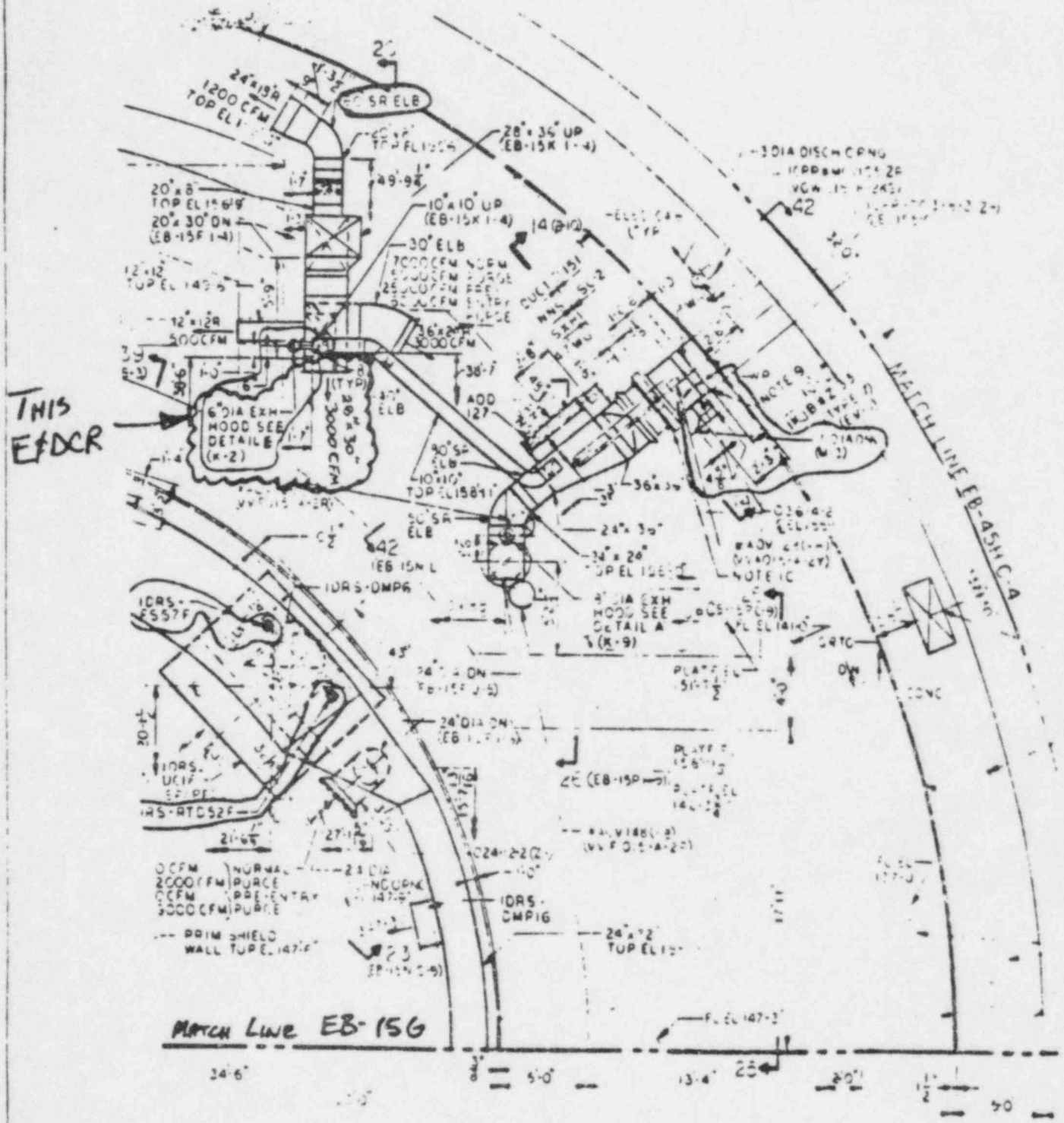
DESCRIPTION (01) 33 DUCTWORK MODIFICATIONS

DESCRIPTION (02) 33

REMARKS (01) 34 N/A

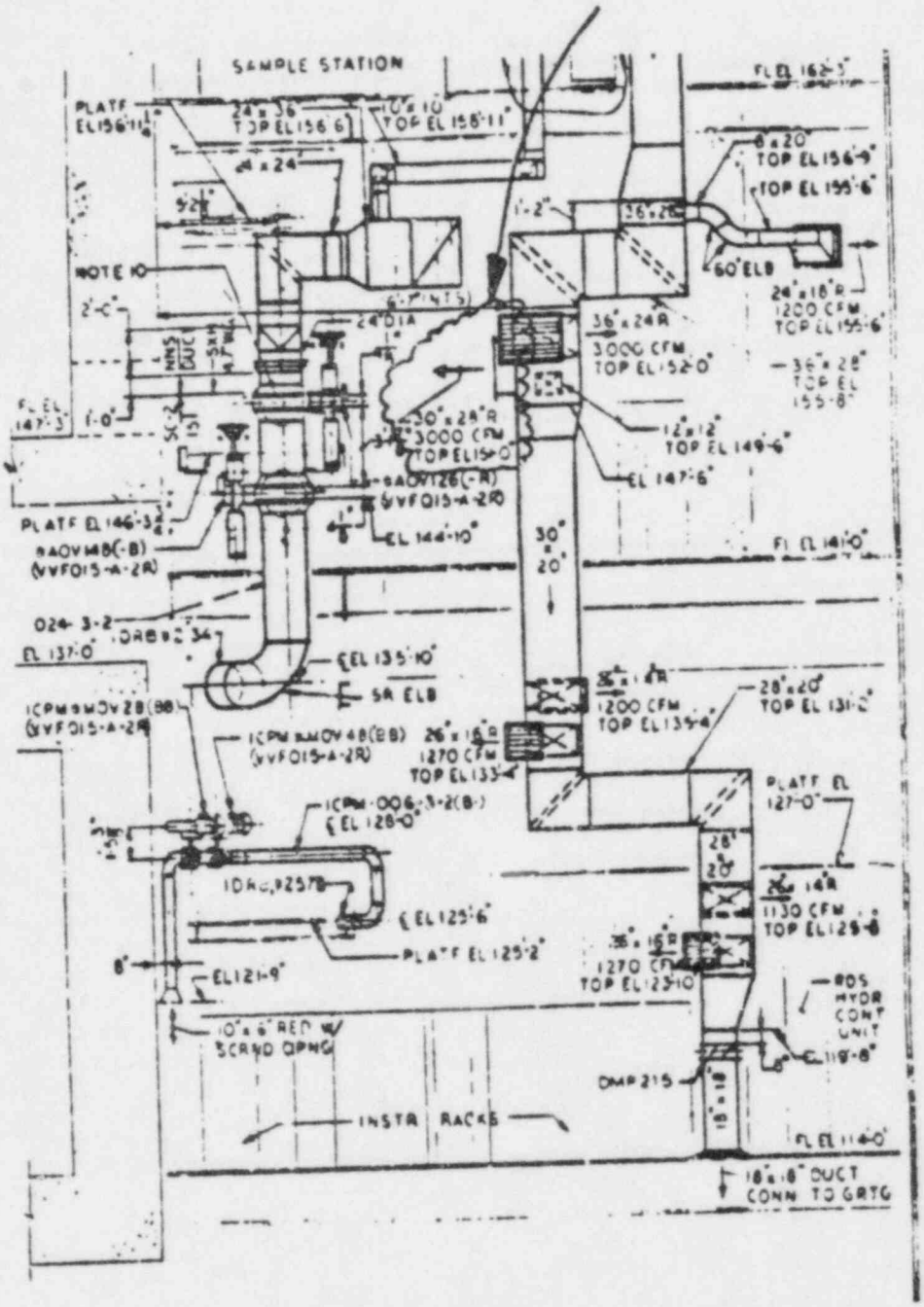
REMARKS (02) 34

E&DCR C-14,006A
PAGE 2 OF 5



		TITLE	SCALE
CHECKED		REF: EB-15H-8	DATE
CORRECT		PLAN EL. 141'-0"	
APPROVED			SKETCH NUMBER
REVISIONS	②	③ ④ ⑤	

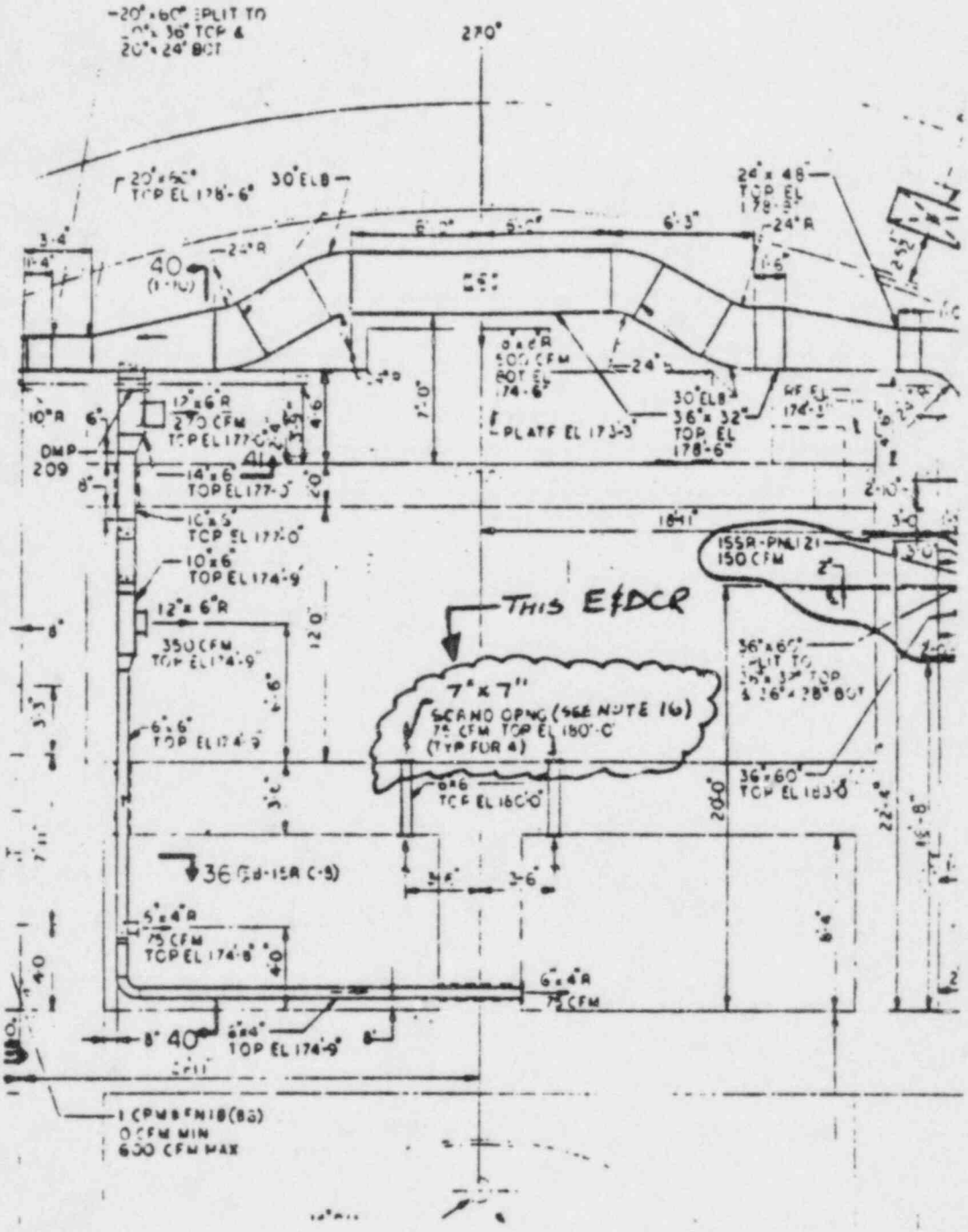
THIS E#DCR



26-26
(EB-15F J-4)
(EB-15H J-7)
(EB-15K J-6)

		TITLE			SCALE
CHECKED		REF: EB-15P-8			DATE
CORRECT		SECTION 26-26			SKETCH NUMBER
APPROVED					
REVISIONS	(2)	(3)	(4)	(5)	

E≠DCR C-14,006A
PAGE 4 OF 5



		TITLE	SCALE
CHECKED		REF: EB-15K-8	DATE
CORRECT			
APPROVED			SKETCH NUMBER
REVISIONS	② ③ ④ ⑤		

E&DCR C-14,006A PAGE 5 OF 5

ADD NEW NOTE No. 16, EB-15R (COOR. M-8)

16. SCREEN DETAIL PER SPEC. 216.140. SCREENS TO BE ANCHORED TO WALL ON EACH CORNER WITH 3/8" DIA. DRILLED-IN CONCRETE ANCHORS PER SPEC. 210.371 OR BY USING EXISTING EMBEDDED UNISTRUT.

CHECKED	TITLE: REF. EB-15K-8		SCALE:
CORRECT			DATE:
APPROVED			SKETCH NUMBER
REVISIONS	(2)	(3) (4) (5)	

A521065

STONE AND WEBSTER ENGINEERING CORPORATION
ENGINEERING & DESIGN COORDINATION REPORT

PAGE 1 OF 5
E&DCR NO. 2 E-14-285
JOB ORDER NO. 4 12210 OP 8/14/84

PROJECT/CLIENT 3 RIVER BEND PROJECT UNIT N° 1 / G.S.U.

P.O. NO. (S.F.W.) 5	REASON CODE (S) 6	EQUIP. I.D. NO. (S)/SYS. CODE (S) 7
N/A	V	HVR*DUCT DRS-DUCT (HVR.001 DRS.000)

REFERENCE DOCUMENTS 8 EB-15H-8, 15R-8, 15J-8

SUPPLIER (OR SUBSUPPLIER) NAME 9 N/A

DESCRIPTION SUMMARY 10 DUCTWORK MODIFICATIONS

REMARKS 11 N/A

PROBLEM DESCRIPTION 12

(1) THE DRYWELL RING DUCT LOCATED ABOVE THE HOIST PULL AREA NEAR AZIMUTH 230°, EL. 154'-9" NEEDS TO BE REDESIGNED DUE TO INTERFERENCES WITH CONDUIT AND THE HOIST RAIL/TROLLY.

(2) THE CONTAINMENT DUCTWORK AT AZIMUTH 225°, EL 158'-0" NEEDS TO BE LOWERED 2" DUE TO THE ELEVATION OF THE EXISTING CONCRETE PENETRATION IN WHICH THIS DUCTWORK PENETRATES.

(3) THE DISCHARGE DUCTWORK FROM 1HVR*UC1A, 1B AND 1HVR-UC1C NEEDS TO BE REVISED TO SHOW THE DELETION OF RTD THERMOWELLS.

INITIATOR 13	AREA/DEPT DIV	TEL EXT	DATE	DATE NEEDED	APPROVED	ENGR RESP 15
Brian Sievers	Power	x4568	8/12/84	8/13/84		KP

PROBLEM SOLUTION 16

THE DESIGN DWGS. SHALL BE REVISED AS FOLLOWS:-

E&DCR PAGE #	EB DWG. #	CHANGE
2 OF 5	EB-15H	REVISED DRYWELL DUCTWORK (PROBLEM 1) LOWERED DUCT 2" (PROBLEM 2)
3 OF 5	EB-15H	LOWERED DUCT 2" (PROBLEM 2) SECT. 53-53 & SECT. 16-16
4 OF 5	EB-15R	LOWERED DUCT (PROBLEM 2) SECT. 36-36
5 OF 5	EB-15J	DELETED RTD THERMOWELLS (PROBLEM 3)

NON-ASME

EOS:N EOC:N SC:N

AFFECTED DOCUMENT NUMBERS 17	TYPE	STATUS
EB-15H	D	C
EB-15R	D	C
EB-15J	D	C

STATUS
C - WILL BE INCORPORATED
N - WILL NOT BE INCORPORATED
I - NO CHANGE

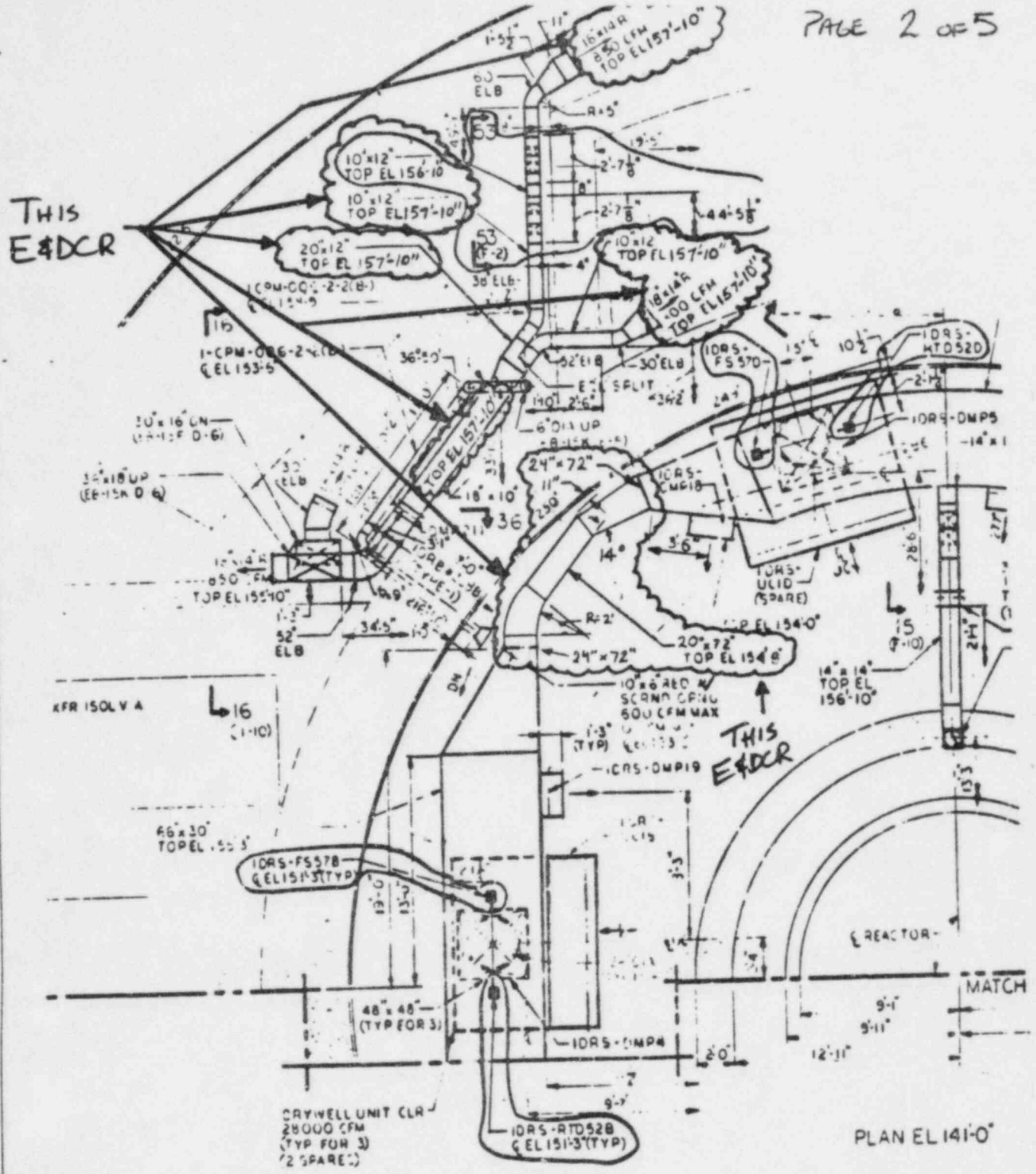
RELATED ACTIVITIES 18 N/A
QA CAT 19 I, II

ANSWERED BY 20 Brian Sievers	DATE 8/12/84	
RESPONSIBLE ENGR. 21 Okaxe	DATE 8/12/84	
MATERIALS ENGR. 22 N/R	DATE	
EQUIP. SPEC. 23 N/R	DATE	
QSD OR EA 24 N/A	DATE	
PROJ. ENGR. 25 [signature]	DATE 8/13/84	

CLIENT APP REQ'D ☐ NR ☒ 26 REF DATE

SUB ITEM 27	WORK RESP 27	SUB ITEM 27	WORK RESP 27
01	1SW	02	1SW
EQ RELEASE NO. 28 HVR.001		EQ RELEASE NO. 28 DRS.000	
WBS NO. 29 JRB/1A		WBS NO. 29 JRB/1A	
WORK COMPLETION 30	NWR ☐ DATE		
INSP. REPORT NO/SIG 31	DATE		
FINAL WORK TRACKING CLOSURE 32	DATE		

DESCRIPTION (01) 33 DUCTWORK MODIFICATIONS
REMARKS (01) 34 N/A
DESCRIPTION (02) 33
REMARKS (02) 34



		TITLE	SCALE:
CHECKED		EB-15H-8	DATE:
CORRECT			SKETCH NUMBER
APPROVED			
REVISIONS	②	③ ④ ⑤	

E&DCR C-14,205
PAGE 3 OF 5

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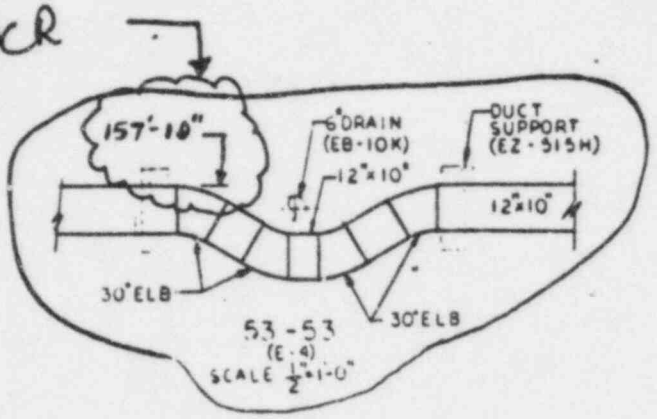

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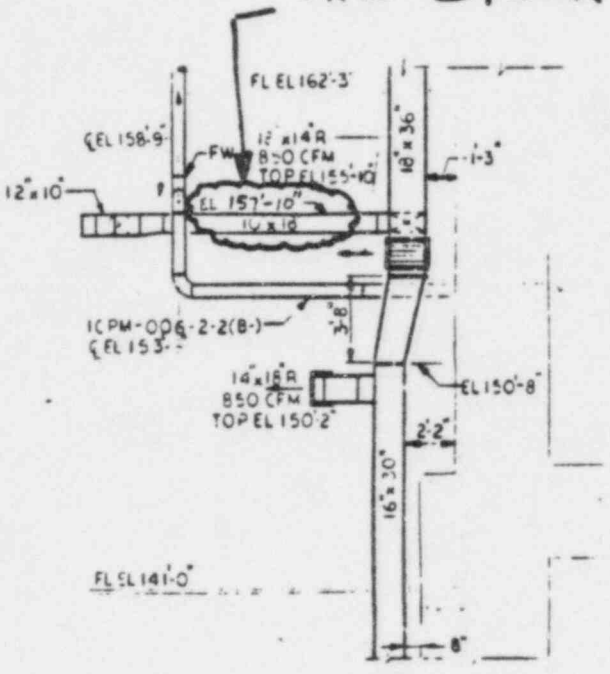
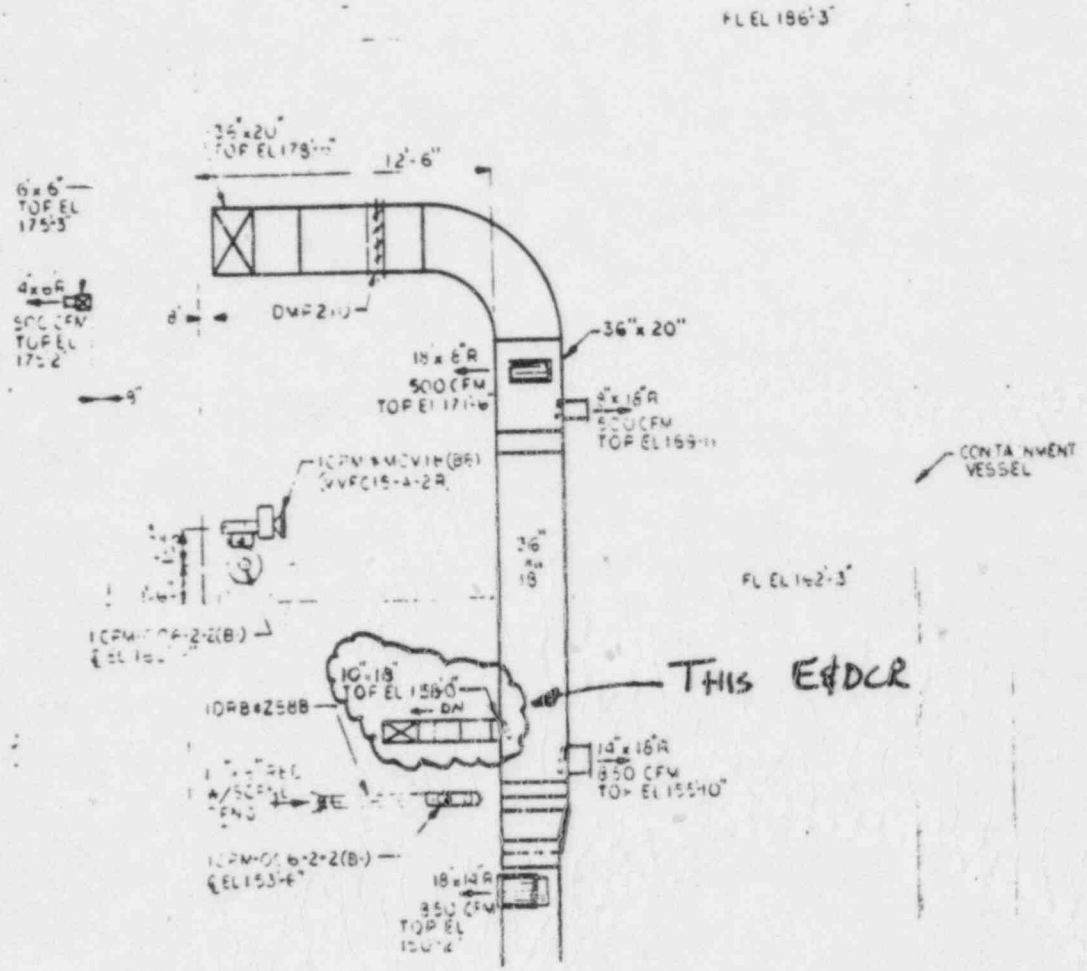


1E-16
(D-6)

		TITLE	SCALE:
CHECKED		EB-15H-8	DATE:
CORRECT			
APPROVED			SKETCH NUMBER
REVISIONS	② ③ ④ ⑤		

E&DCR C-14,285
PAGE 4 OF 5



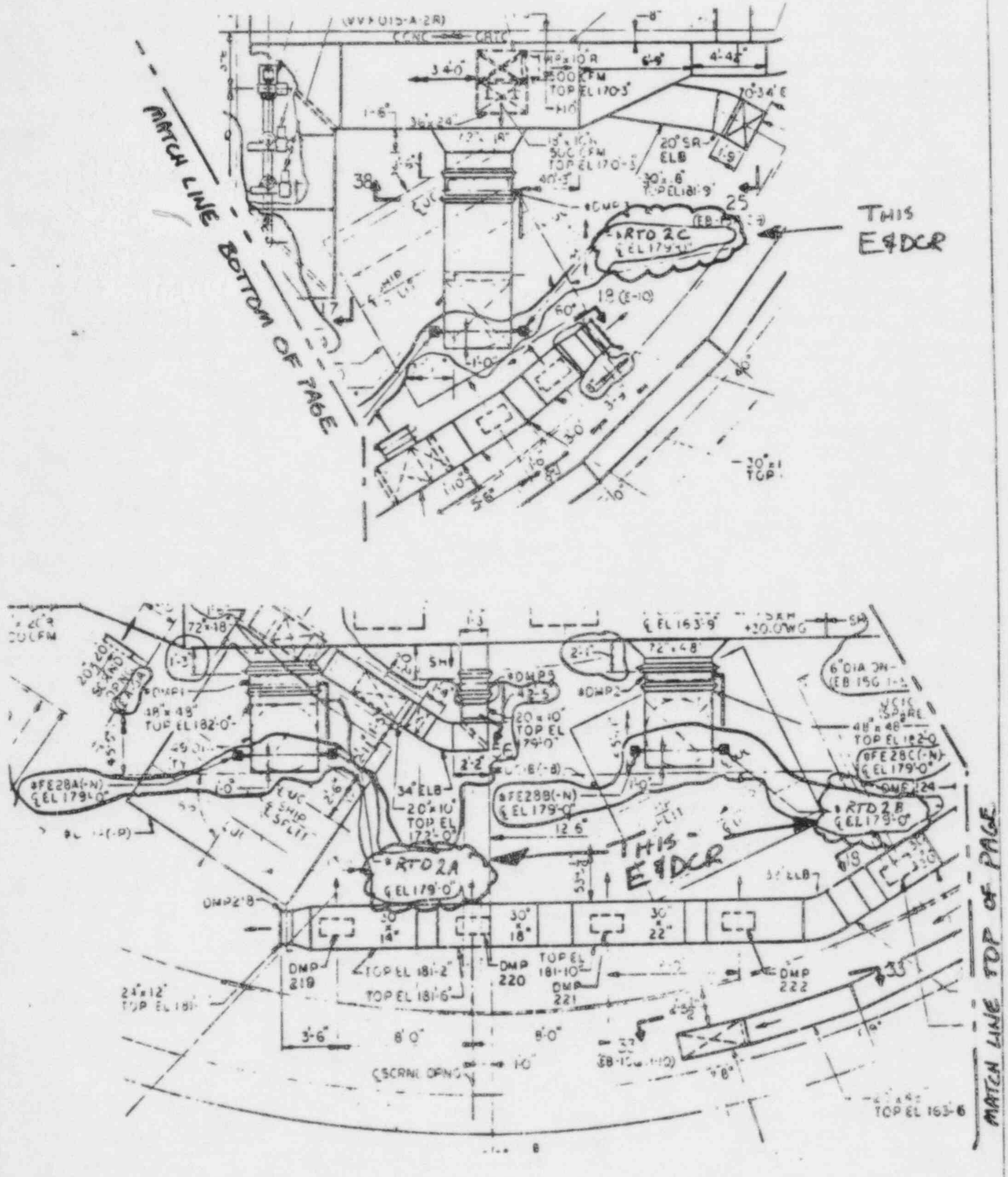
SECT. 36-36

		TITLE			SCALE:
CHECKED		EB-15 R-8			DATE:
CORRECT					
APPROVED					SKETCH NUMBER
REVISIONS	②	③	④	⑤	

5036.64

STONE & WEBSTER ENGINEERING CORPORATION

E&DCR C-14,285 PAGE 5 OF 5



	TITLE	SCALE:
CHECKED	EB-15J-8	DATE:
CORRECT		SKETCH NUMBER
APPROVED		
REVISIONS ② ③ ④ ⑤		

A5210 66

STONE AND WEBSTER ENGINEERING CORPORATION

ENGINEERING & DESIGN COORDINATION REPORT

PAGE 1 OF 4

E & DCR NO. P-12220D ~~P-12220C~~ TMH 9/14/84

JOB ORDER NO. 4 12210

PROJECT/CLIENT 3 RIVER BEND STATION - UNIT 1 GULF STATES UTILITIES COMPANY

P.O. NO (S.F.W.) 5	REASON CODE (S) 6	EQUIP. I.D. NO (S)/SYS. CODE (S) 7
N/A	V, F	FN1 / FLEX CONN. / PIPING / CPP.000

REFERENCE DOCUMENTS 8: 12210-EB-15H-8

SUPPLIER (OR SUBSUPPLIER) NAME 9: N/A

DESCRIPTION SUMMARY 10: ADD FLEX CONN, RELOCATE FAN, REVISE PIPING, RELOCATE/REORIENT VALVES

REMARKS 11: SUPERSEDES E&DCR P-12,220C

PROBLEM DESCRIPTION 12

PROBLEM 1: TO SUIT FAN VENDOR DWG. OF FAN 1CPP-FN1 FIELD PURCHASED S&W FILE NO. 0216-130-995-147A) IT IS NECESSARY TO CHANGE ℄ ELEVATIONS AND REVISE PIPING CONNECTION.

PROBLEM 2: IT IS NECESSARY TO ADD A FLEXIBLE CONNECTION AT THE FAN (1CPP-FN1) FLANGE AND CONNECTION TO THE 3" DIA. PIPE (1CPP) TO SATISFY STRESS LOADS ON THE FAN FLANGE.

PROBLEM 3: 1CPP-FN1 MUST BE RELOCATED ON FLOOR ELEV 141'-0" TO IMPROVE MOUNTING ARRANGEMENT DUE TO EXISTING CLEARANCE PROBLEMS AT THE CURRENT LOCATION.

PROBLEM 4: 1CPP-003-4-4 INTERFERES WITH 1-FPW-V289

NEW PROBLEM DESCRIPTION: MOTOR OPERATOR FOR 1CPP*MOV 104 ~~THIS~~ 5/24/84 MUST BE ROTATED 90° TO ALLOW ELECTRICAL TERMINATIONS TO BE MADE AND 1CPP-FV-103 MUST BE RELOCATED TO AVOID INTERFERENCE WITH FPW RIGID STRUT SUPPORT.

12 THOMAS HOFFMAN

INITIATOR 13	AREA/DEPT DIV	TEL. EXT.	DATE	DATE NEEDED BY	APPROVED 14	ENGR. RESP 15
Thomas Hoffman	SEG	4436	9/19/84	9/20/84		XP

PROBLEM SOLUTION 16

THIS E&DCR SUPERSEDES E&DCR P-12,220C

EB-15H IS REVISED TO SHOW NEW ℄ ELEVATION, ADD FLEXIBLE CONNECTION, NEW MOUNTING LOCATION, 322° CORRECTED TO 320° (COORD M-2), PIPING RELOCATED AS SHOWN ON PAGES 2, 3 & 4 OF 4 AND VALVES RELOCATED AND REORIENTED AS SHOWN ON PAGES 2 3 & 4 OF 4 OF THIS E&DCR.

IEEE: YES ☐ NO ☒

ASME ☐ NON-ASME ☒ 18

INTERDISCIPLINE CONCURRENCE — ENGR | DATE

DISCIPLINE: N/A

EOC: N EOS: N SC: N

AFFECTED DOCUMENT NUMBERS 17	TYPE	STATUS
EB-15H	D	C

STATUS
C - WILL BE INCORPORATED
N - WILL NOT BE INCORPORATED
I - NO CHANGE

RELATED ACTIVITIES 16	QA CAT 19
N/A	II

ANSWERED BY 20	Thomas Hoffman	DATE 9/19/84
RESP. LEAD ENGR 21	Clark	DATE 9/19/84
MATERIALS ENGR. 22	N/A	DATE
EQUIP. SPEC. 23	N/A	DATE
QSD OR EA 24	N/A	DATE
PROJ. ENGR 25	DeHaemer	DATE 9/19/84

CLIENT APP REQ'D ☐ NR ☒ 26 REF DATE

SUB ITEM 01	WORK RESP 27	SUB ITEM 02	WORK RESP 27
	PF		
EQ RELEASE NO. 28	CPP.000	EQ RELEASE NO. 28	
WBS NO. 29	JRB/CPP/1A	WBS NO. 29	

WORK COMPLETION 30 NWR ☐ DATE

INSP. REPORT NO/SIG 31 DATE

FINAL WORK TRACKING CLOSURE 32 DATE

DESCRIPTION (01) 33: ADD FLEX CONN RELOCATE FAN & PIPING, RELOCATE & REORIENT VALVES

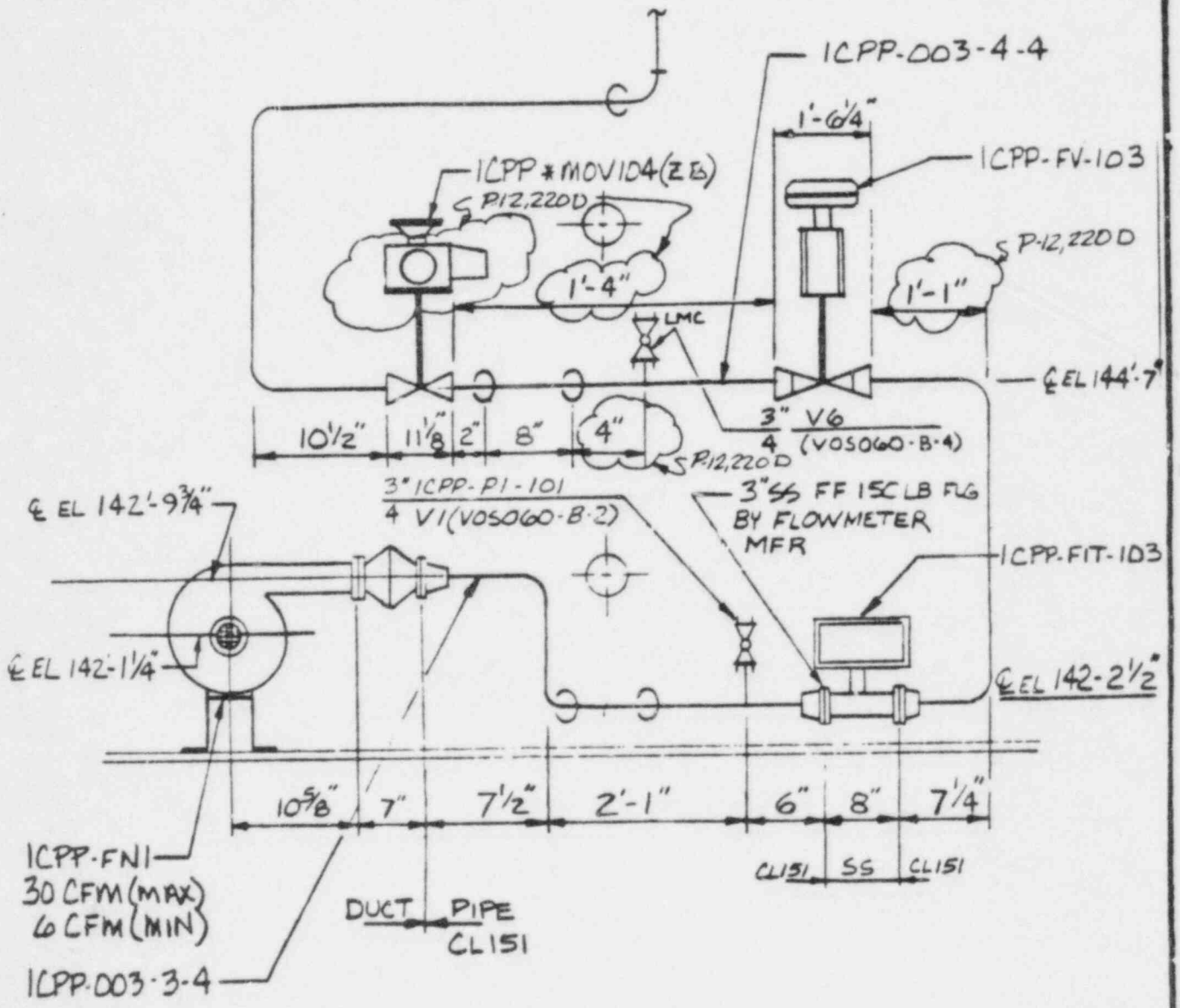
DESCRIPTION (02) 33:

REMARKS (01) 34: SUPERSEDES E&DCR ~~P-12220C~~ TMH 9/14/84

REMARKS (02) 34: P12,220C

STONE AND WEBSTER ENGINEERING CORPORATION
ENGINEERING & DESIGN COORDINATION REPORT

J.O. 12210
E&DCR
NO P12,220D
PAGE 2 OF 4



14-14

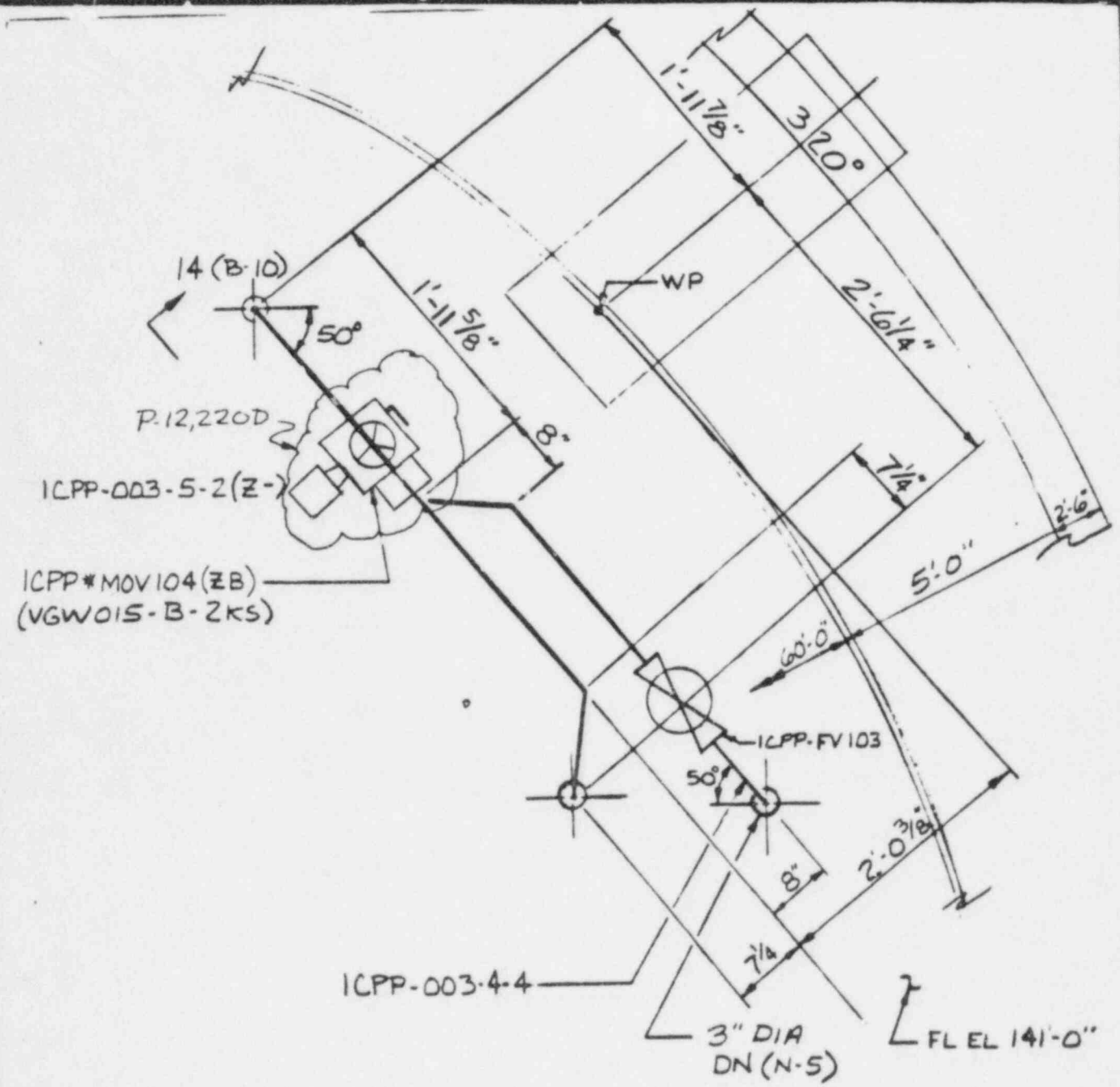
(J-4 L-2 N-5)

N.T.S.

REF EB-15H

STONE AND WEBSTER ENGINEERING CORPORATION
ENGINEERING & DESIGN COORDINATION REPORT

J.O. 12210
E&DCR
NO P-12,220D.
PAGE 3 OF 4



PARTIAL
PLAN BEL EL 150'-0"

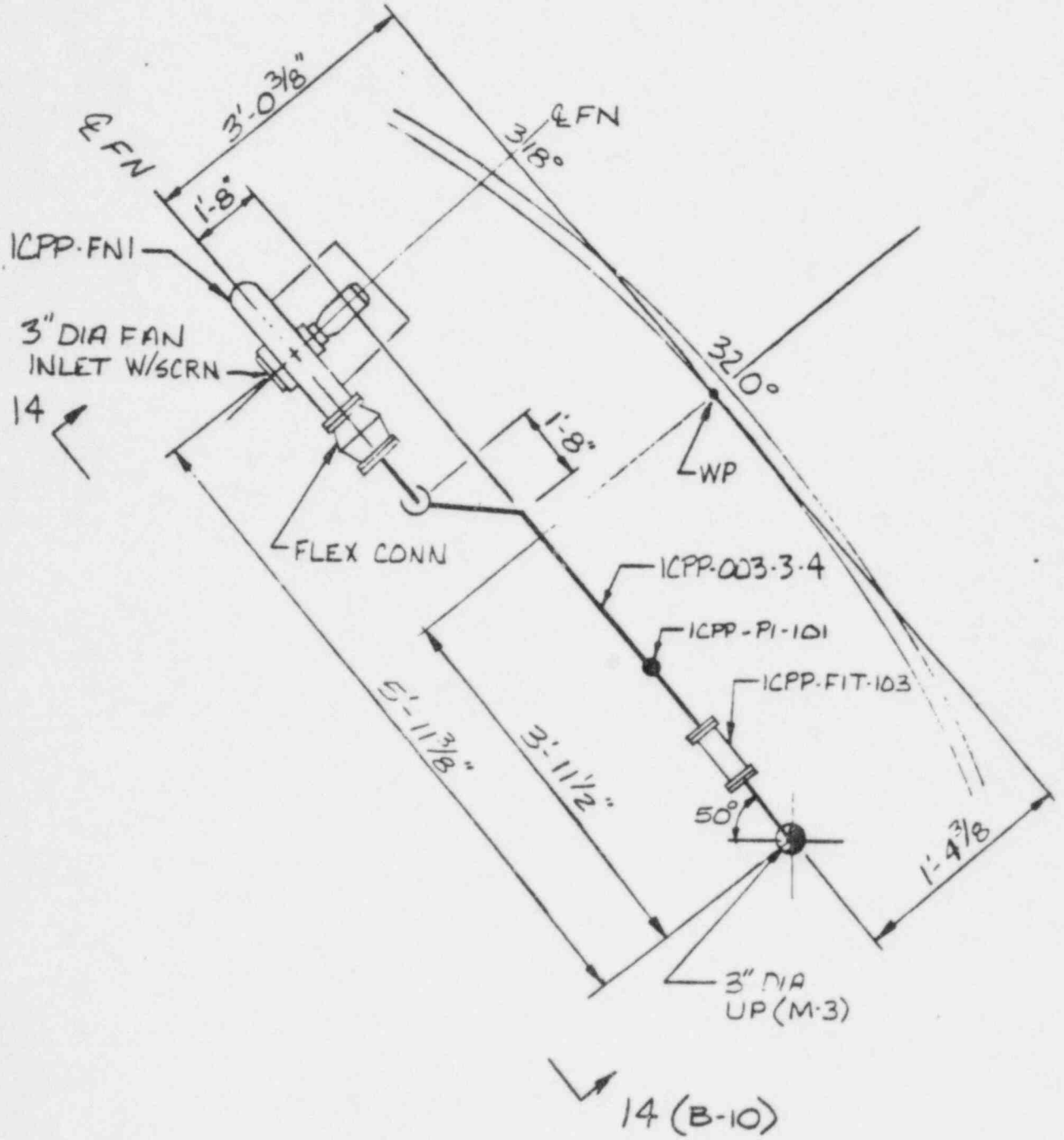
14

N.T.S.

REF EB-15M

STONE AND WEBSTER ENGINEERING CORPORATION
ENGINEERING & DESIGN COORDINATION REPORT

J.O. 12210
E&DCR
NO P-12,220D
PAGE 4 OF 4



PARTIAL
PLAN EL 141'-0"
N.T.S
REF EB-15H

4

A5210.0

STONE AND WEBSTER ENGINEERING CORPORATION
ENGINEERING & DESIGN COORDINATION REPORT

PAGE 1 OF 1

EDCR NO. P-12,546

JOB ORDER NO. 12210

PROJECT/CLIENT: RIVER BEND STATION UNIT 1/GULF STATES UTILITIES CO.

P O NO (S,F,W): NA

REASON CODE (S): V

EQUIP ID NO (S)/SYS CODE (S): PIPING/CPP

REFERENCE DOCUMENTS: 12210-EB-15H-8

SUPPLIER(OR SUBSUPPLIER)NAME: NA

DESCRIPTION SUMMARY: VALVE OPERATOR POSITION REVISED

REMARKS: NA

PROBLEM DESCRIPTION

AREA/BLDG CODE: 1/REACTOR BLDG

1CPP*MOV105 OPERATOR INTERFERES WITH CONTAINMENT LINER REINFORCING STEEL RING.

REF. DOCUMENT LISTED ABOVE HAS BEEN ISSUED FOR FAB. & CONSTR.

INITIATOR	AREA/DEPT DIV	TEL EXT	DATE	DATE NEEDED BY	APPROVED	ENGR RESP
R. SCHWARZ	RIVER	3429	11-9-83	11-15-83	SEB	PB

PROBLEM SOLUTION

EB-15H IS REVISED TO SHOW 1CPP*MOV105 ROLLED 15° TOWARD SHIELD BLDG WALL. (COORD K-4 & SECTION 14-14).

RJB

EQC:N EQS:N SC:N

AFFECTED DOCUMENT NUMBERS	TYPE	STATUS
12210-EB-15H	D	C

STATUS
C - WILL BE INCORPORATED
N - WILL NOT BE INCORPORATED
I - NO CHANGE

RELATED ACTIVITIES: NA

QA CAT: I

ANSWERED BY	R. Schwarz	DATE 11-9-83
RESP LEAD ENGR	for RJ Mitchell	DATE 11/11/83
MATERIALS ENGR.	NC	DATE
EQUIP SPEC.	NC	DATE
QBD OR EA	NC	DATE
PROJ ENGR	R. O. Gucwa	DATE 11/9/83

CLIENT APP REQ'D ☐ NR ☑
REF DATE

SUB ITEM	WORK RESP	SUB ITEM	WORK RESP
01	IPE	02	

EQ RELEASE NO.: CPP-000

WBS NO.: IPB/1A/CPP

WORK COMPLETION NWR ☐ DATE

INSP REPORT NO/SIG DATE

FINAL WORK TRACKING CLOSURE DATE

DESCRIPTION (01): VALVE OPERATOR POSITION REVISED

DESCRIPTION (02)

REMARKS (01)

REMARKS (02)

A5210 85

STONE AND WEBSTER ENGINEERING CORPORATION

ENGINEERING & DESIGN COORDINATION REPORT

PAGE 1 OF 4

E & DCR NO. 2 P-12.660

JOB ORDER NO. 4 12210

PROJECT/CLIENT 3 RIVER BEND STATION UNIT 1/GULF STATES UTILITIES COMPANY

P.O NO (S.F.W.) 5	REASON CODE (S) 6	EQUIP ID NO (S)/SYS CODE (S) 7
NA	F	LEAK DETECTION INSTR/E31 & HVR

REFERENCE DOCUMENTS 8: 12210-EB-15H-8, 15K-8 & 15P-8

SUPPLIER OR SUBSUPPLIER NAME 9: NA

DESCRIPTION SUMMARY 10: ADD GE LEAK DETECTION INSTR'S TO DUCTS

REMARKS 11: NA

AREA/BLDG CODE: 1/REACTOR BLDG

PROBLEM DESCRIPTION 12

TO SUIT FSK-22-1B-6 GENERAL ELECTRIC LEAK DETECTION INSTRUMENTS ARE ADDED TO SUPPLY AIR DUCTWORK ON CONTAINMENT UNIT COOLER SYSTEM.

REFERENCE DOCUMENTS LISTED ABOVE HAVE BEEN ISSUED FOR FABRICATION & CONSTRUCTION.

INITIATOR 13	AREA/DEPT DIV	TEL EXT	DATE	DATE NEEDED 9	APPROVED 14	ENGR RESP 15
R. SCHWARZ	POWER	3427	1-12-84	1-13-84		PB

PROBLEM SOLUTION 16

EB-15H, 15K & 15P ARE REVISED AS SHOWN ON PAGES 2, 3 & 4 OF 4 OF THIS E&DCR TO INDICATE DUCT MOUNTED (GE) LEAK DETECTION INSTRUMENT LOCATION & ADDITION OF DUCT COLLAR WHERE REQ'D FOR INSTRUMENT INSTALLATION.

RBB Off-Ho

EOC:N ROS:N SC:N

AFFECTED DOCUMENT NUMBERS 17	TYPE	STATUS
12210-EB-15H	D	C
12210-EB-15K	D	C
12210-EB-15P	D	C

STATUS: C - WILL BE INCORPORATED; N - WILL NOT BE INCORPORATED; I - NO CHANGE

RELATED ACTIVITIES 18: NA

QA CAT 19: I & III

ANSWERED BY 20: [signature] DATE: 1/12/84

RESP LEAD ENGR: [signature] DATE: 1/13/84

MATERIALS ENGR. 22: NR DATE:

EQUIP SPEC. 23: NR DATE:

QSD OR EA 24: NR DATE:

PROJ ENGR 25: For Gerry DATE: 1/17/84

CLIENT APP REQ'D ☐ NR ☑ 26 REF DATE

SUB ITEM	WORK RESP 27	SUB ITEM	WORK RESP 27
01	ISW	02	

EQ RELEASE NO. 28: HVR.001 | EQ RELEASE NO. 28:

WBS NO. 29: JAB/1A/HVR | WBS NO. 29:

WORK COMPLETION 30 NWR ☐ DATE:

INSP REPORT NO/SIG 31 DATE:

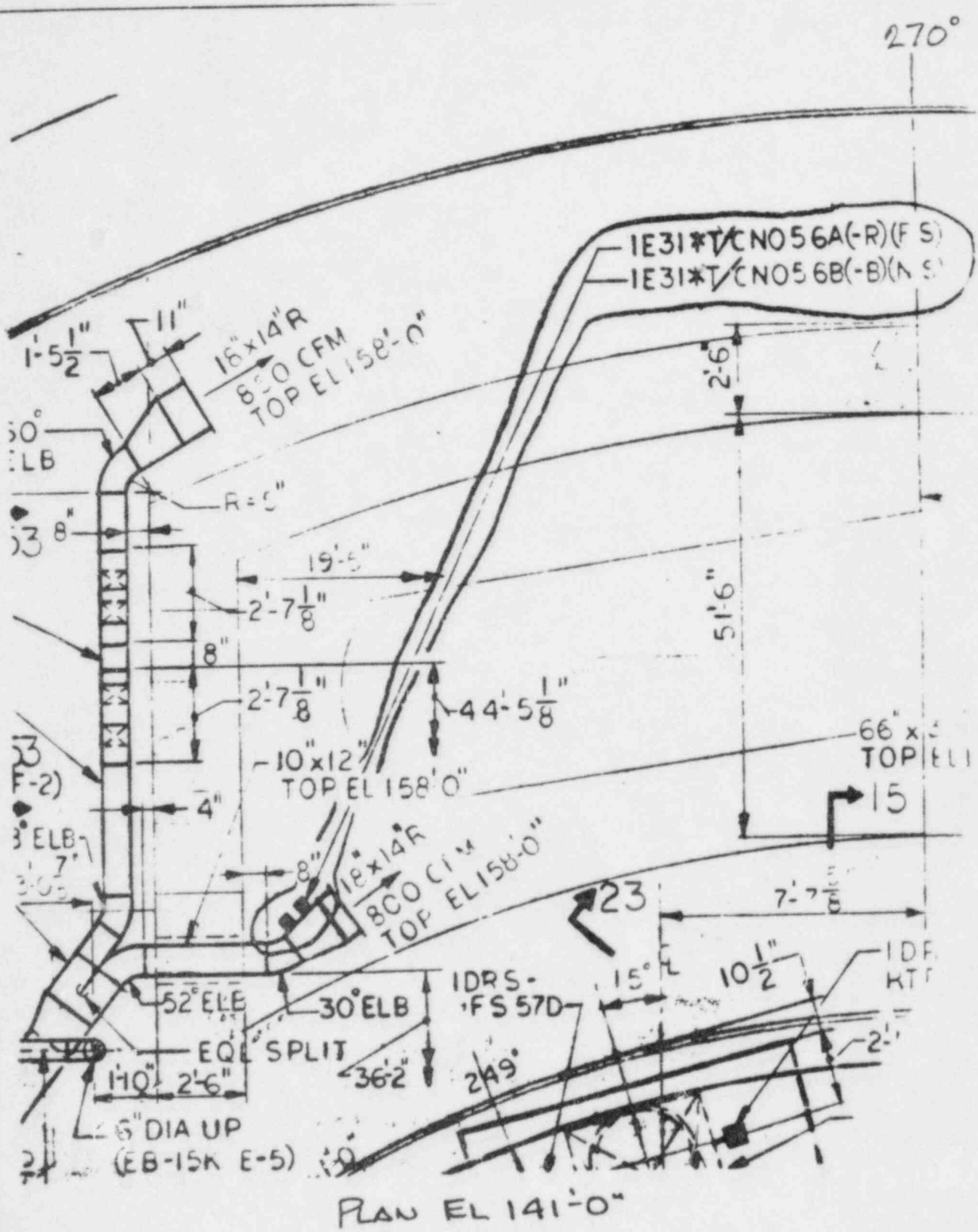
FINAL WORK TRACKING CLOSURE 32 DATE:

DESCRIPTION (01) 33: ADD GE LEAK DETECTION INSTR'S TO DUCTS

DESCRIPTION (02) 33:

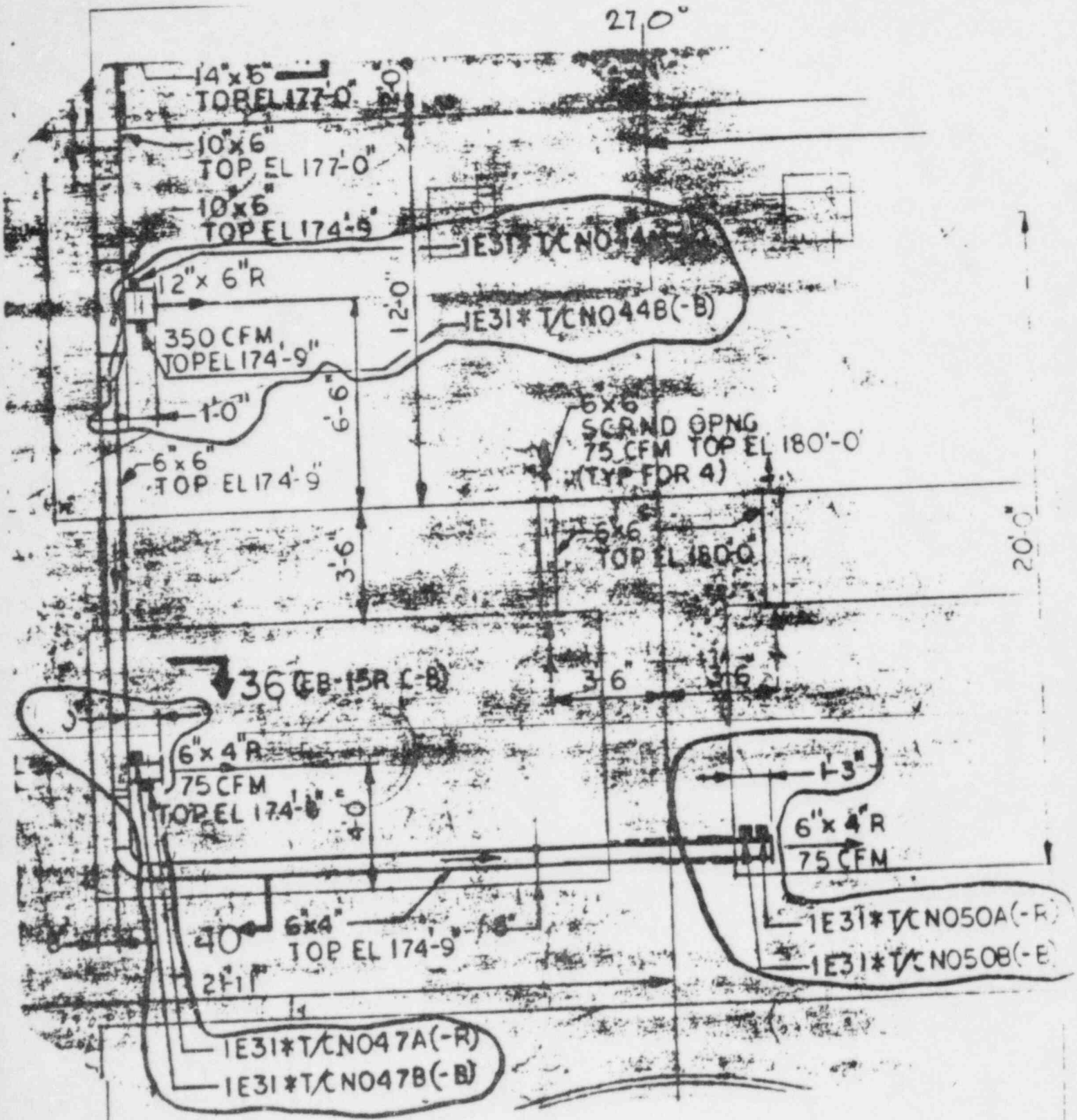
REMARKS (01) 34:

REMARKS (02) 34:



REF EB-15H-8

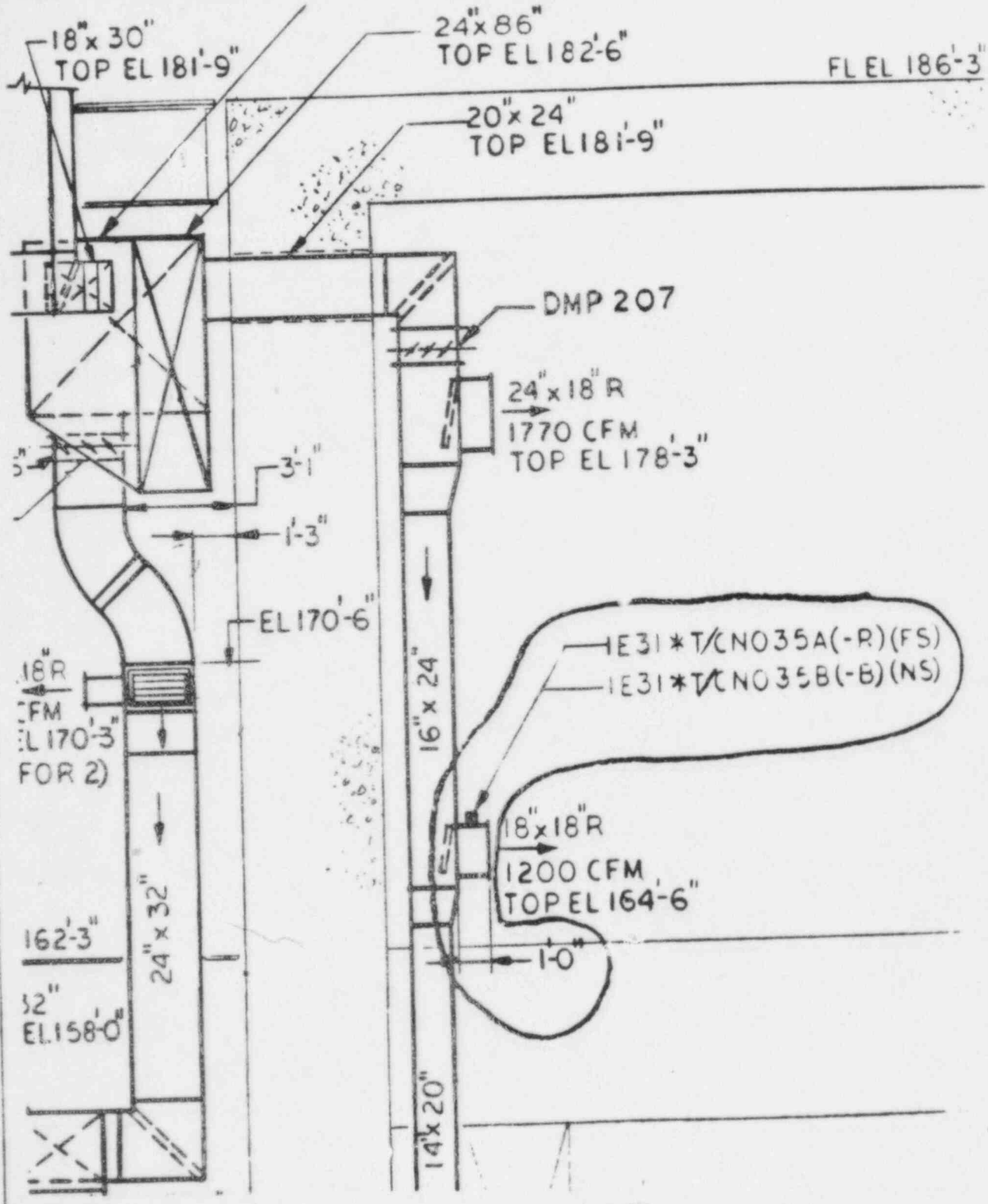
POWER INDUSTRY GROUP	TITLE: REACTOR BLDG DUCTWORK GSU RIVER BEND UNIT 1		SCALE 1/4"=1'-0"
CHECKED R. Schwalz			DATE 1-12-84
CORRECT			SKETCH NUMBER E&DCR P-1m 66C.
APPROVED			
REVISIONS ②	③	④	⑤



PLAN EL 162'-3"

REF EB-15K-B

POWER INDUSTRY GROUP	TITLE: REACTOR BLDG DUCTWORK		SCALE: 1/8"=1'-0"
CHECKED: R. Schwartz			DATE: 1-12-84
CORRECT	GSU RIVER BEND UNIT 1		SKETCH NUMBER: E&DCR P-12.66-C
APPROVED			
REVISIONS: ②	③	④	⑤



SECTION 25-25

REF EB-15P-8

PAGE 4 OF 4

POWER INDUSTRY GROUP	TITLE: REACTOR BLDG DUCTWORK GSU RIVER BEND STATION UNIT 1	SCALE: 1/4"=1'-0"	
CHECKED: R SCHWARZ		DATE: 1-12-84	
CORRECT		SKETCH NUMBER: E&DCR P-12660	
APPROVED			
REVISIONS: ② ③ ④ ⑤			

SEE

APERTURE

CARDS

*OVERSIZED DRAWINGS

(ADDITIONAL DOCUMENT PAGES FOLLOW)

APERTURE CARD NO/ 8502270214

AVAILIBILITY PDR CF HOLD

NUMBERS OF PAGES. 1

K PUNCH - 4Y 1 8 3 .

AM10 85

STONE AND WEBSTER ENGINEERING CORPORATION

ENGINEERING & DESIGN COORDINATION REPORT

PAGE 1 OF 3

E & DCR NO. C-12,521A

JOB ORDER NO. 12210

PROJECT/CLIENT: RIVER BEND PROJECT UNIT No 1 / G.S.U.

P.O. NO (S&W): N/A | REASON CODE (S): V | EQUIP. I.D. NO (S)/SYS. CODE (S): 1 HVR * "DUCT"

REFERENCE DOCUMENTS: EB-15R-8 EB-15J-8

SUPPLIER (OR SUBSUPPLIER) NAME: N/A

DESCRIPTION SUMMARY: REVISE DUCTWORK

REMARKS: THIS E&DCR SUPERCEDES C-12,521

PROBLEM DESCRIPTION

30"x54" DUCTWORK SHOWN ON EB-15J-7 [LOCATION D-5, E-5] SPLITS INTO 30"x18" ELBOW AND 30"x36" DOUBLE ELBOW DUCT. THIS DUCT FITTING CANNOT BE FABRICATED WITH MAKING ONE BULKY AND HEAVY DUCT PIECE. McCROSKEY REQUEST TO REVISE THE ELEVATION OF 30"x18" ELBOW BRANCH TO SIMPLIFY DUCT FABRICATION.

ADDITIONAL PROBLEM

THE 30"x18" ELOW REFERENCED IN THE ORIGINAL PROBLEM OF E&DCR C-12,521 NEEDS TO BE REVISED TO ALTER THE DOWNSTREAM DUCT LINE DUE TO AN INTERFERENCE WITH STRUCTURAL STEEL. TO RELOCATE THIS DOWNSTREAM DUCT BACK ON LOCATION A MITERED OFFSET NEEDS TO BE INCORPORATED IN THIS LINE.

INITIATOR	AREA/DEPT DIV	TEL EXT	DATE	DATE NEEDED	APPROVED	ENGR RESP
BRIAN SIEVERS	POWER	x568	10/26/83	10/26/83	F.B.S.	KP

PROBLEM SOLUTION

THIS E&DCR SUPERCEDES E&DCR C-12,521.

EB-15J-8 AND EB-15R-8 ARE REVISED AS SHOWN ON PAGES 2 OF 3 AND 3 OF 3 OF THIS E&DCR.

Incorporated [signature]

DUCT SUPPORT IS REVISED ACCORDINGLY.

NON-ASME EM CONCURRENCE: [initials] 10-26-83

EOS:N EOC:N SC:N

CLIENT APP REQ'D ☐ NR ☒

REF DATE

AFFECTED DOCUMENT NUMBERS	TYPE	STATUS
EB-15J	D	C
EB-15R	D	C

RELATED ACTIVITIES: N/A | QA CAT: I

ANSWERED BY: Brian Sievers DATE 10/26/83

RESP LEAD ENGR: F.B. Sciplani DATE 10/26/83

MATERIALS ENGR: N/A DATE

EQUIP SPEC: N/A DATE

QSD OR ZA: N/A DATE

PROG ENGR: D.E. Bergeron DATE 10/26/83

SUB ITEM	WORK RESP	SUB ITEM	WORK RESP
01	JSW	02	
EQ RELEASE NO. 1.Bx HVR.001		EQ RELEASE NO.	
WBS NO. JRB/1A		WBS NO.	

WORK COMPLETION NWR ☐ DATE

INSP. REPORT NO/SIG DATE

FINAL WORK TRACKING CLOSURE DATE

STATUS
C - WILL BE INCORPORATED
N - WILL NOT BE INCORPORATED
I - NO CHANGE

DESCRIPTION (01): REVISE DUCTWORK

REMARKS (01): NA

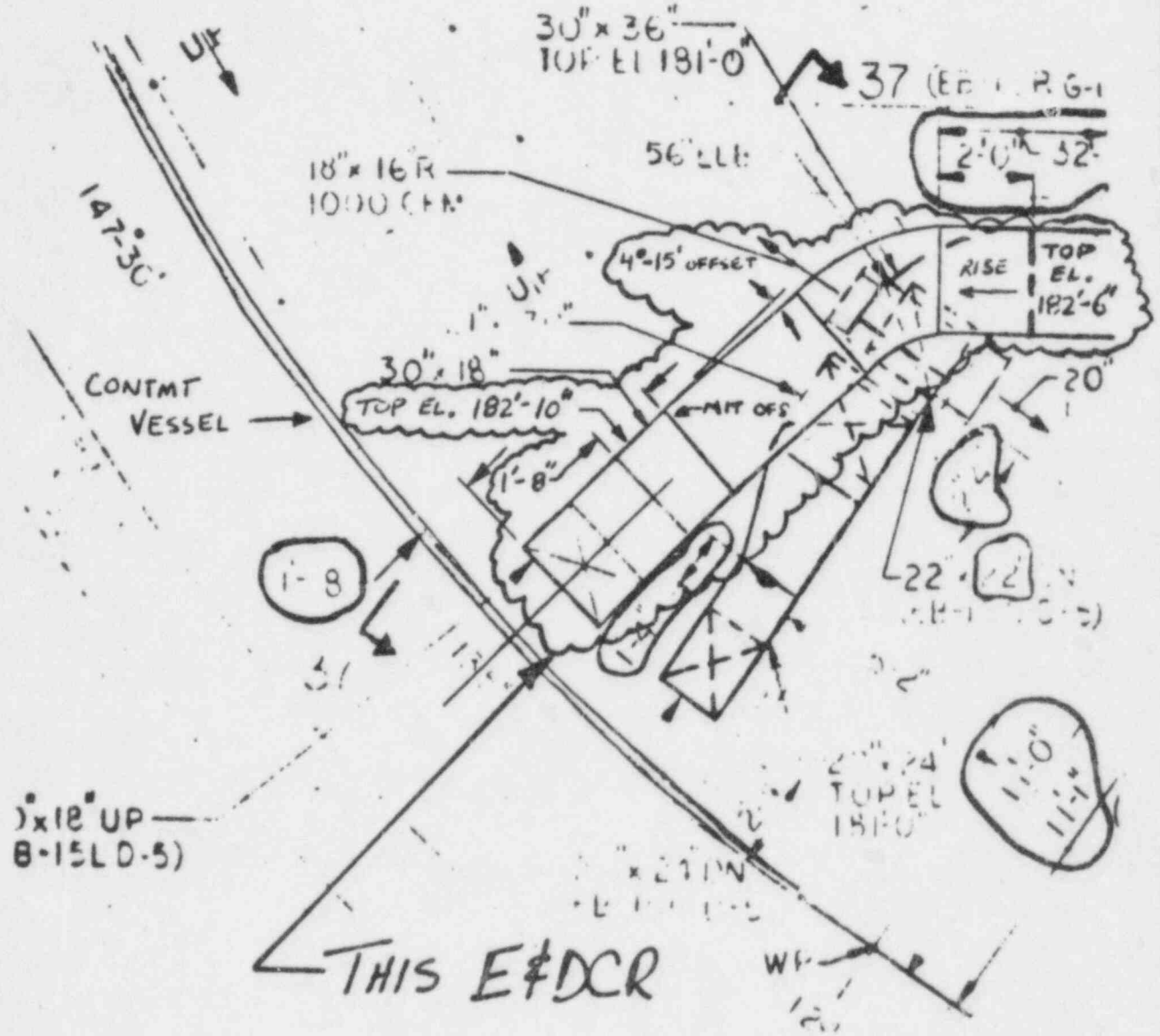
DESCRIPTION (02):

REMARKS (02):

E&DCR C-12,521 A

PAGE 2 OF 3

J.O. 12210



REF. EB-15J-8

(D-5)

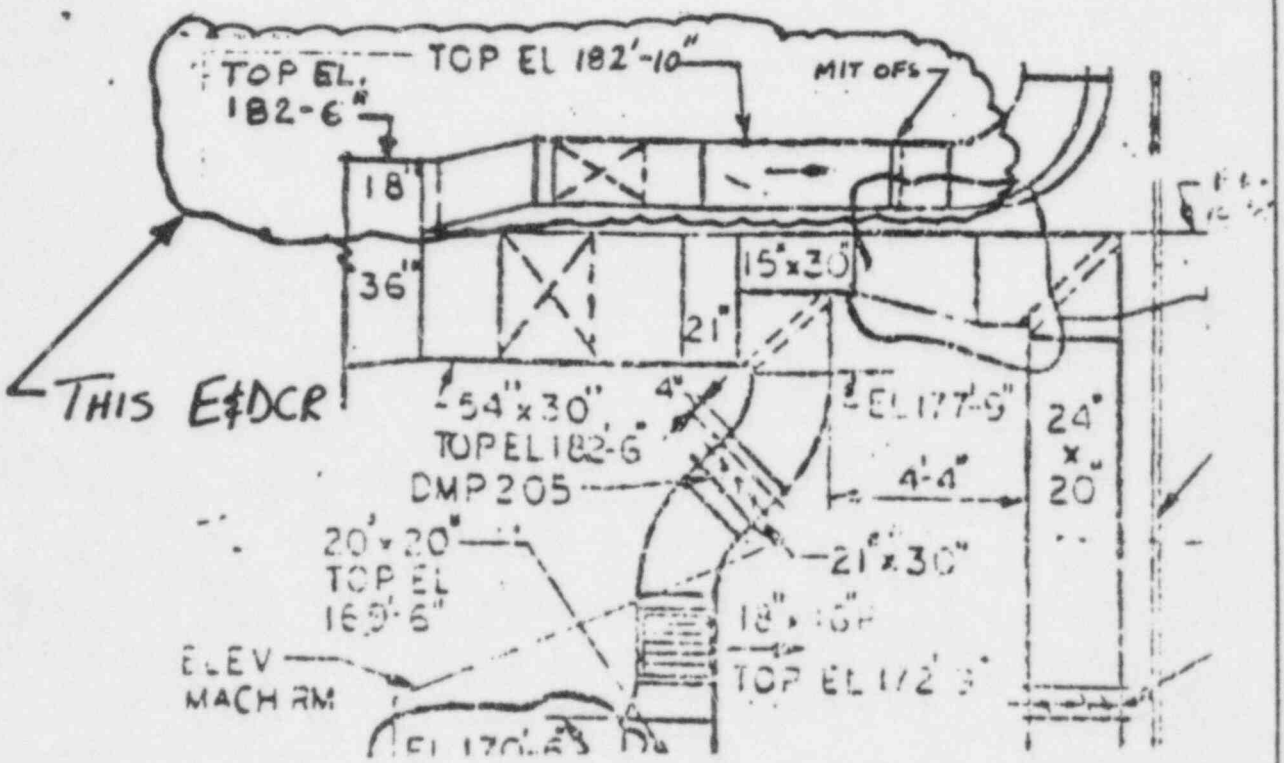
PLAN EL. 162'-3"

		TITLE			SCALE: NONE
CHECKED		REACTOR BLDG. DUCTWORK			DATE: 10/26/83
CORRECT					SKETCH NUMBER
APPROVED					
REVISIONS	(2)	(3)	(4)	(5)	

E&DCR C-12,521A

PAGE 3 OF 3

J.O. 12210



REF. EB-15R-8

SECTION 37-37

		TITLE: REACTOR BLDG. DUCTWORK	SCALE: NONE
CHECKED			DATE: 10/26/83
CORRECT			SKETCH NUMBER
APPROVED			
REVISIONS	② ③ ④ ⑤		

A5210 6'

STONE AND WEBSTER ENGINEERING CORPORATION
ENGINEERING & DESIGN COORDINATION REPORT

PAGE 1 OF 3

EDCR NO. C-12-932

JOB ORDER NO. 12210

PROJECT/CLIENT 3: RIVER BEND PROJECT / GULF STATES UTILITIES

P.O. NO (S.E.W.) 5	REASON CODE (S) 6	EQUIP. I.D. NO (S)/SYS. CODE (S) 7
12210 - 09157	V	1-HVR & DUCT

REFERENCE DOCUMENTS 8	SUPPLIER(OR SUBSUPPLIER)NAME 9
EB-15L-6 / EB-15J-8	MCCROSKEY
DESCRIPTION SUMMARY 10: DUCT RISER RELOCATED	REMARKS 11: N/A

PROBLEM DESCRIPTION 12

DUE TO THE RELOCATION OF STRUCTURAL STEEL PER N.D 3084 A DUCT RISER, LOCATED ON ELEVATION 186'-3" AT THE 29° AZIMUTH, NEEDS TO BE RELOCATED.

INITIATOR 13	AREA/DEPT DIV	TEL EXT.	DATE	DATE NEEDED	APPROVED 14	ENGR. RESP 15
D.W. Porter S.D	Power	528	10/21/83	10/21/83	J A B.	LP

PROBLEM SOLUTION 16

EB-15T AND 15L ARE REVISED PER PAGES 2 AND 3 OF THIS E.D.C.R.

Incorp 12-17-83

MCCROSKEY : NO

"NON-NUME"

EQC: N EQS: N SC: N

AFFECTED DOCUMENT NUMBERS 17	TYPE	STATUS
EB-15J	D	C
EB-15L	D	C

STATUS
C - WILL BE INCORPORATED
N - WILL NOT BE INCORPORATED
I - NO CHANGE

RELATED ACTIVITIES 18	QA CAT 19
N/A	I

ANSWERED BY 20	DATE
D.W. Porter S.D	10/24/83
RESP LEAD ENGR. 21: J.A. Bobolani	DATE 12/1/83
MATERIALS ENGR. 22: N/A	DATE
EQUIP. SPEC. 23: N/A	DATE
QSD OR EA 24: N/A	DATE
PROJ. ENGR. 25: D.E. Hoffman	DATE 10/28/83

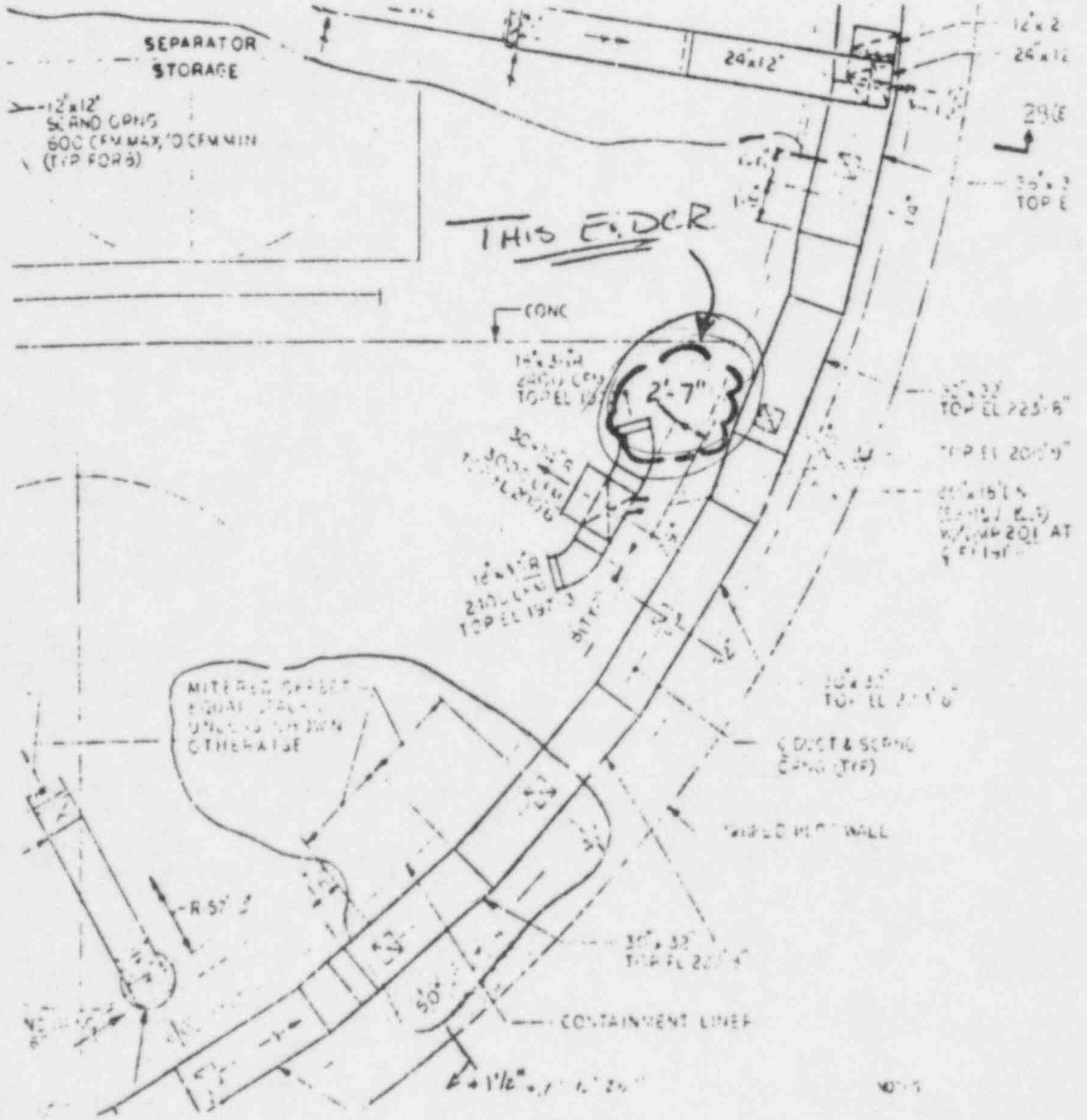
CLIENT APP REQ'D ☐ NR ☒
26 REF DATE

SUB ITEM 01	WORK RESP 27: HSW	SUB ITEM 02	WORK RESP 27
EQ RELEASE NO. 28: 1-BX-HVE-001		EQ RELEASE NO. 28	
WBS NO. 29: JRB/1A/HVE		WBS NO. 29	

WORK COMPLETION 30	NWR ☐	DATE
INSP. REPORT NO/SIG 31		DATE
FINAL WORK TRACKING CLOSURE 32		DATE

DESCRIPTION (01) 33: DUCT RISER RELOCATED	REMARKS (01) 34
DESCRIPTION (02) 33	REMARKS (02) 34

E&DCR C-12,932
PAGE 2 OF 3

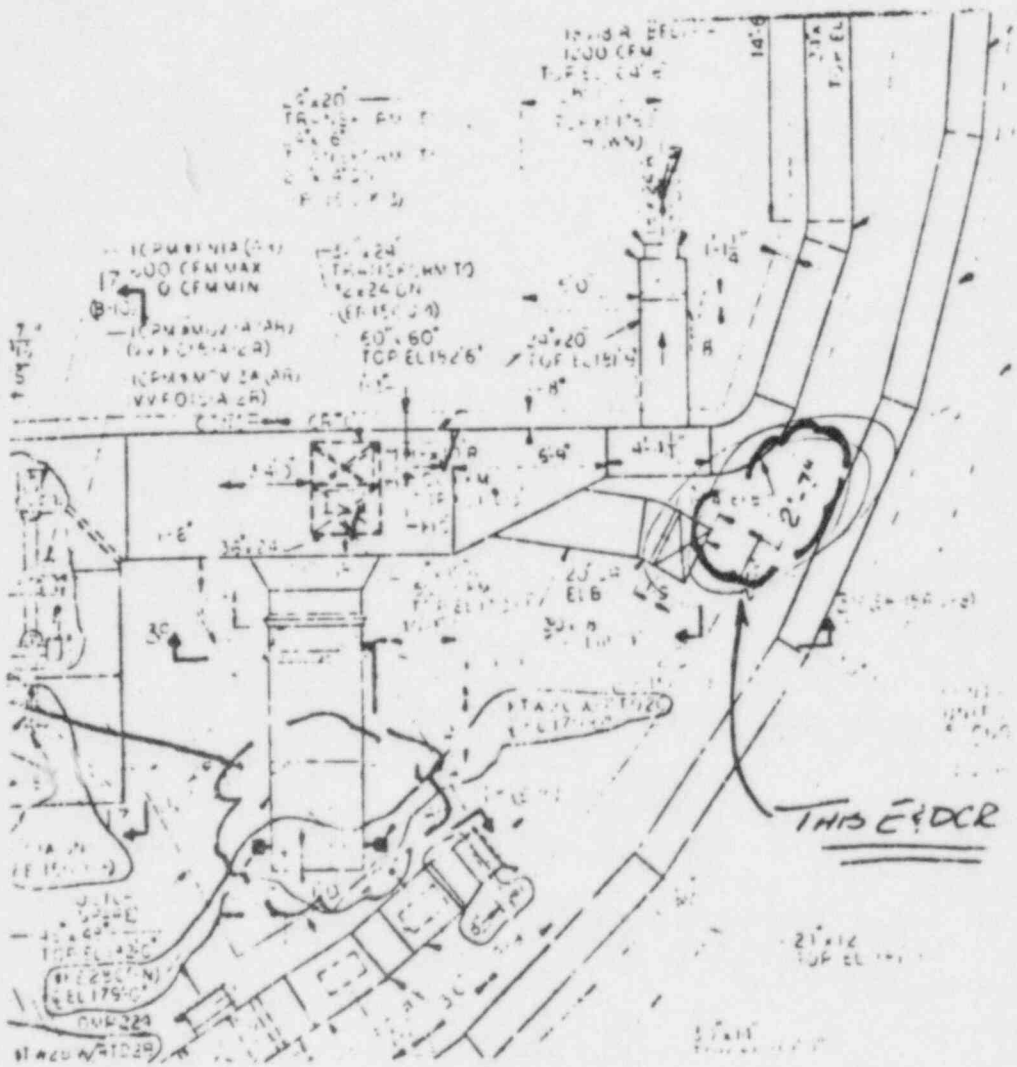


REFERENCE EB-15L-6

	TITLE	
CHECKED	River Bend Project / GSU Reactor Bldg El 186' 3'	SCALE N/A
CORRECT		DATE 10/20/83
APPROVED		SKETCH NUMBER
REVISIONS ② ③ ④ ⑤		E&DCR C-12,932

E!DCR C-12,932

PAGE 3 OF 3



REFERENCE EB-15 J-8

CHECKED	TITLE POWER BEND PROJECT /ASU REMOVE BLDG. EL. 102'-3"	SCALE 1/4	
CORRECT		DATE 10/20/83	
APPROVED		SKETCH NUMBER E!DCR C-12,932	
REVISIONS 2 3 4 5			

A5710 85

STONE AND WEBSTER ENGINEERING CORPORATION
ENGINEERING & DESIGN COORDINATION REPORT

1 5

EDCR NO 2 E-13.105

PROJECT/CLIENT 3 RIVER BEND PROJECT UNIT Nº 1 / G.S.U.

JOB ORDER NO 4 12210

P.O NO (S.F.W.) 5 N/A

REASON CODE (S) 6 V

EQUIP I.D. NO (S)/SYS CODE (S) 7 1HVR * DUCT

REFERENCE DOCUMENTS 8 EB-15J-8

SUPPLIER(OR SUBSUPPLIER)NAME 9 N/A

DESCRIPTION SUMMARY 10 DUCTWORK LOCATION REVISION

REMARKS 11 N/A

PROBLEM DESCRIPTION 12

THE HYDROGEN PURGE LINE ON PLAN EL. 162'-3" IN THE REACTOR BLDG. NEEDS TO BE RELOCATED DUE TO THE ACCUMULATED AFFECTS OF THE FABRICATION TOLERANCES DURING DUCTWORK INSTALLATION.
THIS DUCT LINE~~S~~ BS 11/29/83 IS LOCATED ALONG THE STEEL CONT. LINER BETWEEN AZIMUTHS OF 40° AND 100°.

12

INITIATOR 13	AREA/DEPT DIV	TEL EXT	DATE	DATE NEEDED 8	APPROVED 14	ENGR RESP 15
BRIAN SIEVERS	POWER	x5608	11/30/83	12/1/83	REB	XP

PROBLEM SOLUTION 16

THE ELEVATIONS REFERENCED ON PAGE 2 OF 5 THRU 5 OF 5 HAVE BEEN ELEVATED BY 2 INCHES.

1HVR-DMP 227 IS LOCATED AT AZIMUTH 43°-30' WITH ITS CENTER 2 FEET FROM THE CONTAINMENT WALL, 5" CLOSER THAN DESIGNED.

DUCT SUPPORT CONCURRANCE: DUCT SUPPORT RELOCATED ACCORDINGLY. JC 12-1-83

16 NON-ASME

EDC:N EOS:N SC:N

AFFECTED DOCUMENT NUMBERS 17	TYPE	STATUS
EB-15J	D	C

STATUS
C - WILL BE INCORPORATED
N - WILL NOT BE INCORPORATED
I - NO CHANGE

RELATED ACTIVITIES 18 N/A

QA CAT 19 I

ANSWERED BY 20 Brian Sievers DATE 12/1/83

RESP LEAD ENGR 21 F.A. Balani DATE 12/1/83

MATERIALS ENGR. 22 N/A DATE

EQUIP. SPEC. 23 N/A DATE

QSD OR EA 24 N/A DATE

PROJ. ENGR 25 [signature] DATE 12/1/83

CLIENT APP REQ'D ☐ NR ☒
26 REF DATE

SUB ITEM 01	WORK RESP 27 1SW	SUB ITEM 02	WORK RESP 27

EQ RELEASE NO. 28 1.BX.HVR.001 | EQ RELEASE NO. 28

WBS NO. 29 JRB/1A | WBS NO. 29

WORK COMPLETION 30 NWR ☐ DATE

INSP. REPORT NO/SIG 31 DATE

FINAL WORK TRACKING CLOSURE 32 DATE

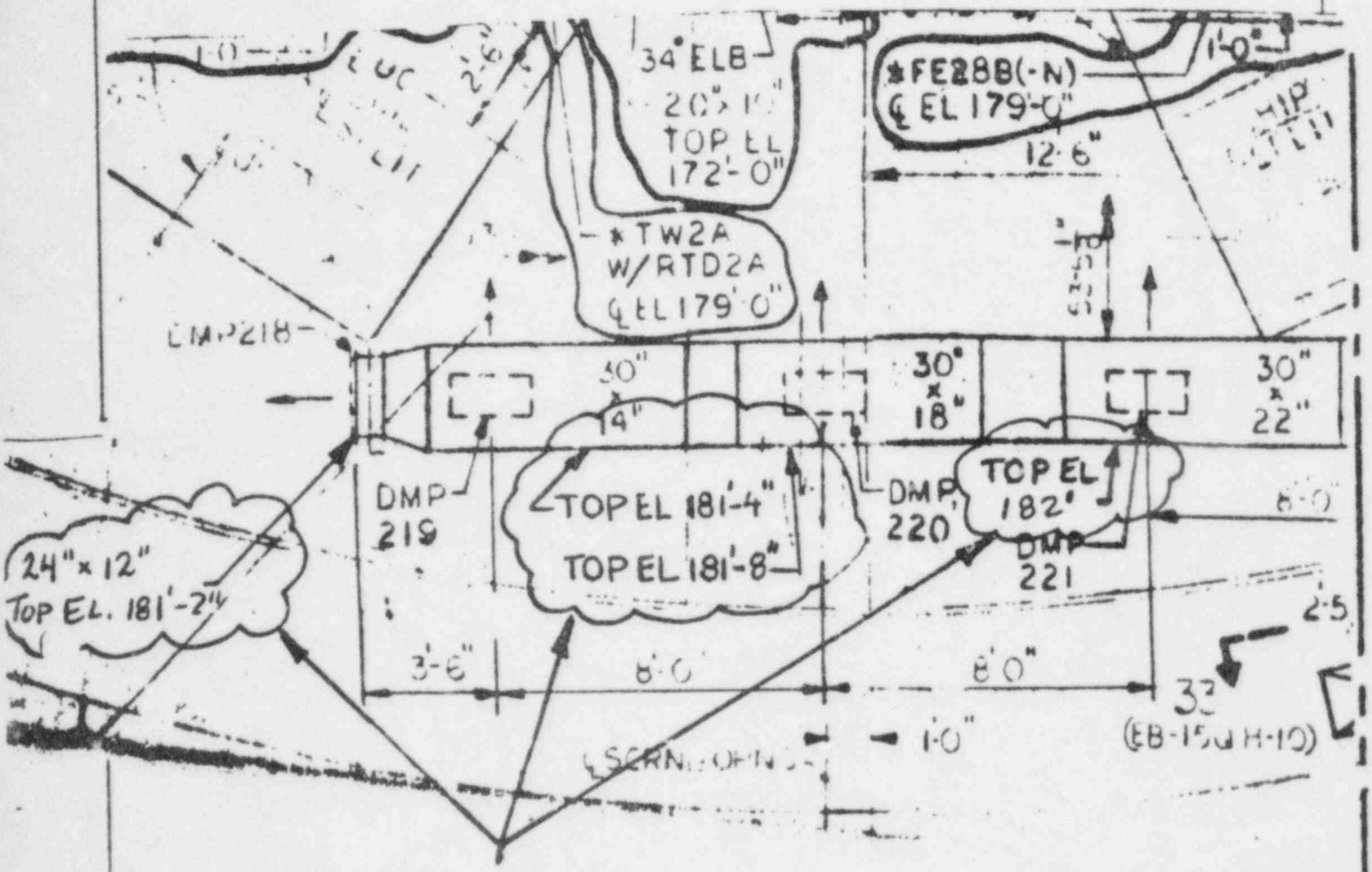
DESCRIPTION (01) 33 DUCTWORK LOCATION REVISION

DESCRIPTION (02) 33

REMARKS (01) 34 NA

REMARKS (02) 34

E&DCR C-13,105
PAGE 2 OF 5



THIS E&DCR

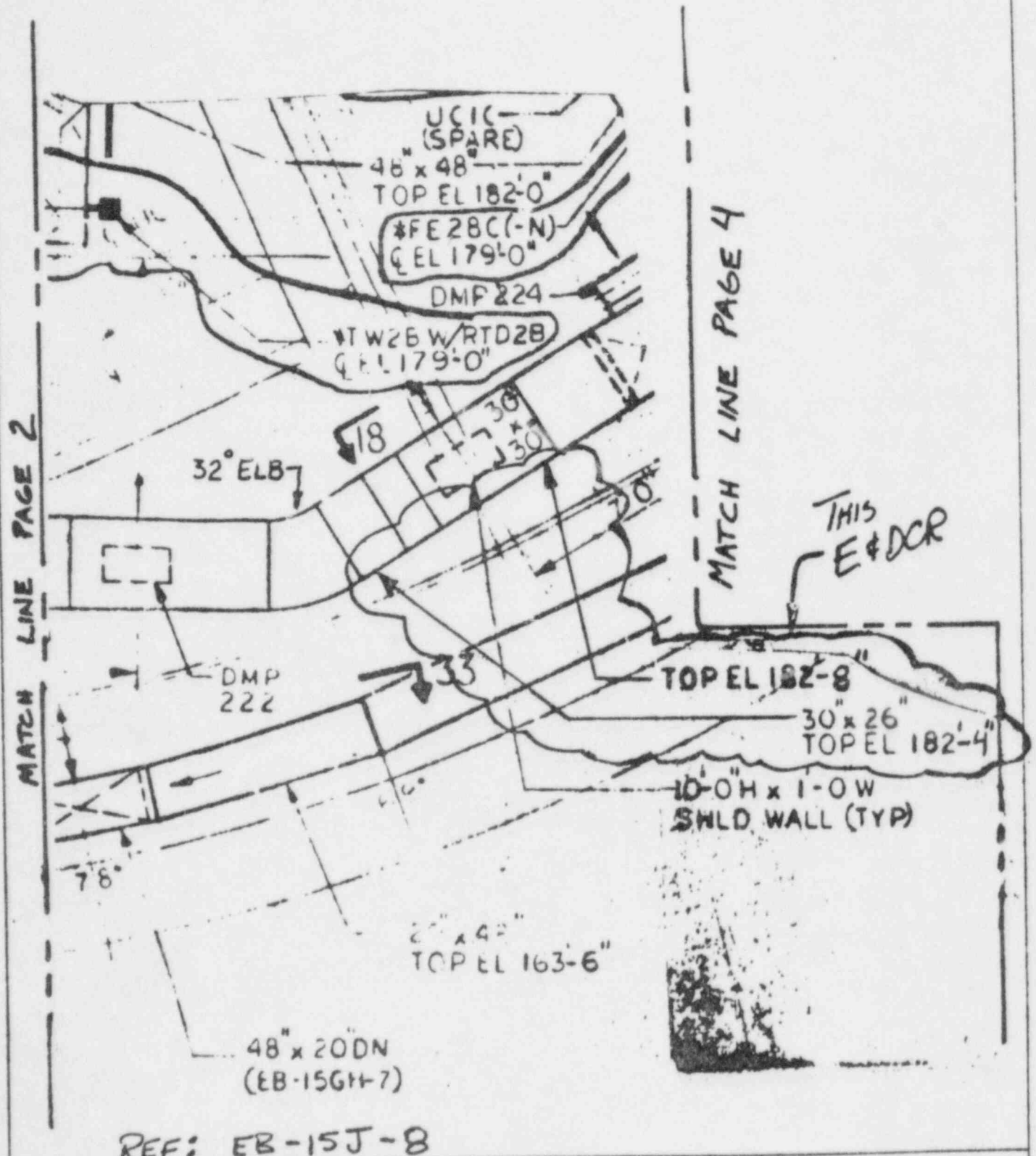
↳24

REF: EB-15J-8

MATCH LINE PAGE 3

POWER INDUSTRY GROUP		TITLE			SCALE: ¼" = 1'
CHECKED		REACTOR BLDG.			DATE: 12/1/83
CORRECT		PLAN EL. 162'-3"			SKETCH NUMBER
APPROVED					
REVISIONS	②	③	④	⑤	

E&DCR C-13,105
PAGE 3 OF 5

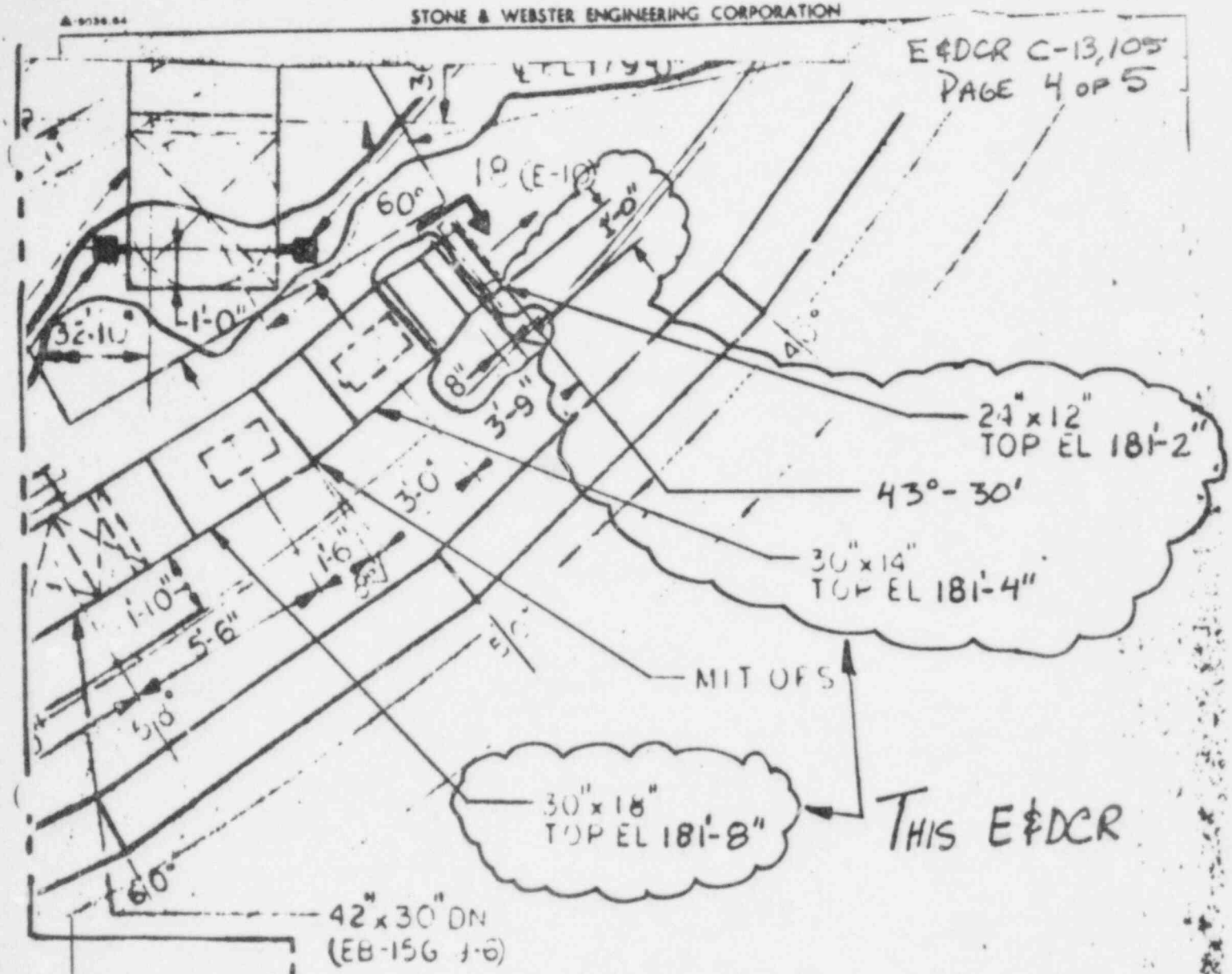


REF: EB-15J-8

POWER INDUSTRY GROUP		TITLE		SCALE: 1/4" = 1'	
CHECKED		REACTOR BLDG.		DATE: 12/1/83	
CORRECT		PLAN EL. 162'-3"		SKETCH NUMBER	
APPROVED					
REVISIONS	②	③	④	⑤	

A-9136.84 STONE & WEBSTER ENGINEERING CORPORATION

E&DCR C-13,105
PAGE 4 OF 5



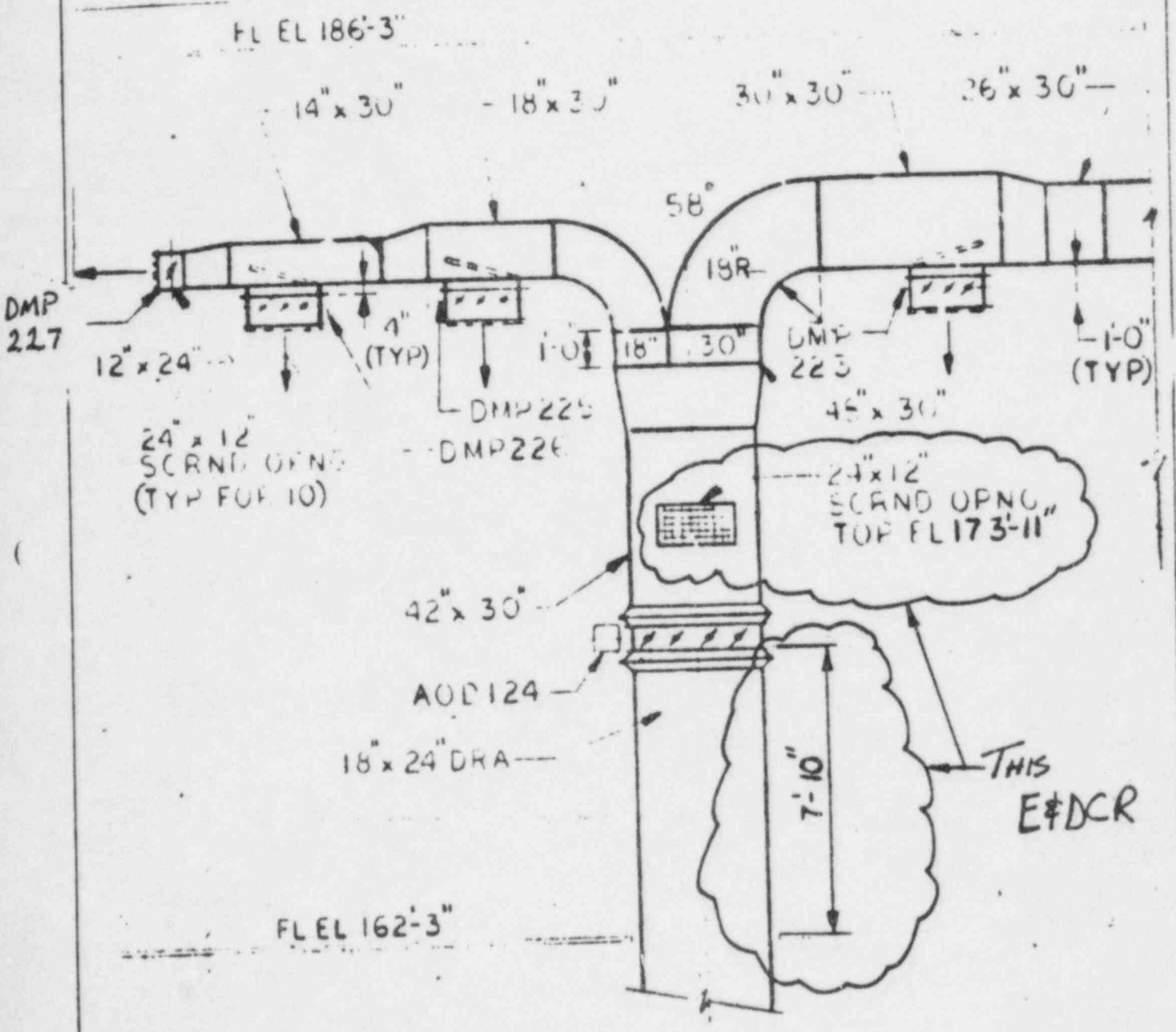
THIS E&DCR

REF: EB-15J-8

MATCH LINE PAGE 3

POWER INDUSTRY GROUP		TITLE					SCALE 1/4" = 1'-0"	
CHECKED		REACTOR BLDG.					DATE 12-1-83	
CORRECT		PLAN EL. 162'-3"					SKETCH NUMBER	
APPROVED								
REVISIONS	②		③		④		⑤	

E&DCR C-13,105
PAGE 5 OF 5



REF: EB-15J-8
SECTION 18-18

POWER INDUSTRY GROUP	TITLE		SCALE 1/4" = 1'-0"
CHECKED	REACTOR BLDG.		DATE 12/1/83
CORRECT	PLAN EL. 162'-3"		SKETCH NUMBER
APPROVED			
REVISIONS ②	③	④	⑤

A52102

STONE AND WEBSTER ENGINEERING CORPORATION
ENGINEERING & DESIGN COORDINATION REPORT

PAGE 1 OF 4

E & DCR NO. C-14 194

PROJECT/CLIENT: RIVER BEND PROJECT UNIT No 1 / G.S.U.

JOB ORDER NO. 12210

P.O. NO (S.F.W.): N/A

REASON CODE (S): J

EQUIP. I.D. NO. (S)/SYS CODE (S): HVR-DUCT (HVR.001) (HVR.004)

REFERENCE DOCUMENTS: EB-15J-8, 15K-8 FSK-22-1K-3, 22-1B-7

SUPPLIER(OR SUBSUPPLIER)NAME: N/A

DESCRIPTION SUMMARY: EB DWG & FSK DWG CORRECTIONS

REMARKS: N/A

PROBLEM DESCRIPTION

(1) FSK-22-1B SHOWS A DUCT CLASS BREAK (NNS ~~→~~ SC2) ON THE DISCHARGE DUCT OF 1HVR*UC1A, 1B. EB-15J-8 ONLY DEPICTS A PRESSURE CLASS BREAK AT THIS BOUNDARY. THE EB DWG. NEEDS TO DEPICT THE SAFETY CLASS BREAK ALSO. CAT I DUCT WAS INSTALLED AS CAT. I.

(2) THE RETURN DUCT TO 1HVR*FN 11A, 11B SHOWS 1HVR*DMPF 63 AND THE SUPPLY DUCT SHOWS 1HVR*DMPF 64 ON EB-15K-8. FSK-22-1K SHOWS 1HVR*DMPF 64 ON THE RETURN AND 1HVR*DMPF 63 ON THE SUPPLY. THE FIRE DAMPERS WERE INSTALLED TO THE "EB" DWGS. S&W FILE No 0215.480-278-017 E SHOWS THESE TWO FIRE DAMPERS AS BEING IDENTICAL. THE FSK NEEDS TO BE CHANGED.

INITIATOR	AREA/DEPT DIV	TEL EXT.	DATE	DATE NEEDED BY	APPROVED	ENGR. RESP
Brian Lewis	TOWER	x4540	8/16/84	8/16/84	REB	XP

PROBLEM SOLUTION

REVISE THE FOLLOWING DWGS. AS FOLLOWS:

DWG. No	E&DCR PAGE No	CHANGE
EB-15J	2 of 4	DEPICT CLASS BREAK AS IN PROBLEM No 1.
EB-15J	3 of 4	DEPICT CLASS BREAK AS IN PROBLEM No 1.
FSK-22-1K	4 of 4	REVERSES FIRE DAMPER LOCATION AS IN PROBLEM No 2.

Non-ASME

EOS'N EOC'N SC'N

AFFECTED DOCUMENT NUMBERS	TYPE	STATUS
EB-15J	D	C
FSK-22-1K	X	C

STATUS
C - WILL BE INCORPORATED
N - WILL NOT BE INCORPORATED
I - NO CHANGE

RELATED ACTIVITIES: N/A

QA CAT: I, II

CLIENT APP REQ'D ☐ NR ☒
REF DATE

ANSWERED BY: Brian Lewis DATE: 9/4/84

RESP. LEAD ENGR.: Richard E Buell DATE: 9/6/84

MATERIALS ENGR.: N/A DATE:

EQUIP. SPEC.: N/A DATE:

QSD OR EA: N/A DATE:

PROJ. ENGR.: DE Hagerman DATE: 9/6/84

SUB ITEM	WORK RESP	SUB ITEM	WORK RESP
01	ENG	02	ENG

EQ RELEASE NO.: HVR.001 | EQ RELEASE NO.: HVR.004

WBS NO.: JRB/1A | WBS NO.: JRB/2A

WORK COMPLETION: Brian Lewis NWR ☒ DATE: 9/6/84

INSP. REPORT NO/SIG: DATE:

FINAL WORK TRACKING CLOSURE: DATE:

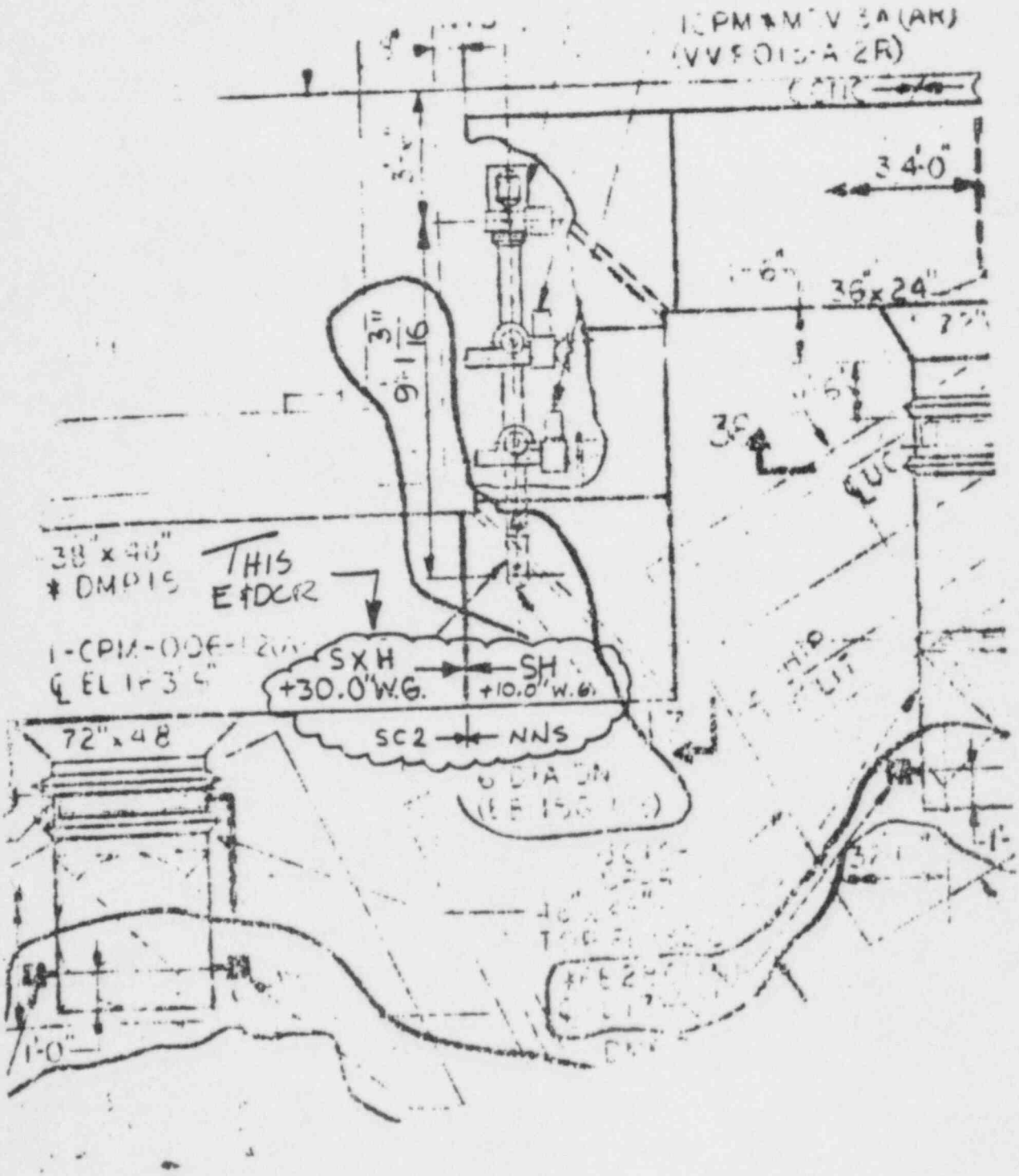
DESCRIPTION (01): DWG. CORRECTIONS

REMARKS (01): N/A

DESCRIPTION (02): DWG CORRECTIONS

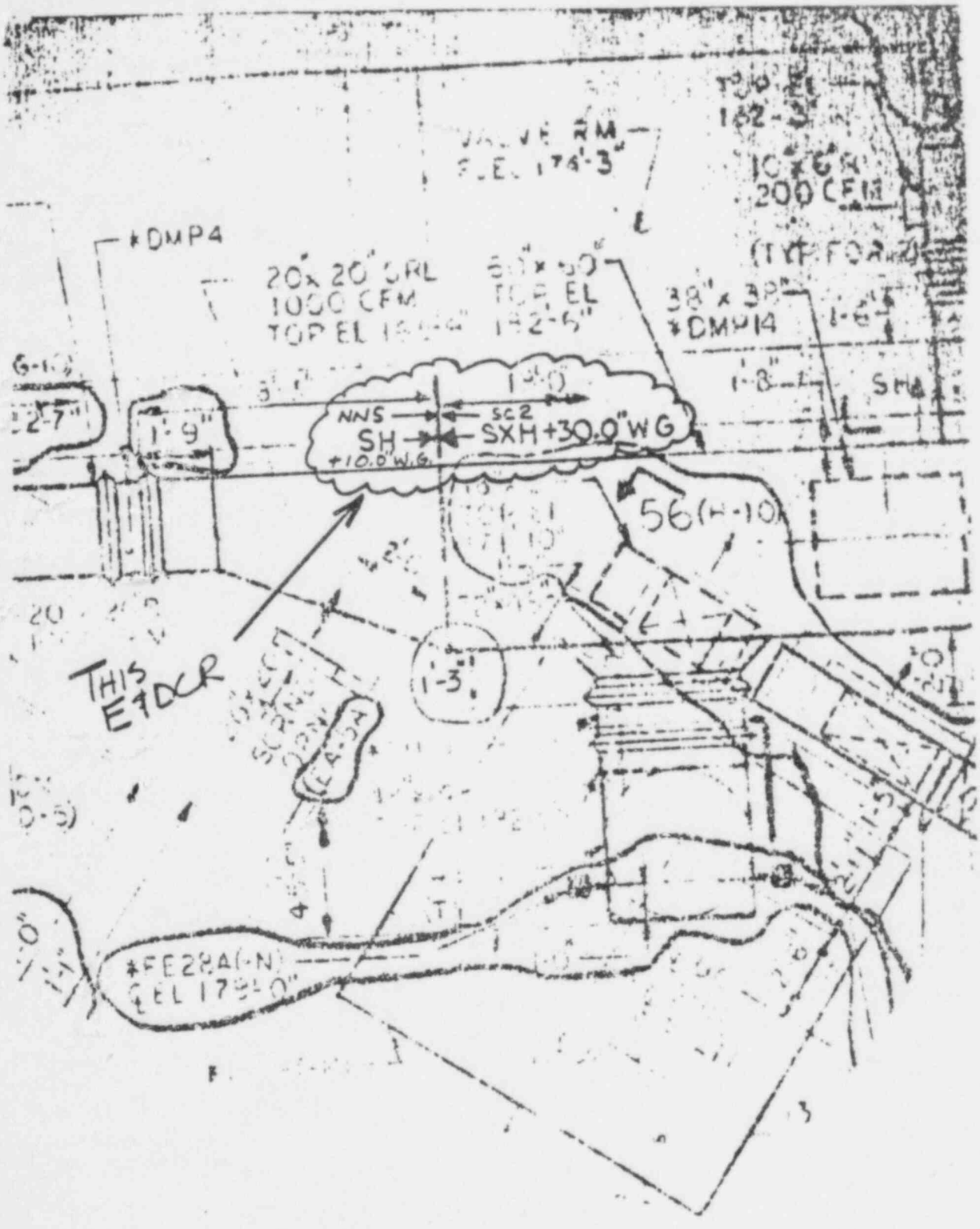
REMARKS (02):

E&DCR C-14,294
PAGE 2 OF 4



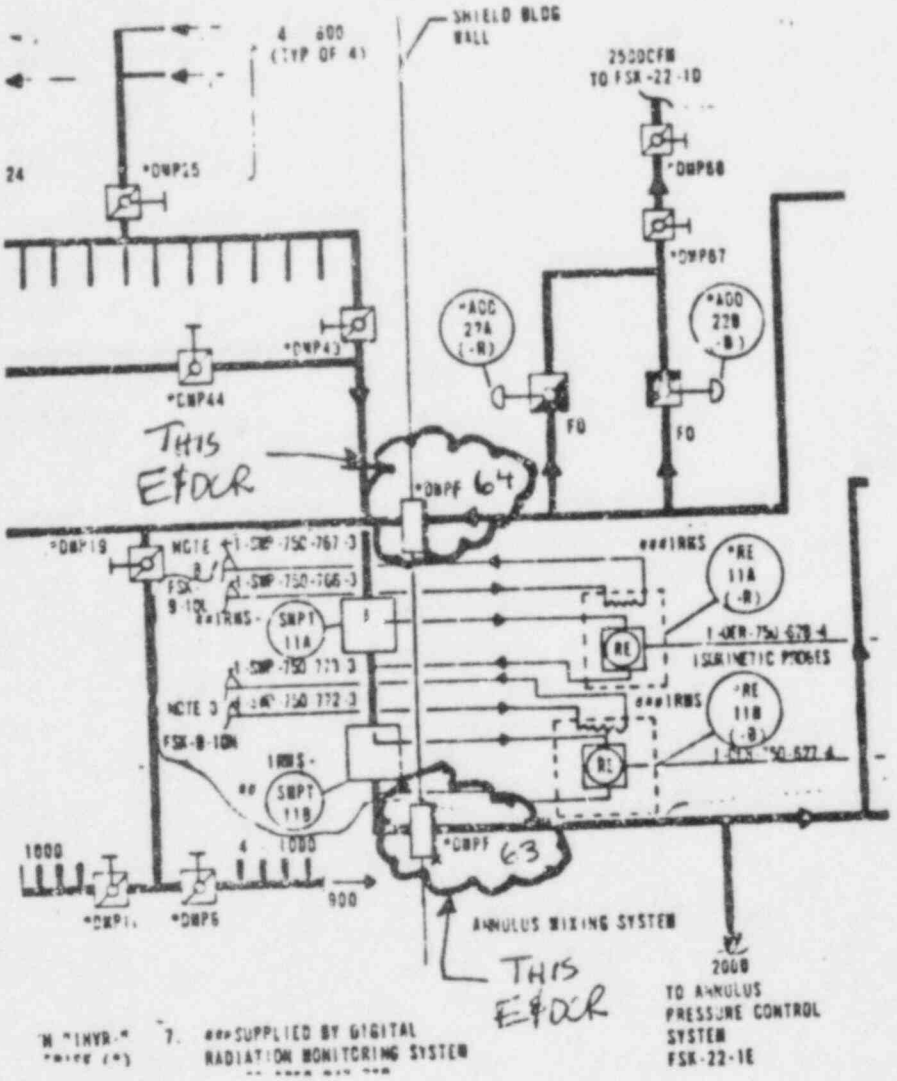
		TITLE					SCALE:	
CHECKED		EB-15J					DATE:	
CORRECT							SKETCH NUMBER	
APPROVED								
REVISIONS	②		③		④		⑤	

E*DCR C-14,294
PAGE 3 OF 4



		TITLE	SCALE:
CHECKED		EB-15J	DATE:
CORRECT			SKETCH NUMBER
APPROVED			
REVISIONS	② ③ ④ ⑤		

E&DCR C-14,794
PAGE 4 OF 4



		TITLE	SCALE
CHECKED		FSK-22-1K	DATE
CORRECT			SKETCH NUMBER
APPROVED			
REVISIONS	② ③ ④ ⑤		

A-57 10 65

STONE AND WEBSTER ENGINEERING CORPORATION
ENGINEERING & DESIGN COORDINATION REPORT

PAGE 1 OF 4
E & DCR NO. C-13756
JOB ORDER NO. 12210

PROJECT/CLIENT: RIVER BEND PROJECT UNIT Nº 1/G.S.U.

P.O. NO (S.F.W.)	REASON CODE (S)	EQUIP. I.D. NO. (S)/SYS. CODE (S)
N/A	V	1HVR-DUCT

REFERENCE DOCUMENTS: EB-15J-8 EB-15R-8

SUPPLIER(OR SUBSUPPLIER)NAME: N/A

DESCRIPTION SUMMARY: DUCTWORK LOCATION CHANGE

REMARKS: N/A

PROBLEM DESCRIPTION

① 1HVR-DMP 205 LOCATED AT AZIMUTH 135° AT APPROX. EL. 175'-0" NEEDS TO BE RELOCATED FROM A 45° INSTALLATION TO A HORIZONTAL INSTALLATION TO IMPROVE THE CONSTRUCTABILITY.

② AN 18"x16" SUPPLY AIR REGISTER LOCATED BELOW 1HVR-DMP 205 NEEDS TO BE ORIENTED ON THE NORTH-WEST SIDE OF DUCT WITH THE ADDITION OF A 45° SHORT RADIUS ELBOW.

③ A 20"x10" DUCT LINE AT AZIMUTH 46°, EL. 150' IS IN INTERFERENCE WITH A DUCT SUPPORT FOR A 24" DIA. DUCT LINE. THE 20"x10" DUCT NEEDS TO BE ALTERED TO PROVIDE PROPER CLEARANCE.

INITIATOR	AREA/DEPT DIV	TEL EXT	DATE	DATE NEEDED BY	APPROVED	ENGR. RESP
BRIAN SIEVERS	PWER	x568	4/10/84	4/10/84		XP

PROBLEM SOLUTION

REVISE THE EB DRAWINGS AS FOLLOWS:

E&DCR PAGE #	DWG. #	CHANGE DESCRIPTION
2 OF 4	EB-15R	RELOCATES 1HVR-DMP 205 AND AN 18"x16" REGISTER IN AN ELEVATION VIEW.
3 OF 4	EB-15J	RELOCATES THE 18"x16" REGISTER IN THE PLAN VIEW.
4 OF 4	EB-15J	RELOCATES THE 20"x10" DUCT LINE IN THE PLAN VIEW.

EM CONCURRANCE [signature] 4/10/84

NON-ASME

EQ:N EQC:N SC:N

AFFECTED DOCUMENT NUMBERS	TYPE	STATUS
EB-15J	D	C
EB-15R	D	C

STATUS: C - WILL BE INCORPORATED; N - WILL NOT BE INCORPORATED; I - NO CHANGE

RELATED ACTIVITIES: N/A — QA CAT: II

		DATE
ANSWERED BY	Brian Sievers	4/10/84
RESP. LEAD ENGR.	Clarke	4/10/84
MATERIALS ENGR.	N/R	
EQUIP. SPEC.	N/R	
QSD OR EA	N/R	
PROJ. ENGR.	[signature]	4/10/84

CLIENT APP REQ'D ☐ NR ☒ — REF — DATE

SUB ITEM	WORK RESP	SUB ITEM	WORK RESP
01	1SW	02	

EQ RELEASE NO.: 1HVR.001

WBS NO.: JRB/1A

WORK COMPLETION — NWR ☐ — DATE

INSP. REPORT NO/SIG — DATE

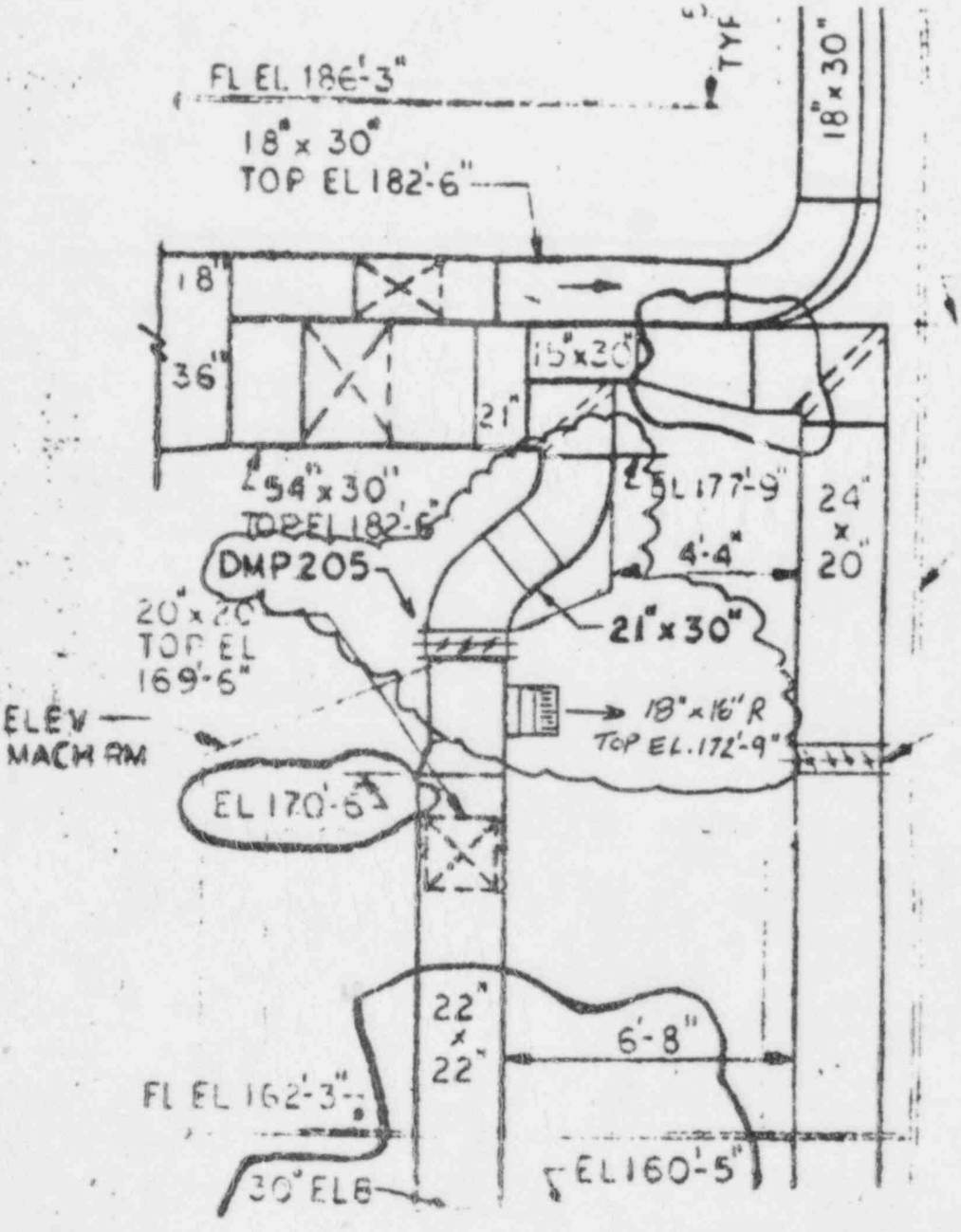
FINAL WORK TRACKING CLOSURE — DATE

DESCRIPTION (01): DUCTWORK LOCATION CHANGE

DESCRIPTION (02):

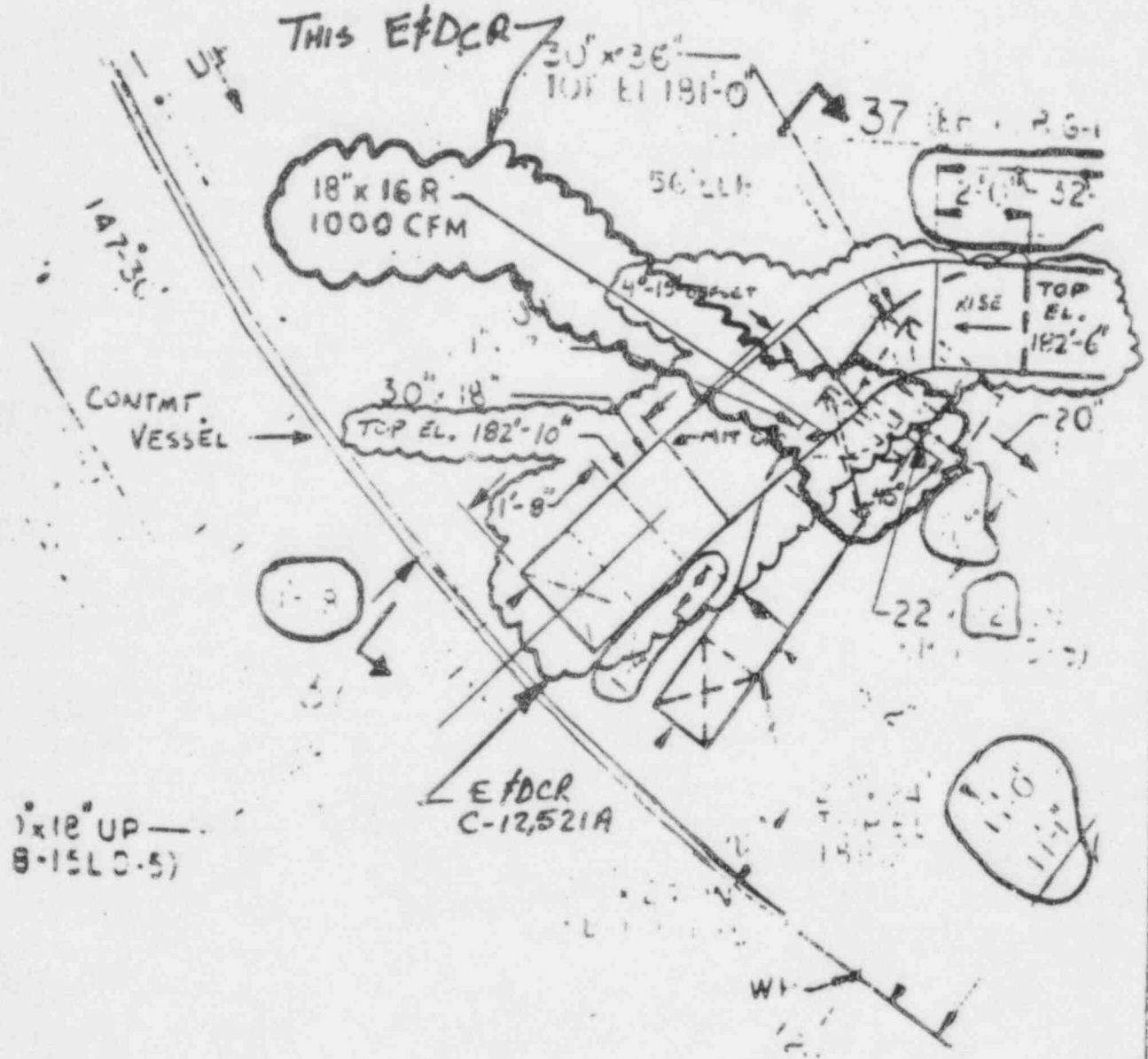
REMARKS (01): N/A

REMARKS (02):



REF: EB-15R-8 SECT. 37-37

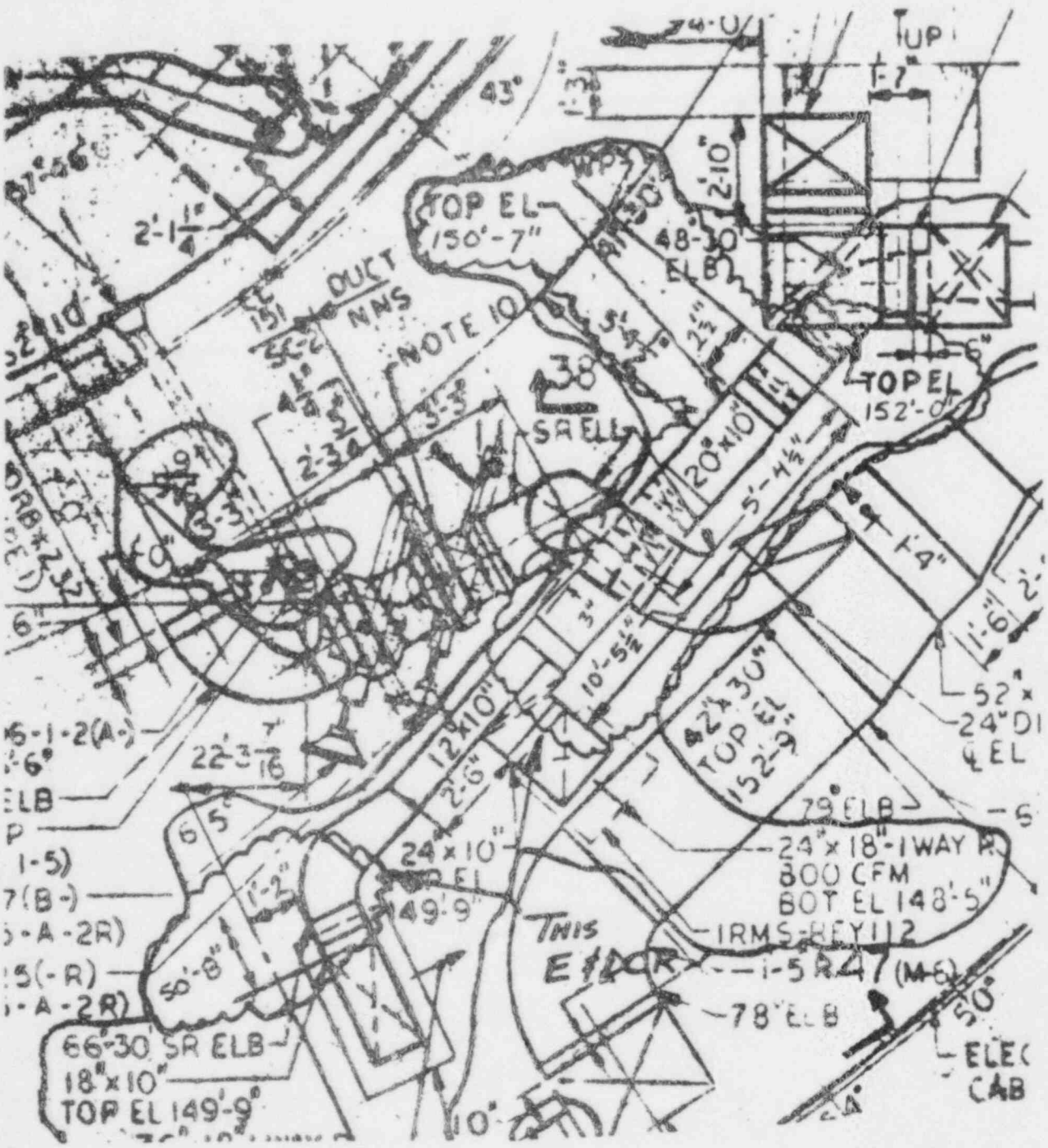
		TITLE				SCALE:	
CHECKED		REACTOR BLDG. DUCTWORK				DATE:	
CORRECT							
APPROVED						SKETCH NUMBER	
REVISIONS	②		③		④		⑤



REF. EB-15J-8
(D-5)
PLAN EL. 162'-3"

CHECKED		TITLE: REACTOR BLDG. DUCTWORK	SCALE
CORRECT			DATE
APPROVED			
REVISIONS (2)	(3)	(4)	(5) SKETCH NUMBER

PAGE 4 OF 4



REF: EB-15J-8 COOR. J-5

PLAN EL 162'-3"

		TITLE			SCALE:
CHECKED		REACTOR BLDG. DUCTWORK			DATE:
CORRECT					
APPROVED					SKETCH NUMBER
REVISIONS	②	③	④	⑤	

STONE AND WEBSTER ENGINEERING CORPORATION

ENGINEERING & DESIGN COORDINATION REPORT

PAGE 1 OF 2

E&DCR NO. P-12.266

PROJECT/CLIENT: RIVER BEND STATION UNIT 1 / GULF STATES UTILITIES COMPANY

JOB ORDER NO: 12210

P.O. NO (S,E,W): NA

REASON CODE (S): F

EQUIP. I.D. NO. (S)/SYS CODE (S): PIPING/CPM

REFERENCE DOCUMENTS: 12210-EB-15J-B & EB-15G-B

SUPPLIER(OR SUBSUPPLIER)NAME: NA

DESCRIPTION SUMMARY: RELOCATE RISER OFFSET TO CLEAR TRAY SUPPORT

REMARKS: NA

AREA/BLDG CODE: 1/REACTOR BLDG

PROBLEM DESCRIPTION

THE 45° OFFSET IN THE RISER OF 1CPM-006-1-2 MUST BE RELOCATED TO CLEAR CABLE TRAY SUPPORTS.

REFERENCE DOCUMENTS LISTED ABOVE HAVE BEEN ISSUED FOR FAB & CONSTRUCTION.

INITIATOR	AREA/DEPT	TEL. EXT.	DATE	DATE NEEDED	APPROVED	ENGR. RESP
R. DIESER	Power	3427	8-1-83	8-3-83	GED	PB

PROBLEM SOLUTION

EB-15G & 15J ARE REVISED AS SHOWN ON PAGE 2 OF 2 OF THIS E&DCR.

EQC. N EQS: N SC: N

AFFECTED DOCUMENT NUMBERS	TYPE	STATUS
12210-EB-15G	D	C
12210-EB-15J	D	C

STATUS: C - WILL BE INCORPORATED; N - WILL NOT BE INCORPORATED; I - NO CHANGE

RELATED ACTIVITIES: NA

QA CAT: I

ANSWERED BY: G. Diesser — DATE: 8-2-83

RESP. LEAD ENGR. — DATE: 8/10

MATERIALS ENGR.: NR — DATE:

EQUIP. SPEC.: NR — DATE:

QSD OR EA: NR — DATE:

PROJ. ENGR. — DATE: 8/11/83

CLIENT APP REQ'D ☐ NR ☑ — REF — DATE

SUB ITEM	WORK RESP	SUB ITEM	WORK RESP
01	PF	02	

EQ RELEASE NO.: CPM.000 — EQ RELEASE NO.:

WBS NO.: JRB/1A/CPM — WBS NO.:

WORK COMPLETION — NWR ☐ — DATE

INSP. REPORT NO/SIG — DATE

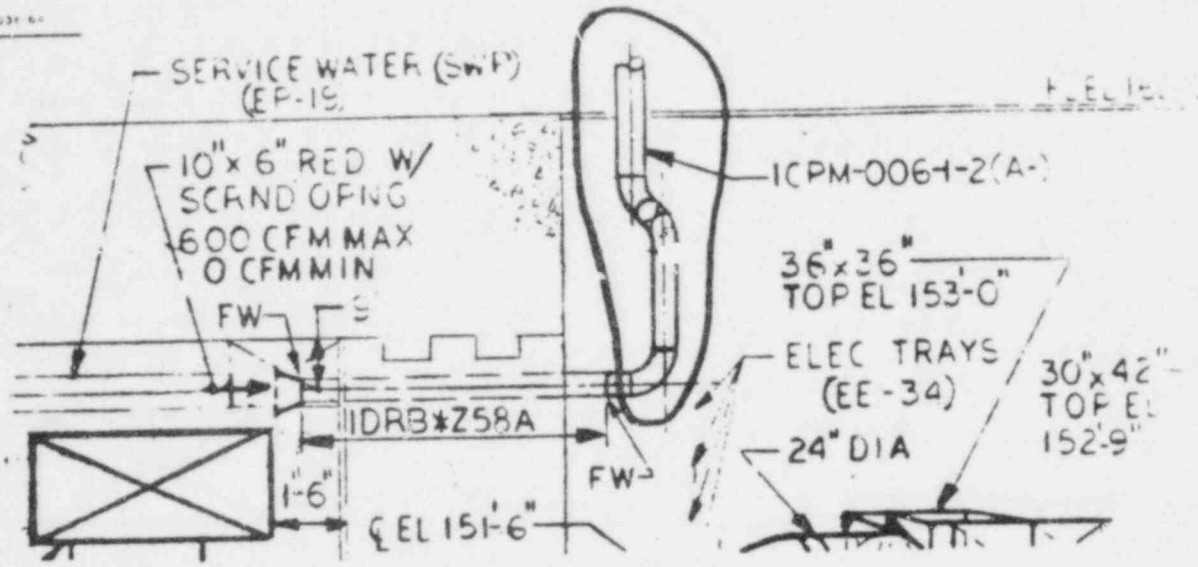
FINAL WORK TRACKING CLOSURE — DATE

DESCRIPTION (01): RELOCATE RISER OFFSET TO CLEAR TRAY SUPPORT

DESCRIPTION (02):

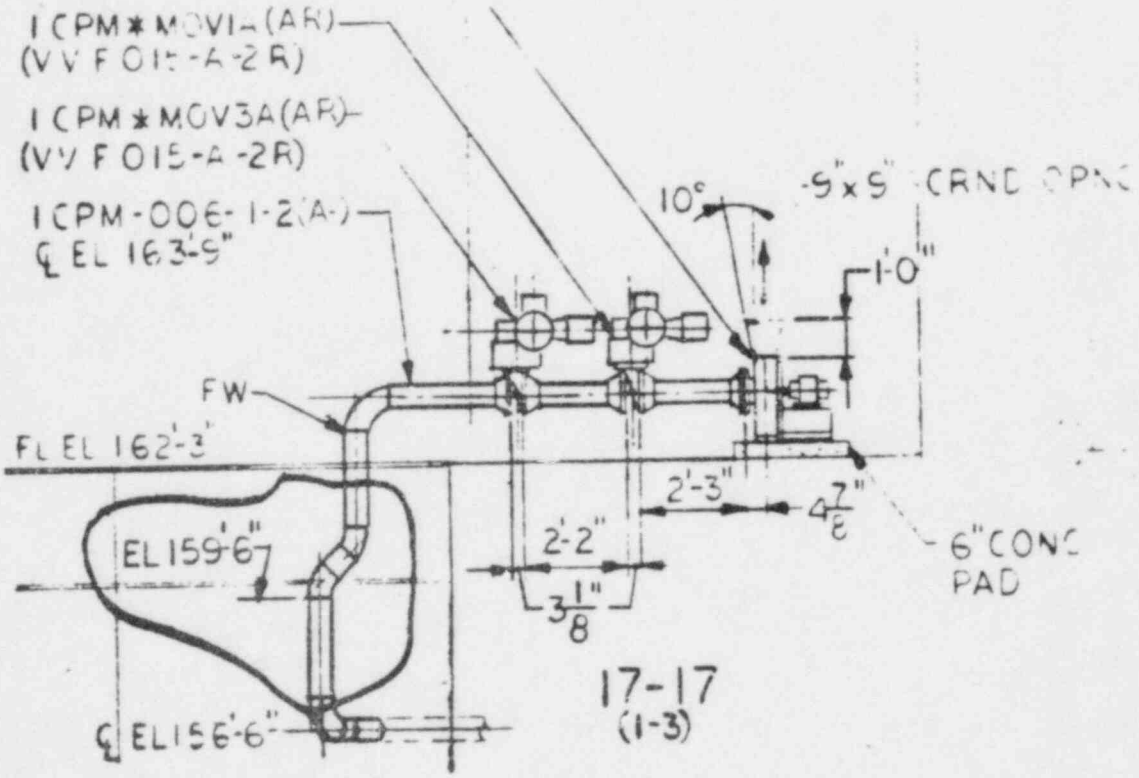
REMARKS (01):

REMARKS (02):



REF EB-15G-8

12-12



17-17
(1-3)

REF EB-15J-8

12210	TITLE REACTOR BLDG PIPING GSU RIVER BEND UNIT 1		SCALE 1/8"=1'-0"
CHECKED R. SCHWARZ			DATE 8-1-83
CORRECT			SKETCH NUMBER EBDCR P-12,264
APPROVED			
REVISIONS ②	③	④ ⑤	

A5210 85

STONE AND WEBSTER ENGINEERING CORPORATION

ENGINEERING & DESIGN COORDINATION REPORT

PAGE 1 OF 3

1 E&DCR NO. 2 P-12,514

PROJECT/CLIENT 3 RIVER BEND STATION UNIT 1 / GULF STATES UTILITIES CO.

JOB ORDER NO. 4 12210

P.O. NO (S.F.W.) 5 09157 12210-

REASON CODE (S) 6 F

EQUIP. I.D. NO (S)/SYS. CODE (S) 7 FLEXIBLE CONNS / CPM

REFERENCE DOCUMENTS 8 12210-EB-15J-8 & EB-15K-8

SUPPLIER (OR SUBSUPPLIER) NAME 9 McCREEKEY, INC

DESCRIPTION SUMMARY 10 ADD FLEX. CONNS. AT CPM*FN1A&B

REMARKS 11 NA

PROBLEM DESCRIPTION 12

AREA/BLDG CODE 1/REACTOR BLDG

DUE TO STRESS LOADS AT THE CONNECTIONS OF THE 6" DIA PIPING (CPM) TO THE HYDROGEN MIXING FANS (1CPM*FN1A&1B), IT IS NECESSARY TO ADD FLEXIBLE CONNECTIONS.

REF. DOCUMENTS LISTED ABOVE HAVE BEEN ISSUED FOR FAB. & CONSTRUCTION.

12

INITIATOR 13	AREA/DEPT DIV	TEL EXT	DATE	DATE NEEDED BY	APPROVED 14	ENGR RESP 15
R. SCHWARZ	[illegible]	3429	10-31-83	11-2-83	G.D.	PB

PROBLEM SOLUTION 16

EB-15J & 15K ARE REVISED TO ADD FLEXIBLE CONNECTIONS AT 1CPM*FN1A&1B AS SHOWN ON PAGES 2 OF 3 & 3 OF 3 OF THIS E&DCR.

18 McCREEKEY - YES" g.f. P.H.B. [illegible]

ECC'N ECO'N SC'N

AFFECTED DOCUMENT NUMBERS 17	TYPE	STATUS
12210-EB-15J	D	C.
12210-EB-15K	D	C

STATUS
C - WILL BE INCORPORATED
N - WILL NOT BE INCORPORATED
I - NO CHANGE

RELATED ACTIVITIES 18 NA

QA CAT 19 I

ANSWERED BY 20 R. SCHWARZ DATE 10/31/83

RESP. LEAD ENGR. [illegible] DATE 11/1/83

MATERIALS ENGR. 22 N/A DATE

EQUIP. SPEC. 23 N/A DATE

QSD OR ER 24 N/A DATE

PROJ. ENGR 25 R.O. Bonnaza DATE 11/3/83

CLIENT APP REQ'D ☐ NR ☒
26 REF DATE

SUB ITEM	WORK RESP	SUB ITEM	WORK RESP
01	27 N/A	02	27

EQ RELEASE NO. 28 CPM.000 | EQ RELEASE NO. 28

WBS NO. 29 IRB/1A/CPM | WBS NO. 29

WORK COMPLETION 30 NWR ☐ DATE

INSP. REPORT NO/SIG 31 DATE

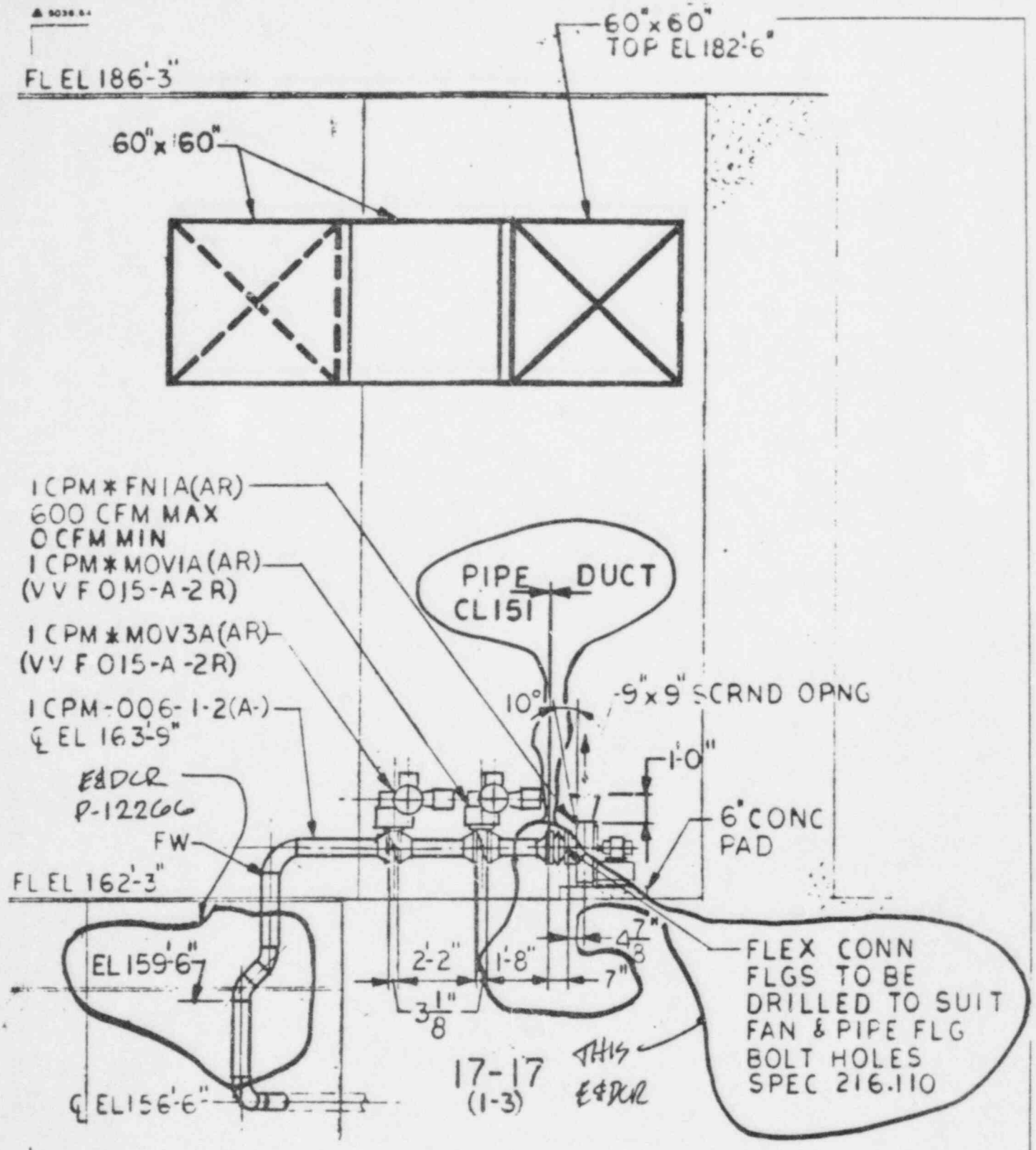
FINAL WORK TRACKING CLOSURE 32 DATE

DESCRIPTION (01) 33 ADD FLEX CONNS AT CPM*FN1A&1B

REMARKS (01) 34

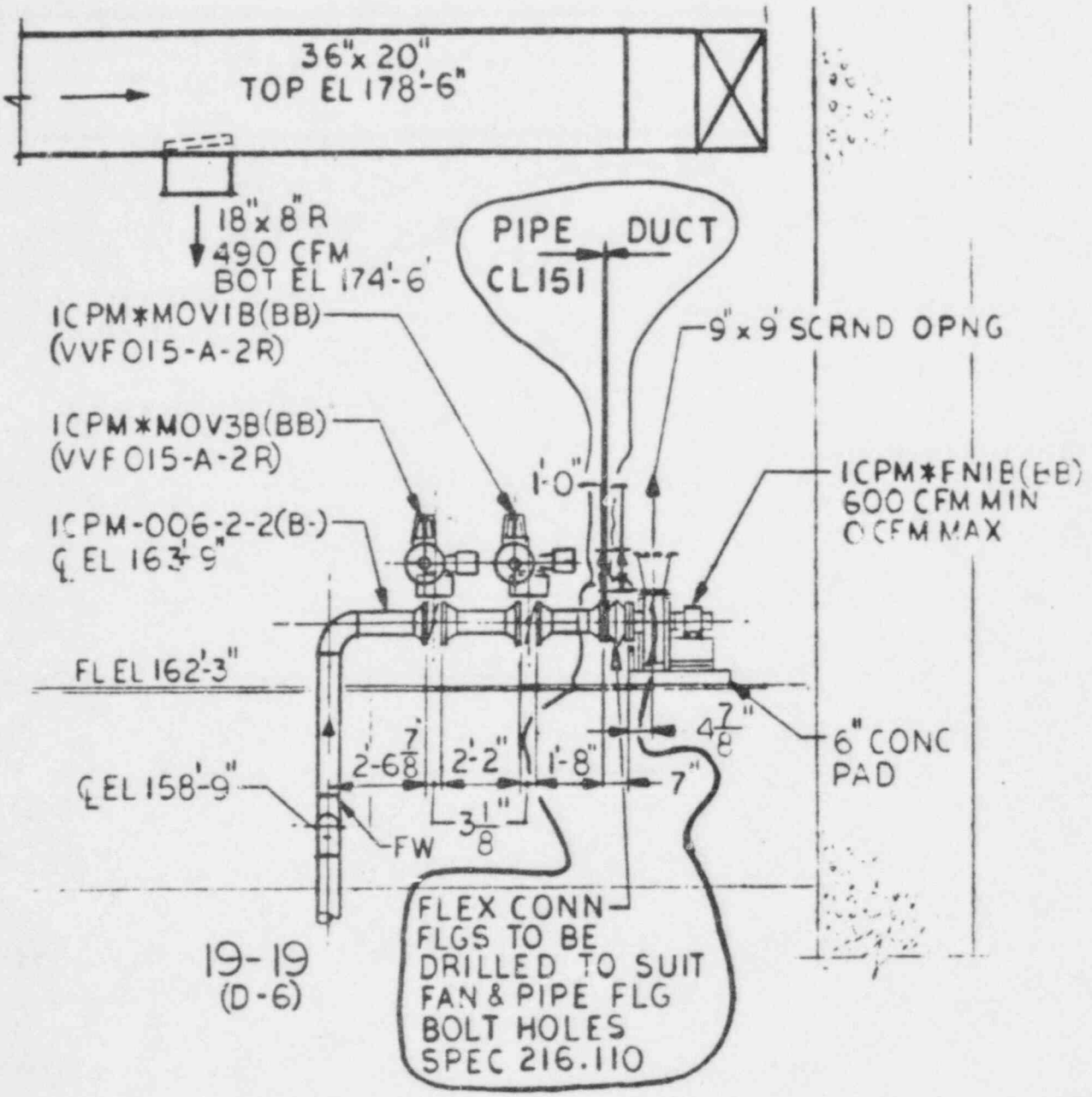
DESCRIPTION (02) 33

REMARKS (02) 34



REF EB-15J-8

12210	TITLE: REACTOR BLDG HYDROGEN MIXING SYSTEM GSU RIVER BEND UNIT 1		SCALE: 1/4"=1'-0"
CHECKED: R. SCHWARZ			DATE: 10-31-83
CORRECT			SKETCH NUMBER: E&DCR P-12.514
APPROVED			
REVISIONS: ②	③	④	⑤



REF EB-15(H)-8 K

PAGE 3 OF 3

12210		TITLE REACTOR BLDG HYDROGEN MIXING SYSTEM GSU RIVER BEND UNIT 1			SCALE: 1/4" = 1'-0"
CHECKED	R. SCHWAR				DATE: 10-31-83
CORRECT					SKETCH NUMBER E&DCR P-12514
APPROVED					
REVISIONS	②	③	④	⑤	

STONE & WEBSTER ENGINEERING CORPORATION

PAGE 1 OF 3

NONCONFORMANCE AND DISPOSITION REPORT

JOB ORDER NO 1: 12210.50 | N&D NO 2: 7199

3 SHOP ☐ FIELD ☒ | DISTRICT CODE 4: N/A | SUBJECT OF N&D 5: INCORRECT DIMENSION ON TAP LOCATION | KEYWORD: H V A C X | QA CAT 6: 1

7 ASME III ☐ NON ASME III ☒ | MATL OR INFRACTION LOCATION 8: #2 EL. REACTOR BLDG | NONCONFORMANCE DATE 9: 8/25/84 | REASON CODE 10: K, H | RELATED IR NUMBER 11: N/A

SELLER/SUBSELLER NAME 12: M S CROSKEY SHEET METAL | BWEC PO NO 13: 216110996 | SELLER CODE 14: 57546 | SUB SELLER CODE 15: N/A

DOCUMENTS CODES VIOLATED	TYPE	TYPE CODES	EQUIP ID NO(S)/SYSTEM CODE (S)	NONCONFORMANCE RESPONSIBILITY
EB-15J-8	D	D - DWG, M - MFR DWG, S - SPEC, C - CODE, P - PROC, X - DIAG	15J-142 15J-142B 15J-143 15J-144	☐ ENG ☐ TRANSP ☒ CONST ☐ QA ☒ SELLER ☐ NOT ASSIGNED

16

CONDITION DETAILS
19 EB-15J SHOWS THE TWO TAPS DOWNSTREAM OF 1HVR*DMP5 HAVING A CENTERLINE TO CENTERLINE DIMENSION OF 6'1½" (3'9" + 2'4½") THE ACTUAL DIMENSION IS AP. 7'11".

INITIATOR	AREA/DEPT DIV	DATE	INTEGRITY APPROVED	RELATED ACT	DATE
20 W. LEE REAGLES	FQC	8/27/84	21 M Beaudet	N/A	8/27/84

DISPOSITION DETAILS
22

ACCEPT - AS - IS

REVISE EB-15J AS ON PAGE TWO.
REVISE EZ-515ZJ AS ON PAGE THREE.

EM CONCURRANCE: RL
RJ Salony 8/28/84

TECHNICAL JUSTIFICATION - THE BRANCH DUCT IN QUESTION SUPPLIES AIR TO 1RMS-RE 111 AND 1RMS-REY 111. THE MISLOCATED REGISTER WAS TO SUPPLY AIR TO 1RMS-REY 111 WHICH WAS DELETED PER E&DCR P-12,915. THE DUCT REGISTER THAT WAS MISLOCATED 22" WILL SUPPLY AIR TO THE GENERAL AREA, THEREFORE THE REVISED LOCATION IS ACCEPTABLE. THE OVERALL DUCT LENGTH HAS BEEN INCR. BY 20" ∴ SUPPORTS OR

END REP DISPOSITION ASSIGNED BY	RELATED ACT	DATE	PLANNED COMP DATE	WORK AREA RESP
23 XF 24 Brian Stevens	N/A	8/28/84	32 8-29-84	33 JRB/1A/NWR

ACTION	RESP CIVIL ENGR	DATE	RELEASE NO	DMS ACCOUNT NO
25 ☒ ACCEPT AS IS ☐ REPAIR ☐ SCRAP ☐ RETURN TO SELLER ☐ REWORK	27 [illegible]	8/28/84	34 HVR001	35 N/A
	CHIEF MATLS ENGR 28 N/R	DATE	CONSTRUCTION 36 [illegible]	DATE 8-29-84
	EQUIP SPEC ALIST 29 N/R	DATE	AN REVIEW FOR HOLD POINTS 37 N/A	DATE
	CHIEF ENGR QSD 30 N/R	DATE	OTHER ORGANIZATION [illegible]	DATE 8-25-84
	PROJECT ENG MGR 31 DE Daugmon	DATE 8/29/84	QUALITY ASSURANCE 39 SH Salauri	DATE 8/29/84

AFFECTED DOCUMENT NO (S) | TYPE | STATUS

EB-15J	D	C
EZ-515ZJ	D	C

26

TYPE CODES SAME AS ABOVE | STATUS CODES C-WILL BE INC N-WILL NOT BE INC

DISPOSITION ACTION COMPLETE	DATE	INSPECTION VERIFICATION	SIGNATURE	DATE	M&TE NO
40 [illegible]	8-29-84	41 ☒ ACCEPTABLE ☐ UNACCEPTABLE	[illegible]	8/31/84	42 N/A

REINSPECTION RECERTIFICATION	SIGNATURE	DATE	M&TE NO	NEW N C R	NEW IR NO
43 ☐ ACCEPTABLE ☐ UNACCEPTABLE	N/A		44 N/A	45 N/A	46 N/A

REMARKS
47

REQUEST DISPOSITION FROM ENGINEERING BY: 8/27/84.

EOS=N
EDC=N
SC=N

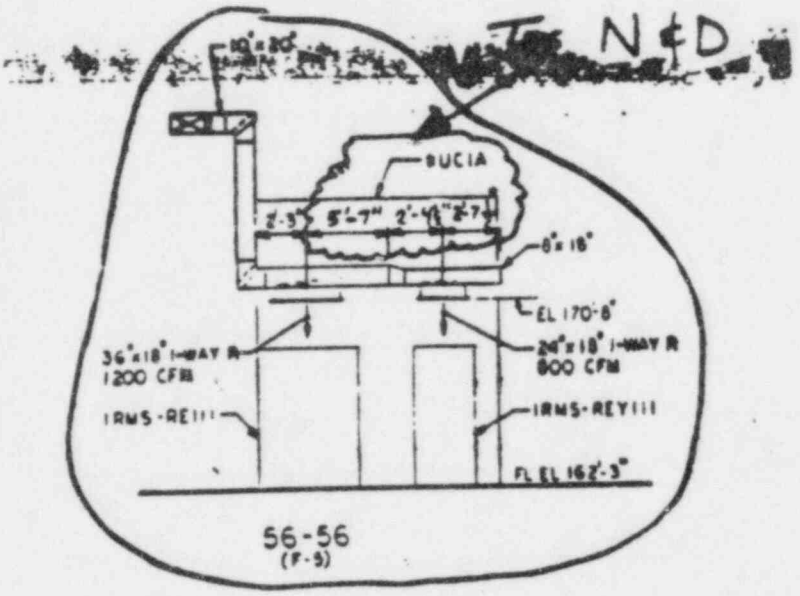
NO ADDITIONAL FQC INSPECTION Req'd. SHS

SUPERSEDES N&D	N&D REVIEWED AND CLOSED	DATE	N&D NUMBER
48 NA	49 [illegible]	8/31/84	50 7199

STONE & WEBSTER ENGINEERING CORPORATION

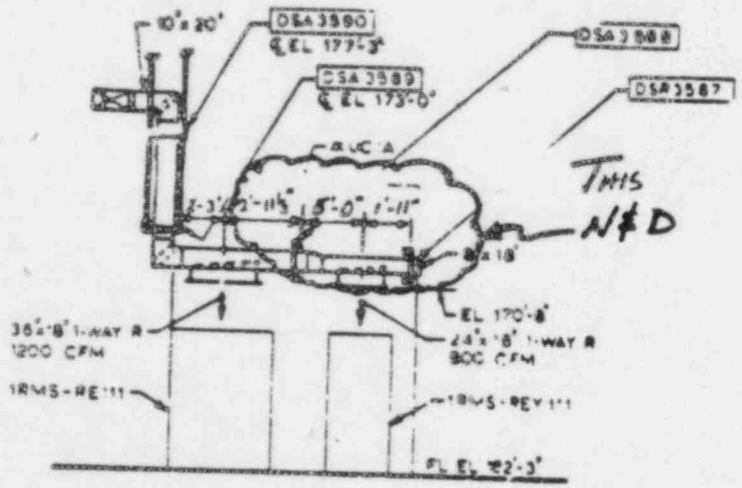
N&D 7199

PAGE 2 OF 3



CHECKED		TITLE			SCALE NONE
CORRECT		REF: EB-15J-8 SECTION 56-56			DATE
APPROVED					SKETCH NUMBER
REVISIONS	(2)	(3)	(4)	(5)	

N&D 7199
PAGE 3 OF 3



56-56
(F 5)

EZ-515ZJ

SECTION 56-56

	TITLE
CHECKED	
CORRECT	
APPROVED	
REVISIONS (2) (3) (4) (5)	

SEE

APERTURE

CARDS

*OVERSIZED DRAWINGS

(ADDITIONAL DOCUMENT PAGES FOLLOW)

APERTURE CARD NO: 8502270220

AVAILIBILITY PDR CF HOLD

NUMBERS OF PAGES. 1

STONE AND WEBSTER ENGINEERING CORPORATION

ENGINEERING & DESIGN COORDINATION REPORT

E&DCR NO. 2 C-12807

JOB ORDER NO. 4 12210

PROJECT/CLIENT 3 RIVER BEND PROJECT UNIT Nº 1 / G.S.U.

P.O NO (S.F.W.) 5 N/A | REASON CODE (S) 6 V | EQUIP I.D NO (S)/SYS. CODE (S) 7 1 HVR - DMP 210

REFERENCE DOCUMENTS 8 EB-15K-8 | SUPPLIER (OR SUBSUPPLIER) NAME 9 N/A

DESCRIPTION SUMMARY 10 DAMPER LOCATION CHANGE | REMARKS 11 N/A

PROBLEM DESCRIPTION 12

DAMPER 1HVR-DMP 210 LOCATED BY AZIMUTH 225° ON ELEVATION 162'-3" NEEDS TO BE RELOCATED DUE TO THE INSTALLATION CONDITIONS OF THE DUCTWORK ADJOINING THE DAMPER.

INITIATOR 13	AREA/DEPT DIV	TEL EXT	DATE	DATE NEEDED BY	APPROVED 14	ENGR RESP 15
BRIAN SIEVERS	Power	x568	9/20/83	9/21/83	S.A.S.	XP

PROBLEM SOLUTION 16

THE 5'-10" DIMENSION SHOULD BE CHANGED TO 6'-8" AS SHOWN ON PAGE 2 OF THIS E & DCR.

E-DCR Scoop 10-21-83

16 NON-ASME

EQS:N EQC:N SC:N

AFFECTED DOCUMENT NUMBERS 17	TYPE	STATUS
EB-15K	D	C

STATUS
C - WILL BE INCORPORATED
N - WILL NOT BE INCORPORATED
I - NO CHANGE

RELATED ACTIVITIES 18 N/A | QA CAT 19 II

		DATE
ANSWERED BY	20 Brian Sievers	9/20/83
RESP. LEAD ENGR.	21 Chase	9/21/83
MATERIALS ENGR.	22 N/A	DATE
EQUIP. SPEC.	23 N/A	DATE
QSD OR EA	24 N/A	DATE
PROJ. ENGR.	25 [signature]	9/21/83

CLIENT APP REQ'D ☐ NR ☒ 26 REF DATE

SUB ITEM	WORK RESP	SUB ITEM	WORK RESP
01	27 ISW	02	27

EQ RELEASE NO. 28 1.Bx.HVR.001 | EQ RELEASE NO. 28

WBS NO. 29 JRB/1A | WBS NO. 29

WORK COMPLETION 30 NWR ☐ DATE

INSP. REPORT NO/SIG 31 DATE

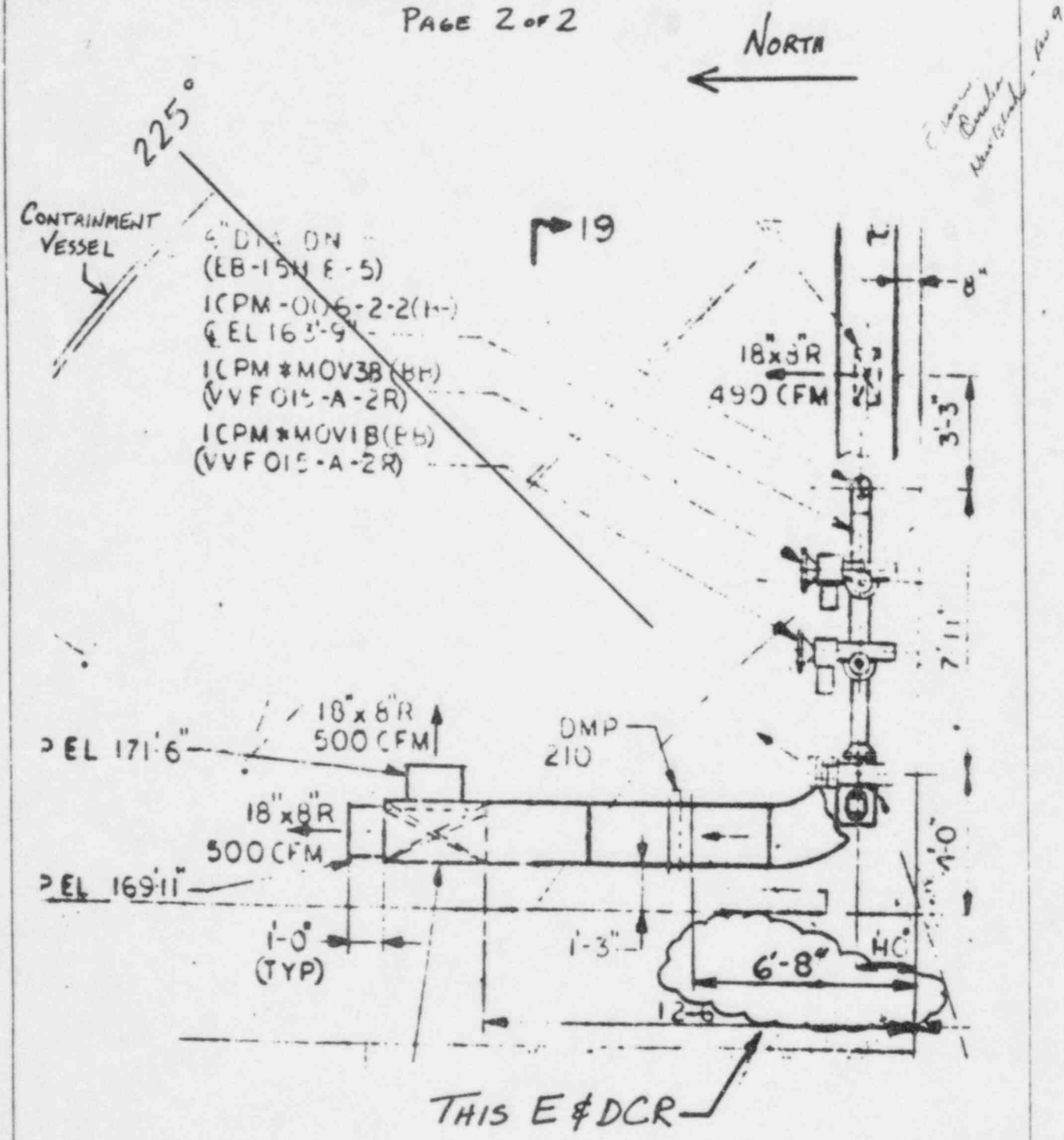
FINAL WORK TRACKING CLOSURE 32 DATE

DESCRIPTION (01) 33 DAMPER LOCATION CHANGE | REMARKS (01) 34

DESCRIPTION (02) 33 | REMARKS (02) 34

STONE & WEBSTER ENGINEERING CORPORATION

E&DCR C-12,807
PAGE 2 OF 2



THIS E&DCR

REF. DWG. EB-15K-8
EL. 162'-3"

CHECKED		TITLE: DMP 210 LOCATION CHANGE	SCALE: NONE
CORRECT			DATE: 9/20/83
APPROVED			SKETCH NUMBER: PAGE 2 OF 2
REVISIONS	② ③ ④ ⑤		

ENGINEERING & DESIGN COORDINATION REPORT

E & DCR NO. C-12866

JOB ORDER NO. 12210

PROJECT/CLIENT 3: RIVER BEND PROJECT UNIT No 1 / G.S.U.

P.O. NO. (S&W) 5: N/A

REASON CODE (S) 6: V

EQUIP. I.D. NO. (S)/SYS. CODE (S) 7: 1 HVR * DUCT

REFERENCE DOCUMENTS: 8: EB-15K-8

SUPPLIER (OR SUBSUPPLIER) NAME 9: N/A

DESCRIPTION SUMMARY 10: DUCT INTERFERENCE WITH PLATFORM SUPPORT

REMARKS 11: N/A

PROBLEM DESCRIPTION 12

THE PLATFORM LOCATED ON AZIMUTH 270° AT EL. 173'-3" IN THE REACTOR BLDG. ON APPROX. A 50' RADIUS FROM THE CENTER OF THE BUILDING HAS A STRUCTURAL CROSS MEMBER SUPPORT IN INTERFERENCE WIT THE LOCATIONS OF DUCT SUPPORTS ON THE 36"x32" DUCT ALONG THE EAST SIDE OF THE PLATFORM.

INITIATOR 13	AREA/DEPT DIV	TEL EXT.	DATE	DATE NEEDED BY	APPROVED 14	ENGR. RESP. 15
BRIAN SIEVERS	Power	x5600	10/7/83	10/18/83	[signature]	XP

PROBLEM SOLUTION 16

EB-15K IS REVISED BY CHANGING THE 7'-0" DIMENSION TO 7'-6" AND THE 4'-6" DIMENSION TO 4'-10" AS SHOWN ON PAGE 2 OF 2 OF THIS E&DCR.

Concept E+DCR 10/31/83

McCroskey - yes.

NON-ASME

16 EM CONCURRENCE: DUCT SUPPORTS RELOCATED ACCORDING by Hau Chen 10-14-83

EOS: N EOC: N SC: N

AFFECTED DOCUMENT NUMBERS 17	TYPE	STATUS
EB-15K	D	C

STATUS
C - WILL BE INCORPORATED
N - WILL NOT BE INCORPORATED
I - NO CHANGE

RELATED ACTIVITIES 18: N/A	QA CAT 19: I		
ANSWERED BY 20: S. Dhingra	DATE: 10/14/83	SUB ITEM: 01	WORK RESP. 27: 1SW
RESP. LEAD ENGR. 21: Richard E Bunn	DATE: 10/14/83	EQ RELEASE NO. 28: 1.BxHVR.001	
MATERIALS ENGR. 22: NR	DATE:	WBS NO. 29: JRB/1A	
EQUIP. SPEC. 23: NR	DATE:	WORK COMPLETION 30	NWR ☐ DATE:
QSD OR EA 24: NR	DATE:	INSP. 31 / QT NO/SIG	DATE:
PROJ. ENGR. 25: DE Hoppner	DATE: 10/14/83	FINAL WORK TRACKING CLOSURE 32	DATE:

CLIENT APP REF 26	REQ'D ☐ NR ☒ DATE
SUB ITEM 02	WORK RESP. 27
EQ RELEASE NO. 28	
WBS NO. 29	

DESCRIPTION (01) 33: DUCT INTERFERENCE WITH PLATFORM SUPPORT

DESCRIPTION (02) 33:

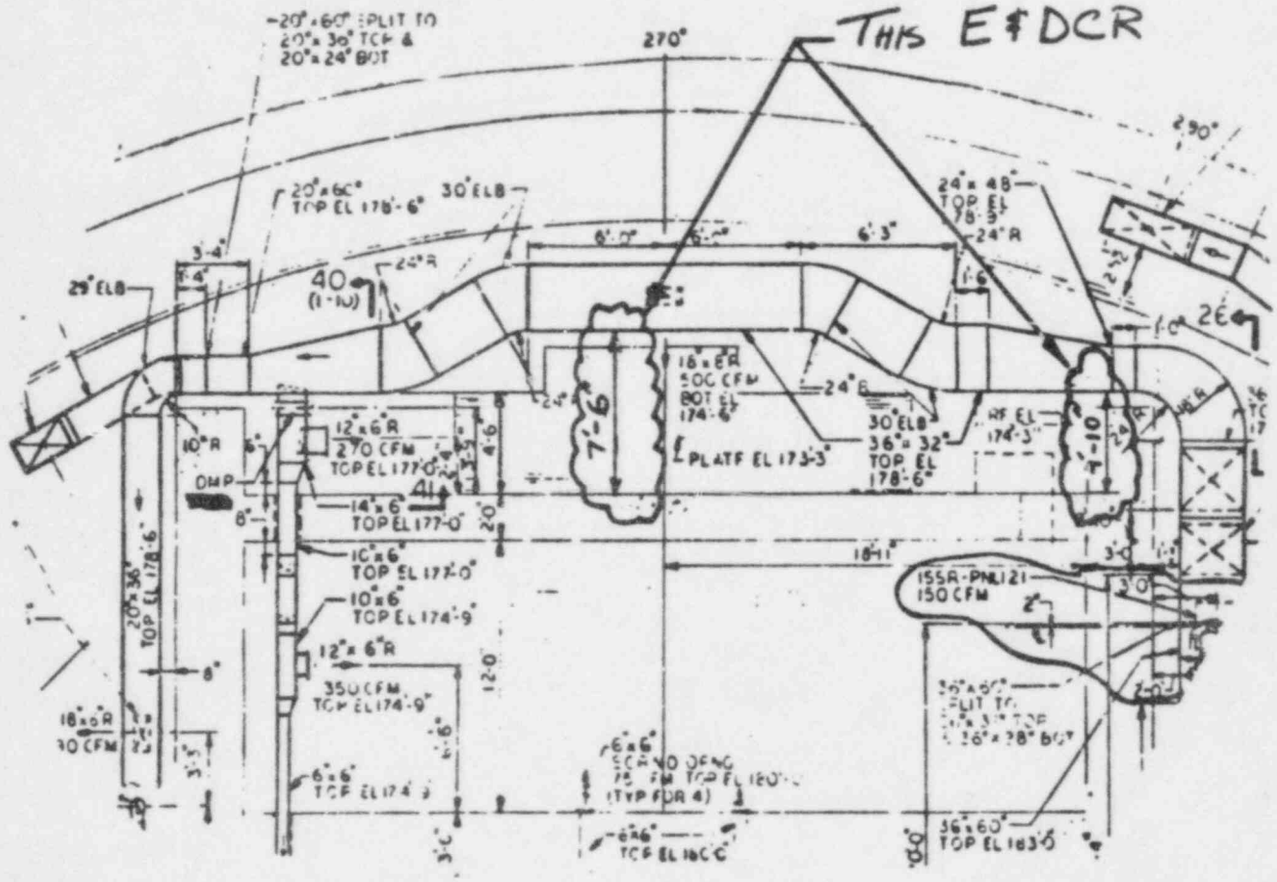
REMARKS (01) 34:

REMARKS (02) 34:

PAGE 2 OF 2
E&DCR C-12,866

NORTH

THIS E&DCR



EB-15K-8

PLAN EL. 162'-3"

		TITLE	REACTOR BLDG.				SCALE: NONE	
CHECKED			DUCT LOCATION CHANGE				DATE: 10/13/83	
CORRECT							SKETCH NUMBER	
APPROVED								
REVISIONS	②		③		④		⑤	

▲571065 STONE AND WEBSTER ENGINEERING CORPORATION — PAGE 1 OF 5

ENGINEERING & DESIGN COORDINATION REPORT — E&DCR NO. C-13,646A

PROJECT/CLIENT: RIVER BEND PROJECT UNIT #1 / G.S.U. — JOB ORDER NO. 12210

P.O. NO (S.E.W.): N/A — REASON CODE (S): V — EQUIP. ID NO (S)/SYS. CODE (S): 1HVR* DUCT

REFERENCE DOCUMENTS: EB-15K-8 — SUPPLIER(OR SUBSUPPLIER)NAME: N/A

DESCRIPTION SUMMARY: DUCTWORK RELOCATIONS — REMARKS: THIS E&DCR SUPERSEDES C-13,646

PROBLEM DESCRIPTION: ORIGINAL PROBLEM

(1) DUE TO THE CONJESTED AREA AT PLAN EL. 162'-3", 328° THE FIELD FORCES HAD TO CUSTOM FIT THE 60°-34' TRANSITIONING ELBOW. THE TRANSITION PIECE BEYOND THIS ELBOW HAD TO BE MODIFIED DUE TO THE LOCATION OF A DRAIN LINE.

(2) 1HVR-DMP209 AT EL. 162'-3", 250° NEEDS TO BE RELOCATED DUE TO THE RE-ORIENTATION OF THE DAMPER IN REFERENCE TO THE DUCT, NOT THE CONCRETE WALL.

(3) THE 4" DIA. EXHAUST DUCT FROM 1SSR-PNL 121 (PLAN EL. 162'-3", 300°) NEEDS TO BE RE-ORIENTED BY CHANGING THE 90° ELBOW TO A 51° ELBOW TO MAINTAIN CLEARANCE FROM A SMALL BORE PIPE SUPPORT.

REVISION A

DUE TO MODIFIED CONSTRUCTION TECHNIQUES (SWEDGING OF SHEETMETAL) THE 51° ELBOW DUCT PIECE WILL BE RETURNED TO A 90° ELL (AS ORIGINALLY SPECIFIED) BUT SLOPED DOWN 30° BEFORE CONNECTING TO 1SSR-PNL 121.

INITIATOR	AREA/DEPT DIV	TEL EXT.	DATE	DATE NEEDED	APPROVED	ENGR. RESP
Brian Sievers	POWER	x4568	5/17/04	5/19/04	J A B.	✓

PROBLEM SOLUTION: THIS E&DCR SUPERCEDES E&DCR C-13646

EB-15K SHALL BE REVISED AS FOLLOWS:

E&DCR PAGE No.	REASON FOR CHANGE
PAGE 2 OF 5	REVISE PLAN VIEW AS PER PROBLEM (1)
PAGE 3 OF 5	REVISE ELEVATION VIEW AS PER
PAGE 4 OF 5	REVISE DAMPER LOCATION AS PER PROBLEM (2)
PAGE 5 OF 5	REVISE 4" DIA. EXHAUST LINE AS PER PROBLEM (3), REVISION A.

NON-ASME

EOS:N EOC:N SC:N

AFFECTED DOCUMENT NUMBERS	TYPE	STATUS
EB-15K	D	C

STATUS: C-WILL BE INCORPORATED; N-WILL NOT BE INCORPORATED; I-NO CHANGE

RELATED ACTIVITIES: N/A — QA CAT: I, II

ANSWERED BY: Brian Sievers — DATE: 5/16/04

RESP LEAD ENGR: J. A. Bolaños — DATE: 5/17/04

MATERIALS ENGR: NR — DATE:

EQUIP. SPEC.: NR — DATE:

QSD OR EA: NR — DATE:

PROJ. ENGR. — DATE: 5/17/04

CLIENT APP REF — REQ'D ☐ NR ☒ — DATE

SUB ITEM	WORK RESP	SUB ITEM	WORK RESP
01	1SW	02	1SW
EQ RELEASE NO. HVR.001		EQ RELEASE NO. HVR.003	
WBS NO. JRB/1A		WBS NO. JRB/1A	

WORK COMPLETION — NWR ☐ — DATE

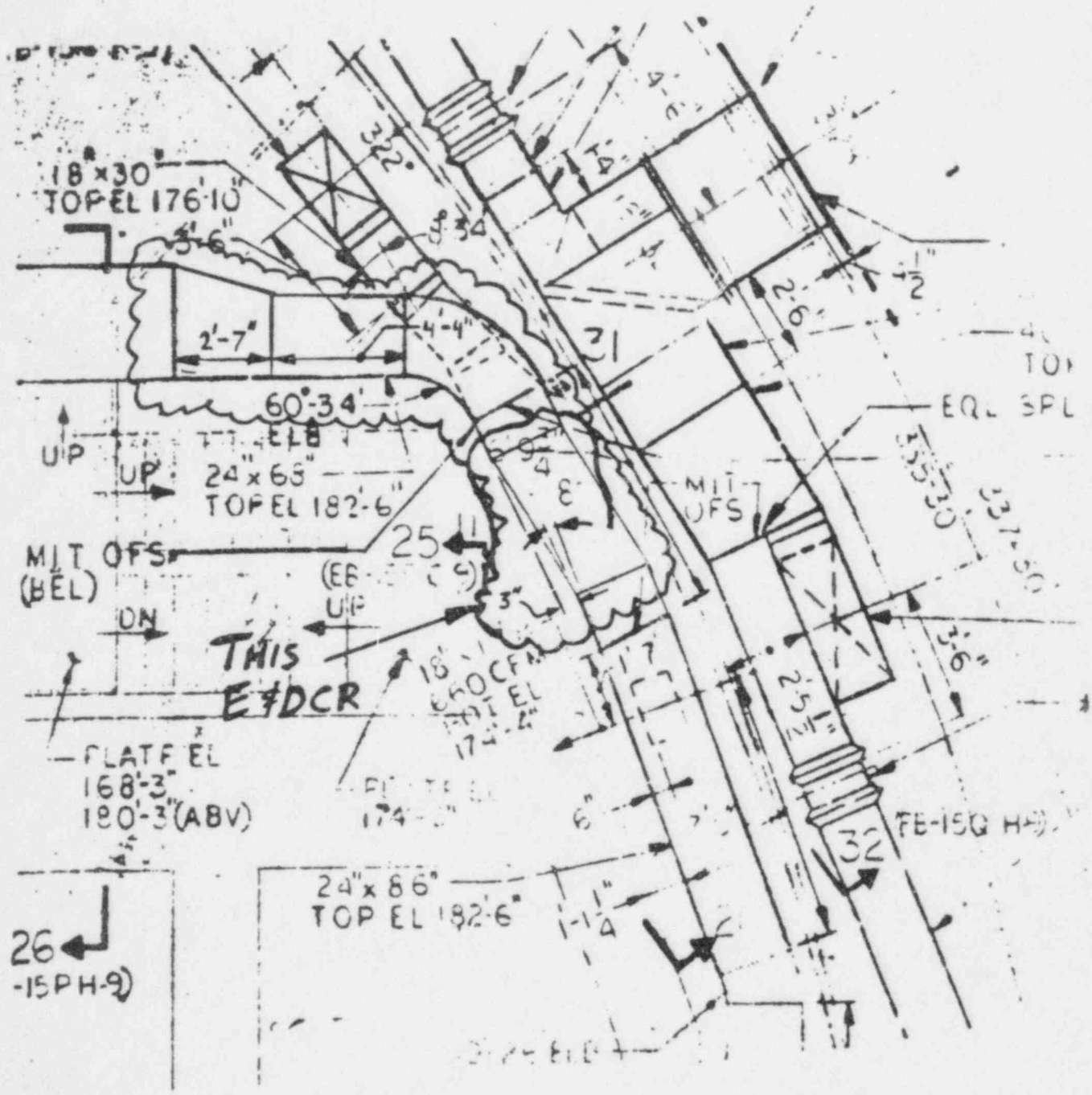
INSP. REPORT NO/SIG — DATE

FINAL WORK TRACKING CLOSURE — DATE

DESCRIPTION (01): DUCTWORK RELOCATIONS — REMARKS (01): N/A

DESCRIPTION (02): DUCTWORK RELOCATIONS — REMARKS (02): N/A

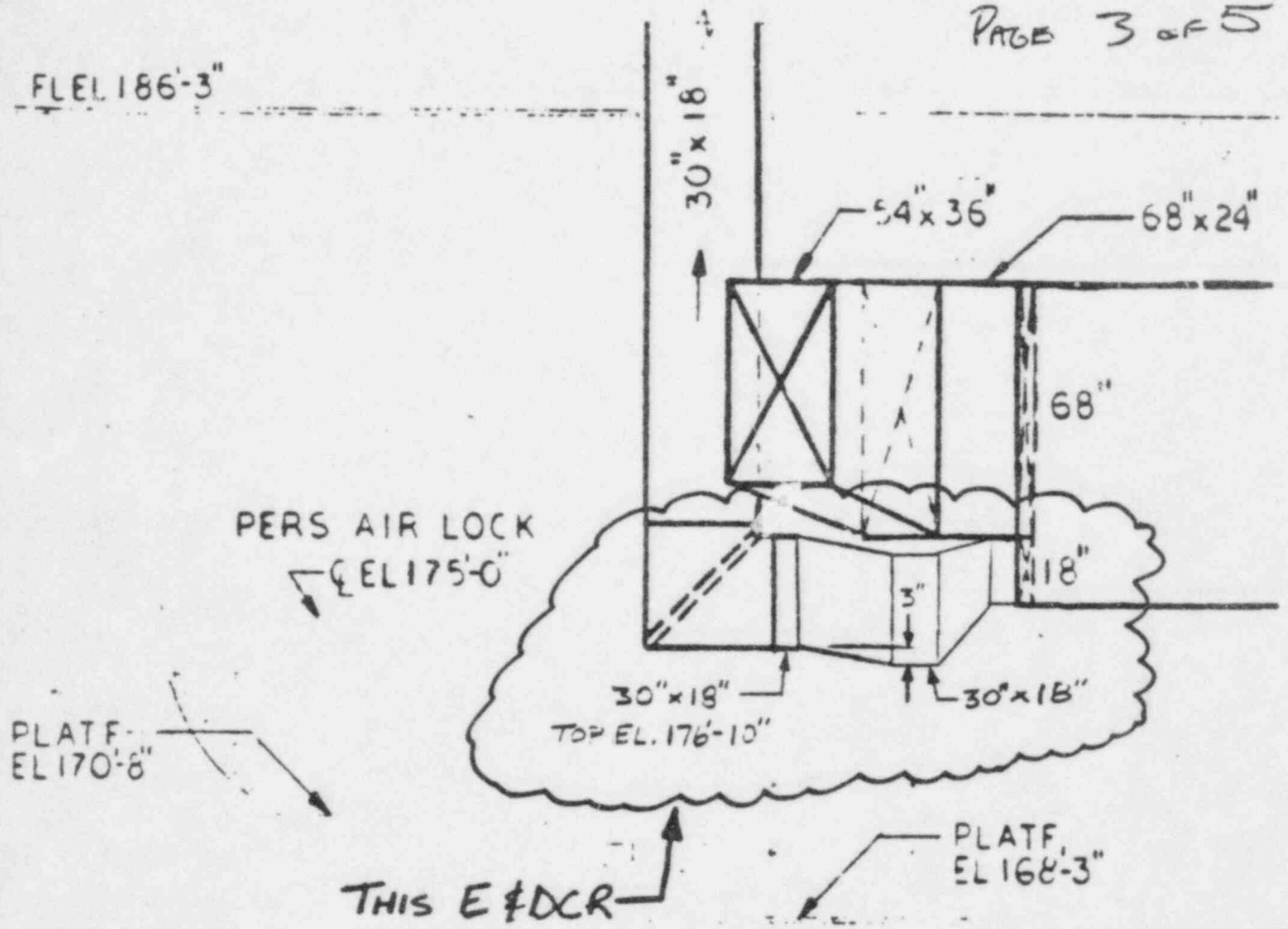
E&DCR C-13,646A
PAGE 2 OF 5



REF: EB-15K-8 COOR. K-5
PLAN. EL. 162'-3"

		TITLE			SCALE
CHECKED		REACTOR BLDG. DUCT			DATE
CORRECT					SKETCH NUMBER
APPROVED					
REVISIONS	②	③	④	⑤	

E&DCR C-13,646A
PAGE 3 of 5



20-20
(J-4)

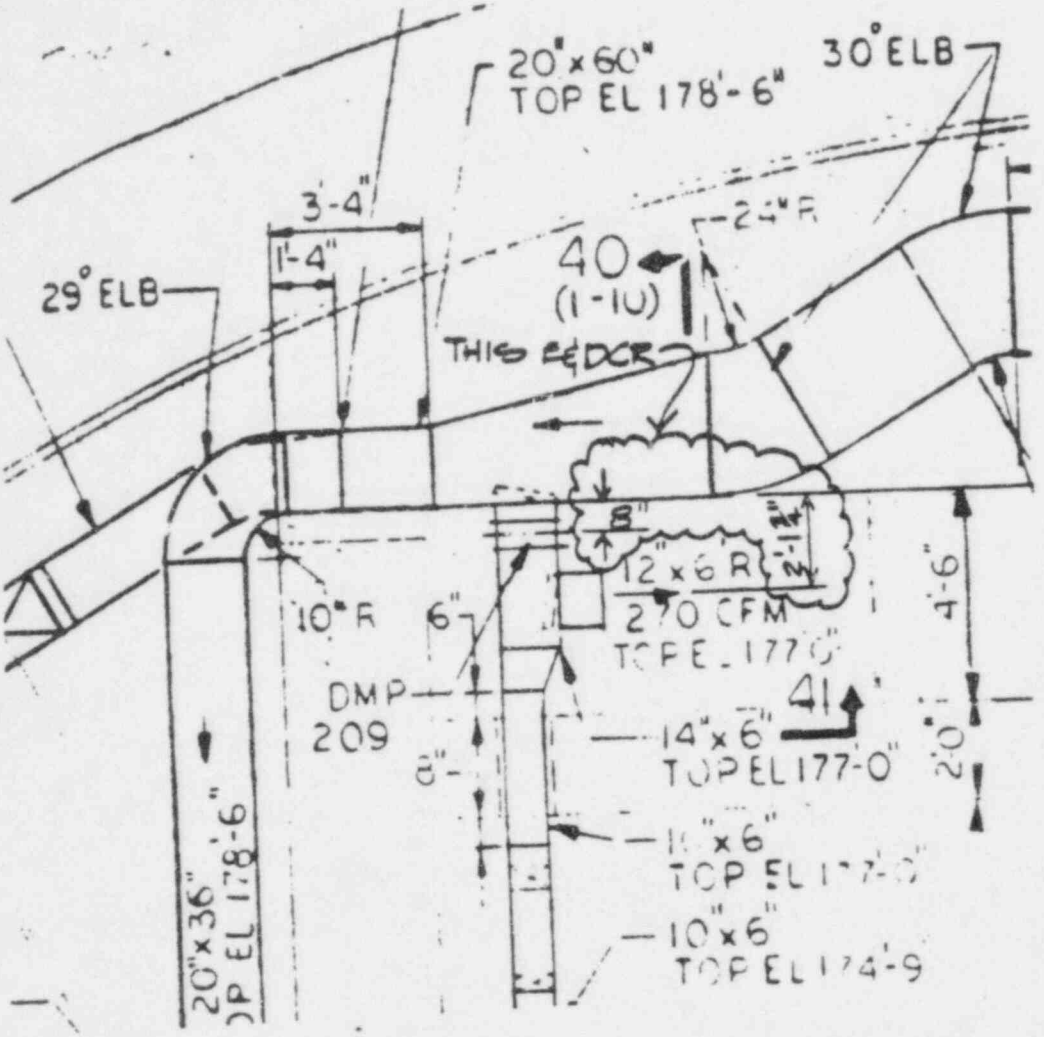
REF: EB-15K-8

SECTION 20-20

PLAN

		TITLE			SCALE
CHECKED		REACTOR BLDG. DUCT			DATE
CORRECT					
APPROVED					SKETCH NUMBER
REVISIONS	②	③	④	⑤	

E&DCR C-13,64-A
PAGE 4 OF 5

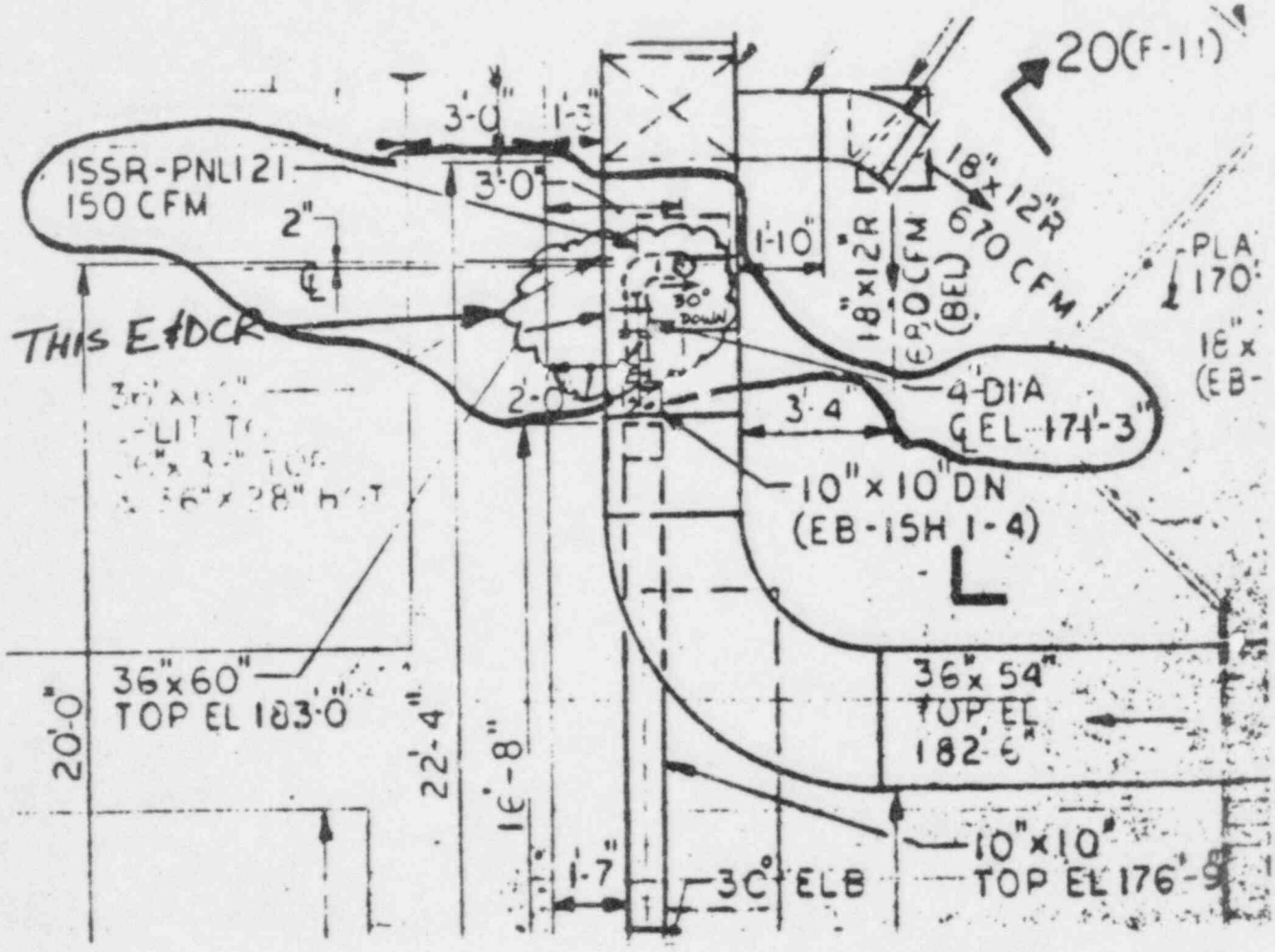


COOR. F-3

EB-15K-8 PLAN EL. 162'-3"

		TITLE	SCALE
CHECKED		REACTOR BLDG. DUCT	DATE
CORRECT			
APPROVED			SKETCH NUMBER
REVISIONS	② ③ ④ ⑤		

E&DCR C-13,646A
PAGE 5 OF 5



REF: EB-15K-8

COOR. I-4

PLAN EL. 162'-3"

		TITLE	SCALE
CHECKED		REACTOR BLDG. DUCT	DATE
CORRECT			
APPROVED			SKETCH NUMBER
REVISIONS	② ③ ④ ⑤		

DOCUMENT PAGE PULLED

* OVERSIZE DUPLICATE DRAWINGS

SEE APERTURE CARDS

APERTURE CARD NO# 8401130409

AVAILABILITY (PDR) CF ___ NMSS ___

NUMBER OF PAGES. 1

ADDITIONAL APERTURE CARD NUMBERS BELOW.

_____ _____

_____ _____

_____ _____

_____ _____

7AB

A521065

STONE AND WEBSTER ENGINEERING CORPORATION

ENGINEERING & DESIGN COORDINATION REPORT

PAGE 1 OF 5

E & DCR NO. C-12,772

PROJECT/CLIENT: River Bend Project / Gulf States Utilities

JOB ORDER NO.: 12210

P.O. NO (S&W): 7710-3575

REASON CODE (S): L

EQUIP. I.D. NO. (S)/SYS. CODE (S): 1-HVR & DUCT

REFERENCE DOCUMENTS: EB-15L-6, EB-15M-6

SUPPLIER (OR SUBSUPPLIER) NAME: Intermech

DESCRIPTION SUMMARY: DUCT TAP DIMENSION REVISED

REMARKS: N/A

PROBLEM DESCRIPTION

DUE TO THE MISFABRICATION OF SEVERAL MITER JOINTS IN A DUCT RUN, LOCATED ON EL 186'-3" IN THE REACTOR ANNULUS, THE 12"x12" SCREENED OPENINGS HAVE BEEN MISLOCATED.

REQUEST EB DRAWINGS BE REVISED TO SHOW AS-BUILT CONDITIONS.

INITIATOR	AREA/DEPT/DIV	TEL EXT.	DATE	DATE NEEDED BY	APPROVED	ENGR. RESP
W.H. Patterson	Power	5268	9-13-83	9-13-83	J.A.L.	KP

PROBLEM SOLUTION

EB 15L & 15M IS REVISED PER PAGE 2, 3, 4 & 5 OF 5 OF THIS E&DCR.

10.1.13

"Non-Asme"

ECC: N ECS: N SC: N

AFFECTED DOCUMENT NUMBERS	TYPE	STATUS
EB-15L	D	C
EB-15M	D	C

STATUS
C - WILL BE INCORPORATED
N - WILL NOT BE INCORPORATED
I - NO CHANGE

RELATED ACTIVITIES: N/A

QA CAT: I

ANSWERED BY: W.H. Patterson — DATE: 9-13-83

RESP. LEAD ENGR.: J.A. Lapolla — DATE: 9/13/83

MATERIALS ENGR.: NE — DATE:

EQUIP. SPEC.: NE — DATE:

QSD OR EA: NE — DATE:

PROJ. ENGR.: [signature] — DATE: 9/13/83

CLIENT APP REQ'D ☐ NR ☒ — REF — DATE

SUB ITEM	WORK RESP	SUB ITEM	WORK RESP
01	ISW	02	

EQ RELEASE NO.: 1-BX-HVR-001

WBS NO.: IRB/1A

WORK COMPLETION — NWR ☐ — DATE:

INSP. REPORT NO/SIG — DATE:

FINAL WORK TRACKING CLOSURE — DATE:

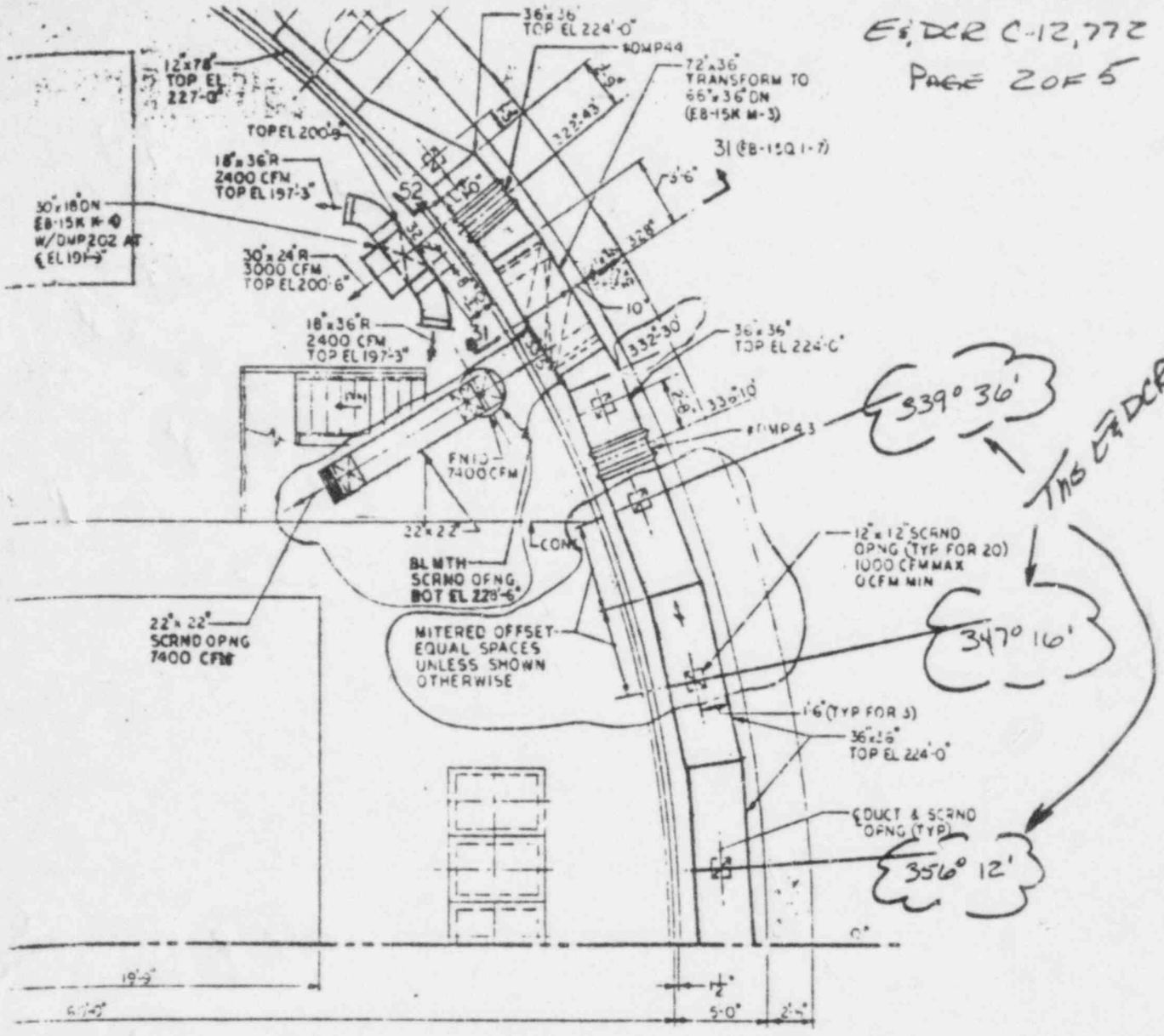
DESCRIPTION (01): DUCT TAP DIMENSION REVISED

DESCRIPTION (02):

REMARKS (01):

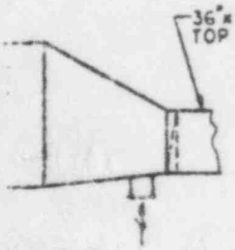
REMARKS (02):

E&DCR C-12,772
PAGE 2 OF 5



REFERENCE E8-15M-6

NOTES:
1. SCALE: 1/4" = 1'-0" UNLESS OTHERWISE NOTED.
2. FOR NOTES, REFERENCES AND LEGEND SEE DRAWING E8-15R.



DOCUMENT USER
CONSULT E&DCR/NAD
LISTING FOR CHANGES

ISSUED FOR STRESS ANALYSIS

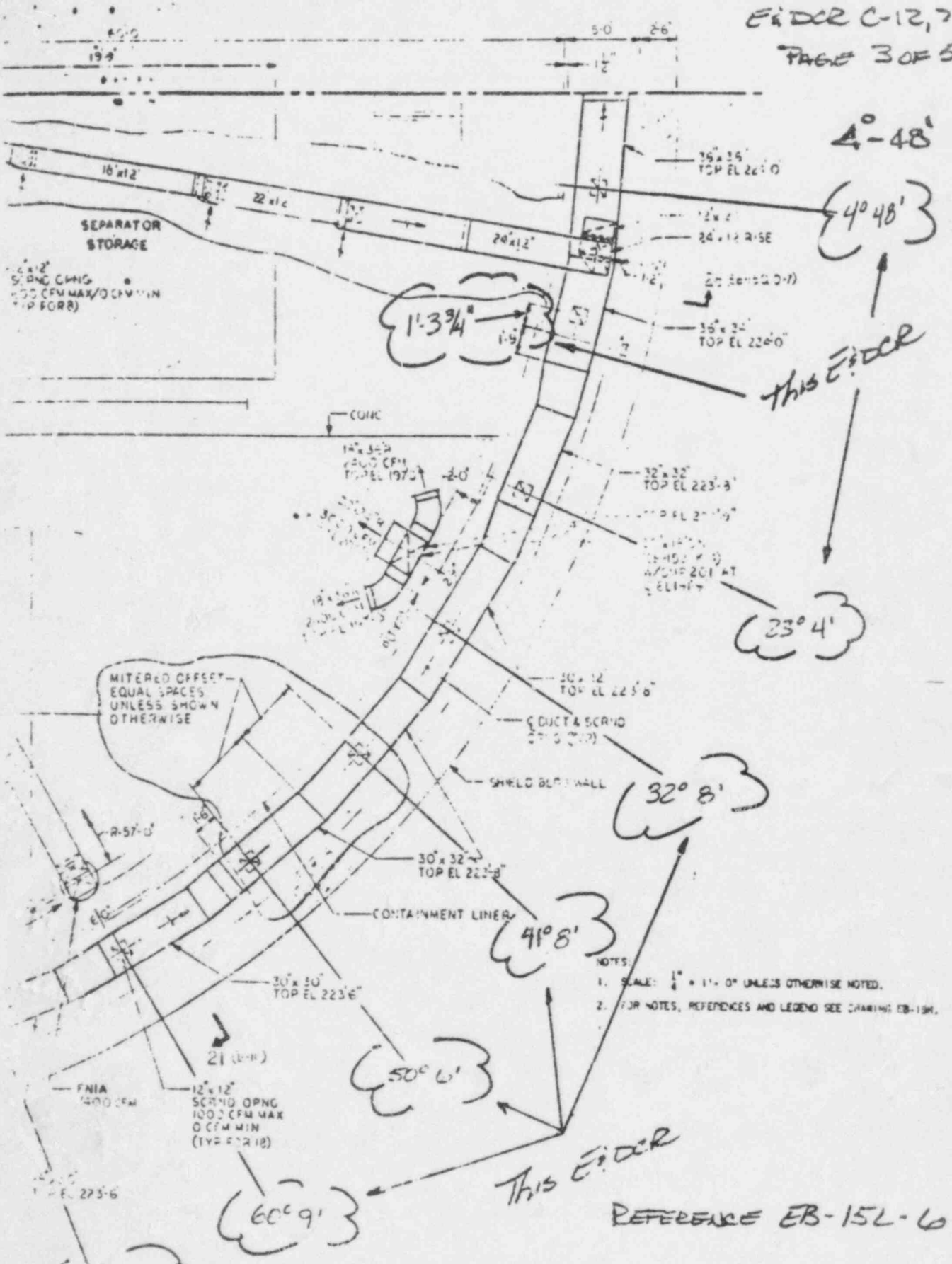
No change in dimensions or restraints of the piping shall be made without the approval of the Project Engineer

1	[illegible]		3	CHKD	DATE

APPROVED

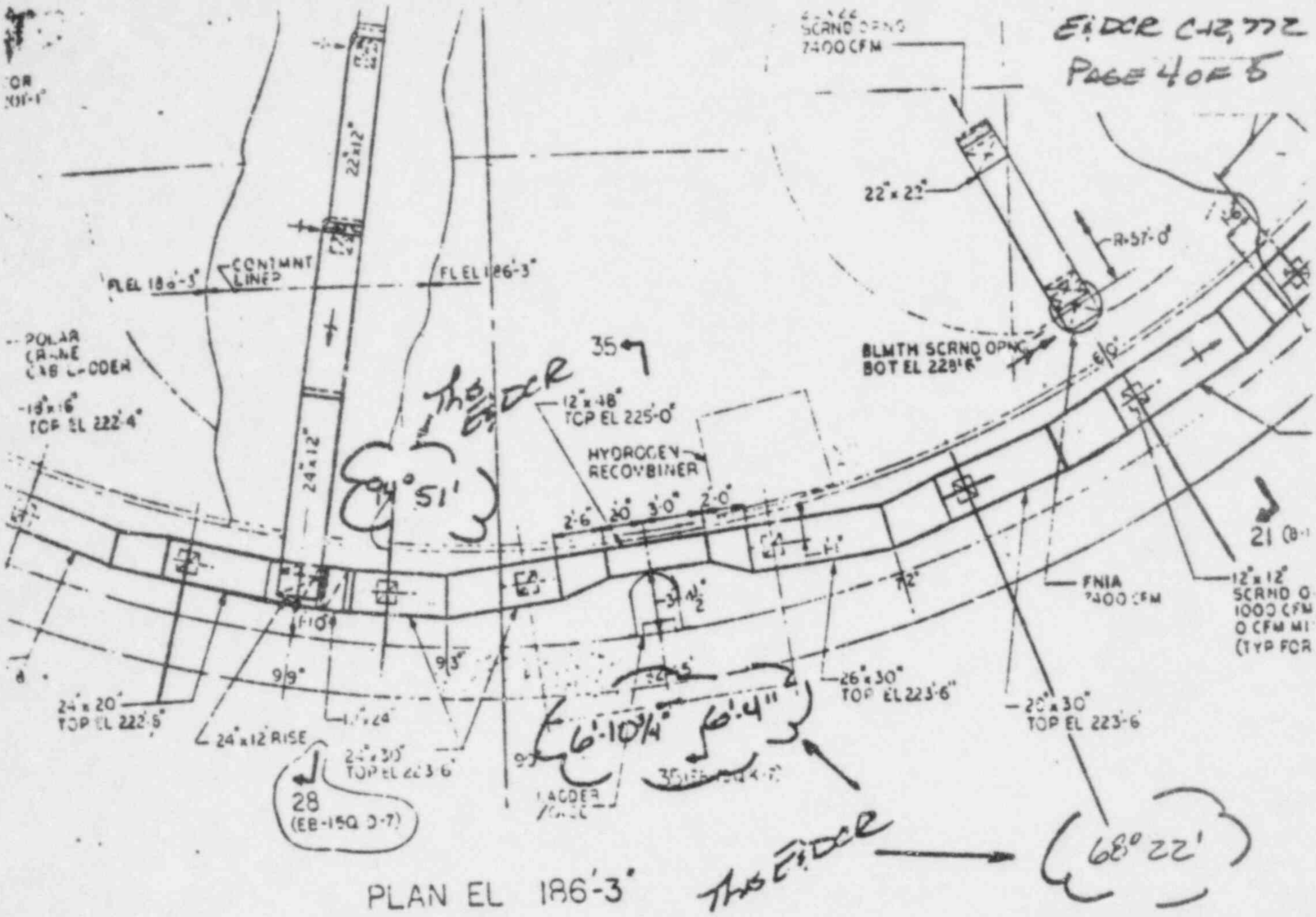
NUCLEAR SAFETY RELATED
QA CAT I II III

E&DCR C-12,772
PAGE 3 OF 5



RIVER BEND PROJECT/GSU

E&DCR C-12,772
PAGE 4 OF 5



PLAN EL 186'-3"

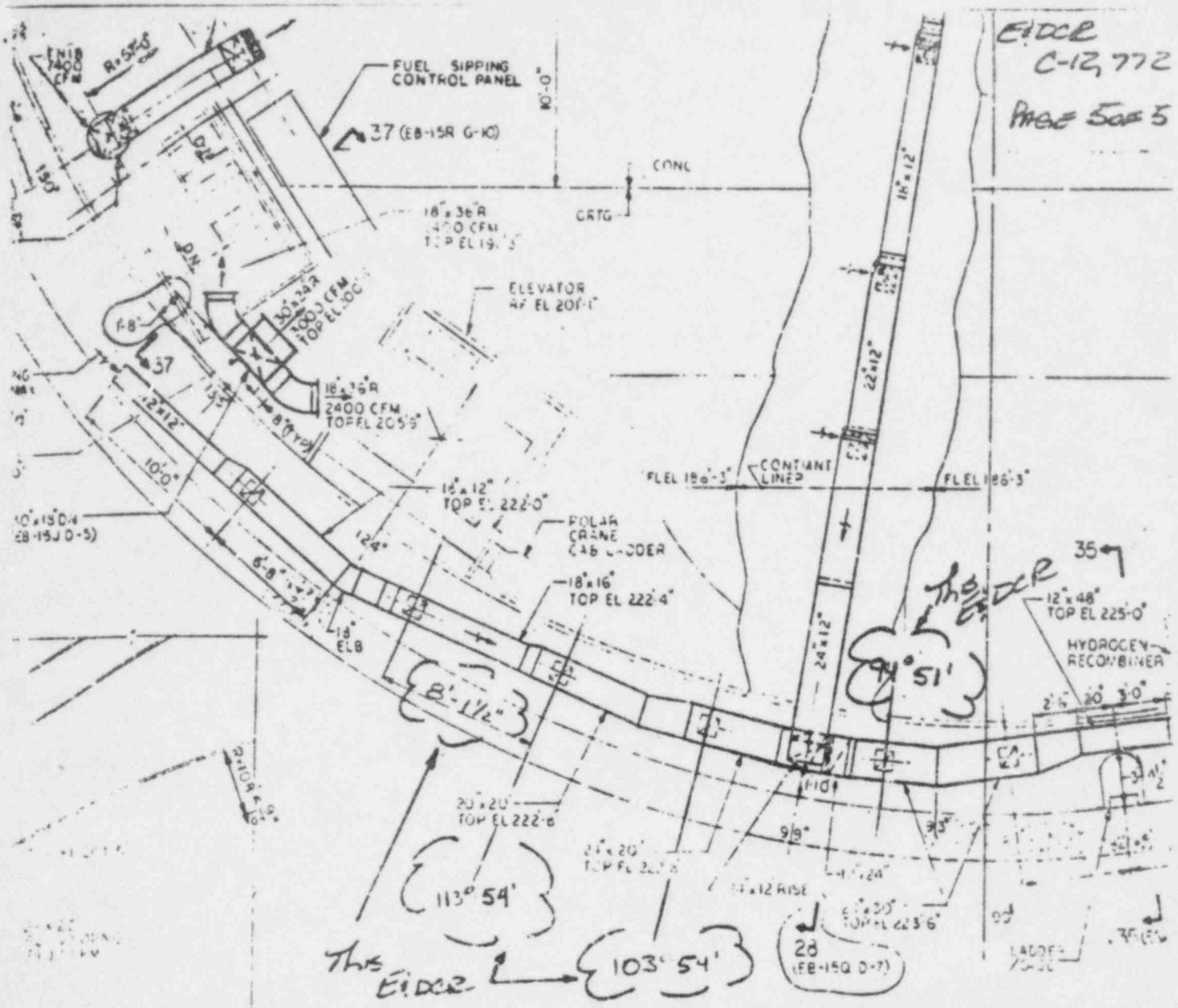
Reference EB-15L-6

River Bend Project 16SU

E&DCR C12,772

ISSUED FOR BIDS SPEC 216.100

SEE RECORD OF DRAWING CHANGES 12210-BCB-15L-2



EIDCR C-12,772

Page 5 of 5

Reference EB-15L-6

Rev. Send Protect/GSU

EIDCR C-12,772

J.A.S.

STONE AND WEBSTER ENGINEERING CORPORATION
ENGINEERING & DESIGN COORDINATION REPORT

PAGE 1 OF 5

E & DCR NO. C-12,857 A

PROJECT/CLIENT: RIVER BEND PROJECT UNIT NO 1 / G.S.U.

JOB ORDER NO. 12210

P.O. NO (S.F.W.): 12210.13575

REASON CODE (S): L

EQUIP. I.D. NO (S)/SYS CODE (S): 1 HVR* DUCT

REFERENCE DOCUMENTS: EB-15L-6, EB-15M-6

SUPPLIER(OR SUBSUPPLIER)NAME: INTERMECH

DESCRIPTION SUMMARY: DUCT TAP DIMENSION REVISED

REMARKS: 3.5 12/21/83 REVISION THIS E&DCR SUPERSEDES E&DCR C-12,857

PROBLEM DESCRIPTION

DUE TO THE MISFABRICATION OF SEVERAL MITER JOINTS IN A DUCT LINE, LOCATED ON ELEVATION 186'-3" IN THE REACTOR ANNULUS, THE 12"x12" SCREENED OPENINGS HAVE BEEN MISLOCATED. REQUEST EB DRAWINGS BE REVISED TO SHOW AS-BUILT CONDITIONS.

ADDITIONAL PROBLEM

THIS E&DCR IS NEEDED FOR CLARIFICATION OF THE PROBLEM DESCRIPTION.

3.5 12/21/83 REVISION

THE ALTERED PIECES OF DUCT WERE FABRICATED CORRECTLY WITHIN TOLERANCE. HOWEVER, THE CUMMILATIVE EFFECTS OF THE DUCT CONSTRUCTION TOLERANCES COMBWED WITH CONCRETE IRREGULARITIES AND EMBED PLATE LOCATIONS POSED AN INSTALLATION PROBLEM FOR THIS DUCTWORK. THE 12"x12" SCREENED OPENINGS NEED TO BE RELOCATED TO BEST SUITE THE EXISTING CONDITIONS.

INITIATOR	AR&S DEPT DIV	TEL EXT	DATE	DATE NEEDED BY	APPROVED	ENGR. RESP
BRIAN SIEVERS	Power	x568	10/21/83	10/24/83	J.A.S.	XP

PROBLEM SOLUTION

THIS E&DCR SUPERCEDES E&DCR C-12,857.

EB 15L AND 15M ARE REVISED TO REFLECT FIELD AS-BUILT CONDITIONS PER PAGES 2 OF 5 THRU 5 OF 5.

Jmcp 12-12-83

NON-ASME

EOS:N EOC:N SC:N

AFFECTED DOCUMENT NUMBERS	TYPE	STATUS
EB-15L	D	C
EB-15M	D	C

STATUS
C - WILL BE INCORPORATED
N - WILL NOT BE INCORPORATED
I - NO CHANGE

RELATED ACTIVITIES: N/A

QA CAT: I

ANSWERED BY: Brian Sievers DATE: 10/21/83

RESP LEAD ENGR: J.A. Schwarz DATE: 10/21/83

MATERIALS ENGR: N/R DATE:

EQUIP. SPEC.: N/R DATE:

QSD OR EA: N/R DATE:

PROJ. ENGR: D.E. Happer DATE: 10/27/83

CLIENT APP REQ'D ☐ NR ☒
REF DATE

SUB ITEM	WORK RESP	SUB ITEM	WORK RESP
01	NWR	02	

EQ RELEASE NO.: 1Bx.HVR.001

EQ RELEASE NO.:

WBS NO.: JRB/1A

WBS NO.:

WORK COMPLETION NWR ☒ DATE 10/27/83

INSP. REPORT NO/SIG DATE

FINAL WORK TRACKING CLOSURE DATE

DESCRIPTION (01): DUCT TAP DIMENSION REVISED

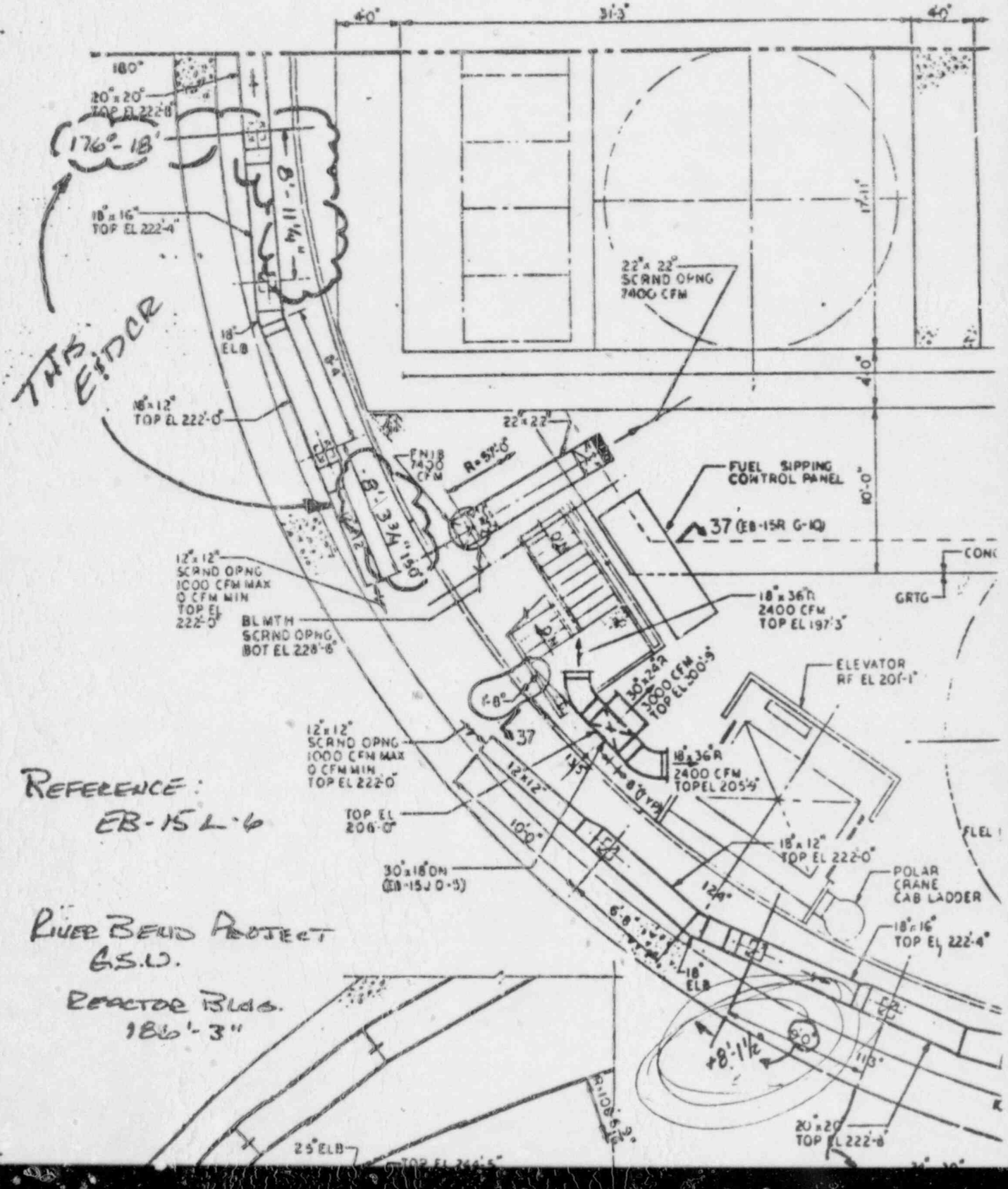
DESCRIPTION (02):

REMARKS (01):

REMARKS (02):

12210-EB-15L-6

EIDER C12,8571
PAGE 2 OF 5

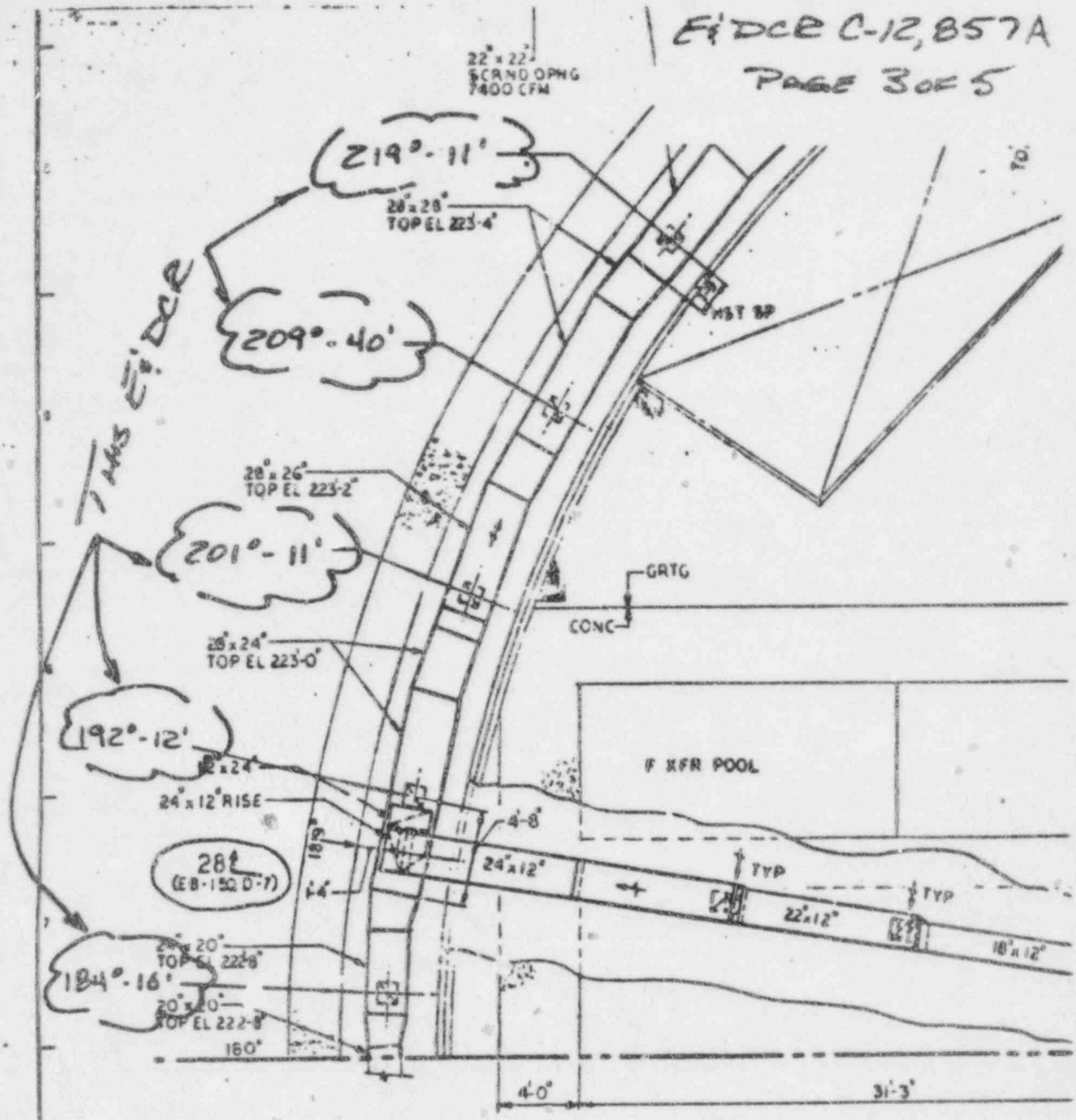


REFERENCE:
EB-15L-6

RIVER BEND PROJECT
G.S.U.
REACTOR BLDG.
186'-3"

E'DCE C-12,857A

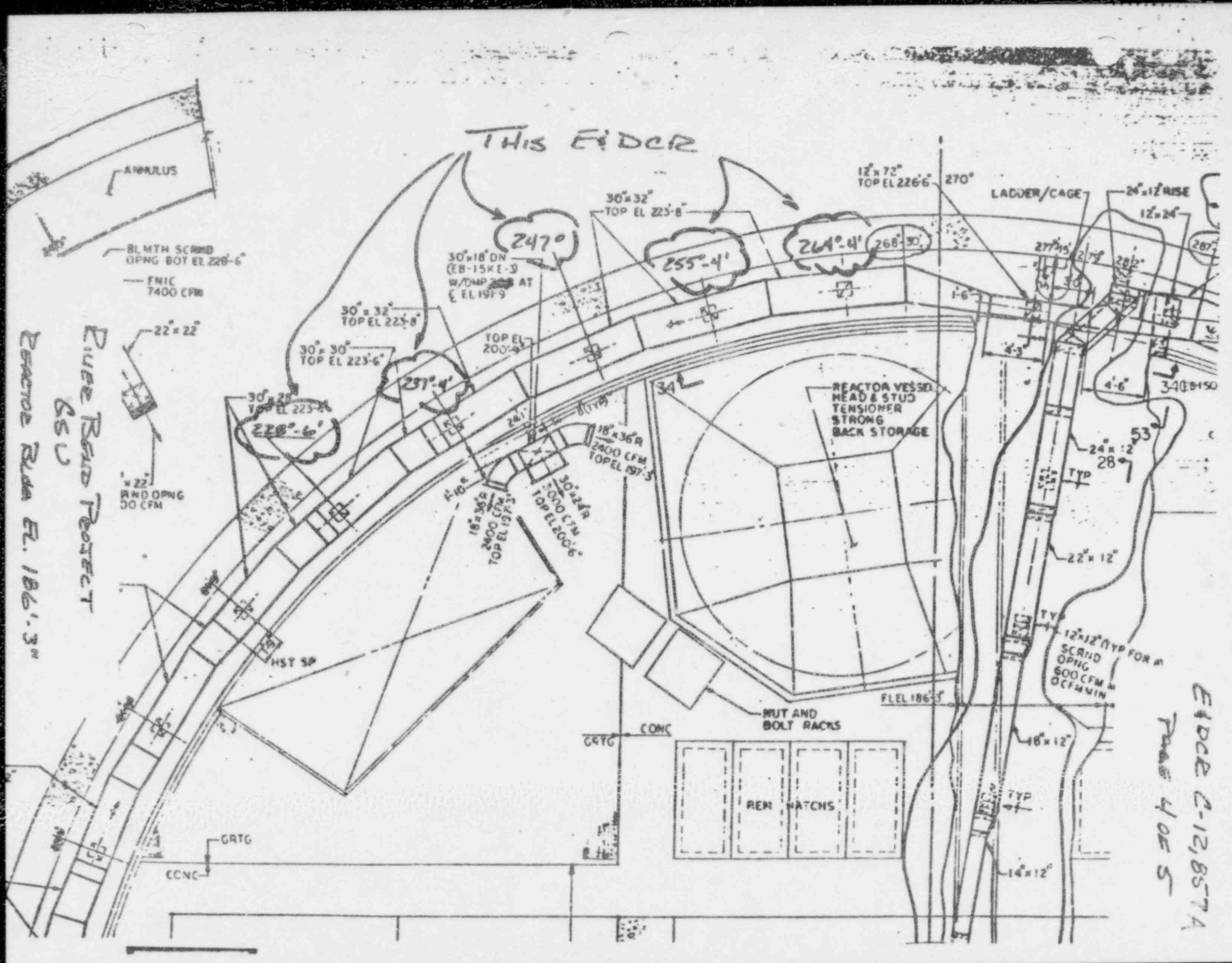
PAGE 3 OF 5

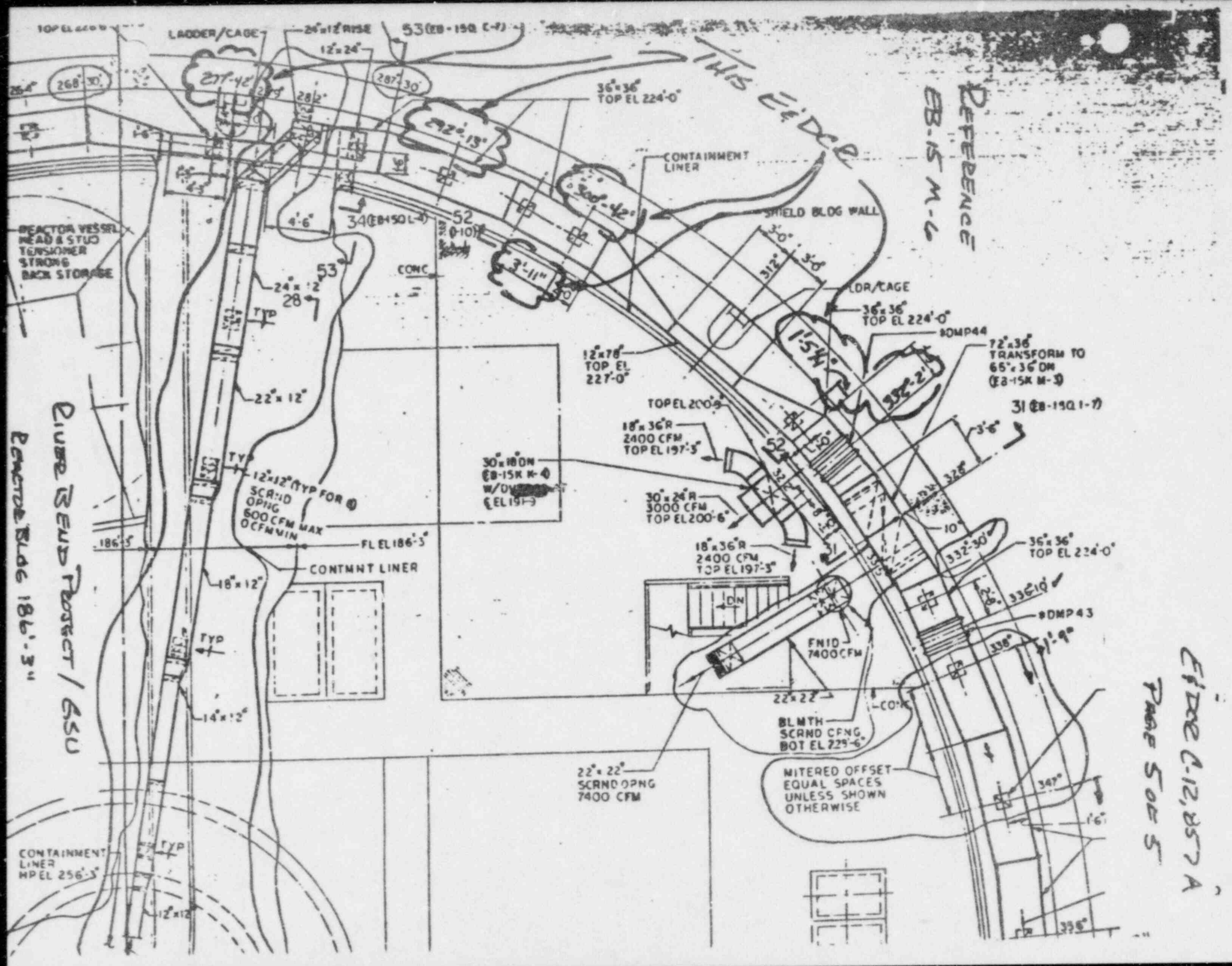


REFERENCE EB-15M-6

RIVER BEND PROJECT

REACTOR BLDG 186'-3"


THIS SIDE
ANNULUS
BLMTH SCRND OPNG BOT EL 226'-6"
FNIC 7400 CFM
22"x22"
22"x22" RND OPNG 50 CFM
30"x32" TOP EL 225'-8"
30"x30" TOP EL 223'-6"
30"x28" TOP EL 223'-6"
30"x18" DN (EB-15KE-3) W/DMP AT EL 191'9
TOP EL 200'-6"
247°
255°-4'
264°-4'
231°-4'
228'-6"
18"x36"R 2400 CFM TOP EL 197'-3"
30"x24"R 2000 CFM TOP EL 200'-6"
18"x36"R 2400 CFM TOP EL 197'-3"
12"x72" TOP EL 226'-6"
270°
LADDER/CAGE
24"x12" RISE
12"x24"
REACTOR VESSEL HEAD & STUD TENSIONER STRONG BACK STORAGE
24"x12"
TYP
22"x12"
12"x12" TYP FOR SCRND OPNG 600 CFM MIN
FL EL 186'-3"
NUT AND BOLT RACKS
CONC
GRTG
REM HATCHS
18"x12"
14"x12"
HST SP
RIVER ROAD PROJECT
GSU
REACTOR BLDG EL. 186'-3"
EIDCE C-12,857A
PAGE 4 OF 5


REFERENCE
EB-15 M-6
THIS SIDE
RIVER BEND PROJECT / GSU
REACTOR BLDG 186'-3"
CONTAINMENT LINER
SHIELD BLDG WALL
LADDER/CAGE
36"x36" TOP EL 224'-0"
12"x24"
CONTAINMENT LINER
REACTOR VESSEL HEAD & STUD TENSIONER STRONG BACK STORAGE
CONC
22"x12"
12"x12" (TYP FOR 4) SCRND OPNG 600 CFM MAX 0 CFM MIN
FL EL 186'-3"
CONTMNT LINER
18"x12"
14"x12"
12"x12"
12"x78" TOP EL 227'-0"
TOP EL 200'-9"
18"x36"R 2400 CFM TOP EL 197'-3"
30"x18" DN EB-15K M-4 W/DMP
30"x24"R 3000 CFM TOP EL 200'-6"
18"x36"R 2400 CFM TOP EL 197'-3"
DMP44
72"x36" TRANSFORM TO 66"x36" DN (EB-15K M-3)
DMP43
FN1D 7400 CFM
22"x22"
BLMTH SCRND OPNG BOT EL 229'-6"
22"x22" SCRND OPNG 7400 CFM
MITERED OFFSET EQUAL SPACES UNLESS SHOWN OTHERWISE
CONTAINMENT LINER HP EL 256'-3"
EDGE C-12, 857 A
PAGE 5 OF 5

SEE

APERTURE

CARDS

*OVERSIZED DRAWINGS

(ADDITIONAL DOCUMENT PAGES FOLLOW)

APERTURE CARD NO: 8502270228

AVAILABILITY PDR CF HOLD

NUMBERS OF PAGES. 1

REA

A5210 65

STONE AND WEBSTER ENGINEERING CORPORATION
ENGINEERING & DESIGN COORDINATION REPORT

PAGE 1 OF 2

E&DCR NO. C-13,280

PROJECT/CLIENT: RIVER BEND PROJECT UNIT Nº 1 / G.S.U.

JOB ORDER NO. 12210

P.O. NO. (S.E.W.): N/A

REASON CODE (S): V

EQUIP. I.D. NO. (S)/SYS. CODE (S): 1 HVR * "DUCT"

REFERENCE DOCUMENTS: EB-15M-6 EB-15R-8

SUPPLIER (OR SUBSUPPLIER) NAME: N/A

DESCRIPTION SUMMARY: REGISTER MOUNTING ADAPTER

REMARKS: N/A

PROBLEM DESCRIPTION

TO FACILITATE INSTALLATION AND IMPROVE APPEARANCE CONSTRUCTION REQUEST TO MODIFY THE REGISTER MOUNTING ARRANGEMENT OF THE 12 REGISTERS IN THE FOUR DUCT RISERS ABOVE PLAN EL. 186'-3" IN THE CONTAINMENT VESSEL OF THE REACTOR BLDG.

INITIATOR	AREA/DEPT DIV	TEL EXT	DATE	DATE NEEDED BY	APPROVED	ENGR RESP
BRIAN SIEVERS	BWER	X568	1/11/83	1/13/83	[signature]	XP

PROBLEM SOLUTION

1) EB-15R SHALL BE REVISED BY ADDING NOTE 16 AS FOLLOWS:

16. FOR THE MOUNTING ARRANGEMENT OF REGISTERS ABOVE PLAN EL. 186'-3" IN THE CONTAINMENT VESSEL REFER TO DETAIL "F", (EB-15M, C-10).

2) EB-15M SHALL BE REVISED BY INCORPORATING DETAIL "F" AT COOR. (C-3) AS ON PAGE 2 OF 2 OF THIS E&DCR.

NON-ASME

EOS:N EOC:N SC:N

AFFECTED DOCUMENT NUMBERS	TYPE	STATUS
EB-15M	D	C
EB-15R	D	C

STATUS
C - WILL BE INCORPORATED
N - WILL NOT BE INCORPORATED
I - NO CHANGE

RELATED ACTIVITIES: N/A

QA CAT: I

ANSWERED BY: Brian Sievers DATE: 4/11/84

RESP. LEAD ENGR.: Richard E Buell DATE: 11/11/84

MATERIALS ENGR.: N/R DATE:

EQUIP. SPEC.: N/R DATE:

QSD OR EA: N/R DATE:

PROJ. ENGR.: [signature] DATE: 1/11/84

CLIENT APP REQ'D ☐ NR ☒

REF DATE

SUB ITEM	WORK RESP	SUB ITEM	WORK RESP
01	1SW	02	

EQ RELEASE NO.: 1.Bx.11VR.001

WBS NO.: JRB/1A

WORK COMPLETION NWR ☐ DATE:

INSP. REPORT NO/SIG DATE:

FINAL WORK TRACKING CLOSURE DATE:

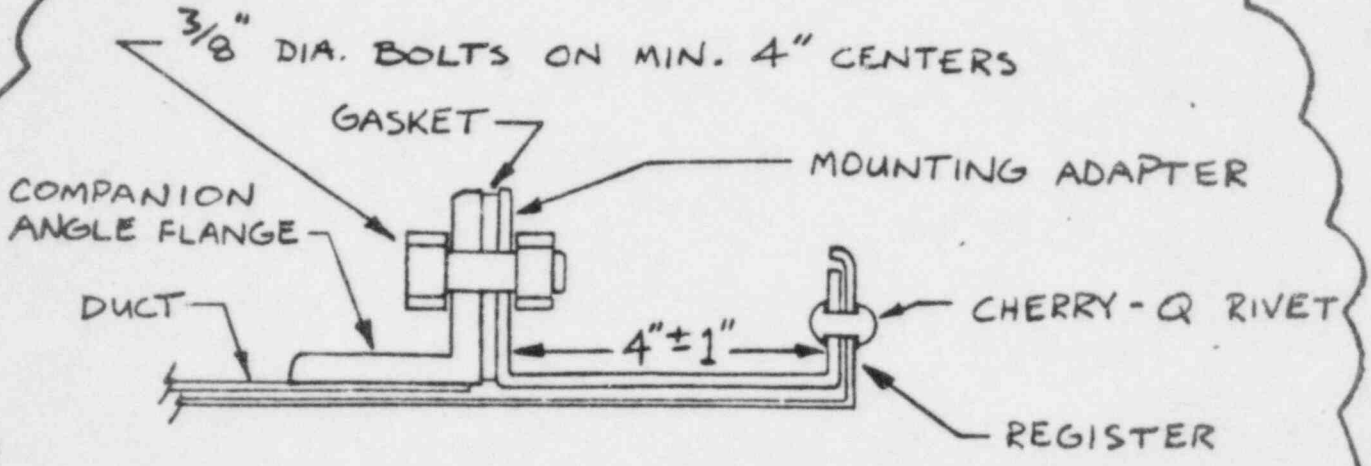
DESCRIPTION (01): MOUNTING ARRANGEMENT FOR REGISTERS

REMARKS (01):

DESCRIPTION (02):

REMARKS (02):

E&DCR C-13,280
PAGE 2 OF 2



NOTES

1. MIN. ADAPTER THICKNESS SHALL BE 14 GA. OR THE DUCT GAUGE, WHICHEVER IS GREATER.
2. ADAPTER FLANGES SHALL ACCOMODATE THE ADJOINING FLANGE

DETAIL F
(SEE NOTE 15, EB-15R)

INCORPORATE ON EB-15M AT LOCATION (C-3)

CHECKED		TITLE: REACTOR BLDG. REGISTER MOUNTING ADAPTER	SCALE: NONE
CORRECT			DATE: 1-11-84
APPROVED			SKETCH NUMBER
REVISIONS			

DOCUMENT PAGE PULLED

* OVERSIZE DUPLICATE DRAWINGS

SEE APERTURE CARDS

APERTURE CARD NO# 8401130410

AVAILABILITY (PDR) CF ___ HOLD ___

NUMBER OF PAGES. 3

ADDITIONAL APERTURE CARD NUMBERS BELOW.

8401130417

8401130420

A5210 65

STONE AND WEBSTER ENGINEERING CORPORATION

ENGINEERING & DESIGN COORDINATION REPORT

PAGE 1 OF 20

E & DCR NO. P-12.576

PROJECT/CLIENT: RIVER BEND STATION UNIT 1/GULF STATES UTILITIES CO.

JOB ORDER NO: 12210

P.O. NO (S.W.): 09157 12210-

REASON CODE (S): F

EQUIP. I.D. NO (S)/SYS. CODE (S): DUCTWORK/HVR & GTS

REFERENCE DOCUMENTS: SEE PAGE 2 OF 20

SUPPLIER (OR SUBSUPPLIER) NAME: MCCROSKEY, INC.

DESCRIPTION SUMMARY: INDICATE DUCT LEAKAGE CLASSES

REMARKS: NA

PROBLEM DESCRIPTION

AREA/BLDG CODE
1/REACTOR BLDG
5/AUXILIARY BLDG

TO PROVIDE FOR LEAK RATE TESTING OF DUCT SYSTEMS IT IS NECESSARY TO CLARIFY & INDICATE THE LOCATION OF DUCT LEAKAGE CLASSES ON THE DRAWINGS.

REFERENCE DOCUMENTS LISTED ABOVE HAVE BEEN ISSUED FOR FABRICATION & CONSTRUCTION.

RB 11-30-83

INITIATOR	AREA/DEPT	TEL. EXT.	DATE	DATE NEEDED BY	APPROVED	ENGR RESP
R. Schwarz	~~342~~ POWER	3429	11-30-83	12-2-83		PB

PROBLEM SOLUTION

EB-45E, 45F, 45G, 45H, 45J, 45K, 45L, 45M 45P & EB-15Q ARE REVISED AS SHOWN ON PAGES 4 THRU 20 OF 20 OF THIS E&DCR.

McCROSKEY - YES

EQ: N EOSIN SC: N

AFFECTED DOCUMENT NUMBERS	TYPE	STATUS
12210-EB-45E	D	C
12210-EB-45F	D	C
12210-EB-45G	D	C
12210-EB-45H	D	C
12210-EB-45J	D	C
CONTINUED ON PAGE 2 OF 20		

STATUS
C - WILL BE INCORPORATED
N - WILL NOT BE INCORPORATED
I - NO CHANGE

RELATED ACTIVITIES: NA

QA CAT: I, II & III

ANSWERED BY: R. Schwarz — DATE: 11-30-83

RESP. HEAD ENGR. — DATE: 11/30/83

MATERIALS ENGR.: NR — DATE:

EQUIP. SPEC.: NR — DATE:

QSD OR QA: NR — DATE:

PROJ. SYS. ENG.: K. D. Berry — DATE: 12/1/83

CLIENT APP REQ'D ☐ NR ☒

REF: — DATE:

SUB ITEM	WORK RESP	SUB ITEM	WORK RESP
01	SW	02	SW

EQ RELEASE NO.	EQ RELEASE NO.
GTS.000	HVR.002

WBS NO.	WBS NO.
JAB/1B/~~HVR~~ GTS	JAB/1B/HVR

WORK COMPLETION — NWR ☐ — DATE:

INSP. REPORT NO/SIG — DATE:

FINAL WORK TRACKING CLOSURE — DATE:

DESCRIPTION (01): INDICATE DUCT LEAKAGE CLASSES

DESCRIPTION (02): INDICATE DUCT LEAKAGE CLASSES

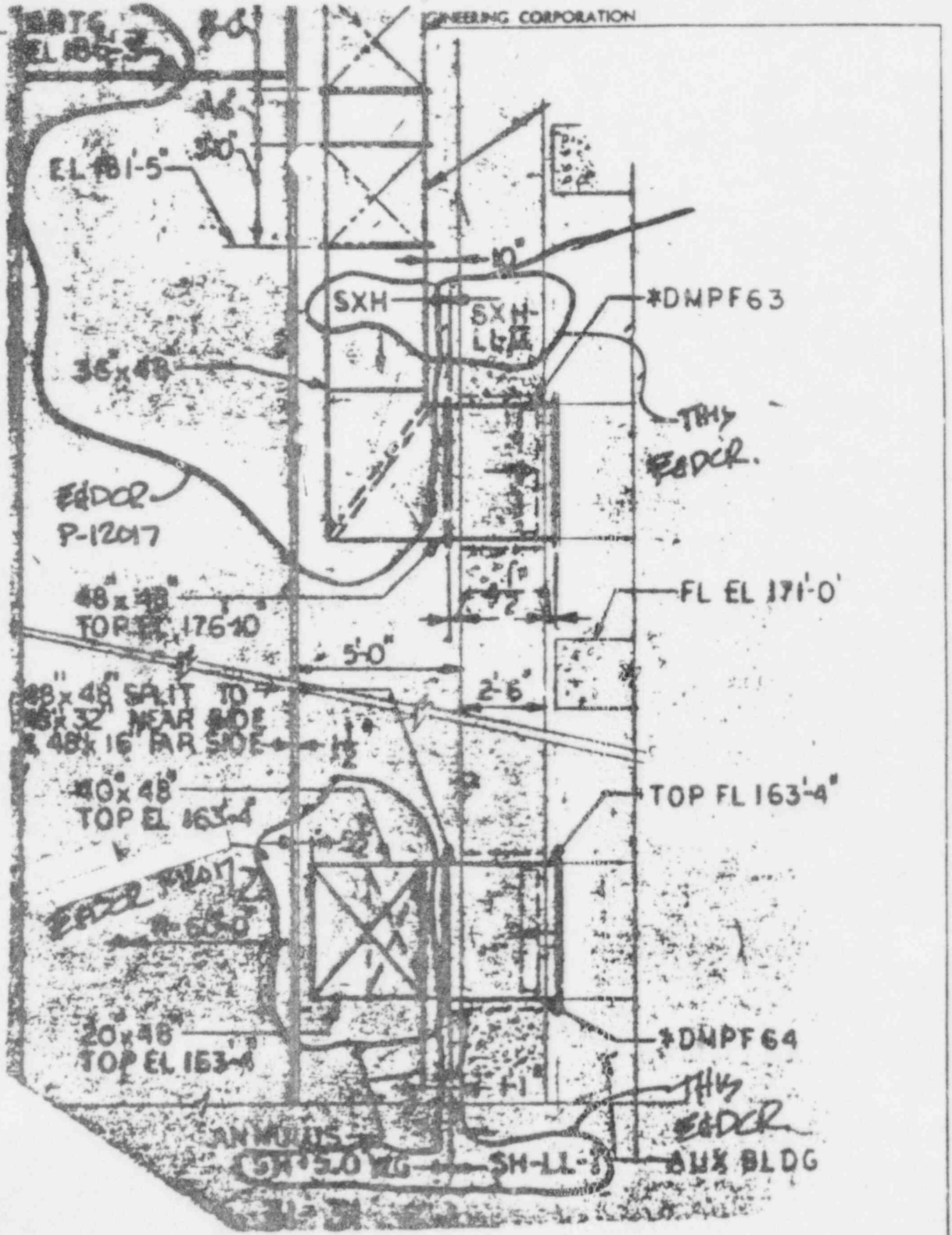
REMARKS (01):

REMARKS (02):

REFERENCE DOCUMENTS

8. 12210-EB-45E-8, 45F-8, 45G-8
45H-8, 45J-8, 45K-8
45L-8, 45M-8, 45P-7
& EB-15Q-6

AFFECTED DOCUMENTS NUMBERS	TYPE	STATUS
17.		
12210- EB-45K	D	C
12210- EB-45 L	D	C
12210- EB-45M	D	C
12210- EB-45 P	D.	C
12210- EB-15 Q	D	C



Ref. EB-150-6

12210		TITLE: Auxiliary Bldg Dockpock GSU River Bend Unit 1	SCALE: ¼"=1'-0"
CHECKED	R. Schwarz		DATE: 11-29-83
CORRECT			SKETCH NUMBER E&DCR-P-12,576
APPROVED			
REVISIONS	② ③ ④ ⑤		

SEE

APERTURE

CARDS

*OVERSIZED DRAWINGS

(ADDITIONAL DOCUMENT PAGES FOLLOW)

APERTURE CARD NO: 8502270249

AVAILIBILITY PDR CF HOLD

NUMBERS OF PAGES. 1

▲5210.86

STONE AND WEBSTER ENGINEERING CORPORATION

ENGINEERING & DESIGN COORDINATION REPORT

PAGE 1 OF 1

E & DCR NO. C 6036 A B

PROJECT/CLIENT: RIVER BEND STATION - UNIT 1 GULF STATES UTILITIES COMPANY

JOB ORDER NO. 12210

P.O. NO. (S&W): N/A

REASON CODE (S): V

EQUIP. I.D. NO. (S)/SYS. CODE (S): N/A

REFERENCE DOCUMENTS: EB-66A-1 EB-15R-6 EB-9A-4 MAS 10-9-84 ES-70T-2, EB-7B-7, EB-9C-6

SUPPLIER (OR SUBSUPPLIER) NAME: N/A

DESCRIPTION SUMMARY: TORNADO DAMPER ATTACHMENT DETAILS

REMARKS: SUPERSEDES C 6036 A

PROBLEM DESCRIPTION

ORIGINAL PROBLEM DESCRIPTION: FIELD REQUEST ATTACHMENT DETAILS FOR DIESEL GEN. BLDG. TORNADO DAMPERS,

ADDITIONAL PROBLEM DESCRIPTION:

MAS 10-9-84 EDCR C6036A REQUIRES REVISION TO ADD DWG. 12210-EB-9A IN THE PROBLEM SOLUTION (STDBY. CLG. TOWER #1).

INITIATOR	AREA/DEPT DIV.	TEL. EXT.	DATE	DATE NEEDED	APPROVED	ENGR. RESP.
[signature]	STR SEG	4120	10/1/84	10/6/84	M A Slowik	XS

PROBLEM SOLUTION

SUPERSEDES EDCR C6036A.

DETAILS SHOWN ON DWG. 12210-ES-70T ARE TYPICAL DETAILS FOR TORNADO DAMPER ATTACHMENT TO EMBEDED ANGLE.

REVISE DWGS. 12210-EB-7B, EB15R, EB-66A, EB-9A, MAS 10-9-84 EB-9C EDCR REV B.

ADD NOTE: "TORNADO DAMPERS WHICH ATTACH TO STRUCTURAL EMBEDMENTS ARE ATTACHED PER DWG 12210-ES-70T."

IEEE: YES ☐ NO ☒

ASME ☐ NON-ASME ☒

INTERDISCIPLINE CONCURRENCE DISCIPLINE: REB ENGR R. BUELL; COP'S [illegible]; DATE 10/6/84

EOC: N EOS: N SC: N

AFFECTED DOCUMENT NUMBERS	TYPE	STATUS
ES-70T	D	N
EB-7B	D	C
EB-15R	D	C
EB-66A	D	C
EB-9A	D	C
MAS 10-9-84 EB-9C	D	C

STATUS
C - WILL BE INCORPORATED
N - WILL NOT BE INCORPORATED
I - NO CHANGE

RELATED ACTIVITIES: N/A

QA CAT: I

CLIENT APP REQ'D ☐ NR ☒

REF: DATE:

ANSWERED BY: [signature] DATE: 10/6/84

RESP. LEAD ENGR: M A Slowik DATE: 10/6/84

MATERIALS ENGR.: NR DATE: —

EQUIP. SPEC.: NR DATE: —

QSD OR EA: [signature] DATE: 10/6/84

PROJECT MANAGER: [signature] DATE: 10/6/84

SUB ITEM	WORK RESP	SUB ITEM	WORK RESP
01	GEN	02	

EQ RELEASE NO.: N/A

EQ RELEASE NO.:

WBS NO.: 599/9A

WBS NO.:

WORK COMPLETION: M A Slowik NWR ☐ DATE: 10/6/84

INSP. REPORT NO/SIG: DATE:

FINAL WORK TRACKING CLOSURE: DATE:

DESCRIPTION (01): TORNADO DAMPER ATTACH. DETAILS

DESCRIPTION (02):

REMARKS (01):

REMARKS (02):

REB

A5210 65

STONE AND WEBSTER ENGINEERING CORPORATION

ENGINEERING & DESIGN COORDINATION REPORT

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E & DCR NO. C-13,417

PROJECT/CLIENT: 3 RIVER BEND / GULF STATES UTILITIES

JOB ORDER NO. 4 12210

P.O. NO (S,F,W): 5 N/A

REASON CODE (S): 6 V

EQUIP. I.D. NO (S)/SYS. CODE (S): 7 1HVR*UC1A,1B,1C & 1DRS*UC1A,1B,1C,1D,1E HVR & DRS

REFERENCE DOCUMENTS: 8 EB-15R-8

SUPPLIER (OR SUBSUPPLIER) NAME: 9 N/A

DESCRIPTION SUMMARY: 10 SCREENS ON OPEN RETURNS

REMARKS: 11 N/A

PROBLEM DESCRIPTION

12

CONSTRUCTION HAS REQUESTED THAT THE REQUIREMENTS FOR INSTALLATION OF SCREENS OVER THE RETURN AIR OPENINGS ON UNIT COOLERS 1HVR*UC1A, 1B, & 1C AND 1DRS*UC1A, 1B, 1C, 1D, 1E & 1F BE REVIEWED TO DETERMINE IF SCREEN OPENINGS ARE APPLICABLE FOR THESE UNIT COOLERS.

12

INITIATOR	AREA/DEPT DIV	TEL EXT	DATE	DATE NEEDED	APPROVED	ENGR RESP
13 J.K. HAM	POWER	4568	2/21/84	2/28/84	REB	15 XP

PROBLEM SOLUTION

16

REVISE DRAWING EB-15R ~~DELEATING~~ JKH 2/27/84 DELETING NOTE 11. AS SHOWN ON PAGE 2 OF 4 OF THIS E&DCR.

REASON: SCREENS ON THESE UNIT COOLERS ARE NOT NEEDED TO PROTECT THE COOLING COILS. REFER TO TEL-CON PAGES 3 & 4 OF 4 THIS E&DCR.

16 NON-ASME

EQC: N EQS: N S: N

AFFECTED DOCUMENT NUMBERS 17	TYPE	STATUS
EB-15R ~~-8~~ REB 2/27/84	D	C

STATUS: C - WILL BE INCORPORATED; N - WILL NOT BE INCORPORATED; I - NO CHANGE

RELATED ACTIVITIES 18	QA CAT 19
N/A	I

ANSWERED BY 20 JK Ham	DATE 2/27/84	CLIENT APP REQ'D ☐ NR ☒ 26 REF	DATE
RESP LEAD ENGR. 21 Richard E Buell	DATE 2/27/84	SUB ITEM 01	WORK RESP 27 GEN
MATERIALS ENGR. 22 N/A	DATE	EQ RELEASE NO. 28 HVR.002	SUB ITEM 02 / WORK RESP 27 / EQ RELEASE NO. 28
EQUIP. SPEC. JKH 23 R. BROWN TEL-CON	DATE 2/27/84	WBS NO. 29 TRB/HA	WBS NO. 29
QSD OR EA 24 N/R	DATE	WORK COMPLETION 30 Richard E Buell	NWR ☒ / DATE 2/27/84
PROJ. ENGR. 25 [signature]	DATE 2/27/84	INSP. REPORT NO/SIG 31	DATE
		FINAL WORK TRACKING CLOSURE 32	DATE

DESCRIPTION (01) 33 SCREENS ON REACTOR UNIT COOLERS

DESCRIPTION (02) 33

REMARKS (01) 34 N/A

REMARKS (02) 34

8. PIPING $2\frac{1}{2}$" & LARGER TO BE SHOP FABRICATED PER SPEC 228.150 AND INSTALLED IN ACCORDANCE WITH SPEC 228.160.
9. FABRICATE PIPE 6" EXTRA LONG WITH PLAIN END FOR FIELD FIT UP.
10. PROVIDE & INSTALL 10 GA DUCT SECTION FROM FLEXIBLE CONNECTION TO VALVE WITH 10.2 LB PLATE FLANGE SIZED & DRILLED TO SUIT VALVE BODY OR PIPE FLANGE WELD PLATE TO 10GA DUCT SECTION.

(CONTINUED L-7)

REFERENCES:

FLOW DIAGRAM REACTOR PLANT VENTILATION	FSK-22-1
FLOW DIAGRAM DRYWELL COOLING	FSK-22-[illegible]
FLOW DIAGRAM CONTAINMENT HYDROGEN PURGE	FSK-27-21
FLOW DIAGRAM HYDROGEN MIXING	FSK-27-24
SPECIFICATION-SHOP FAB. OF VENT. & AIR COND. SYSTEMS FOR SAFETY RELATED AREAS	216.100
SPECIFICATION-AIR AND HYDRONIC BALANCING	216.200
SPECIFICATION-PIPING ENGINEERING AND DESIGN	228.000
MACHINE LOCATIONS REACTOR BUILDING	EM-2
REACTOR CONTAINMENT VESSEL PENETRATIONS	EV-1
REFUELING SEAL SUPPORT	EV-28
SPECIFICATION-ERECTION SPEC FOR CAT I II & III DUCTWORK	216.140
SLEEVE LOCATIONS - REACTOR BLDG	EB-115
REACTOR CONTAINMENT PIPING PENETRATIONS	EB-121
FLOOR AND EQUIPMENT DRAINAGE-REACTOR BUILDING	EB-10
FIRE PROTECTION-REACTOR BUILDING	EB-13
VENTILATION ARRANGEMENT-REACTOR BUILDING	EB-14
CHILLED WATER PIPING-REACTOR BUILDING	EB-20
VENTILATION AND COOLING-AUXILIARY BUILDING	EB-45
SEISMIC DUCT SUPPORT LOCATIONS	E7-515
SEISMIC PIPE SUPPORT LOCATIONS	E7-715
SPECIFICATION - ERECTION OF SEISMIC SUPPORTS	216.150
SPECIFICATION - MISC. HVAC EQUIP	216.130

E&DCR No. C-13,417

11. PROVIDE SCREENED OPENINGS ON THE OPEN RETURNS OF 1HVR*UC1A,1B & 1C AND 1DRS-UC1A,1B,1C,1D,1E & 1F SIZES OF SCREENED OPENINGS TO BE FIELD VERIFIED.
12. ALL TAKEOFFS AND ELBOWS TO BE 90° OR 45° UNLESS UNLESS OTHERWISE NOTED.
13. FOR MOUNTING ARRANGEMENT OF FLOW ELEMENT AND RTD/THERMOWELL, SEE SPEC 216.140.
14. FOR FRAMING DETAILS OF FLOW ELEMENT AND RTD THERMOWELL, SEE SPEC 216.140.

J.O. No. 12210 **TEL-CON-NOTE** Copy to:

Job Book 1070

TIME	DATE
10:00	2/9/84

CC: L. FERRINGO
D. BRADBERRY
R. BUELL

From:	Name	Company
From:	J.K. HAM	S&W - SEG
To:	R. BROWN / S. VISICHIO	S&W - HVAC SPECIALIST.

TOPIC:

DISCUSSION:	ACTION REQUIRED:
NOTE 11 ON DRAWING EB-15R STATES SCREENS WILL BE PROVIDED OVER THE OPEN RETURNS ON UNIT COOLERS 1HVR*UC1A, 1B & 1C AND 1DRS*UC1A, 1B, 1C, 1D, 1E, & 1F. STEVE VISICHIO SAID THAT THE PURPOSE OF SCREENS OVER RETURN OPENINGS IS TO PROTECT THE FINS ON THE COOLING COIL FROM BEING DAMAGED BY WORKMAN. RETURN AIR OPENINGS HAVE BEEN PROVIDED WITH FILTER RACKS, THAT WILL REMAIN AS A PERMANENT PART OF THE EQUIPMENT, AND THE FILTERS WILL BE IN PLACE UNTIL CONSTRUCTION IS COMPLETED AND FUEL HAS BEEN BROUGHT ON SITE.	
THE COILS WILL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION BY THE FILTERS. AFTER THE CONSTRUCTION PHASE THE COILS WILL NOT BE SUBJECT TO BEING DAMAGED BECAUSE OF THE LIMITED ACCESS TO THE CONTAINMENT AND DRY WELL AREAS OF THE REACTOR BUILDING.	

E&DCR-#C-13,417

J.O. No. 12210 ~~XEL-CORE-NOTE~~ Copy to:

Job Book 1070

TIME	DATE
10:00	2/9/88

Name	Company
From: J.K. HAM	S&W-SEG
To: R. BROWN/S. VISICHIO	S&W-HVAC SPECIALIST

TOPIC:

DISCUSSION:	ACTION REQUIRED:
I DISCUSSED THIS WITH MR. R. BROWN ON FEB. 9, 1988. WE BOTH CONCLUDED THAT THE SCREENS WERE NOT NEEDED TO PROTECT THE COOLING COILS IN THE CONTAINMENT AND DRYWELL AREAS, AND THAT THE NOTE REQUIRING THEIR INSTALLATION BE REMOVED FROM THE DRAWINGS.	
SEG WILL INITIATE AN E&DCR TO REMOVE NOTE 11 FROM DRAWING EB-15R.	

A521065

STONE AND WEBSTER ENGINEERING CORPORATION
ENGINEERING & DESIGN COORDINATION REPORT

PAGE 1 OF 2

E&DCR NO. C-13,431A

PROJECT/CLIENT: RIVER BEND PROJECT UNIT №1 / G.S.U.

JOB ORDER NO.: 12210

P.O. NO (S.E.W.): N/A

REASON CODE (S): V

EQUIP. I.D. NO. (S)/SYS. CODE (S): 1HVR * DUCT

REFERENCE DOCUMENTS: EB-15L-6 EB-15Q-7

SUPPLIER (OR SUBSUPPLIER) NAME: N/A

DESCRIPTION SUMMARY: SCREENED OPENING RELOCATIONS

REMARKS: SUPERSEDES C-13,431

PROBLEM DESCRIPTION

ORIGINAL

DUE TO THE CUMULATIVE EFFECTS OF DUCT FABRICATION TOLERANCES AND AS-BUILT CONDITIONS OF THE SUPPORT STRUCTURE CONSTRUCTION REQUEST TO RELOCATE SCREENED OPENING DIMENSIONS ON THE RETURN AIR RISERS ABOVE THE CONTAINMENT VESSEL IN THE REACTOR BLDG.

~~FE~~ 15.2-3947 THESE RISERS (TOTAL OF FOUR) ARE SHOWN ON SECT. 28-28, EB-15Q-7.

REVISION A

THE DIMENSIONS ON C-13,431 ARE NOT TYPICAL FOR ALL FOUR RISERS. THE SCREENED OPENINGS FOR EACH RISER ARE SPECIFICALLY LOCATED.

INITIATOR	AREA/DEPT	TEL. EXT.	DATE	DATE NEEDED	APPROVED	ENGR. RESP
BRIAN SIEVERS	POWER	x 568	3/23/84	3/24/84	[signature]	x P

PROBLEM SOLUTION

SUPERCEDES C13431

SECT 28-28 ON EB-15Q ~~EB-15Q~~ DS 3/23/84 SHALL BE REVISED AS ON PAGE 2 OF 2 OF THIS E&DCR.

NON-ASME

EOS:N EOC:N SC:N

AFFECTED DOCUMENT NUMBERS	TYPE	STATUS
EB-15Q	D	C

STATUS
C - WILL BE INCORPORATED
N - WILL NOT BE INCORPORATED
I - NO CHANGE

RELATED ACTIVITIES: N/A	QA CAT: I		
ANSWERED BY: Brian Sievers	DATE: 3/23/84	SUB ITEM: 01	WORK RESP: 1SW
RESP. LEAD ENGR.: [signature]	DATE: 4/23/84	EQ RELEASE NO.: 1B.HVR.001	SUB ITEM: 02 / WORK RESP:
MATERIALS ENGR.: N/R	DATE:	WBS NO.: JRB/1A	EQ RELEASE NO.: / WBS NO.:
EQUIP. SPEC.: N/R	DATE:	WORK COMPLETION	NWR ☐ / DATE:
QSD OR EA: N/R	DATE:	INSP. REPORT NO/SIG	DATE:
PROJ. ENGR.: [signature]	DATE: 3/23/84	FINAL WORK TRACKING CLOSURE	DATE:

CLIENT APP REF / REQ'D ☐ / NR ☒ / DATE

DESCRIPTION (01): SCREENED OPENING RELOCATIONS

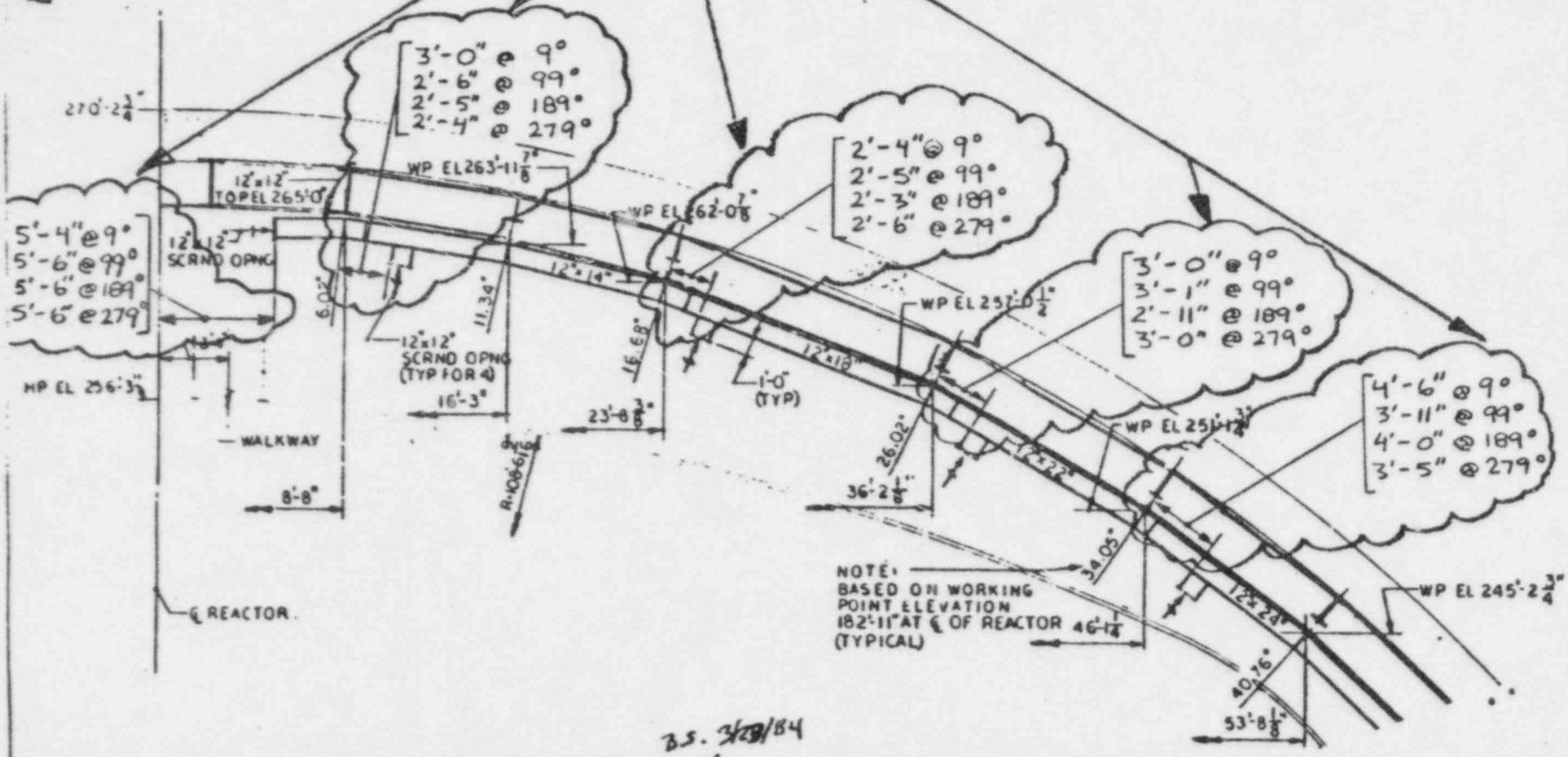
REMARKS (01): N/A

DESCRIPTION (02):

REMARKS (02):

E&DCR C-13,431A
PAGE 2 OF 2

THIS E&DCR



B.S. 3/29/84

REF: EB-15Q-67
SECTION 28-28

TITLE	REACTOR BLDG. DUCTWORK
SCALE:	
DATE:	
SKETCH NUMBER	C-13,431 A
CHECKED	
CORRECT	
APPROVED	
REVISIONS	② ③ ④ ⑤

TAB VIII

EQUIPMENT REQUIRED TO
SURVIVE A HYDROGEN BURN

Equipment Not Included On Essential Equipment List

1. CMS-Containment Atmosphere Monitoring-Drywell Temperature Monitoring

   Justification: Previous revisions of the Hydrogen Control Emergency Procedure Guideline contained a Hydrogen Deflagration Temperature Limit (HDTL) upon which various operator actions were to be taken. This curve will probably be removed from the EPG since it is expected that the Hydrogen Deflagration Overpressure Limit (HDOL) will be more limiting. No operator actions will be based on temperature.

2. CMS-Containment Atmosphere Monitoring

   The majority of the CMS sampling points are not required. Therefore, the solenoid valves (SOV33A, SOV33AA, SOV33C, SOV33G, SOV33J, SOV33S, SOV33U and SOV33W) are not included. The remaining solenoid valves provide two sample points in the drywell (1 per division) and two sample points for the containment (1 per division).

3. HCS-Hydrogen Recombiner

   The Hydrogen Recombiners were not included since they will only be used during this event, within their design limits. The recombiners will be secured at a hydrogen concentration of 6%.

4. SWP-Service Water

   The service water supply valves for the unit coolers are notincluded since they will have performed their function prior to significant hydrogen generation.

5. CMS-Containment Atmosphere Monitoring-Containment Temperature Monitors

   These temperature monitors were deleted for the same reasons as the drywell temperature monitors.

EQUIPMENT REQUIRED TO SURVIVE A HYDROGEN BURN

Equipment Identification	Function	Equipment Description/ Make/Manufacturer Vendor Model/Catalog No.
Drywell		
Automatic Depressurization System (ADS)		
1B21*RVF041B 1B21*RVF041C 1B21*RVF041D 1B21*RVF041F 1B21*RVF047A 1B21*RVF047C 1B21*RVF051G	Main Steam Safety/ Relief Valves (ADS)	Crosby 8 x R x 10, Style HB-65-DF
HCS Hydrogen Igniter System		
1HCS*IGN49A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN49B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN50A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN50B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN51A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN51B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN40B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN41A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN41B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN42A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN42B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN40A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN28A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN28B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN29A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN29B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN30A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN30B	Hydrogen Igniter	Power Systems Model 6043
Containment		
CMS Containment Atmosphere Monitoring		
1CMS*SOV33E	Containment Atmosphere Sampling	Solenoid Valve, Target Rock TRCP 77KK-003
1CMS*SOV33F	Containment Atmosphere Sampling	Solenoid Valve, Target Rock TRCP 77KK-003

1CMS*SOV34A	Drywell Atmosphere Sampling	Solenoid Valve. Target Rock TRCP 77KK-003
1CMS*SOV34B	Drywell Atmosphere Sampling	Solenoid Valve, Target Rock TRCP 77KK-003

CPM Containment Hydrogen Mixing

1CPM*FN1A (Note 1)	Mixing Fan	Fan Motor, Buffalo Forge West TBFC 145T
1CPM*FN1B (Note 1)	Mixing Fan	Fan Motor, Buffalo Forge West TBFC 145T
1CPM*MOV1A (Note 1)	Exhaust Valve	Motor-Operated Valve, Posi-Seal LMTQ SMB-000-2
1CPM*MOV1B (Note 1)	Exhaust Valve	Motor-Operated Valve, Posi-Seal LMQT SMB-000-2
1CPM*MOV2A	Supply Valve	Motor-Operated Valve, Posi-Seal LMTQ SMB-000-2
1CPM*MOV2B	Supply Valve	Motor-Operated Valve, Posi-Seal LMQT SMB-000-2
1CPM*MOV3A (Note 1)	Exhaust Valve	Motor-Operated Valve, Posi-Seal LMTQ SMB-000-2
1CPM*MOV3B (Note 1)	Exhaust Valve	Motor-Operated Valve, Posi-Seal LMQT SMB-000-2
1CPM*MOV4A	Supply Valve	Motor-Operated Valve, Posi-Seal LMTQ SMB-000-2
1CPM*MOV4B	Supply Valve	Motor-Operated Valve, Posi-Seal LMQT SMB-000-2

(Note 1: The Hydrogen Mixing System mixing fan and exhaust valves are only required for long-term removal of residual hydrogen from the drywell.

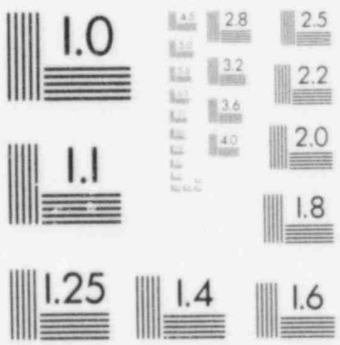
E12 Residual Heat Removal

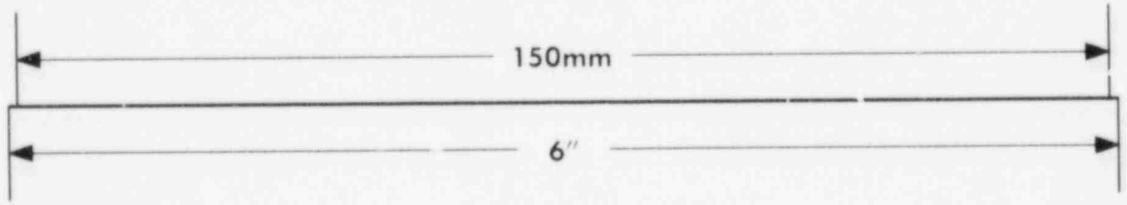
1E12*MOVF042A	LPCI Injection	Motor-Operated Valve, Velan LMTQ SB-2-60
1E12*MOVF042B	LPCI Injection	Motor-Operated Valve, Velan LMTQ SB-2-60

Hydrogen Igniter System

1HCS*IGN43B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN44A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN44B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN45A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN45B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN46A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN46B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN47A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN47B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN48A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN48B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN43A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN32B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN32A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN33B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN33A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN24B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN35A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN36A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN34B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN35B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN36B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN37A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN37B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN34B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN38A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN38B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN39A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN39B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN31A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN31B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN22A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN22B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN23A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN23B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN24A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN25A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN25B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN26A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN26B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN27B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN27A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN21B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN11A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN11B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN13A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN12A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN12B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN14A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN13B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN14B	Hydrogen Igniter	Power Systems Model 6043

IMAGE EVALUATION TEST TARGET (MT-3)





1HCS*IGN15B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN18A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN15A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN17B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN16A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN18B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN19B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN16B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN17A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN20A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN19A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN20B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN21A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN1A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN7B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN3B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN8A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN4A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN1B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN8B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN4B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN9A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN5B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN10A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN6A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN2B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN10B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN6B	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN7A	Hydrogen Igniter	Power Systems Model 6043
1HCS*IGN3A	Hydrogen Igniter	Power Systems Model 6043

HVR Ventilation - Reactor Plant

1HVR*UC1A	Unit Cooler	Unit Cooler Motor, Buffalo Forge West 445TCZ
1HVR*UC1B	Unit Cooler	Unit Cooler Motor, Buffalo Forge West 445TCZ

JRB Superstructure - Reactor Building

1JRB*DRA1	Cont. Personnel Airlock	Door Access, Graver Woolley
1JRB*DRA2	Cont. Personnel Airlock	Door Access, Graver Woolley
1JRB*DRA3	Drywell Personnel Airlock	Door Access, Graver Woolley

1JRB*DRA4	Drywell Equipment Hatch	Door Access, Graver Woolley
1JRB*DRA7	Cont. Equipment Hatch	Door Access, Graver Woolley

Instrumentation

Vessel Level Instrumentation	Various	Various
Instruments Required To Make Each System Function (Instruments Which Provide Indication Of System Operation Are Not Included)	Various	Various
Containment and Drywell Pressure Instruments	Various	Various

QUESTION 480.40 (6.2)

The accident at Three Mile Island, Unit 2 involved a large amount of metal-water reaction in the core with resulting hydrogen generation well in excess of the amounts considered in 10 CFR Section 50.44 of the Commission's regulations. During the past year the staff has been studying the potential of excess hydrogen generation, the effects such concentrations of hydrogen would have on the various types of plants, and the effectiveness of various mitigation systems in protecting the plant against such situations. The results of our studies to date are presented in the SECY 80-107 series of documents. In these reports, we recommend that all BWR Mark I and II containment plants be inerted and that owners of all other plants be required to provide an analysis and/or proposed design (or designs) to mitigate the consequences of large amounts of hydrogen in containment. The associated proposed interim rule was published in The Federal Register on October 2, 1980.

Subsequent to the issuance of SECY 80-107, a substantial amount of additional work has been performed on this issue with emphasis on ice condensers. With respect to ice condensers, and specifically Sequoyah, the Commission has decided that the matter of hydrogen control for degraded core accidents in plants with small containments needs to be resolved in the near term, i.e., the resolution should not be deferred to rulemaking.

In SECY 80-107, the staff showed that Mark III containments are similar to ice condenser containments in regard to their ability to accommodate large amounts of metal-water reaction without jeopardizing containment integrity.

We, therefore request a description of the program to improve the hydrogen control capability at the River Bend Station, Units 1 and 2. In addition provide the analysis of hydrogen generation based on 75% metal-water reaction.

RESPONSE

GSU is a member of the BWR/6 Mark III Containment Hydrogen Control Owners' Group (HCOG) which was formed to address the hydrogen control issue on a generic basis for BWR/6 plants.

Results of the evaluations and studies performed under the auspices of the HCOG will be used to develop a River Bend Station specific hydrogen control program. Additional information on the River Bend Station hydrogen control program, including an analysis of hydrogen generation, will be provided 6 months prior to fuel loading. 5

In addition to the HCOG evaluation and study results, RBS specific analyses and reports will be submitted under separate cover, in accordance with the final rule. 6