



KANSAS GAS AND ELECTRIC COMPANY

GLENN L. KOESTER
VICE PRESIDENT - NUCLEAR

January 21, 1985

Mr. Richard C. DeYoung, Director
Office of Inspection and Enforcement
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

KMLNRC 85-037
Re: Docket No. STN 50-482
Ref: Letter KMLNRC 84-238 dated 12/31/84 from
GLKoester, KG&E, to RCDeYoung, NRC
Subj: Supplemental Response - EA 84-107

Dear Mr. DeYoung:

The Reference transmitted Kansas Gas and Electric Company's (KG&E) response to the Notice of Violation concerning structural steel welding at Wolf Creek Generating Station. Subsequent to the issuance of that response, KG&E has determined that some of the corrective actions concerning the installation of a few specific welds identified in Appendix D of the response must be revised because the weld locations are inaccessible. The KG&E Management Plan has always been to install any missing weld (even if not required to meet design allowables) unless the weld location was inaccessible. In the event the location was inaccessible, the Architect/Engineer would evaluate the joints on a case-by-case basis and either disposition the joint for use-as-is (i.e., design allowables were met in the as-built condition) or make a design change to meet the design allowable stress. In any event, the design allowable stress would be accommodated and the design changed to reflect the "as installed" configuration. Therefore, in accordance with the KG&E Management Plan the disposition of some of the Nonconformance Reports associated with the missing welds identified in Appendix D of the Reference have been changed to use-as-is due to the inaccessibility of the weld location. Attachments A and B provide revised sections of the initial response to reflect the final disposition of the welds discussed in Appendix D.

The attached revisions include the following changes:

1. Editorial changes.
2. Revision of Section IV to reflect the closure of item 1a3 concerning Welder Qualification Procedures. This item was open when the initial response was submitted.
3. Revision of sections I through V and Appendix D to reflect the number of joints reworked as a result of revised dispositions as described above. It should also be noted that the total number of joints evaluated was changed from 2669 to 2670 due to a counting error in the initial report on this subject.

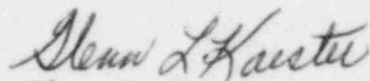
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4. Revision of Appendix D to reflect the final disposition of specific missing welds.

Please replace sections I through V of the original report transmitted by the Reference with Attachment A and replace Appendix D of the original report with Attachment B. Please contact me or Mr. Otto Maynard of my staff if you have any questions concerning this supplemental response.

Yours very truly,



Glenn L. Koester
Vice President - Nuclear

GLK/keh

cc: PO'Connor (2)
WGuldemon
HBundy
RDMartin

Attachment A to KMLNRC 85-037

ATTACHMENT A

I. CAR-19 EXECUTIVE SUMMARY

Because of deficiencies (i.e., undersize, undercut,...) previously found in fillet welds on ASME and Special Scope hangers, DIC performed a random reinspection of structural steel fillet welds in February, 1983 in all "Q" designated buildings in the Powerblock. This reinspection indicated that an unacceptable percentage of structural steel fillet welds were deficient in the Auxiliary, Control and Fuel Buildings. A Corrective Action Report (CAR 1-W-0029) was initiated by DIC to implement reinspection, and nonconformance reports were generated to document and disposition deficiencies noted.

Subsequent to the issuance of CAR 1-W-0029 it was determined, during the course of document reviews in the Building turnover process, that Miscellaneous Structural Steel Weld Records (MSSWR's) could not be located as procedurally required for all structural steel welds in "Q" designated buildings. These missing MSSWR's resulted in DIC issuance of CAR 1-C-0031.

The concerns addressed in CAR's 1-W-0029 and 1-C-0031 as well as other items listed in the "Introduction" section of this report caused KG&E Construction Quality Control to initiate a limited inspection verification program. Through this inspection program additional concerns were raised as a result of the inspection verification results. These results identified instances of missing welds which had no inspection records, two missing welds which had inspection records, and welds with inspection records that did not completely comply with project inspection and documentation criteria. The results of the verifications combined with the missing weld inspection records identified the need for a formalized action plan to fully investigate the concerns and formulate corrective action as necessary. To accomplish this KG&E QA initiated Corrective Action Request 19, describing the concerns and recommending corrective action on October 17, 1984. Based on the corrective actions recommended by CAR-19 and additional actions deemed warranted in support of the investigations, a Management Plan was developed to designate the nature and extent of the investigations.

The Management Plan covered three basic categories of investigation and evaluation. One category was a process of reinspection to identify and evaluate actual hardware conditions in the field. A second category addressed the programmatic aspects of Structural Steel erection through evaluation of both construction and quality program procedures. A third category addressed related considerations such as other AWS D1.1 applications, evaluation of missing welds identified during the reinspections, evaluation of acceptable inspection records completed for welds found to be missing, and review and evaluation of surveillances, audits, and reports pertinent to AWS welding. Although not initially in the scope of KG&E CAR-19, non-welding related quality programs were reviewed for comparable programmatic deficiencies. In accomplishing this KG&E and DIC conducted an extensive program assessment of the Piping, Hanger, Mechanical, Electrical and Civil disciplines to ascertain the adequacy of the construction and quality programs instituted. This program assessment was conducted by KG&E and DIC Management representatives, and concluded that a satisfactory level of confidence exists to assure compliance of these to 10CFR50, the FSAR, ANSI N45.2, and design and procedural requirements.

The intent of the program evaluation was to evaluate the various construction and quality programs/procedures to determine their compliance to the AWS D1.1 Welding Code and FSAR commitments. This evaluation included

relevant aspects of the various related programs from the initiation of purchase orders for procurement of structural steel and welding materials, to final installation and quality acceptance. The procedures for receiving, storage and handling of materials were evaluated, as well as compliance of procedures for training and certification of inspectors to ANSI N45.2.6 and welder qualification to AWS requirements. The procedure reviews included a thorough evaluation from their origination through subsequent revisions, including an analysis to assure current conformance to design document requirements. No findings were noted that were determined to be contributing factors to inadequacies in AWS D1.1 applications, although some procedural inadequacies were discovered and reconciled.

All other safety-related programs utilizing AWS welding were analyzed to ensure that the root cause identified as the reason for previous acceptance of deficient structural steel welds was not inherent, or impactive, to these programs as well. The method of documenting weld inspections, control of this documentation, and accountability to assure all required documentation was retrievable was researched for AWS D1.1 welding applications in raceway supports, electrical equipment, mechanical equipment, fire dampers, safety-related HVAC ductwork and supports, miscellaneous steel and embed fabrication, and pipe whip restraints for assurance that problems similar to those encountered in structural steel did not exist. Previously compiled information including Construction Self Assessment Reports, KG&E QA Reports and Surveillances, DIC QA Reports, DIC Project Monitoring Program Audits, and DIC Corrective Action Reports were reviewed to determine if the results of previous investigations indicated other potential problem areas relevant to AWS D1.1 welding. No findings were noted that could be considered to be contributing factors to inadequacies in AWS D1.1 programmatic applications. An analysis of hardware installations for other project applications of AWS D1.1 welding identified one other area to be investigated for AWS welding problems. This is in the area of electrical equipment installations where the method of permanent installation is by welding the equipment mounting frame to foundation embeds. DIC is addressing this potential problem on Corrective Action Report No. 1-EW-0046.

Reinspection of field welds was conducted utilizing AWS Certified Welding Inspectors who were also certified to the DIC Quality Program requirements of ANSI N45.2.6. Inspections were performed in strict compliance to the Inspection Verification Plan which established inspection criteria and documentation requirements, and was incorporated into an existing DIC Quality Procedure, QCP-VII-200, and approved by DIC, Bechtel, and KG&E.

DIC and Bechtel research substantiated that DIC welders and welding procedures applicable to AWS D1.1-1975 welding of structural steel installations were satisfactorily qualified in accordance with AWS requirements. Research by DIC and Bechtel resulted in assurance that the programs and procedures for the purchase and control of weld filler materials used in AWS D1.1 applications were in compliance with AWS requirements, and were properly implemented on site.

The retrievability and control of Miscellaneous Structural Steel Weld Records was thoroughly researched, and a determination made that inadequate implementation of DIC Construction procedures was the primary contributing factor relative to retrievability and accountability problems in this area.

An evaluation of the DIC Quality inspection training program demonstrated that this program and related procedures were in compliance to ANSI N45.2.6. Further investigation concluded that Quality inspection training was appropriate and adequate during the structural steel installation time frame.

An evaluation of DIC Quality inspection procedures and criteria applicable to the original structural steel installation/inspection period revealed several procedural inadequacies. A thorough analysis of the omission of each inspection criterion of AWS D1.1 structural steel applications was accomplished, with the conclusion that no adverse impact had resulted from these procedural inadequacies relative to AWS D1.1 welding inspection.

Inspection criteria to be used in the structural steel reinspection activities was procedurally defined and training of all personnel completed prior to reinspection initiation. Sufficient technical justification was established by Bechtel to validate inspection of welds through a predetermined maximum thickness of paint. An analysis of reinspection results determined the root cause of the previous acceptance of deficient structural welds to be due to DIC inspection implementation differences relative to inspection vs. reinspection techniques, and inadequate implementation of applicable DIC procedures during original inspection efforts. These inspection implementation differences are discussed elsewhere in this report, referencing the Reedy, Herbert, Gibbons documentary included in the Appendix, section VI.G.

Two joints (each missing one weld) of the two thousand six hundred seventy (2,670) reinspected (representing more than 11,000 welds) had documentation reflecting the installation of these welds when in reality they were not installed. Research revealed no evidence to indicate that either was a case of deliberate falsification. Additional investigations did indicate that human error was the cause of incorrectly documenting these nonexistent installations.

Reinspection found that approximately two (2) percent of the inspected welds were not installed as required by design documents. These errors were primarily due to craft/engineering confusion relative to installation drawing details and requirements. Failure to install these welds and materials, although in some cases determined to be significant in impact to stress allowable calculations, would not have resulted in material or structural failure if left uncorrected.

The total number of joints subjected to the reinspection program was two thousand six hundred seventy (2,670). These joints were selected by Bechtel as structurally significant (See Appendix IV. D) with the distribution being: 694 in the Auxiliary Building, 1300 in the Reactor Building, 265 in the Control Building, 98 in the Diesel Generator Building, 36 in the ESWS Pumphouse, and 277 in the Fuel Building. The reinspection documented an as found condition regardless of the weld acceptability. All results were forwarded to Bechtel in the form of inspection data sheets for evaluation. This evaluation was based upon Bechtel's review of reinspection data accumulated and nonconformance reports (NCR's) generated. The evaluation for structural adequacy was made based upon this cumulative data that

reflected the as-built condition of the structurally significant joints prior to any rework or repairs. No deficiencies were identified, which if left uncorrected, would have adversely affected the safe operation of the plant. The results of this evaluation provides assurance that Safety Related AWS D1.1 structural steel welding complies with all Quality criteria as specified in the related design documents, and is within the tolerances of acceptable deviation as determined by the Architect/Engineer.

Joints that in the as-built condition were determined to exceed the design allowable stresses were all reworked unless prohibited by field conditions. In addition joints in which the design allowable stresses were not exceeded in the as-built condition but were missing welds, were also reworked unless prohibited by field conditions.

II. INTRODUCTION TO CAR-19

A series of activities as identified below pertaining to weld inspection at Wolf Creek ultimately led to the issuance of KG&E CAR-19 addressing AWS D1.1 Structural Steel welding concerns.

In September, 1980, DIC initiated Corrective Action Report 1-M-0007 due to improper inspection technique application, which required 100% reinspection of all socket welds on small bore piping installed prior to June, 1980. Subsequent to this reinspection effort, DIC generated Corrective Action Report 1-W-0019 on August 17, 1982, due to a significant quantity of fillet weld discrepancies being identified, which required 100% reinspection of all fillet welds on ASME and Special Scope piping hangers made prior to April 1, 1981. DIC performed a random reinspection of structural steel fillet welds in February, 1983, in all "Q" designated buildings in the Powerblock to determine whether structural steel welds may have been deficient as a result of the same root cause relative to CAR 1-W-0019. It was determined from these reinspection results that an unacceptable percentage of structural steel welds were deficient in the Auxiliary, Control, and Fuel Buildings. Thus CAR 1-W-0029 was initiated by DIC to implement reinspections, and nonconformance reports were generated to document and disposition the deficiencies noted.

As a result of documentation review prior to building turnovers DIC initiated CAR 1-C-0031 in August, 1983, to document that Miscellaneous Structural Steel Weld Records (MSSWR) could not be located as required by procedures for all structural steel welds in "Q" designated buildings. Nonconformance Reports were generated to document missing MSSWR's in each of these buildings.

KG&E and DIC site management held meetings in May, 1984, to further discuss retrievability of MSSWR's and the problems that had been identified to date. Concerns were expressed through KG&E Quality First to KG&E Construction Management regarding the acceptability of "Use-As-Is" dispositions given to NCR's written as part of CAR 1-C-0031's corrective action in July, 1984, and KG&E Management requested DIC to generate a revision to CAR 1-C-0031 in letter KWCLC 84-814 of July 30, 1984, in response to some concerns noted. Revision 6 to CAR 1-C-0031 was generated by DIC in response to KG&E's concerns.

KG&E Quality Assurance performed a detailed review of DIC CAR 1-W-0029 and 1-C-0031 in August, 1984, identifying numerous concerns to KG&E Construction. In response KG&E Construction began a documentation reconciliation task on August 13, 1984, to determine which safety-related structural steel welds did not have supportive MSSWR's.

On August 17, 1984, KG&E Construction Quality Control initiated an Inspection Verification Plan to provide an accurate assessment of the "as-built" conditions of safety-related structural steel welds without MSSWR's. DIC and KG&E Management discussed revision of this inspection program on August 30, 1984.

KG&E, DIC and Bechtel made a joint presentation to an NRC Task Force on September 10, 1984, which identified the belief at that time that the problem was one of document retrieval, and not a hardware problem. The NRC Task

Force discussed the problems with KG&E again on September 13, 1984, during which KG&E Management agreed to perform a sample hardware inspection of six (6) randomly selected structurally significant joints in the Reactor, Fuel, Control, Auxiliary, Essential Service Water, and Diesel Generator Buildings. This inspection resulted in the discovery of missing welds and missing structural members, which were reported to the NRC by KG&E under 10CFR50.55(e) on September 18, 1984. Subsequent meetings were held with NRC Representatives on September 25, 1984, and September 28, 1984, to status inspection efforts and provide information updates. An AWS Welding meeting was held with the NRC on October 19, 1984, on site relative to structural steel welding, with a follow-up meeting on October 22, 1984, in which KG&E Management discussed AWS structural steel welding concerns with the NRC.

On October 17, 1984, KG&E Quality Assurance issued CAR-19 to KG&E Construction to obtain corrective actions associated with AWS D1.1 structural steel welding. The findings addressed in CAR-19 included missing MSSWR's for safety-related structural steel welds; deficiencies being identified in previously accepted structural steel welds, missing structural welds or missing structural material; and documentation that a weld was inspected and accepted, but no weld was installed.

KG&E and DIC Management representatives subsequently developed a logic chart to organize resolutions relative to CAR-19's concerns, a Management Plan to implement corrective actions, and published a CAR-19 Corrective Action Schedule to provide a means for tracking corrective action progress.

In addition, KG&E Management contracted Lehigh University to review the problems associated with the structural welds in the structures at Wolf Creek Generating Station. The results of their review is included in Appendix VI.F of this report.

III. CAR-19 OBJECTIVES

- ° To document a consolidated project plan for the identification, evaluation and resolution of problems associated with Safety-Related AWS D1.1 Welding.
- ° To provide assurance, based on objective evidence, that AWS D1.1 Welding of Safety-Related Structural Steel complies with all Quality Criteria as specified in the related design documents and is within the tolerances of acceptable deviations as determined by the Architect/Engineer.
- ° To provide assurance that the documentation which supports the inspection of safety related structural steel welds is:
 - Available - Complete - Reflects appropriate information - Traceable to the item or activity
- ° To evaluate supporting elements of the DIC Quality Assurance Program to ensure that those elements were adequately and effectively implemented to demonstrate that the DIC welding of Safety Related Structural Steel, HVAC Supports, Electrical Supports, Pipe Whip Restraints and any other AWS D1.1 safety related welding activities were in compliance with the FSAR (i.e. AWS D1.1 - 1975) and the Design and Construction QA Program Manual, Section 17.1.B.
- ° To evaluate DIC Construction/Quality programs in areas other than AWS D1.1 welding to determine the potential of programmatic deficiencies.

IV. CAR-19, DISCUSSION OF FINDINGS AND CORRECTIVE ACTIONS

The KG&E Management Plan for the resolution of CAR-19 was developed by DIC and KG&E Management personnel to document a consolidated project plan for the identification, evaluation and resolution of problems associated with safety-related AWS D1.1 welding. The intent of this plan is to verify that both the hardware and programmatic aspects of all safety-related activities utilizing AWS D1.1 welding are in compliance with the FSAR and the Design and Construction Program Manual.

The logic chart for the resolution of CAR-19 was developed to illustrate the approach to be used in providing the verifications needed for implementation of satisfactory corrective action. The Corrective Actions as described in the KG&E Management Plan are identified in the flow of activities as designated on the logic chart. The logic chart is included as an attachment to this report in the Appendix, section VI.B.

Five (5) findings were included in CAR-19. The detailed activities and investigative actions required to implement each Corrective Action are delineated in the KG&E Management Plan. The process of corrective action for each finding generated by CAR-19 entails multiple activities. Each finding and its respective corrective actions are discussed in detail in the following. Supportive and/or investigatory documentation for each finding as discussed in this section is delineated in the Appendix, section VI.I.

Finding #1 of KG&E CAR-19 stated, "The results of the Document Reconciliation Task Force indicated that 1509 of 6816 MSSWR's for Safety Related Structural Steel Welds are missing".

Six (6) corrective actions were prescribed as appropriate for the resolution of this finding and related concerns. These corrective actions were focused toward programmatic evaluations, procedural criteria evaluations, and a reinspection program utilizing certified inspectors. Following is each of the six (6) corrective actions for Finding #1 with an analysis of the investigative actions taken and a summarization of each corrective action's results in accordance with the KG&E Management Plan's directions.

Corrective Action 1a)

"Based on DIC program requirements assure that all of the welders and welding procedures were qualified to AWS D1.1."

This activity was subdivided into three elements of research. These elements included development of an AWS D1.1-75 Attribute Checklist analyzing individual attributes relative to the welding process. The checklist lists all AWS requirements and compares those requirements with DIC Construction Welding Procedure requirements, in each case citing explicitly how the corresponding DIC procedure addresses separate AWS criteria. This checklist is conclusive data that provides evidence of all AWS D1.1-75 criteria being adequately addressed by DIC Construction Welding Procedure, CWP-506, "Welding of Carbon Steel". An attachment to this checklist documents the procedure review cycle for CWP-506, showing that each revision from 09/14/78 through the current revision dated 05/21/81 was consistently reviewed and approved by the individuals designated that responsibility.

A second element of this activity was the statistical sampling of AWS Welder qualifications in accordance with MIL-STD-105D. The total quantity of retrievable Miscellaneous Structural Steel Weld Records (MSSWR) applicable to AWS welding was initially identified to define the total population to be used in selecting a sample size. A "Single Sampling Plan for Normal Inspection" was utilized, randomly selecting MSSWR's for review of welders' qualifications. This sample included a variety of welders, a variety of AWS welding procedures, a representative sample of welders during the 1978-1984 time frame, and sampling from welders working in all Powerblock buildings. Identification of welders was taken from the MSSWR's and welder qualification records (W-105). These were then reviewed to assure that each welder was qualified to the weld procedure entered on the MSSWR at the time of weld installation.

A sample size of two hundred (200) was selected as being most representative, given the previous considerations. Based upon Table II-A of MIL-STD-105D, DIC desired a ninety-six percent (96%) Acceptable Quality Level (AQL). This AQL accepts fourteen (14) rejectable units from a sample of two hundred (200), and rejects the entire population when the fifteenth (15) rejection of the sample is observed.

Research performed by DIC Welding Engineering revealed thirteen (13) incorrect entries on MSSWR's, with only four (4) of these considered "rejectable" due to the nature of the discrepancies. All thirteen discrepancies were due to incorrect entries being made on the MSSWR, with nine (9) of the thirteen having the weld technique entered as N-1-1-A-6 rather than N-1-1-A-6A. These two weld techniques were evaluated by DIC Welding Engineering by comparison of attributes and essential variables, and it was determined that no adverse impact existed. The four (4) entries considered rejectable were due to welders incorrectly entering a welding procedure number for which they were not qualified on an MSSWR.

A Nonconformance Report, 1SN 20984CW, was generated to document all thirteen (13) discrepancies noted, and was recommended for a "Use-As-Is" disposition by DIC Welding Engineering. This Nonconformance Report has been reviewed and disposition concurrence received from Bechtel, closing the NCR.

The third element of this activity was a review by Bechtel of DIC Welder Qualification Procedure and the DIC Welding Procedure Specifications to assure compliance to AWS D1.1-75.

Bechtel reviewed DIC Construction Welding Procedure, CWP-502, "Qualification of Welders", all revisions up to and including Revision 19. This review indicated full compliance with the AWS D1.1-75 for revisions 1 through 18. However, Revision 19 does not strictly comply with AWS D1.1-75 in the following areas. Nonconformance Report 1SN21472MW was generated to document these deviations and was dispositioned "Use-As-Is" by DIC Welding Engineering. Support for this disposition was generated by DIC Corporate Welding Engineering as well as by AWS.

Bechtel randomly selected Welding Procedure Specifications (WPS) from MSSWR's applicable to structural welds in the 1978-1984 time frame. The review of the WPS' indicated full compliance with AWS D1.1-75 with one exception, undercut criteria, which was allowed by the Wolf Creek Final Safety Analysis Report, Revision 0, October, 1979. Three of the WPS' permitted undercut to be acceptable provided the depth did not exceed 1/32 inch, which is a relaxation of AWS D1.1-1975 undercut criteria.

The exception to the AWS D1.1-75 undercut criteria exists in Revision 0 of the Wolf Creek Final Safety Analysis Report, Section 3.8.3.6.3.3, dated October, 1979, and was also added by a revision to Bechtel Civil Specification C-122 and C-132, the design specifications applicable to the structural steel connections in the CAR-19 reinspection program. Based upon these facts the Bechtel Material and Quality Services Department (M&QS) determined that the WPS' used during erection/installation of structural steel members did comply with AWS D1.1-75. Paragraph 1.1.2 of AWS D1.1 defines the "Engineer" as the duly designated authority who acts for and in behalf of the Owner, and the exception to AWS undercut criteria was documented in the FSAR to comply with this paragraph.

It is Bechtel M&QS' conclusion that the review of the DIC WPS' and supportive documentation demonstrates that the welding procedures used by DIC during structural steel installation did comply with the AWS D1.1-1975 Structural Welding Code Edition when used concurrently with supportive design documents and the revisions to the FSAR.

In conclusion, the three elements of analysis included in the research performed on Activity 1a offer assurance that all DIC welding procedures were qualified in accordance with AWS D1.1-75 requirements.

Corrective Action 1b)

"Review the DIC Program for the purchase and control of filler material to ensure that only acceptable filler material was used in safety related welds. Assure that both safety related and non-safety related filler materials were properly controlled to preclude improper applications."

This activity was divided into two elements of research, those being; the DIC review of procedures for the purchase and control of filler and base materials, and Bechtel's review for the purchase and control of filler materials.

DIC Civil Engineering performed an in-depth review of the DIC Program for purchase of structural and miscellaneous steel and found the DIC Program to be in accordance with the requirements of Bechtel Specifications 10466-C-121 (Purchase of Structural Steel), and 10466-C-131 (Purchase of Miscellaneous Steel). These specifications and their respective DIC procedures were found to adequately address applicable requirements for assuring correct material specification, grade, marking, traceability and other Quality Assurance requirements. In addition these specifications and procedures provide for buyer verification of any or all of the established specification requirements.

The DIC procedures applicable to procurement activities are as follows:

- AP-VII-01 Development and Approval of Bidders List
- AP-VII-02 Requisitioning of Daniel Procured Materials, Equipment and Service
- AP-VII-03 Bid Requests
- AP-VII-04 Receiving and Processing Bid Proposals
- AP-VII-05 Issuing Purchase Orders and Change Orders

During a self-initiated KG&E review of safety-related procurement records in January, 1984, several cases were identified in which DIC purchase orders did not comply with all A/E specification requirements. As a result of these findings, DIC initiated a Corrective Action Report (CAR) 1-G-0036, to perform a complete review of all purchase orders to verify compliance to specification requirements. This investigation encompassed the review of five hundred thirty-six (536) safety-related purchase orders to assure hardware and documentation to be in compliance with specifications. Any discrepancies identified during this review were documented on Nonconformance Reports for resolution by DIC, KG&E and the A/E. Those nonconformances identified relative to structural steel were determined to be all documentation related with no hardware impact. All corrective actions were completed, all Nonconformance Reports resolved and closed, and Corrective Action Report 1-G-0036 was closed on 05/24/84.

DIC Civil Engineering accomplished a detailed study of the control and issuance of base materials applicable to structural steel installations. This review was based upon a thorough analysis of material control requirements for this application in the following DIC procedures:

- AP-VIII-02 Material and Equipment Receiving
- AP-VIII-03 Identification, Marking and Inspection
- AP-VIII-04 Receiving Discrepancies
- AP-VIII-05 Material Storage and Control
- AP-VIII-07 Material Issue
- QCP-IV-111 Erection of Structural Steel and Pipe Whip Restraints
- WP-IV-111 Structural Steel and Pipe Whip Restraint Erection

This review investigated such areas as the use of Structural Steel Fabrication Requests, requisitioning and issuance of the material to craft for erection, maintenance of traceability through heat number transfer for material that is divided, and documentation of this heat number on permanent plant records. DIC Civil Engineering's research concluded that acceptable control and utilization of base materials is maintained through DIC programs and procedures.

Bechtel's Materials and Quality Services Group furnished information based on their research to ensure that the DIC Procurement program had in fact resulted in the proper filler material being purchased and subsequently utilized in structural steel installation activities. This review was documented in attachments to a letter from B. W. Bain of Bechtel Materials and Quality Services to Gary Stanley on 10/16/84. This analysis entailed the following activities: (1) A review of purchase orders/certified material test reports for conformance to AWS D1.1 requirements to verify that all heat numbers for welding filler material are acceptable for structural steel installations, (2) A comparison of all E7018 weld rod heat numbers issued to the DIC Rod Room during the time frame of structural steel installation/erection to verify that correct filler material was used, (3) A review of the DIC weld filler material issuance control procedure/program to ascertain that welders were only issued filler material for the welding procedures to which they were qualified, and applicable to the work being performed.

The results of these investigations were positive, with no discrepancies being found. This effort further substantiates that correct weld filler material was utilized in structural steel erection. DIC Welding Engineering reviewed the procedural details relative to issue of weld filler materials, identifying the control of filler materials explicitly for field issue as well as test shop issue. This review indicates that control is adequate, with supportive documentation, thereby assuring proper filler material issue. DIC Welding Engineering also noted that Quality Inspection performed, as required by DIC Construction Procedure QCP-VII-200, Inspection of Welding Process, random surveillances of welding process attributes. Among the attributes covered by this surveillance are that filler material control is implemented according to applicable welding procedures, and that the welder is currently qualified to the weld technique to be employed.

DIC Welding Engineering performed a review of the specification and procedural requirements relative to the purchase, issue and control of filler materials. It was determined that only E7018 electrodes have been used in AWS D1.1 applications, as required by all site AWS D1.1 welding techniques. All E7018 electrodes purchased by DIC are required to conform to AWS A5.1 (Specification for Mild Steel Covered Arc Welding Electrodes). To substantiate this fact DIC Welding Engineering performed a review of all purchase orders that involved E7018 electrodes. All these purchase orders were proven to have adequate documentation to justify that the electrodes conform to AWS specification A5.1.

Based upon procedural requirements, weld filler material issue controls, and random Quality Inspection surveillances, assurance has been provided that only acceptable filler materials have been utilized and that control has been as required for all AWS D1.1 applications.

Corrective Action 1c)

"Evaluate the adequacy of the DIC inspection criteria and procedures to determine if these elements could have adversely impacted the inspection results. Document and provide this evaluation to KG&E QA for review prior to inspection implementation. Any changes in inspection criteria and procedures shall be provided to KG&E QA for review prior to implementation."

This activity was divided into two elements. The first element was a review of DIC weld inspection criteria contained in QCP-VII-200. The inspection criteria was reviewed to determine compliance with AWS D1.1-75 and Bechtel Specifications 10466-C-132. The second element was to evaluate the results and determine if these elements could have adversely impacted the inspection results.

An AWS D1.1-75 and Bechtel Specification attribute checklist was developed by DIC Quality Engineering. Inspection criteria defined in QCP-VII-200, Appendix II was reviewed in accordance with the checklist. The review indicated that currently QCP-VII-200, Revision 20, meets or exceeds the inspection criteria as delineated in AWS D1.1-75 and the Bechtel specifications. The review of the QCP-VII-200 procedural history revealed most criteria was presented verbatim from AWS or the Bechtel specification. Other criteria, although not verbatim, was interpreted as being in compliance with AWS and the Bechtel specification. The review did indicate four (4) areas of inadequacy. The following is a list of these areas and the time frame affected:

- 1) Oversized Welds - 4/18/78 - 5/2/84 (Revisions 2 - 19)

Inspection criteria for oversized welds was not delineated in QCP-VII-200 during this time frame.

- 2) Convexity - 3/30/77 - 1/18/83 (Revisions 0 - 15)

During the time frame 3/30/77 through 12/15/81, QCP-VII-200 required the Quality Inspector to utilize the Weld Technique Sheet for compliance. During the time frame 12/15/81 through 1/18/83, QCP-VII-200 required: "Fillet welds may be slightly convex/concave." During the entire period, the following criteria was not delineated in QCP-VII-200 or the Weld Technique Sheets. "Except at outside corner joints, the convexity shall not exceed the value of 0.1S plus (+) 0.03 inches where S is the actual size of the fillet weld in inches."

- 3) Cracks - 12/15/81 - 5/26/82 (Revisions 9 - 11)

Inspection criteria for cracks was not delineated in QCP-VII-200 during this time frame.

- 4) Lack of Fusion - 12/15/81 - 09/22/83 (Revisions 9-16)

Inspection criteria for lack of fusion was not delineated in QCP-VII-200 during this time frame.

An evaluation was performed to determine if these procedural inadequacies could have adversely impacted the inspection results. The following is the results of the evaluation:

- 1) Oversized welds: Bechtel Specifications 10466-C-122 and 10466-C-132 were revised 4/18/78. This revision required oversized welds not to exceed 100% or 3/8" greater than specified, whichever is less. During a civil retrofit review of Bechtel specifications and DIC procedures, this procedural inadequacy was identified. Nonconformance Report 1SN 16988CW documented this deficiency and resulted in a recommended disposition of "Use-As-Is". Based on Bechtel's concurrence with this disposition, the omission of this item is considered to have no adverse impact to inspection results.
- 2) Convexity - Bechtel specifications required welds to meet convexity limits as delineated by AWS D1.1 until 12/08/82. After this date, Bechtel specifications altered the convexity requirement by stating that fillet welds need not satisfy convexity limits of AWS D.1.1. DIC Procedures have delineated criteria as "welds may be slightly concave/convex". Based on procedural control and the relaxed specification criteria, this item is considered to have no adverse impact to inspection results.
- 3 & 4) Cracks and Lack of Fusion - Inspection criteria for cracks and lack of fusion were inadvertently omitted during general revision from DIC inspection procedures on 12/15/81. The criteria was reinstated in site procedures on 5/26/82 for cracks and 9/22/83 for lack of fusion. The absence of this criteria occurred after the completion of main frame structural steel erection (5/81). However, to establish that there was no impact in other AWS D1.1 applications due to the omission of these items, twenty-six (26) DIC welding inspectors were interviewed. These interviews were used to determine the following:
 - 1) Procedures used for training and inspection.
 - 2) Inspection attributes addressed during training.
 - 3) Inspectors' awareness that cracks/lack of fusion criteria was omitted from procedures for a period of time.
 - 4) Did inspectors inspect/reject welds for cracks and lack of fusion?

The inspectors interviewed had inspected structural steel welds as well as HVAC and electrical support welds during the time frame in which the procedural deficiencies occurred. In all cases inspectors indicated that they had inspected/rejected welds for cracks and lack of fusion. Inspectors were aware of the procedural deficiencies, however, they continued to inspect/reject for cracks and lack of fusion. This is further substantiated based on re-inspection results conducted on structural steel. The rejection rate for cracks and lack of fusion is minimal when compared to the total number of welds inspected.

In conclusion, the review of weld inspection criteria utilized during the history of this project did indicate areas of procedural deficiencies. However, based on the above information, it has been determined that these inadequacies did not result in generic inadequacies in AWS D1.1 welding.

Corrective Action 1d)

"Obtain a documented evaluation to determine the validity of inspections performed with the presence of paint on the weld."

This activity was divided into three elements: obtain information from other utility/AE's that have developed a validation plan, with a subsequent review by DIC Welding Engineering and Bechtel and the addition of site specific requirements and justification, and Bechtel's submittal of a 'position letter' to KG&E for approval.

DIC Management obtained information from Carolina Power & Light Co., and Ebasco Services Incorporated relative to the validity of inspections performed with paint on the welds. This information was utilized by Bechtel in conjunction with their additional research to establish an A/E's position to KG&E. In summary, this position, more explicitly defined in letter BLKES-1348 from C. M. Herbst to G. L. Fouts, is: "With the exception of a number of attributes, fillet welds which have been coated with up to four (4) mils of primer and in some cases, up to an additional ten (10) mils of topcoat can be visually inspected to the AWS D1.1 acceptance criteria. Those attributes which cannot be fully evaluated are of little or no concern on the structural steel at WCGS."

This letter was submitted to KG&E, and subsequently KG&E discussed the validity of inspections performed with paint on welds with NRC representatives. KG&E Nuclear Plant Engineering reviewed letter BLKES-1348, concurring with the position stated by Bechtel in their letter KNPLKWC 84-065 of November 13, 1984.

Corrective Action 1e)

"Utilize personnel certified to ANSI N45.2.6-1978 for the inspection of safety related structural steel welds. Inspections shall be performed in accordance with the DIC Quality Program and training shall be performed and documented to assure that inspectors are cognizant of the DIC Quality program requirements."

This activity was divided into three elements. The first element required incorporation of the CAR-19 Inspection Verification Plan into DIC Construction Procedure QCP-VII-200, "Inspection of Welding Process". The second element required inspection personnel to be certified in accordance with the DIC certification program and ANSI N45.2.6-1978. The third element defined that the inspectors' site specific qualifications would be limited to the reinspection of structural steel welds in accordance with QCP-VII-200.

The Inspection Verification Plan was developed through the combined efforts of DIC, KG&E, and BPC personnel. Revision 0 was reviewed and approved by KG&E Quality Assurance on 10/19/84. Although Revision 0 to the Inspection Verification Plan in QCP-VII-200 was not issued until 10/19/84, some inspections were performed prior to this date by personnel qualified to accomplish these inspections. The same inspection criteria was utilized in these efforts, and all personnel performing these inspection functions were evaluated to ascertain their qualifications to be concurrent with the later certification requirements for KG&E CAR-19. Further discussion of these personnel is included in this discussion of Corrective Action 1e) on the

following pages. A meeting was held with the Quality Inspection personnel on 10/20/84 to discuss the impact of the Inspection Verification Plan on their activities and to ensure their understanding of the plan. As a result of this meeting, a new revision, Revision 1, was issued to incorporate inspector feedback and KG&E Quality Assurance comments. Revision 1 of the Inspection Verification Plan was then incorporated into DIC Quality Procedure QCP-VII-200 with Procedure Change Notice 014. On 11/2/84 KG&E Quality Assurance, DIC, and BPC personnel held a meeting to address KG&E Quality Assurance concerns on gouges. Subsequently Revision 1 to PCN-014 was issued to incorporate these concerns into the Inspection Verification Plan.

It was decided that all personnel performing inspection verifications under the CAR-19 Inspection Verification Plan should not only be AWS Certified Welding Inspectors, but also be site certified under ANSI N45.2.6-1978.

ANSI N45.2.6-1978, Section 3.5.2 makes the following recommendations for education and experience when certifying Level II personnel:

1. One year of satisfactory performance as a Level I in the corresponding inspection, examination or test category or class, or
2. High School graduation plus three years of related experience in equivalent inspection, examination, or testing activities, or
3. Completion of college level work leading to an Associate Degree in a related discipline plus one year related experience in equivalent inspection, examination, or testing activities, or
4. Four year college graduation plus six months of related experience in equivalent inspection, examination, or testing activities.

When considering the certifiability of candidates, DIC management ensured that all personnel met the recommendations of section 3.5.2, ANSI N45.2.6-1978.

A training program for inspectors was established on 10/17/84. The program consisted of self study material covering the following subjects:

1. Quality Orientation
2. DIC Administrative Procedure AP-VI-02, "Nonconformance Control and Reporting"
3. The KG&E CAR-1^o Inspection Verification Plan (PCN-014 to QCP-VII-200)

Additionally, a meeting was held on 10/20/84 with the inspectors to explain the contents of the Inspection Verification Plan, and to answer any questions they might have about the program. In order to ensure the capability of each candidate, a Field Practical Examination was also administered.

Certification files were compiled on each inspection candidate and are available for review in DIC Quality Training. Each file contains a copy of the inspectors resume', a signed copy of the Education/Experience evaluation form, a copy of the inspector's eye examination, the document of certification, the field practical examination, and the letter of recommendation. Additionally there is a training summary documenting the completion of required training and the training conducted on DIC Quality Procedure QCP-VII-200, PCN-14, Revision 0 and Revision 1.

Each certification file was reviewed by the DIC Quality Training Supervisor to ensure all candidates met the recommendations of ANSI N45.2.6-1978. Each file was again reviewed by the DIC Project Quality Manager (DIC's Certifying Authority) prior to the signing of the Document of Certification. The completed certification files were audited by KG&E Quality Assurance with no findings.

Eleven (11) personnel (Inspectors A through K) were involved in Structural Steel Inspection Verification prior to the issuance of KG&E CAR-19. These personnel were attached to DIC Engineering and were qualified, but not certified prior to the issuance of KG&E CAR-19.

In addition to the eleven (11) personnel above, an additional eleven (11) personnel (Inspectors L through V) were involved in Structural Steel Inspection Verification after the issuance of KG&E CAR-19. The certification status is given below:

	<u>INSPECTOR</u>	<u>STATUS</u>
(1)	A	Certified
(2)	B	Certified
(3)	C	Certified
(4)	D	Certified
(5)	E	Certified
(6)	F	Qualified*
(7)	G	Qualified*
(8)	H	Certified
(9)	I	Certified
(10)	J	Certified
(11)	K	Certified
(12)	L	Certified
(13)	M	Certified
(14)	N	Certified
(15)	O	Certified
(16)	P	Certified
(17)	Q	Certified
(18)	R	Certified
(19)	S	Certified
(20)	T	Not Qualified**
(21)	U	Certified
(22)	V	Certified

NOTES:

* Personnel who were involved in Structural Steel Inspection Verification prior to the issuance of KG&E CAR-19, but were not involved in Inspection Verifications after the issuance of KG&E CAR-19 were investigated and qualified, but were not certified as they had already left the site or were assigned to other non-inspection related activities.

** Several attempts were made to verify Inspector T's experience after he left site. DIC Quality Training was unable to verify enough experience to qualify Inspector T's to ANSI N45.2.6-1978. All of Inspector T's work was reinspected by certified personnel.

Corrective Action 1f)

"Perform a 100% reinspection of all structurally significant safety related structural steel welds. The identification of "structurally significant" welds shall be made by the Architect - Engineer."

"Structurally significant" joints were defined by Bechtel as all field welded joints which support or potentially support safety related equipment and building components for the purpose of this Corrective Action activity. This basically included all field welds on structural and miscellaneous steel with the exception of handrail, toeplates, grating, checkered plate, stairs, ladders and monorail supports. These are non-Q items which typically see significant service loads during the construction process. Some are designated as II/I, however, II/I seismic loads are considered to be less severe than service loads. Monorails have been load tested as part of startup procedures, and were therefore not included in the scope of structurally significant items requiring reinspection. The joints were selected by Bechtel based on a review of erection drawings prepared by the structural and miscellaneous steel fabricators and a review of Field Change Request (FCR's), Nonconformance Reports (NCR's), Construction Variance Requests (CVR's) and Structural Steel Fabrication Requests determined applicable.

The DIC Nonconformance program, as defined in DIC Construction Procedure AP-VI-02, "Nonconformance Control and Reporting", was utilized to obtain and document a suitability for service evaluation of welds that were inaccessible due to physical location or embedment in concrete. All deficiencies identified during reinspection activities performed in accordance with Procedure Change Notice - 014 to DIC Construction Procedure QCP-VII-200 were identified on nonconformance reports for further dispositioning and resolution.

Bechtel performed a case by case evaluation of each structurally significant joint inspected according to the data furnished on Inspection Data Sheets and nonconformance reports. Their evaluation provided a determination of whether each structurally significant joint's as-built condition met design allowables, whether the as-built condition was a significant deficiency in accordance with 10 CFR 50.55(e), and whether any rework or repair to each joint was required.

The following is a statistical summary of the evaluation completed by Bechtel on all structurally significant joints:

TOTAL AWS WELDING
INSPECTIONS AND ENGINEERING EVALUATIONS

	TOTAL JOINTS	JOINTS INSPECTED	JOINTS EVALUATED	JOINTS REQUIRING REWORK (1)	ADDITIONAL JOINTS TO BE REWORKED (2)	SIGNIFICANTLY DEFICIENT JOINTS (10CFR50.55(e))
AUXILIARY	694	694	694	8	40	0
REACTOR	1300	1300	1300	69	10	0
CONTROL	265	265	265	3	14	0
DIESEL						
GENERATOR	98	98	98	2	1	0
FUEL	277	277	277	0	2	0
ESWS						
PUMPHOUSE	36	36	36	0	0	0
TOTAL	2670	2670	2670	82	67	0

- (1) DESIGN ALLOWABLE STRESSES ARE EXCEEDED IN THE AS-BUILT CONDITION
- (2) DESIGN ALLOWABLE STRESSES ARE NOT EXCEEDED IN THE AS-BUILT CONDITION. THESE JOINTS ARE BEING REWORKED PER KG&E MANAGEMENT DIRECTION TO INSTALL MISSING AND UNDERLENGTH WELDS UNLESS PROHIBITED BY FIELD CONDITIONS.

Finding #2 of KG&E CAR-19 stated, "An Inspection Verification effort of safety related structural steel welding, undertaken by AWS certified weld inspectors identified several areas of deficiencies. These deficiencies are categorized as: undersized welds, weld defects, incorrect configuration, weld underrun, and weld undercut."

One (1) corrective action was determined to be appropriate for resolution of this finding, although this primary corrective action was subdivided into seven (7) research/data accumulation activities.

Corrective Action 2a)

"Determine and document the "root cause" of the previous acceptance of deficient structural welds. Analyze the HVAC Support, Electrical Support, Pipe-Whip Restraint and any other safety-related program utilizing AWS D1.1 Welding to ensure that the same "root causes" inherent in the structural steel welding program were not generic to other programs."

This summary reviews activities 2a-1 through 2a-7 of CAR-19 to determine the root cause of the previous acceptance of deficient structural welds and analyzes those root causes to determine if they were inherent to other safety-related programs utilizing AWS D1.1 welding.

A review of DIC Quality procedures was performed by Quality Engineering to determine if any historical procedural inadequacies could have been a contributor to "root cause". Although some historical deficiencies in inspection criteria were found to have existed, research demonstrated that some of the procedural inadequacies occurred after the vast majority of structural steel erection activities had been completed. Interviews with a sample of Quality Inspectors revealed that inspectors were cognizant of the omission of two other criterion (lack of fusion and cracks) during an applicable time frame, but inspected for these deficiencies in spite of their omission. Based upon this cumulative research procedural weld inspection inadequacies are not considered to be contributors to "root cause" of previous acceptance of deficient structural welds.

DIC Inspection training and certification procedure AP-VI-01 was used to train and certify Quality inspection personnel during the structural steel erection time frame. This procedure was analyzed to verify compliance to ANSI N45.2.6-1978, and was found to be in accordance with ANSI requirements. An evaluation of ANSI N45.2.6 requirements revealed that DIC procedure AP-VI-01 was in full compliance to ANSI requirements for the structural steel erection time frame and through all subsequent revisions to date.

The "root cause" of the previous acceptance of deficient structural welds has been determined to be due to inspection implementation and inadequate implementation of related procedures. Each of these contributing factors has several facets that are considered to be partial reasons for "root cause".

Differences in inspection techniques and consideration of inspection attributes for the original inspection time frame vs. the CAR-19 reinspection time frame are definite root cause contributors. The differences indicated are common to the nuclear construction industry and have been recognized as prevalent at many projects. A white paper documentary prepared by recognized nuclear construction consultants Reedy, Herbert, Gibbons and Associates, Inc. dated August 11, 1983, clearly defines the subject differences during their in-depth analysis of weld inspection on nuclear sites. (See Appendix IV.G)

The differences cited, inspection technique and inspection attributes, are addressed in section I of this white paper, "Continuous Measurement of Fillet Welds". The paper states that until about 1980 accepted inspection practice did not entail 100% physical measurement of each inch of welding, but rather depended upon individual inspector's evaluation of the weld's acceptability. Around 1980 QA/QC Inspectors began using fillet weld gauges to measure each inch of fillet weld to verify that the specified minimum weld size was met for the continuous length of weld. This physical measurement gradually replaced the previous accepted practice of visual judgement. The paper concludes that there has been a progression of the practice of physically measuring each inch of weld to a serious extreme.

The documentary cites that there is no requirement either in the ASME Section III Code or AWS D1.1 Standard to continuously measure the full length of fillet welds. Both ASME and AWS permit deviations from minimum size fillets as documented in ASME NB/NC/ND - 4427 and paragraphs 8.15.1.7 and 9.25.1.7 of AWS D1.1. The paper further contends that inspections can and should be made on a random basis to determine nominal sizes with no detriment to safety. Additional sections of this documentary address "Undercut Provisions of AWS D1.1" and "Encroachment on Minimum Thickness" with similar conclusions.

DIC research has shown that the inspection technique implemented during erection/inspection of structural steel at Wolf Creek was in accordance with common industry practice as stated in the previously referenced documentary. Inspectors were of the understanding that visual judgement was acceptable as an inspection technique in checking for nominal weld size, and that visual evaluation rather than 100% physical measurement of fillet welds was acceptable for assuring that welds met visual inspection attributes.

Given these considerations, one should expect a reinspection program using current applicable techniques to find deficiencies in welds previously accepted. The reinspection technique is one of 100% physical measurement of all attributes applicable rather than the visual judgement initially employed as acceptable during the structural steel erection time frame.

With the previous considerations in mind, an examination of the weld deficiencies identified during reinspection and their relative significance to the overall integrity of the initial inspection effort is in order.

The scope of the CAR-19 reinspection effort identified two thousand six hundred seventy (2,670) joints requiring reinspection. Of the two thousand six hundred seventy (2,670) total joints, two thousand eight hundred seventy (2,870) welds exhibited discrepancies of the more than eleven thousand (11,000) welds reinspected according to procedure QCP-VII-200, Procedure Change Notice 14. Each weld reinspected could have potentially contained five (5) categories of deficiencies according to the method utilized for tracking during the CAR-19 program, those being: undersize, defects (cracks, lack of fusion, incomplete penetration, overlap, slag inclusions, porosity, craters), underrun, undercut and configuration. Of the two thousand six hundred seventy (2,670) structural joints inspected, the following quantities of weld deficiencies were noted by category: 1,061 undersize, 330 defects, 476 underrun, 107 undercut, and 1,562 configuration.

The quantities of deficiencies noted for the three categories following are minor based upon a percentage comparison to the total number of welds reinspected. The approximate percentages for each of these three categories are, underrun 4%, undercut 1%, defects 3%. These percentages are within expectations considering reinspection emphasis and the previously noted differences in inspection technique and accepted inspection practice. Further statistical analysis revealed a majority (more than 60%) of the welds rejected for undercut discrepancies to be in excess of the 1/32" allowable undercut criterion by less than 1/16". A majority (approximately 60%) of the welds found to be underrun were underrun by less than 1/2". An analysis of the attributes contained within the 'defect' category revealed only small quantities in each. Based on the above statistical analysis, the discrepancies identified in the categories of underrun, undercut and defects are not considered to be contributors to the root cause that previously accepted welds were found deficient upon reinspection.

The quantity of welds rejected that did not meet the minimum leg size as specified on the design document, or exceeded the code allowable 1/16 inch undersize for less than 10% of the length of the weld, represents a percentage of 9% deficiencies for the total welds inspected. Discussions with DIC inspection personnel and Quality Management aware of approved inspection practices utilized during the structural steel erection time frame indicated that inspection methods were similar for this period to

those described in the previously addressed documentary by Reedy, Herbert, Gibbons and Associates, Inc. Of the welds identified as being undersize, more than 90% were undersize by less than 1/8", further substantiating that inspection methods were as previously described. Based on the above evaluation, the quantity of deficient welds identified as being undersize is considered an indicator that previously accepted inspection techniques was the root cause of previously accepted welds being found deficient upon reinspection.

The quantity of welds identified during reinspection exhibiting configuration deficiencies represented 13% of all deficiencies for the total welds inspected. Of the total number of deficiencies, more than 80% were revealed by research to be directly attributable to one design change implemented in February, 1978. This Design Change Notice C0011, Rev. 7, dated February 23, 1978, changed detail 10 on drawing C0011 to limit the length of the return welds on beam clip angle to embed plate welds. The significant number of discrepancies identified in this category indicates that the design change was not given sufficient emphasis by DIC Engineering, craft, and Quality Inspection to enable deviations from this requirement to be adequately controlled. This category is the largest single contributor to "root cause" of previously accepted deficient structural welds. Bechtel, as the Architect Engineer, performed an evaluation of all welds reinspected to determine which welds were acceptable from a technical viewpoint relative to allowable stress calculations and which welds would require rework in order to meet this criterion. From this evaluation 2589 joints were determined to be technically acceptable whereas 82 required rework. These statistics, revealing that 97% of the joints reinspected were technically acceptable, are indicative that the relative degree of significance of the deficiencies identified due to reinspection is minor.

Those areas utilizing AWS D1.1 welding other than structural steel were identified as: Pipe whip restraints; miscellaneous steel and embedment fabrications; fire dampers and safety-related ductwork and supports; electrical raceway supports; electrical equipment installation; and stud welding.

Previously compiled information including Construction Self Assessment Reports, KG&E QA Reports and Surveillances, DIC QA Reports, DIC Project Monitoring Program audits, DIC Corrective Action Reports and correspondence was reviewed to determine results of previous investigations of AWS D1.1 welding. No findings were noted during this review that could be considered contributing factors to root cause. Electrical II/I support welds were reinspected by Bechtel (ELKC: 009) through the "Sampling and Inspection Program for Electrical Support Welds" (7/84). Three hundred nine (309) were inspected and found acceptable. Electrical Quality Welding Inspectors performed inspections on Class IE support welds raceway (8/82). Pipe whip restraint welds were 100% nondestructively tested. HVAC ductwork support welds were 100% reinspected through implementation of DIC Corrective Action Report CAR-1-M-0012 and a traveler system was initiated to maintain better control and accountability (3/82-1/83).

Programmatic elements utilized in the inspection and documentation of the various applications of AWS D1.1 welding differed depending upon the Quality discipline responsible for inspection activities. The following methods were utilized in the applications noted to provide inspection documentation:

- a) Raceway Supports - Raceway Support Checklist
- b) Electrical Equipment - Quality Equipment Mounting Checklist in addition to MSSWR's
- c) Fire dampers and safety-related ductwork and supports - Mechanical Travelers
- d) Miscellaneous steel and embed fabrication - MSSWR's
- e) Stud welding to embeds - Surveillance Reports
- f) Pipe Whip Restraints - MSSWR's in addition to Nondestructive Examination Reports

All the methods utilized above were effective in providing inspection assurance and documentation of the respective activities when properly implemented. The travelers utilized as well as the other checklists noted provided a closed loop system where individual accountability for a weld was required, controlled, and documentation verified accurate and complete by Quality personnel. Conversely Miscellaneous Structural Steel Weld Records (MSSWR's) were used in an open-ended system for Main Frame Structural Steel Installations where craft construction personnel were responsible for control, maintenance and processing of this record following its completion. This system proved less than satisfactory in some applications, resulting in document retrievability problems that have been addressed by DIC and KG&E Corrective Action Reports.

In summary the programmatic elements as described in DIC procedures for each application of AWS D1.1 welding are adequate when properly implemented by the persons responsible for those activities. MSSWR's utilized in documenting structural steel weld connections were the subject of inadequate implementation of procedural requirements, resulting in the problems being addressed in this report. The research accomplished in completion of this activity revealed no inherent "root cause" generic to all programs utilizing AWS D1.1 welding, but rather indicates that the root cause of the previous acceptance of deficient structural welds was as delineated earlier in this section.

Finding #3 to CAR-19 stated, "A small number of safety related structural steel welds were not made or had missing material."

Corrective Action 3a)

"Forward the "as-built" information to the Architect/Engineer via an NCR to obtain an engineering evaluation and disposition".

All missing welds or missing material detected in the reinspections performed were documented on nonconformance reports reflecting the as-built condition found by inspectors. Of the two thousand six hundred seventy (2,670) joints reinspected (more than 11,000 welds) only two hundred seventy-three (273) welds were identified as missing where the applicable design drawing required their installation. Of the two hundred seventy-three

welds not installed, one hundred twenty (120) were applicable to the polar crane girder radial stops (44%), ninety-seven (97) were due to beam seats not installed (36%), eighteen (18) were due to missing welds on six (6) pressurizer support welds (7.0%), and the remainder (38) due to missing welds on clip to beam or plate installations (13%).

Under the purview of KG&E Construction, a detailed investigation was undertaken by DIC Engineering and Management personnel to determine the root causes of missing welds and materials in each case. Significant points of that investigation included: grouping of missing welds/materials into categories to aid in research; compilation of factual data and analysis for trends/patterns; a thorough review of all applicable design change documents that may have deleted some of the items in question; visual examinations of the areas where installations should have been made; and interviews with craftsmen, craft supervision, DIC Engineering and Quality personnel for information that may have added to root causes.

Missing welds and materials were grouped into categories based on similarities that could be determined to exist in function or construction sequence. Five groups were defined, those being: beam seats and attachment welds, pressurizer support welds, Polar Crane girder radial stop welds, miscellaneous materials and associated welds, and beam to channel clip welds (for one application only). Each of these groups is discussed in detail in the following paragraphs in presenting the respective data accumulated and the conclusions drawn.

Beam seat installation welds accounted for ninety-seven (97) of the missing welds identified. Upon investigation several reasons were found as contributing factors to the root cause of failure to install beam seats as required. All beam seat connections in question were relevant to installation detail 10 on drawing C0011, which gave no required weld size, but referenced note 14. Note 14 stated, "When end reaction exceeds maximum weld size capacity provide seat angle." Discussions with personnel available who were involved with structural steel installations revealed that this note may have been incorrectly interpreted as an 'option' for beam seat installation. This resulted in a craft opinion that the beam seat was intended as a construction aid to be used only during the erection process and then removed. This contention is supported by the fact that ninety-three percent (93%) of the areas/records examined pertaining to beam seat installation revealed that the beam seats were installed prior to the beam's installation. Seventy-two percent (72%) of the embed plates investigated showed evidence of temporary welds made to attach a beam seat as a construction aid during the erection sequence, but the beam seats were not found installed upon field investigation. A majority of the beam seat associated welds missing were the beam seat to beam welds, which further indicates the questionable beam seats were tack-welded to the embed, used as a construction aid, then removed prior to welding to the beam. These above factors substantiate that the root cause of missing beam seat welds (i.e., beam seats not installed) was due to a misunderstanding of the beam seats' intended application as a permanent installation. This root cause conclusion is supported by the data accumulated and discussed in the preceding paragraphs. All missing beam seats and their respective required welds were installed as a part of KG&E and DIC Management's direction, unless prohibited by field conditions.

The missing pressurizer support welds totaled eighteen (18) welds on six (6) supports. The six (6) supports with missing welds are all of the upper supports for the pressurizer beam foundation, and all six (6) supports were found to be welded identically to each other. One inspector performed all final visual inspections of the pressurizer supports, indicating a possibility of human error being a contributor to root cause. Investigation results indicated a misinterpretation of erection details and requirements as the primary root cause of the eighteen (18) missing welds. Twenty-four (24) welds not detailed as required installations were added but not required by design drawings. The conclusion reached for root cause of the missing welds on the pressurizer supports is that DIC construction craft and Quality personnel misinterpreted the installation details and applied this misinterpretation consistently in the construction and inspection of all six supports. Nonconformance report 1SN 20509CW was generated to document these circumstances and all missing welds were installed as a part of the disposition, unless prohibited by field conditions.

The Polar Crane girder radial stops were the subject of one hundred twenty (120) missing welds. These missing welds are documented on nonconformance reports 1SN 21308CW, 1SN 21309CW, 1SN 21310CW and 1SN 21311CW. Facts gathered during the investigation of these missing welds indicate that a series of drawing revisions and misinterpretation of erection installation details resulted in DIC construction error in not making all required welds on sixty (60) radial stops. The appropriate facts are as follows:

- ° American Bridge Drawing E117 (C-121-8360) was revised concerning the radial stop connection. Two of the three revisions to section A were attempts to clarify the desired weld configuration at the radial stops.
- ° Revision B to American Bridge drawing E117 was produced to clarify where actual welds were expected.
- ° Revision C of Drawing E117 in part added "one side only" to the inner "C" portion of the radial stop welds.
- ° Bechtel Drawing C-OS2963 concerning the polar crane girder radial stop welds was altered at Revision 6 to note on Section A that the weld on the inner "C" indentation was to be made on one side only.
- ° The MSSWR's documenting the radial stop welds made indicate erection during 2/80-3/80, before American Bridge drawing E117 clarified the installation detail on Revision E, dated 12/80.

Upon reinspection NCR #1SN 21196CW was initiated describing the deficiency in nonexistent radial stop welds. The NCR was voided in-process by the CAR-19 Inspection Supervisor due to a misinterpretation of requirements according to details on the American Bridge drawing E117, that seemed to indicate a weld installation detail requirement concurrent with the actual welds found installed during reinspection. Based upon the preceding facts, it is concluded that the root cause of missing Polar Crane girder radial stop welds is due to unclear weld detail installation requirements as projected on the American Bridge drawing E-117, and subsequent incorrect interpretation of weld installation requirements by DIC personnel.

The missing welds identified for installations involving other miscellaneous materials and welds missing are of a smaller quantity. Thorough investigation revealed the root cause of these missing welds to be due to a lack of formal follow-up and inadequate statuses of completed work and the subsequent completion of unfinished work. The missing welds on the Incore tubing supports revealed that all investigatory information supports the hypothesis that these missing welds were not installed due to oversight. The four lateral support brackets, two at each of the vertical angle supports (Incore tubing supports) located 32' - 2 3/4" north of the Reactor Center Line and 4' 10" east and west (one each direction) of Reactor Center Line on Drawing GOS2919 were added by revision to Drawing GOS2924 after the supports had been presumed completed.

Nonconformance report 1SN 21273CW documents missing welds on channel clips to beam attachments. The channels that American Bridge Drawing #C121-10675 shows welded to a beam web along A2 at Elevation 2042' are bolted instead. The channel clips are bolted to the web using the same bolts as removable beams on the opposite side of the web. Research found that the installation of the channel and removable beam was late in the construction sequence of this area, also. Since the channel clips and removable beam clips are bolted through a beam web with the same bolts, the channel clip attachment welds were probably assumed to be unnecessary by the construction personnel responsible for installation.

If the removable beams had been disconnected for the purpose of construction, it would have become necessary to weld the channel clips to the beam web at that time. The beams and channel in question were installed late in the construction sequence of the area, removal of the beams never became mandatory, the welds were not a recognized priority and were never installed as required. The root cause of these missing welds is due to DIC error in assuming the bolted connections were acceptable rather than the required welds. In the miscellaneous group, investigations revealed that welds or material found missing were those welds or materials that would not impede construction progress related to that connection.

Finding #4 to CAR-19 stated, "One (1) weld was documented as having been inspected when in reality the weld was not made. (Ref. NCR 1SN 20495CW)."

Corrective Action 4a)

"Investigate the concern to determine the root cause of the error. Immediately notify KG&E Quality Assurance if any other problems of this nature are identified. Document the investigative actions. The notification of KG&E QA shall not preclude the issuance of an NCR."

The results of the CAR-19 inspection effort were tracked and each case where a missing weld or missing material was identified was researched thoroughly by DIC Engineering to determine whether documentation existed pertinent to the installation of the missing weld/material. Miscellaneous Structural Steel Weld Records (MSSWR's) were reviewed to determine if a trend or pattern existed. Nonconformance reports identifying missing welds were compared to MSSWR's to determine if there were repetitive occurrences.

Applicable drawings were reviewed for similarities in beam numbers, floor layout and beams at similar locations in an attempt to further identify possible sources of confusion. As a result of the investigations conducted only two (2) cases were identified where inspection documentation existed for welds not installed.

The first case is the installation of beam No. 524B2 and its connection to an embed in the Auxiliary Building. All available information indicates that DIC Quality Inspector W made a human error when documenting the inspection of this beam connection. A review of the drawings shows that the beam configuration and floor layout in the area (elevator shaft and equipment hatch) directly beneath the beam connection in question are very similar. In addition, the beam below beam 524B2 connects at the same building coordinates.

It is possible that Inspector W could have been one elevation beneath where he should have been when inspecting the connection. Out of the multiple welds inspected by Inspector W this problem occurred only once. If actions which would result in other conclusions had occurred, it would be reasonable to assume that they would have occurred repeatedly. Inspector W's signature appears on over eight hundred (800) MSSWR's. Each MSSWR could document multiple weld inspections, therefore, Inspector W very likely inspected over one thousand (1,000) structural steel welds, with the result that this type of problem occurred once. A telephone conversation between Inspector W and DIC management personnel concerning this incident revealed no information that Inspector W could offer, since he could not recall the specific connection from the more than eight hundred (800) he inspected. The root cause conclusion in this case is human error.

The second case is the installation of beam No. 95B5 to an embed in the Control Building. All available information suggests that DIC Quality Inspector X made a human error when documenting the inspection of this beam connection. The MSSWR documenting this connection shows Inspector X's confusion in that he entered the joint number incorrectly when filling out this portion of the MSSWR, then lined through, initialed and dated his error, and entered what he thought was a correct entry. Drawing K6711-XI-I-E13 details this connection, but is unclear in that it does not designate the connection number for the beam clip to embed weld, and only lists the beam seat number (91M1).

Further research revealed that Inspector X completed one hundred eighty-three (183) MSSWR's during his tenure on site, but only six (6) of these MSSWR's were related to structural steel weld inspections. This is indicative that Inspector X was possibly confused by the details on the erection drawing. It is probable that Inspector X attempted to document the welds attaching the beam clips to beam 95B5, since no retrievable MSSWR is on file for these welds. These circumstances are documented on nonconformance report ISN 20798CW for disposition and resolution. The root cause conclusion in this case is human error.

Finding #5 of CAR-19 stated, "Objective evidence that the mechanical and structural inspection/documentation problems identified in KG&E QA Surveillance Report S-372 were rectified has not been provided."

Corrective Action 5a)

"Provide objective evidence that the mechanical and structural support welding inspection/documentation problems identified in Surveillance Report S-372 have been corrected. If such evidence is not available, research the extent of the problem and take the appropriate remedial actions." Activity 5a was broken down into two categories. 5a-1 was to review and provide objective evidence that Mechanical Deficiency Reports identified in S-372 have been correctly closed out. 5a-2 was to review and provide objective evidence that Civil Deficiency Reports identified in S-372 have been correctly closed out.

A total of forty-two deficiency reports were reviewed encompassing the departments of Civil, Civil/Welding, Mechanical, and Mechanical/Welding which are identified in S-372. Below is a brief description of the closure to each Deficiency Report (DR). (Deficiency Reports underlined.)

1. 6451 was upgraded to an NCR (1NN 4969CW) because all welds were encapsulated in concrete and deemed structurally acceptable by the A/E.
2. 6536 and 6538 were "Close in Process" because the hangers were "VOIDED"; hangers were removed mechanically, and Quality inspected the area to insure soundness of the affected structure.
3. 6559, 6557, 6560, 6568 pertained to electrical raceway hangers. DIC Mechanical/Welding inspectors performed inspections to ensure the soundness of the removal area after cut down, according to DR disposition. The reinstallation of these hangers was inspected by DIC Electrical Quality Inspectors and documented on Electrical Quality Raceway Support Checklists.
4. 6535, 6537, 6539, 6576, 6575, had dispositions calling for cut down of hangers only, therefore only the verification for the inspection of the soundness of the removal area was required.
5. 6585 disposition was "Close in Process" because no hanger could be located in the area called for by the Deficiency Report. The two closest hangers have the required documentation and their respective documentation is attached to the Deficiency Report.
6. 6249, 6250, and 6349 have MSSWR's to reflect proper closure, but the hangers are now voided. Based on this research an inspection of the applicable Building, Location, and Area (BLA) for these hangers was initiated and the hangers were verified as cut down.
7. The remaining Deficiency Reports have MSSWR's attached to reflect the proper documentation for the safety-related attachment welds. This group of Deficiency Reports numbers 26 total.

No violations of 10 CFR 50 Appendix B exist in Items 1 thru 5 as defined in the criteria of KG&E Surveillance S-372. The violations listed in S-372 pertained to welding documentation on Structural Steel. The dispositions for the deficiency reports in items 2 thru 4 require the removal of deficient welds. In some cases MSSWR's were used to document the removal so these MSSWR's show blanks (or as non-applicable) for W-100, weld technique, filler material, etc. These should not be mistaken for incomplete MSSWR's for required welding, since MSSWR's are not required for this activity.

In summary, all deficiency reports in KG&E Surveillance S-372, have been reviewed and proper closure verified. All the deficiency reports were closed properly according to the results of our investigation.

DEFICIENCY REPORT #

6248	6454	6557	6568
6249	6455	6558	6569
6250	6456	6559	6570
6280	6457	6560	6571
6349	6535	6561	6572
6449	6536	6562	6573
6450	6537	6564	6574
6451	6538	6565	6575
6452	6539	6566	6576
6453	6556	6567	6577
			6585
			6588

V. Conclusions

The technical evaluation of WCGS structural steel significant joints, which was performed by Bechtel based upon reinspection data accumulated, established that safety related AWS D1.1 structural steel welding complies with all Quality criteria as specified in the related design documents, and is within the tolerances of acceptable deviation as determined by the Architect/Engineer. This evaluation for structural integrity was based upon this cumulative data that reflected the as-built condition of Bechtel identified structurally significant joints prior to any rework or repairs.

Two thousand six hundred seventy (2,670) structurally significant joints were identified by Bechtel and were subsequently reinspected by DIC Certified Quality Inspectors who were all also AWS certified Welding Inspectors. Eighty-two (82) of these significant joints required rework due to design allowable stresses being exceeded in the as-built condition. None of the structurally significant joints where discrepancies were identified would have failed if left uncorrected.

Research accomplished by DIC and Bechtel personnel resolved that DIC welders and welding procedures applicable to AWS D1.1-1975 welding of structural steel installations were satisfactorily qualified in accordance with AWS requirements. Additional research resulted in assurance that programs and procedures applicable to the purchase and control of weld filler materials used in AWS D1.1 applications were in compliance to AWS requirements. Investigations into site implementation of these requirements and procedures provided assurance that implementation had been effective and properly controlled by DIC during project construction activities.

The retrievability and control of Miscellaneous Structural Steel Weld Records (MSSWR's) was investigated, and a determination made that inadequate implementation of DIC construction procedures was a contributing factor to retrievability and accountability problems with MSSWR's relative to structural steel applications. Thorough analysis of each applicable program was undertaken by DIC Quality Engineering to determine if similar programmatic or procedural requirements existed, and whether inadequate implementation had resulted in similar deficiencies. The results of these assessments determined that no programmatic problems existed in any other AWS D1.1 application relative to inspection documentation required for weld inspections. Evaluations of each application identified that more efficient documentation methods were utilized, and in each case there was more effective control of the required documentation through its initiation and processing cycles. Review of Quality Assurance historical audits and surveillances and an evaluation of procedural implementation adequacy further assured no problems existed in any other AWS D1.1 application similar to the MSSWR retrievability problem on structural steel welding.

Hardware applications of AWS D1.1-1975 requirements were also analyzed to determine if the root causes applicable to the previous acceptance of deficient structural steel welds were of potential impact in applications other than structural steel. Reinspection and Corrective Action reports existed in every case to ensure the acceptability of installed hardware where AWS D1.1 welding was utilized except in Electrical Equipment foundation welds. DIC Management determined that a subsequent investigatory effort was necessary to provide data to ascertain the possible existence of deficiencies in welding and shimming in these installations. DIC Corrective Action Report 1-EW-0046 was initiated to document and accomplish these activities.

DIC Corrective Action Reports (CAR) 1-W-0029 and 1-C-0031 were evaluated to determine why neither of these documents resulted in the appropriate identification and effective resolution of structural steel welding and documentation problems prior to KG&E Corrective Action Request 19. CAR 1-W-0029 was found to be effective for the scope of welds identified. A conclusion was reached, however, that if a larger sample size had been utilized for CAR 1-W-0029's scope of inspection activities, that corrective action concurrent with that identified for KG&E CAR-19 may have been decided appropriate as resolution for the identified problems.

With the generation of DIC CAR 1-C-0031 DIC Management recognized that documentation did not exist for all structural steel welds as procedurally required, and nonconformance reports were generated to document these inadequacies. 'Use-As-Is' dispositions were assigned to these nonconformance reports based upon the existence of defined programs and procedures that required 100% inspection and documentation of structural steel welding activities. An assumption was made that although required documentation was not 100% retrievable, the programs in place during structural steel installation/inspection activities did result in all installations being completed and inspected.

Neither CAR 1-W-0029 nor CAR 1-C-0031 required matching of MSSWR's to structural steel welds or welded connections. If this had been a required corrective action for either CAR, the problems identified in portions of KG&E CAR-19 would have been realized.

The findings addressed in CAR-19 in addition to missing MSSWR's included deficiencies identified in previously accepted structural steel welds, missing structural welds or missing structural material, and documentation that a weld was inspected and accepted, but no weld was installed.

An evaluation of the DIC Quality inspection training program demonstrated that this program and related procedures were in compliance to ANSI N45.2.6. Further investigation concluded that Quality inspection training was appropriate and adequate during the structural steel installation time frame. An evaluation of DIC Quality inspection procedures and criteria applicable to the original structural steel installation/inspection period revealed several procedural inadequacies. A thorough analysis of the omission of each inspection criterion of AWS D1.1 structural steel applications was accomplished, with the conclusion that no adverse impact had resulted from these procedural inadequacies relative to AWS D1.1 welding inspection.

Inspection criteria to be used in the structural steel reinspection activities was procedurally defined and training of all personnel completed prior to reinspection initiation. Sufficient technical justification was established by Bechtel to validate inspection of welds through a predetermined maximum thickness of paint. An analysis of reinspection results determined the root cause of the previous acceptance of deficient structural welds to be due to DIC inspection implementation differences relative to inspection vs. reinspection techniques, and inadequate implementation of applicable DIC procedures.

Two (2) of the welds on joints reinspected were initially thought to be documented as being installed when in reality they were not installed. Research revealed no evidence to indicate that either was a case of deliberate falsification. Additional investigations resulted in a conclusion that human error was the cause of incorrectly documenting these nonexistent installations.

Reinspection found that some welds and materials were not installed as required by design documents. These errors were primarily due to craft/engineering errors relative to misunderstanding of installation drawing details and requirements. Failure to install these welds and materials, although in some cases determined to be significant in impact to design stress allowable calculations, would not have resulted in material or structural failure if left uncorrected. All missing welds will be reworked in accordance with KG&E Management's direction, unless prohibited by field conditions.

As a result of those concerns identified in KG&E CAR-19, DIC conducted an assessment of the programmatic aspects of the Piping, Hanger, Mechanical, Electrical and Civil disciplines to ascertain the adequacy of those programs instituted in the construction of Wolf Creek Generating Station. Other than the concern identified in DIC CAR 1-EW-0046 the program assessment has established a high degree of confidence in the adequacy of the overall DIC Construction program to assure compliance with 10CFR50, ANSI N45.2, FSAR, design and procedural requirements. The cause of the adverse conditions identified in KG&E CAR-19 and DIC CAR 1-EW-0046 is limited to these areas in that all other areas of work which would have been rendered inadequate or suspect due to the identified root cause have been adequately addressed through subsequent means such as retrofit or reinspection programs.

After completion of the program assessment, which addresses all aspects of the DIC Construction programs in total, and as they might have been affected by the identified root cause of deficient structural steel welds, it is the conclusion of this assessment that all significant problems have been identified and are being adequately addressed and resolved through appropriate corrective actions.

This program assessment is included in the Appendix, section VI.H of the KG&E CAR-19 Final Report, and has concluded that a satisfactory level of confidence exists to assure compliance with 10CFR50, ANSI N45.2, the FSAR, and Design and Procedural requirements.

The objective of KG&E CAR-19 was to establish by review of Construction and Quality programs, as-built conditions, nonconformance identification and correction and by design evaluation and/or rework, that all structural steel erection commitments in the Wolf Creek Final Safety Analysis Report were satisfied. Through the cumulative efforts in the resolution of CAR-19 assurance was obtained that all significant Quality criteria as specified in the related design documents were satisfied, within the tolerances of acceptable deviations as determined by the Architect/Engineer.

Attachment B to KMLNRC 85-037

ATTACHMENT B

REVISION ONE
TO THE
FINAL REPORT
ON THE
EVALUATION OF AWS FIELD WELDING
ON STRUCTURAL AND MISCELLANEOUS STEEL
AT THE
WOLF CREEK GENERATING STATION

BECHTEL POWER CORPORATION

GAITHERSBURG, MARYLAND

JANUARY 19, 1985

Prepared by:
Gerald Brown

WOLF CREEK

AWS WELDING EVALUATION REPORT

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ATTACHMENT

Westinghouse Electric Corporation Letter SNP(KG)-503,
J. W. Irons and L. R. Benson to J. A. Bailey,
dated October 1, 1984

TABLES

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WOLF CREEK

AWS WELDING EVALUATION REPORT

I. INTRODUCTION

On September 18, 1984, a reinspection of structurally significant AWS field welded joints (identified by Bechtel Power Corporation) was initiated at the Wolf Creek Generating Station by Kansas Gas and Electric (KG&E) Project Management. The reinspection was initiated to address concerns regarding AWS field welding as described in KG&E Corrective Action Report (CAR) 19.

The scope of the initial reinspection involved 6 structurally significant field welded joints in each of the 6 safety related buildings: Auxiliary Building, Reactor Building, Control Building, Diesel Generator Building, Fuel Building and Essential Service Water System (ESWS) Pumphouse. The results of this initial reinspection identified two missing welds (one weld on a pressurizer support in the Reactor Building, and one clip angle weld on a beam support in the Auxiliary Building), and various other deviations from AWS D1.1-75 welding requirements as described in this report.

As part of the evaluation of AWS field welding, Kansas Gas and Electric Project Management also initiated a separate reinspection of joints in the Reactor Building which had missing weld inspection records, i.e. Miscellaneous/Structural Steel Weld Records (MSSWR). This reinspection identified missing welds on the containment cooler supports, missing brackets on the incore instrumentation supports and missing flange tie plates. A potential significant deficiency was reported to NRC Region IV on September 18, 1984 in accordance with the requirements of 10CFR50.55(e).

As a result of the findings of these two reinspections, the program to reinspect structurally significant field-welded joints was expanded to include all such joints in the six safety related buildings at Wolf Creek. This report documents Bechtel's involvement in this program, which included the selection of joints to be reinspected and the structural evaluation of the as-built condition of the joints as described in the reinspection reports generated by DIC. The results of the evaluation did not identify any significant deficiencies in accordance with 10CFR50.55(e).

II. JOINT SELECTION

A. General

The joints included in the reinspection and evaluation program are all structurally significant, AWS field welded joints, which:

- 1) support or potentially support safety related equipment and building components,
- 2) are located in the Reactor Building, Auxiliary Building, Control Building, Diesel Generator Building, Fuel Building or Essential Service Water System Pumphouse,
- 3) were installed under the structural steel erection contract (Bechtel Specification 10466-C122) or the miscellaneous steel erection contract (Bechtel Specification 10466-C132), and
- 4) were originally inspected under the Daniel International Corporation (DIC) "Miscellaneous/Structural Steel Weld Records" (MSSWR) Inspection Program.

For the purpose of this reinspection program, a joint is defined as the connection between two structural members. A joint may contain more than one weld, or a combination of welds and bolts. A joint may also be referred to as a connection.

AWS field welds for the following items were not considered to be structurally significant:

- 1) handrails
- 2) toeplates
- 3) grating
- 4) checkered plate
- 5) stair towers
- 6) ladders
- 7) monorails
- 8) temporary construction welds
- 9) temporary decking supports
- 10) plug welds in unused bolt holes
- 11) cask loading pit hatch covers
- 12) cask washdown pit hatch covers
- 13) Reactor Building bracket shims
- 14) Embedded beam to seat welds

A total of 2670 structurally significant joints were identified for reinspection. Appendix A identifies these joints and provides information on their locations, the nonconformance reports (NCR) on which any welding deviations from AWS D1.1 are documented, and a cross-reference to Bechtel engineering evaluations.

Most of the structurally significant joints were identified on the structural steel (American Bridge Company) and miscellaneous steel (Cives Steel Company) erection detail and field work drawings, and on Bechtel detail drawings (C-OX Drawing Series). Appendix B lists the drawings which were

reviewed in order to identify the structurally significant joints and indicates those drawings on which joints were identified. In addition, DIC reviewed field generated nonconformance reports (NCRs), field change requests (FCRs) and field fabrication requests. Those documents identified field welds which DIC considered to have a potential structural significance and were provided to Bechtel for review. Structurally significant joints identified by Bechtel on these documents were also included in the reinspection program. A listing of the documents submitted to Bechtel is included in Appendix C of this report.

B. Perspective on Field Welded Joints

In order to provide a perspective on the reinspection of field welded joints, Bechtel engineering made an independent count of the various joint types (i.e. shop welded, field bolted or field welded) required for the erection of miscellaneous and structural steel at Wolf Creek. The drawings listed in Appendix B of this report were used as the basis of this count, and the results are tabulated in Table 1. Approximately 11,150 total joints are required for the fabrication and erection of structural and miscellaneous steel.

Table 1 indicates that there are 2320 field weld joints while the reinspection program identified 2670 joints. There are two major reasons for this difference:

- 1) Table 1 does not include field welded joints required by field fabrication requests, NCRs, and FCRs, and
- 2) miscellaneous differences in counting (i.e., when joints are partially shop welded and field welded, etc.).

Overall, even considering 2670 field welded joints instead of 2320, field welding accounts for less than 25 percent of the total joints required for fabrication and erection of structural and miscellaneous steel at Wolf Creek.

C. II/I WELDS

AWS field welds on seismic II/I items included in the miscellaneous/structural steel contracts were not included in the reinspection. These seismic II/I items are handrails, toe plates, grating, checkered plate, stairs, ladders and monorails. Typically these are shop welded, field bolted items which are designated seismic II/I only to assure that they will not fail during an earthquake. In general, they do not act as seismic supports for other items. Monorails were load tested as part of the Start-up procedures. Typically the seismic loads on these items are much less critical than the service loads imposed during construction. We believe that significant deficiencies in any field welds that may have been made on these types of items would have been identified during the construction period. In addition, we have not identified any welding deficiencies in the safety-related joints which have been inspected that would have resulted in a failure of those joints. We would expect the same results from a reinspection of welds on II/I items.

III. REINSPECTION RESULTS

A. General

All accessible joints identified by Bechtel as part of this reinspection program were reinspected by AWS certified weld inspectors under the direction of DIC and KG&E quality control organizations. The reinspections were performed to the existing welding criteria of AWS D1.1-75, Bechtel Specifications 10466-C122 or 10466-C132, and applicable Bechtel approved documents, with the exception that some inspections were performed through paint. A reinspection report was generated for each joint indicating:

- 1) if the welds on the joint were acceptable,
- 2) the type and extent of any deviation from AWS D1.1 and Bechtel Specification requirements (In this case the as-built condition of all welds on the joints was documented on the inspection report), or
- 3) if the joint was inaccessible (i.e. embedded in concrete or obstructed by installed equipment.)

Of the 2670 joints identified for inspection, 2386 joints were completely inspected, 165 joints were partially inaccessible, and 119 joints were totally inaccessible. All welds on 1292 joints were accepted by the inspectors, while welding deviations were noted on 1094 joints. Many of the deviations were very minor in nature, such as limited areas of lack of fusion or undercut, minor undersize, cold lap, etc.

All inspection reports were forwarded to Bechtel for engineering evaluation.

B. Summary of Reported Welding Deviations

Appendix D provides a synopsis of the inspection results for each joint. In order to accurately report the reinspection results, each straight line segment of a weld was identified, and the reinspection results were reported on a segment by segment basis. The number of weld segments on a joint which have a particular welding deviation is recorded in the appropriate column of Appendix D. A summary of the data in Appendix D is provided in this section:

1) Undersize

- A. Weld undersized for part of length - 68 joints
- B. Weld undersized on one leg (typically 1/16 inch or less) - 375 joints. The undersize occurred only on the return welds on 103 of these joints.
- C. Weld undersized full length (of weld segment) - 284 joints. The undersize occurred only on the clip angle return welds on 69 of these joints.
- D. Weld undersized due to fit-up/root gap - 29 joints.

An engineering evaluation has identified only 2 joints (RA, and R039) in which the maximum calculated design stress exceeded the allowable as the result of undersized welds. These 2 joints are discussed further in Section IV. B. Other joints were identified with undersized welds in which the maximum calculated stress exceeded allowable stresses, however these conditions were the result of being found in conjunction with more serious defects of missing or underlength welds.

2) Weld Defects

- A. Overlap (typically limited to a small percentage of weld length) - 68 joints.
- B. Incomplete penetration - 24 joints
- C. Lack of fusion (typically limited to a small percentage of weld length) - 91 joints
- D. Excessive reinforcement - 6 joints
- E. Edge consumption (i.e. weld size in excess of AWS D1.1 , Paragraph 2.7.14) - 99 joints (occurred on the return welds only on 48 of these joints.
- F. Cracks - 3 joints (all on beam to beam seat welds)
- G. Gouge/grinding -14 joints
- H. Slag - 9 joints
- I. Porosity - 5 joints
- J. Arc strike - 3 joints
- K. Convexity - 3 joints
- L. Other - 53 joints

Essentially all of the weld defects were very minor in nature. Only 1 joint (C146) had calculated design stresses that exceeded the allowable as the result of excessive grinding. This joint is discussed further in Section IV.B. No other repair of these defects was required.

3) Incorrect Configuration

- A. Gap in continuous weld (typically at nail holes provided in embedded plates to aid installation) - 31 joints.
- B. Spacing on intermittent welds - 1 joint

C. Overrun (i.e. excessive weld length) - 754 joints. 658 of these joints involved overrun on the clip angle to embedded plate return welds only.

D. Weld in wrong location/not welded per drawing (e.g. groove vs. fillet weld, etc) - 5 joints

No joints were identified with overstress conditions as a result of incorrect weld configuration. Overrun on the clip angle to embedded plate welds was the most common welding deviation identified. Although the ideal condition would be to have the return weld extend only 1 inch maximum from the toe of the angles, the extra weld length does not reduce the capacity of the beam or the embedded plate to support the design loads. No repairs were required as the result of incorrect weld configuration.

4) Underrun (i.e. insufficient weld length)

A. Greater than 1 inch in length - 96 joints

B. Less than 1 inch in length - 233 joints

An engineering evaluation has identified only 10 joints (AC, A102, A419, A430, A431, A435, A436, A445, DD and D012) in which the maximum calculated design stress exceeded the allowable as the results of weld underrun greater than 1 inch in length. These 10 joints are discussed further in Section IV.B. No over-stress conditions resulted from weld underrun less than 1 inch in length.

5) Undercut

A. Greater than 1 inch in length - 26 joints

B. Less than 1 inch in length - 62 joints

The identified undercut was typically less than or equal to 1/16 inch in depth. No overstress conditions resulted from undercut. No repairs were required.

6) Missing Material

- A. Material change-out (e.g. shims or filler plates added, plate instead of angle) - 21 joints
- B. Missing Material - 19 joints
- C. Missing Weld (segment) - 127 joints

An Engineering evaluation has identified 69 joints (RF, R171, R172, R810 through R869, RJ87 through RJ90, C024 and C055) in which the maximum calculated design stress exceeded the allowable as the result of missing material or welds. 60 of these joints are identical polar crane girder radial stops. These 69 joints are discussed further in Section IV. B. An additional discussion of all joints with missing material and welds is included in Section IV. C.

7) Inaccessible Joints

- A. Totally inaccessible - 119 joints
- B. Partially inaccessible - 165 joints

A discussion of inaccessible joints is included in Section IV.D.

IV. JOINT EVALUATIONA. General

All reinspection reports were forwarded to Bechtel and the as-built condition of each joint was evaluated against the allowable stresses and loading combinations specified in the SNUPPS Civil-Structural Design Criteria, 10466-C-0.

The general acceptance criteria for weld deviations from the requirements of AWS D1.1 and Bechtel Specifications 10466-C122 and 10466-C132 was:

- 1) All weld deviations which resulted in a violation of the design allowable stresses specified in the SNUPPS Civil-Structural Design Criteria 10466-C-0 were unacceptable and the welds were repaired. (See Section IV. B)

- 2) Missing welds were unacceptable regardless of the stress levels in the joint and the welds were installed unless specifically approved otherwise by the engineer. (See Section IV. C)
- 3) Defects (cracks, lack of fusion, undercut, etc.) which jeopardized the integrity of the joint were unacceptable and required repair. The engineer performed a case by case review of each weld inspection report in order to identify those defects which required repair.

B. Joints Which Exceed Allowable Stresses

In the as-built condition, 82 joints had calculated weld stresses which exceeded the allowables as defined by the SNUPPS Civil-Structural Design Criteria 10466-C-0. All joints with calculated stresses that exceeded the allowables had missing, (in one case as the result of excessive grinding) undersized, or underlength welds. None of the joints were determined to have incurred damage as a result of the as-built condition and previous or existing loads. None of the calculated stresses exceeded the ultimate capacity of the welds. The only required rework to these joints was the installation of the missing, undersize or underlength welds.

The joints with calculated weld stresses that exceeded the allowables are:

- 1) Auxiliary Building Joint AC - The top and bottom return welds between the clip angles and beam 763B8 were underlength approximately 3 inches. The maximum design reaction is 12.2 kips, while the allowable load for the as-built condition was 10.5 kips. Therefore, the allowable load was exceeded by 16 percent. The ultimate capacity of the as-built

joint was 25 kips. NCR 1SN20568CW has been dispositioned to install the missing portion of the return welds in order to restore the original design condition.

- 2) Auxiliary Building Joint A102 - The weld between one clip angle and beam 763B3 was undersized by 1/16 inch for the entire length, and the returns were underlength by approximately 3 1/2 inches. In the as-built condition, the maximum calculated design stress in the weld was 20.0 kips per square inch (ksi), while the allowable weld stress is 18.6 ksi. Therefore, the allowable stress was exceeded by 8 percent. The ultimate capacity of the weld is approximately 44 ksi. NCR 1SN21179CW has been dispositioned to rework the clip angle connection in order to reduce the design stress below the allowable.
- 3) Auxiliary Building Joint A419 - The welds between the clip angle and beam 763B7 were undersized by 1/16 inch. The return welds between the clip angles and the beam were underlength by approximately 3 1/4 inches. The maximum design reaction is 12.4 kips, while the allowable load for the as-built condition was 6.9 kips. Therefore, the allowable load was exceeded by 80 percent. The ultimate capacity of the as-built joint was 16.3 kips. NCR 1SN20995CW has been dispositioned to rework the clip angles to beam connection in order to restore the original design condition.
- 4) Auxiliary Building Joint A430, A435 and A445 - The return welds between the clip angles and beam 763B1 were underlength by approximately 3 1/4 inches. The maximum design reaction is 10.4 kips, while the allowable load for the as-built condition was 10.0 kips. Therefore, the allowable load was exceeded by 4 percent. The ultimate capacity of the as-built joint was 23.8 kips. NCR 1SN20995CW has been dispositioned to rework the clip angles to beam connections in order to restore the original design condition.

- 5) Auxiliary Building Joint A431 - The clip angle to embedded plate weld was undersized by 1/16 inch for its entire length on one clip angle. Also, the return welds between the clip angles and beam 763B7 were underlength by approximately 3 inches. The maximum design reaction is 12.4 kips, while the allowable load for the as-built condition was 10.9 kips. Therefore, the allowable load was exceeded by 14 percent. The ultimate capacity of the as-built joint was 26 kips. NCR 1SN20995CW has been dispositioned to repair the undersized vertical weld on the clip angle to embedded plate and to rework the clip angles to beam connection in order to restore the original design condition.
- 6) Auxiliary Building Joint A436 - The return welds between the clip angles and beam 763B8 were underlength by approximately 3 1/4 inches. The maximum design reaction is 12.4 kips, while the allowable load for the as-built condition was 10.9 kips. Therefore, the allowable load was exceeded by 14 percent. The ultimate capacity of the as-built joint was 26.0 kips. NCR 1SN20995CW has been dispositioned to repair the underlength welds in order to restore the original design condition.
- 7) Reactor Building Joint RA - The weld between one of the clip angles and beam 606B3 is undersized up to 3/16 inch. The maximum design reaction is 81 kips, while the allowable load for the as-built condition was 62.6 kips. Therefore, the allowable load was exceeded by 29 percent. The ultimate capacity of the as-built joint was 149 kips. NCR 1SN20567CW has been dispositioned to repair the undersized vertical clip to beam weld in order to restore the original design condition.
- 8) Reactor Building Joint RF - The weld between the pressurizer support beam and the top support bracket at pressurizer support Detail 4 was not installed. The welds between the beam and the bottom support bracket, and between the bottom support bracket and the embedded plate were undersized.

The bottom bracket welds must support the entire horizontal load with the beam to top support bracket weld not installed. An engineering analysis has determined that the beam to bottom bracket weld was adequate to support the maximum design load within allowable stresses, however, the bottom bracket to embedded plate weld was determined to be undersized by 9 percent. NCR 1SN20509CW has been dispositioned to install the beam to top bracket weld. The full installation of the weld is prohibited by field conditions; however, sufficient weld can be installed to reduce the stresses below the design allowables.

- 9) Reactor Building Joint R039 - The weld between the clip angles and embed is undersized by 1/16 inch. The maximum design reaction is 60 kips, while the allowable load for the as-built condition was 50 kips. Therefore, the allowable load was exceeded by 20 percent. The ultimate capacity of the as-built joint was 119 kips. NCR 1SN21072CW has been dispositioned to increase the weld size in order to restore the original design condition.
- 10) Reactor Building Joint R171 - The weld between the support beam and the top bracket was not installed at pressurizer support Detail 6 and the weld between the support beam and the bottom bracket is undersized. The total horizontal design load on the weld is 339 kips. For the as-built condition the allowable horizontal load on the joint was 251 kips. Therefore, the allowable load was exceeded by 35 percent. The ultimate capacity was approximately 375 kips. NCR 1SN20509CW has been dispositioned to install the missing beam to top bracket weld in order to reduce all stress below design allowable.

- 11) Reactor Building Joint R172 - The weld between the support beam and the top support bracket was not installed and the weld between the support beam and bottom support bracket was undersized at pressurizer support Detail 8. The total horizontal design load on the joint is 339 kips. For the as-built condition, the allowable horizontal load on the joint was 286 kips. Therefore, the allowable load was exceeded by 19 percent. The ultimate capacity of the weld was approximately 426 kips. NCR LSN20509CW has been dispositioned to install the missing beam to top bracket weld. The full installation of the weld is prohibited by field conditions; however, sufficient weld can be installed to reduce all stresses below the design allowables.
- 12) Reactor Building Joints R810 through R869 - Two of the five welds between the polar crane girder radial stops and the support bracket were not installed. The maximum design reaction is 450 kips, while the allowable load for the worst case as-built condition was 307 kips. Therefore, the allowable load was exceeded by 47 percent. The ultimate capacity of the as-built joint was 456 kips. The applicable NCR's (see Appendix A) have been dispositioned to install the missing welds in order to restore the original design condition.
- 13) Reactor Building Joints RJ87 through RJ90 - The lateral support brackets for the incore instrumentation tube supports were not installed as required by Drawing C-OS2924 Section A. An engineering analysis by Westinghouse Electric Corporation has indicated that the missing brackets could result in an overstress condition in the instrumentation tubes, however, no failure of the tubes would have resulted from the missing bracket. Westinghouse letter SNP(KG)-503 is included as an attachment of this report. NCR LSN20494CW has been dispositioned to install the brackets in order to restore the original design condition.

- 14) Control Building Joint C024 - The beam seat required for this joint was not installed. The maximum design load on the joint is 31.0 kips. The allowable capacity of the as-built web connection was 24.0 kips. Therefore, the allowable load was exceeded by 29 percent. The ultimate capacity of the as-built web connection was 57.0 kips. NCR 1SN21048CW has been dispositioned to install the beam seat in order to restore the original design condition.
- 15) Control Building Joint C055 - The beam seat required for this joint was not installed. The maximum design load on the joint is 12.7 kips. The allowable capacity of the as-built web connection was 10.9 kips. Therefore, the allowable load was exceeded by 17 percent. The ultimate capacity of the as-built web connection was 26.0 kips. Due to field interferences the seat cannot be installed. NCR 1SN21031CW has been dispositioned to rework the clip angle to embedded plate connection to increase the weld size so that the connection capacity is greater than the design load and the margin of safety is restored.
- 16) Control Building Joint C146 - The weld between one of the clip angles and the beam was ground out for a 12 inch length. The maximum design reaction is 130 kips, while the allowable load for the as-built condition was 91.5 kips. Therefore, the allowable load was exceeded by 42 percent. The ultimate capacity of the as-built joint was 218 kips. NCR 1SN20915CW has been dispositioned to replace the missing weld length in order to restore the original design condition.
- 17) Diesel Bulding Joint DD - The return welds between the clip angles and beam 12B5 were 1/2 inch to 1 inch long instead of the required 4 inches + 1 inch. The maximum design reaction is 265 kips, while the allowable load for the as-built condition was 220 kips. Therefore the allowable

load was exceeded by 21 percent. The ultimate capacity of the as-built joint was 524 kips. NCR 1SN20565CW has been dispositioned to install the missing portion of the return welds in order to restore the original design condition.

- 18) Diesel Building Joint D012 - The return welds between the clip angles and beam 11B1 were underlength by approximately 3 1/4 inches. The maximum design reaction is 130 kips, while the allowable load for the as-built condition was 103 kips. Therefore, the allowable load was exceeded by 26 percent. The ultimate capacity of the as-built joint was 245 kips. NCR 1SN21741CW has been dispositioned to repair the undersized weld in order to restore the original design condition.

C. Joints with Missing Welds and Material

The reinspection program identified missing welds at 129 joints. 96 of these joints were associated with three specific areas of construction:

- 1) polar crane girder - 60 radial stops had welds missing on the support plates
- 2) pressurizer support beams - 6 joints had the beam to top support bracket missing
- 3) beam seats - 30 joints had missing seat to beam welds

An engineering evaluation has determined that none of the missing welds would have resulted in the failure of a safety related component. A discussion of each joint with missing welds follows:

- 1) Reactor Building Joints R810 through R869 - Two of the five welds were not installed on each of 60 polar crane girder radial stops. As

discussed in Section IV.B, all of these joints would have been overstressed for the most critical design loading combination; however, none of the joints would have failed as a result of the missing welds. The applicable NCR's (see Appendix A) have been dispositioned to install the missing welds in order to restore the original design margins.

- 2) Reactor Building Joints RF, R169, R170, R171, R172 and R174 - The weld between the pressurizer support beams and the top support brackets were not installed on all six pressurizer support beam joints. Three of the joints (RF, R171 and R172) would have been overstressed for the most critical design loading condition (see Section IV. B); however, none of the joints would have failed as the result of the missing welds. NCR LSN20509CW has been dispositioned to install the welds. The full installation of the welds is prohibited by field conditions; however, sufficient weld can be installed to reduce the stresses below the design allowables.
- 3) Auxiliary Building Joint AF - The weld between one of the support clip angles and the beam was not installed. An engineering evaluation has determined that the existing one-sided connection was adequate to support the design loads within allowable stresses. NCR LSN20495CW has been dispositioned to install the missing weld in order to restore the original design condition.
- 4) Auxiliary Building Joints A012, A013, A023, A036, A039, A040, A041, A046, A058, A060, A061, A063, A064, A067, A068, A069, A070, A077, A100, A315, A369, A385 and A386. Control Building Joints C022, C023, C027, C028, C029, C030, and C212 - The connection welds between the bottom flange of the beams and the beam seats were not installed. This weld is not designed to support design loads. The vertical reaction of

the beam is transferred to the beam seat through bearing between the bottom of the flange and the top of the seat. The welds simply hold the beam in the required location. In addition to the seated connection all of these joints have full web connections which prevent the beam from moving and thus there is no consequence to the omission of the beam to seat welds. The applicable NCR's (see Appendix A) have been dispositioned to install the missing welds in order to restore the original design condition. However, Joints A012, A013, A046 and A070 are skewed or offset connections that allow the installation of only one of the two designed beam to seat welds. In addition, the missing welds for Joints A023 and C029 can not be installed due to field conditions.

- 5) Reactor Building Joint RJ83 through RJ86 - The welds between the interior framing members of the containment cooler support frames and the floor framing steel were not installed. An engineering evaluation has determined that installed welds on the exterior framing members were adequate to support the coolers without exceeding the allowable stresses. The disposition of NCR 1SN20494CW provided details for the installation of welds between the interior framing members and the floor framing in order to restore the design margins.
- 6) Auxiliary Building Joints A609 through A616 - The welds between the clip angles and the support (in these cases a girder rather than an embedded plate) were not installed. The welds are provided to temporarily support the beams during removal of beams on the far side of the supporting girder. A fully bolted connection is provided to support the beams during normal operation. NCR 1SN21273CW has been dispositioned to install the missing welds.
- 7) Reactor Building Joint R585 - The welds between the gusset plate and the C8 beam were not installed as required by the erection drawing.

However, an alternate weld was approved by FCR 1-1182-C. This weld has been installed and is capable of supporting the design load within allowable stresses. NCR 1SN21235CW which addressed the connection has been closed in process.

- 8) Reactor Building Joints R945 and R947 - The welds between the clip angles and C8 platform beams were not installed. A bolted connection was also provided between the beams and clip angles which is capable of supporting the design loads within allowable stresses. NCR 1SN21274CW has been dispositioned to install the missing welds in order to restore the original design condition.
- 9) Diesel Building Joints D001 and D002 - The weld between a diagonal brace gusset plate and the web of a beam was not installed. In addition to this weld detail, there is a clip angle shop welded to the gusset plate and field bolted to the beam that is capable of supporting the design load. NCR 1SN20865CW has been dispositioned to address these connections. The missing weld on Joint D001 will be installed in order to restore the original design intent. However, due to field conditions which prohibit the installation of the weld, D002 was approved to use-as-is.
- 10) Auxiliary Building Joint A635 - The welds between the bent plate and the column were not installed. A bolted connection was also provided between the plate and the column which is capable of supporting the design loads within allowable stresses. NCR 1SN21399CW has been dispositioned to install the missing welds in order to restore the original design condition.
- 11) Reactor Building Joints R991 and R992 - The welds between gusset plate 411PM4 and beams were not installed as required by the erection drawings. However, an alternate weld was approved by FCR 1-1182-C. This weld has been installed and is capable of supporting the design

load within allowable stresses. NCR 1SN21323CW which addressed the connection has been closed in process.

- 12) Auxiliary Building Joint A111 - The weld between the toe of a C8 channel frame and the support beam below it was not installed. The existing weld between the back of the channel and the beam is adequate to support the channel without exceeding allowable stresses. NCR 1SN20798CW has been dispositioned to install the missing welds in order to restore the original design condition.
- 13) Fuel Building Joints F037 and F038 - The welds between the flanges of a C8 beam and embedded plate were not installed. An engineering evaluation has determined that the existing welds between the C8 web and the embedded plate are adequate to support the design loads within allowable stresses. The joints have been approved by NCR 1SN20883CW to use-as-is.
- 14) Auxiliary Building Joints A412, A641 and A646
Control Building Joints C013, C014, C085 and C128
Fuel Building Joints F017 and F022
The clip angle to beam, clip angle to embed, or seat to embed return welds were not installed at these joints. An engineering evaluation has determined that none of the joints would be overstressed as a result of the missing return welds. The applicable NCR's (see Appendix A) have been dispositioned to install the missing welds in order to restore the original design condition.
- 15) Reactor R876 - The top weld between the embed and grating support angle was removed by grinding at this joint. An engineering evaluation indicated that the existing connection was sufficient. NCR 1SN21232CW has been dispositioned to replace the weld. Field conditions prohibit the full installation of the weld, but sufficient weld can be installed to meet the design intent.

The reinspection identified 19 joints with missing material as described below. An engineering evaluation has determined that the missing material would not have resulted in the failure of safety equipment or building components. The joints with missing material are:

- 1) Auxiliary Building Joints A055 and A098, Control Building Joints C025, C036, C037, C040, C042, C052, C053, and C054 - The beam seats for these 10 connections were not installed. The beam seats were specified on applicable American Bridge erection drawings to be installed as required by Bechtel Standard Detail 10 on Drawing C-0011. A review of the design calculations indicated that the existing web connections were capable of supporting the design reactions within allowable stresses even though the beam seats were not installed. The beam seats have been installed in order to restore the original design condition for Joints A098, C025, C036, C040 and C042. However, due to field conditions, the beam seats for Joints A055, C037, C052, C053 and C054 could not be installed.
- 2) Reactor Building Joint R059 - The tension plate was not installed between the embedded plate and beam 625B1 as required by the erection drawings. However, alternate plates have been installed per NCR 1SN18407C. NCR 1SN21076CW was dispositioned to approve the as-built condition.
- 3) Reactor Building Joints RJ93 and RJ94 - The bottom tie was not installed at intersecting beams as required by Bechtel drawing C-OS2311. A review of existing design calculations indicates that the as-built connection is adequate to support all design loads within allowable stresses. Due to the installation of electrical conduit supports the bottom tie plate cannot be installed. Drawing C-OS2311 will be revised to delete the requirements for this plate per the disposition to NCR 1SN20494CW.

- 4) Reactor Building Joints RJ87 through RJ90 - The lateral support brackets for the incore instrumentation tube supports were not installed as required by drawing C-OS2924 Section A. An engineering analysis by Westinghouse Electric Corporation has indicated that the missing brackets could result in an overstress condition in the instrumentation tubes, however, no failure of the tubes would have resulted from the missing bracket. Westinghouse letter SNP(KG)-503 is included as an attachment of this report. NCR 1SN20494CW has been dispositioned to install the brackets in order to restore the original design condition.
- 5) Auxiliary Building Joint A628 - Only 1 of the 2 required clip angles was installed. An engineering evaluation has determined that the installed clip angle is adequate to support the design load within the allowable stresses. NCR 1SN21272CW has been dispositioned to install the missing clip angle in order to restore the original design condition.
- 6) Control Building Joints C024 and C055 - The beam seats were not installed. As discussed in Section IV. B, the maximum calculated design stress in the existing web connections would have exceeded the allowable stresses without the beam seats installed, however, the joints would not have failed. NCR 1SN21048CW has been dispositioned to install the beam seat for Joint C024 in order to restore the original design condition. Since field conditions prohibit the installation of the beam seat for Joint C055, NCR 1SN21031CW was dispositioned to rework the clip angle to embedded plate connection so that allowable stresses are not exceeded. See Section IV. B, Item 15 for further discussion.

D. Inaccessible Joints

As noted in Section III.B, 119 joints were identified by the reinspection to be totally inaccessible. 62 of these joints were evaluated on a case by case basis, typically where alternate load paths existed (i.e. the beam is

embedded in a concrete wall which is capable of supporting the design load in the completed structure). In addition, some portions of the welds were inaccessible on 165 joints. Sufficient information was available on 139 of these joints to enable a case by case evaluation to be performed. Therefore, a total of 83 joints, out of the total population of 2670 joints were identified in which a case by case evaluation of the acceptability of the welds could not be determined.

The fully inspected joints may be viewed as a sample of the total population of joints consisting of fully inspected, partially inspected and uninspectable joints. Based on the above numbers a statistical evaluation may be undertaken for those joints which are either totally or partially inaccessible. It is important to observe that the sample size represents such a significant percentage of the total population that the statistic associated with the sample may be applied to the total population with virtually 100 percent confidence. This implies that if some percentage of the inspected joints were determined to exceed allowable stresses, then statistically this percentage may be assumed for the total population with a very high confidence.

Of the 2587 joints which were evaluated on a case by case basis, only 82 joints, 3.17 percent, were identified in which the weld stresses exceed the allowables. Considering that 60 of these joints are polar crane radial stops installed to one typical detail, there are 22 joints in the remaining population of 2527 joints, or 0.87 percent, which exceed allowable stresses. We would expect the percentage of joints which exceed the allowable stresses in the group of inaccessible and unevaluated joints to be approximately 0.8 percent, or approximately 1 joint in the group of 83 joints, that could not be evaluated. Likewise, we would not expect to find

any joints that would fail under the design loading conditions as a result of welding deviations.

V. CONCLUSION

No significant deficiencies as defined by 10CFR50.55(e) were identified as the result of the reinspection and evaluation of AWS field welding of structural and miscellaneous steel construction at Wolf Creek. All joints with calculated stresses that exceeded the allowables as the result of welding deficiencies are being repaired as described in Section IV. B. Missing welds and materials are being installed as described in Section IV. C.

AWS WELDING EVALUATION REPORT

TABLE 1

MISCELLANEOUS/STRUCTURAL STEEL CONNECTION SUMMARY

Building	<u>Shop Welded Joints</u>		<u>Field Bolted Joints</u>		<u>Field Welded Joints</u>		<u>Total Joints</u>	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Auxiliary	1500	41%	1580	43%	610	16%	3690	100%
Reactor	2680	51%	1520	29%	1060	20%	5260	100%
Control	350	35%	380	39%	260	26%	990	100%
Diesel	260	40%	310	48%	80	12%	650	100%
Fuel	90	19%	110	23%	280	58%	480	100%
Pumphouse	20	24%	30	38%	30	38%	80	100%
TOTAL	4900	44%	3930	35%	2320	21%	11150	100%

TABLE 2
STATUS OF AWS WELDING
INSPECTIONS AND ENGINEERING EVALUATIONS

<u>BUILDING</u>	<u>TOTAL JOINTS</u>	<u>JOINTS INSPECTED (1)</u>	<u>JOINTS EVALUATED (1)</u>	<u>JOINTS REQUIRING REWORK (2)</u>	<u>ADDITIONAL JOINTS TO BE REWORKED (3)</u>	<u>SIGNIFICANTLY DEFICIENT JOINTS (10CFR50.55 (e))</u>
AUXILIARY	694	694	694	8	40	0
REACTOR	1300	1300	1300	69	10	0
CONTROL	265	265	265	3	14	0
DIESEL GENERATOR	98	98	98	2	1	0
FUEL	277	277	277	0	2	0
ESWS PUMPHOUSE	36	36	36	0	0	0
TOTAL	2670	2670	2670	82	67	0

(1) TOTAL INCLUDES INACCESSIBLE JOINTS

(2) DESIGN ALLOWABLE STRESSES ARE EXCEEDED IN THE AS-BUILT CONDITION

(3) DESIGN ALLOWABLE STRESSES ARE NOT EXCEEDED IN THE AS-BUILT CONDITION. THESE JOINTS ARE BEING REWORKED PER KG&E MANAGEMENT DIRECTION TO INSTALL MISSING AND UNDERLENGTH WELDS UNLESS PROHIBITED BY FIELD CONDITIONS.

STRUCTURAL JOINTS TRACKING

*JOINT	DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
A001	C-0S1411	C-121-00165	E205	2026-00	1-0 N OF A14	AL	21022 A034/A035
A002	C-0S1411	C-121-00165	E205	2026-00	1-0 N OF A14	10-8 W OF AL	VOID
A003	C-0S1411	C-121-00165	E205	2026-00	1-0 N OF A14	2-6 E OF CA	21022 A038/A039
A004	C-0S1411	C-121-00165	E205	2026-00	A12	1-0 E OF CA	21022 A040/A041
A005	C-0S1411	C-121-00165	E205	2026-00	A10	1-0 E OF CA	21022 A042/A043/A044
A006	C-0S1421	C-121-00971	E105	2026-00	A7	1-0 E OF CA	21043 A237/A238/A239/A877
A007	C-0S1421	C-121-00971	E105	2026-00	A6	1-0 E OF CA	21043 A240/A241/A242/A243
A008	C-0S1421	C-121-00971	E105	2026-00	A4	1-0 E OF CA	21043 A244/A245/A246
A009	C-0S1421	C-121-00971	E105	2026-00	A3	1-0 E OF CA	21043 A247/A248/A249
A010	C-0S1421	C-121-00971	E105	2026-00	1-0 S OF A1	AM	21043 A250/A251
A011	C-0S1321	C-121-00034	E103	2000-00	A7	1-0 E OF CA	20962 A203/A204/A205/A206
A012	C-0S1311	C-121-00130	E203	2000-00	A8	1-0 E OF CA	20798 A160/A161/A162/A163
A013	C-0S1311	C-121-00130	E203	2000-00	A12	1-0 E OF CA	20798 A164/A165/A166
A014	C-0S1311	C-121-00130	E203	2000-00	2-0 N OF A14	7-6 E OF AN	20965 A167/A168
A015	C-0S1311	C-121-00130	E203	2000-00	2-0 N OF A14	7-10 W OF AL	20965 A169/A170/A171
A016	C-0S1352	C-121-01549	E302	2000-00	3-0 S OF A3	1-0 W OF AA	21049 A068
A017	C-0S1352	C-121-01549	E302	2000-00	4-6 S OF A2.6	1-0 W OF AA	21050 A069
A018	C-0S1352	C-121-01549	E302	2000-00	A2	1-0 E OF AC	21049 A070
A019	C-0S1352	C-121-01549	E302	2000-00	2-0 S OF A1	AD	21050 A071
A020	C-0S1352	C-121-01549	E302	2000-00	2-0 S OF A1	2-6 E OF AC	21050 A072
A021	C-0S1352	C-121-01549	E302	2000-00	2-0 S OF A1	AB	21050 A073
A022	C-0S1321	C-121-00034	E103	2000-00	A6	1-0 E OF CA	20962 A207/A208/A209/A745
A023	C-0S1321	C-121-00034	E103	2000-00	A5	1-0 E OF CA	20962 A210/A211/A212/A213
A024	C-0S1321	C-121-00034	E103	2000-00	A3	1-0 E OF CA	20962 A214/A215/A216/A796
A025	C-0S1321	C-121-00034	E103	2000-00	A2	1-0 E OF CA	20962 A217/A218/A219
A026	C-0S1321	C-121-00034	E103	2000-00	2-0 S OF A1	5-4 E OF CA	20960 A220/A370/A371/A372
A027	C-0S1531	C-121-00629	E502	2047-06	1-0 N OF A13.1	11-2 E OF AF6	21029 A066
A028	C-0S1531	C-121-00629	E502	2047-06	1-0 N OF A14	AH3	21352 A686
A029	C-0S1521	C-121-00912	E401	2047-06	A5	1-0 E OF CA	21027 A175/A176/A177/A878
A030	C-0S1521	C-121-00912	E401	2047-06	A4	1-0 E OF CA	21027 A178/A179/A180
A031	C-0S1521	C-121-00912	E401	2047-06	A3	1-0 E OF CA	21027 A181/A182/A183/A184
A032	C-0S1521	C-121-00912	E401	2047-06	A2	1-0 E OF CA	21027 A185/A186
A033	C-0S1521	C-121-00912	E401	2047-06	1-0 S OF A1	AM	21027 A187/A188/A189
A034	C-0S1521	C-121-00912	E401	2047-06	1-0 S OF A1	10-0 E OF AN	21027 A190/A191/A192
A035	C-0S1521	C-121-00912	E401	2047-06	1-0 S OF A1	AM	21027 A193/A194/A195/A196
A036	C-0S1521	C-121-00912	E401	2047-06	1-0 S OF A1	10-0 E OF AM	20798 A197/A198/A199
A037	C-0S1521	C-121-00912	E401	2047-06	1-0 S OF A1	AK	VOID
A038	C-0S1541	C-121-00627	E402	2047-06	1-0 S OF A1	AJ	20964 A045/A046/A047
A039	C-0S1541	C-121-00627	E402	2047-06	1-0 S OF A1	11-6 W OF AH	20798 A048/A049/A050
A040	C-0S1541	C-121-00627	E402	2047-06	1-0 S OF A1	AH	20798 A051/A052/A053
A041	C-0S1541	C-121-00627	E402	2047-06	1-0 S OF A1	8-6 W OF AF	20798 A054/A055/A056
A042	C-0S1541	C-121-00627	E402	2047-06	A3	1-0 W OF AE	20964 A057/A058/A059
A043	C-0S1541	C-121-00627	E402	2047-06	1-7 N OF A3.3	1-0 W OF AE	20964 A060/A061/A062
A044	C-0S1352	C-121-01549	E302	2000-00	3-0 S OF A3	1-0 E OF AE	21050 A074
A045	C-0S1352	C-121-01549	E302	2000-00	3-6 N OF A3	1-0 E OF AE	21049 A075/A076
A046	C-0S1311	C-121-00130	E203	2000-00	A10	1-0 E OF CA	20798 A172/A173/A174
A047	C-0S1411	C-121-00165	E205	2026-00	A8	1-0 E OF CA	21022 A063/A064/A065
A048	C-0S1421	C-121-00971	E105	2026-00	A2	1-0 E OF CA	21043 A252/A253/A881
A049	C-0S1421	C-121-00971	E105	2026-00	A5	1-0 E OF CA	21043 A254/A255/A256/A257

SAME AS JOINT AB

SAME AS JOINT AE

BECHTEL

*JOINT	DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
A050	C-0S1421	C-121-00971	E105	2026-00	1-0 S OF A1	21043	A258/A259
A051	C-0S1421	C-121-00971	E105	2026-00	1-0 S OF A1	21043	A260/A261/A262/A263
A052	C-0S1321	C-121-00034	E103	2000-00	2-0 S OF A1	20942	A221/A222/A223
A053	C-0S1321	C-121-00034	E103	2000-00	2-0 S OF A1	20962	A224/A225/A226/A227
A054	C-0S1321	C-121-00034	E103	2000-00	2-0 S OF A1	20942	A228/A229/A230/A235
A055	C-0S1352	C-121-01549	E302	2000-00	A2	20798	A077/A078/A079
A056	C-0S1352	C-121-01549	E302	2000-00	A2.6	21049	A080/A081
A057	C-0S1352	C-121-01549	E302	2000-00	A2	21049	A082/A083
A058	C-0S1341	C-121-00627	E402	2047-06	1-0 S OF A1	20798	A704/A705/A706/A779
A058A	C-0S1231	C-121-00976	E202	1988-00	2-0 N OF A14	21314	A016/A017
A059	C-0S1231	C-121-00976	E202	1988-00	2-0 N OF A14	21067	A018
A060	C-0S1231	C-121-00976	E202	1988-00	2-0 N OF A14	20798	A013/A014/A015
A061	C-0S1231	C-121-00976	E202	1988-00	2-0 N OF A14	20798	A009/A010/A011/A012
A062	C-0C1532	C-121-01635	E204	2047-06	7-4 S OF A10.9	----	N/A
A063	C-0S1331	C-121-01635	E204	2000-00	2-0 N OF A14	20798	A129/A130/A131
A064	C-0S1331	C-121-01635	E204	2000-00	2-0 N OF A14	20798	A132/A133/A134/A135
A065	C-0S1331	C-121-01635	E204	2000-00	2-0 N OF A14	21030	A136/A137/A138/A139
A066	C-0S1331	C-121-01635	E204	2000-00	2-7 S OF A13.1	21352	A687
A067	C-0S1331	C-121-01635	E204	2000-00	2-0 N OF A13.1	20798	A140/A141/A142
A068	C-0S1331	C-121-01635	E204	2000-00	2-0 N OF A13.1	20798	A143/A144/A145/A146
A069	C-0S1331	C-121-01635	E204	2000-00	2-0 N OF A13.1	20798	A147/A148/A149/A150
A070	C-0S1331	C-121-01635	E204	2000-00	2-0 N OF A13.1	20798	A151/A152/A153/A154
A071	C-0S1341	C-121-01634	E104	2000-00	A11.8	20961	A264/A265/A266/A267
A072	C-0S1341	C-121-01634	E104	2000-00	2-0 S OF A1	20961	A268/A269/A270/A271
A073	C-0S1341	C-121-01634	E104	2000-00	2-0 S OF A1	20961	A272/A273/A274/A275
A074	C-0S1341	C-121-01634	E104	2000-00	2-0 S OF A1	20961	A276/A277/A278/A279
A075	C-0S1341	C-121-01634	E104	2000-00	2-0 S OF A1	20961	A280/A281/A282
A076	C-0S1341	C-121-01634	E104	2000-00	2-0 S OF A1	20961	A283/A284
A077	C-0S1341	C-121-01634	E104	2000-00	11-0 S OF A2	20961	A285/A286/A287/A288
A078	C-0S1352	C-121-01685	E301	1989-00	3-1 S OF A3	21055	A019/A067
A079	C-0S1352	C-121-01685	E301	1989-00	3-6 N OF A3	21055	A020
A080	C-0S1352	C-121-01685	E301	1989-00	5-0 N OF A26	21055	A021
A081	C-0S1352	C-121-01685	E301	1989-00	5-0 S OF A2	21055	A022
A082	C-0S1352	C-121-01685	E301	1989-00	2-0 S OF A1	21055	A023
A083	C-0S1352	C-121-01685	E301	1989-00	0-6 N OF A3	21055	A024
A084	C-0S1352	C-121-01685	E301	1989-00	3-6 N OF A3	21055	A025
A085	C-0S1352	C-121-01685	E301	1989-00	A26	21055	A026
A086	C-0S1352	C-121-01685	E301	1989-00	5-7 N OF A2	21055	A027
A087	C-0S1352	C-121-01685	E301	1989-00	2-0 S OF A1	21055	A028
A088	C-0S1352	C-121-01685	E301	1989-00	3-0 S OF A3	21055	A029
A089	C-0S1352	C-121-01685	E301	1989-00	A26	21055	A030
A090	C-0S1352	C-121-01685	E301	1989-00	5-0 N OF A26	21055	A031
A091	C-0S1352	C-121-01685	E301	1989-00	5-0 S OF A2	21055	A032
A092	C-0S1352	C-121-01685	E301	1989-00	5-7 N OF A2	21055	A033
A093	C-0S1352	C-121-01549	E302	2000-00	A2.6	21049	A084/A085
A094	C-0S1352	C-121-01549	E302	2000-00	A2.6	21050	A086
A095	C-0S1352	C-121-01549	E302	2000-00	2-0 S OF A1	21050	A087
A096	C-0S1352	C-121-01549	E302	2000-00	2-0 S OF A1	21049	A088
A097	C-0S1352	C-121-01549	E302	2013-06	A3	21049	A089/A090
A098	C-0S1431	C-121-00617	E206	2026-00	1-0 N OF A13.1	20798	A233/A234/A235/A236
A099	C-0S1441	C-121-01700	E106	2026-00	2-0 N OF A3.3	20963	A304/A350

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* JDINT	BECHTEL DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
A100	C-0S1441	C-121-01700	E106	2026-00	A3	1-0 W OF AE	20798 A305/A306/A307
A101	C-0S1452	C-121-10675	E702	2037-06	2-3 S OF A2.6	1-0 E OF AE	21179 A308/A309
A102	C-0S1452	C-121-10675	E702	2037-06	2-3 S OF A2.6	1-0 W OF AC	21179 A310/A311
A103	C-0S1452	C-121-10675	E702	2037-06	2-3 S OF A2.6	1-0 E OF AC	21179 A312/A313
A104	C-0S1452	C-121-10675	E702	2041-10	8-5 N OF A2.6	1-0 E OF AC	21179 A314/A315
A105	C-0S1452	C-121-10675	E702	2041-10	A2	1-0 E OF AC	21179 A316/A317
A106	C-0S1452	C-121-10675	E702	2037-06	2-3 S OF A2.6	1-0 W OF AA	21179 A318/A726
A107	C-0S1452	C-121-10675	E702	2041-10	8-9 S OF A2	1-0 W OF AA	21179 A319/A797
A108	C-0S1452	C-121-10675	E702	2041-10	A2	1-0 W OF AA	N/A
A109	C-0S1521	C-121-00912	E401	2047-06	A6.3	1-0 E OF CA	21027 A155/A156
A110	C-0S1521	C-121-00912	E401	2047-06	1-0 S OF A1	2-6 E OF CA	21027 A157/A158/A159
A111	C-0S1241	C-121-00007	E801	1988-00	1-0 S OF A2	1-0 W OF AF	20798 A201/A202
A112	C-0S1541	C-121-00627	E402	2047-06	1-0 S OF A1	7-0 W OF AJ	20964 A367/A368
A113	C-0S1621	C-121-00274	E403	2073-02	A2	1-0 E OF CA	20935 A231/A232
A114	C-0S1352	C-121-01561	FW815	2013-06	0-6 N OF A2.6	4-4 W OF AC	20975 A289/A290
A115	C-0S1352	C-121-01561	FW815	2013-06	0-6 S OF A2	4-4 W OF AC	20975 A291/A292
A116	C-0S1352	C-121-01683	E809	2026-00	3-0 S OF A3	1-0 E OF AE	20973 A293
A117	C-0S1352	C-121-01683	E809	2026-00	A2	1-0 E OF AE	21352 A681
A118	C-0S1352	C-121-01683	E809	2026-00	A3	1-0 W OF AC	20972 A294
A119	C-0S1352	C-121-01683	E809	2026-00	A2.6	1-0 W OF AC	21352 A682
A120	C-0S1352	C-121-01683	E809	2026-00	2-0 S OF A1	AD	20972 A295/A296
A121	C-0S1352	C-121-01683	E809	2026-00	A3	1-0 E OF AC	20973 A297
A122	C-0S1352	C-121-01683	E809	2026-00	A2.6	1-0 E OF AC	21352 A683
A123	C-0S1352	C-121-01683	E809	2026-00	A2	1-0 E OF AC	20973 A298/A849
A124	C-0S1352	C-121-01683	E809	2026-00	2-0 S OF A1	6-0 W OF AB	20972 A299/A300
A125	C-0S1352	C-121-01683	E809	2026-00	2-0 S OF A1	6-0 E OF AB	20972 A301
A126	C-0S1352	C-121-01683	E809	2026-00	3-0 S OF A3	1-0 W OF AA	20972 A302
A127	C-0S1352	C-121-01683	E809	2026-00	A2.6	1-0 W OF AB	21352 A684
A128	C-0S1352	C-121-01683	E809	2026-00	A2	1-0 W OF AA	20973 A303
A129	C-0S1212	C-121-01789	E210	1989-08	2-0 N OF A14	AN	N/A
A130	C-0S1212	C-121-01789	E210	1989-08	8-0 S OF A10	1-0 E OF CA	N/A
A131	C-0S1212	C-121-01789	E210	1989-08	A9	1-0 E OF CA	N/A
A132	C-0S1212	C-121-01789	E210	1989-08	A8	1-0 E OF CA	20980 A103
A133	C-0S1212	C-121-01789	E210	1989-08	10-0 N OF A8	1-0 E OF CA	N/A
A134	C-0S1222	C-121-00127	E111	1989-08	A7	1-0 E OF CA	N/A
A135	C-0S1212	C-121-01789	E210	1989-08	8-0 N OF A12	1-0 W OF AN	N/A
A136	C-0S1212	C-121-01789	E210	1989-08	A9	1-0 W OF AN	21132 A543
A137	C-0S1212	C-121-01789	E210	1989-08	7-6 N OF A9	1-0 W OF AN	N/A
A138	C-0S1212	C-121-01789	E210	1989-08	A8	1-0 W OF AN	21132 A544
A139	C-0S1222	C-121-00127	E111	1989-08	A7	1-0 W OF AN	21132 A545
A140	C-0S1212	C-121-01789	E210	1989-08	1-0 S OF A12	5-5 E OF AN	N/A
A141	C-0S1212	C-121-01789	E210	1989-08	1-0 S OF A12	10-10 E OF AN	20980 A104/A105
A142	C-0S1212	C-121-01789	E210	1989-08	1-0 S OF A12	7-0 W OF AL	20978 A106
A143	C-0S1212	C-121-01789	E210	1989-08	9-0 N OF A14	1-6 W OF AL	N/A
A144	C-0S1212	C-121-01789	E210	2015-00	A12	1-0 E OF CA	20980 A107/A108
A145	C-0S1212	C-121-01789	E210	2015-00	A11	1-0 E OF CA	20980 A109/A110
A146	C-0S1212	C-121-01789	E210	2015-00	8-0 N OF A11	1-0 E OF CA	20980 A111/A112
A147	C-0S1212	C-121-01789	E210	2015-00	A10	1-0 E OF CA	20980 A113/A114
A148	C-0S1212	C-121-01789	E210	2015-00	9-0 N OF A10	1-0 E OF CA	20980 A115/A116
A149	C-0S1212	C-121-01789	E210	2015-00	A9	1-0 E OF CA	20980 A117
A150	C-0S1212	C-121-01789	E210	2015-00	A8	1-0 E OF CA	N/A

STRUCTURAL JOINTS TRACKING

*JOINT	BECHTEL DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
A151	C-0S1212	C-121-01789	E210	2015-00	10-0 N OF A8	1-0 E OF CA	N/A
A152	C-0S1212	C-121-01871	E110	2015-00	A7	1-0 E OF CA	N/A
A153	C-0S1212	C-121-01789	E210	2015-00	A12	1-0 W OF AN	20980 A118/A119
A154	C-0S1212	C-121-01789	E210	2015-00	A8	1-0 W OF AN	N/A
A155	C-0S1212	C-121-01789	E210	2015-00	10-0 N OF A8	1-0 W OF AN	N/A
A156	C-0S1212	C-121-01871	E110	2015-00	A7	1-0 W OF AN	N/A
A157	C-0S1212	C-121-01776	FW825	1989-08	2-0 N OF A14	6-9 E OF AN	20974 A091
A158	C-0S1222	C-121-00127	E111	1989-08	10-0 N OF A7	1-0 E OF CA	20978 A320/A321/A797
A159	C-0S1222	C-121-00127	E111	1989-08	A6	1-0 E OF CA	20978 A322/A323
A160	C-0S1222	C-121-00127	E111	1989-08	9-0 N OF A6	1-0 E OF CA	20978 A324
A161	C-0S1222	C-121-00127	E111	1989-08	A5	1-0 E OF CA	N/A
A162	C-0S1222	C-121-00127	E111	1989-08	8-3 N OF A5	1-0 E OF CA	20978 A326/A327/A344
A163	C-0S1222	C-121-00127	E111	1989-08	5-6 N OF A4	1-0 E OF CA	20978 A328
A164	C-0S1222	C-121-00127	E111	1989-08	8-0 S OF A3	1-0 E OF CA	N/A
A165	C-0S1222	C-121-00127	E111	1989-08	A3	1-0 E OF CA	20978 A329
A166	C-0S1222	C-121-00127	E111	1989-08	7-8 N OF A3	1-0 E OF CA	N/A
A167	C-0S1222	C-121-00127	E111	1989-08	7-8 S OF A2	1-0 E OF CA	N/A
A168	C-0S1222	C-121-00127	E111	1989-08	A2	1-0 E OF CA	20978 A330
A169	C-0S1222	C-121-00127	E111	1989-08	10-0 N OF A7	1-0 W OF AN	20977 A331
A170	C-0S1222	C-121-00127	E111	1989-08	9-0 N OF A6	1-0 W OF AN	20977 A332
A171	C-0S1222	C-121-00127	E111	1989-08	A5	1-0 W OF AN	20977 A333
A172	C-0S1222	C-121-00127	E111	1989-08	A4	1-0 W OF AN	20978 A334/A512
A173	C-0S1222	C-121-00127	E111	1989-08	5-6 N OF A4	1-0 W OF AN	20977 A335
A174	C-0S1222	C-121-00127	E111	1989-08	8-0 S OF A3	1-0 W OF AN	20977 A336
A175	C-0S1222	C-121-00127	E111	1989-08	A3	1-0 W OF AN	20977 A337
A176	C-0S1222	C-121-00127	E111	1989-08	7-8 N OF A2	1-0 W OF AN	20977 A338
A177	C-0S1222	C-121-00127	E111	1989-08	7-8 S OF A2	1-0 W OF AN	20977 A339
A178	C-0S1222	C-121-00127	E111	1989-08	A2	1-0 W OF AN	20978 A340
A179	C-0S1222	C-121-00127	E111	1989-08	2-0 S OF A1	7-3 E OF CA	N/A
A180	C-0S1222	C-121-00127	E111	1989-08	1-0 N OF A2	AN	20977 A341
A181	C-0S1222	C-121-00127	E111	1989-08	1-0 N OF A2	AK	20977 A342
A182	C-0S1222	C-121-00127	E111	1989-08	2-0 S OF A1	AN	N/A
A183	C-0S1222	C-121-00127	E111	1989-08	2-0 S OF A1	10-0 E OF AN	20978 A343
A184	C-0S1222	C-121-00127	E111	1989-08	2-0 S OF A1	10-0 E OF AN	N/A
A185	C-0S1242	C-121-00980	E211	2016-02	1-8 N OF A12	2-0 E OF AK	20976 A092
A186	C-0S1242	C-121-00128	E112	2015-00	1-0 S OF A1	7-0 E OF AK	N/A
A187	C-0S1242	C-121-00128	E112	2015-00	1-0 S OF A1	AJ	N/A
A188	C-0S1242	C-121-00128	E112	2015-00	1-0 S OF A1	10-0 E OF AJ	N/A
A189	C-0S1242	C-121-00128	E112	2015-00	1-0 S OF A1	3-0 W OF AH	N/A
A190	C-0S1242	C-121-00128	E112	2015-00	1-0 S OF A1	7-0 E OF AH	N/A
A191	C-0S1242	C-121-00128	E112	1989-08	10-6 N OF A3	1-0 E OF AK	21180 A093/A094
A192	C-0S1242	C-121-00128	E112	1989-08	2-0 S OF A1	7-0 E OF AK	21180 A095/A096/A098
A193	C-0S1242	C-121-00128	E112	1989-08	2-0 S OF A1	AJ	21180 A097
A194	C-0S1242	C-121-00128	E112	1989-08	2-0 S OF A1	7-3 E OF AJ	21180 A099/A100
A195	C-0S1242	C-121-00128	E112	1989-08	2-0 S OF A1	7-8 W OF AH	21180 A101/A102
A196	C-0S1211	C-121-00973	E201	1988-00	2-0 N OF A14	AL	21399 INACCESSIBLE
A197	C-0S1312	C-121-01871	E110	2015-00	10-0 N OF A7	1-0 E OF CA	N/A
A198	C-0S1312	C-121-01871	E110	2015-00	A6	1-0 E OF CA	21051 A369
A199	C-0S1312	C-121-01871	E110	2015-00	9-0 N OF A6	1-0 E OF CA	21350 A841
A200	C-0S1312	C-121-01871	E110	2015-00	1-5 S OF A5	1-0 E OF CA	21051 A365/A366
A201	C-0S1312	C-121-01871	E110	2015-00	7-0 N OF A5	1-0 E OF CA	N/A

*JOINT	BECHTEL DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
A202	C-0S1312	C-121-01871	E110	2015-00	A4	1-0 E OF CA	N/A
A203	C-0S1312	C-121-01871	E110	2015-00	7-6 N OF A4	1-0 E OF CA	21051 A121/A122
A204	C-0S1312	C-121-01871	E110	2015-00	8-6 S OF A3	1-0 E OF CA	N/A
A205	C-0S1312	C-121-01871	E110	2015-00	A3	1-0 E OF CA	N/A
A206	C-0S1312	C-121-01871	E110	2015-00	9-0 N OF A3	1-0 E OF CA	N/A
A207	C-0S1312	C-121-01871	E110	2015-00	7-0 S OF A2	1-0 E OF CA	21051 A123
A208	C-0S1312	C-121-01871	E110	2015-00	A2	1-0 E OF CA	21051 A124
A209	C-0S1312	C-121-01871	E110	2015-00	1-0 S OF A1	7-9 E OF CA	N/A
A210	C-0S1312	C-121-01871	E110	2015-00	1-0 S OF A1	AN	N/A
A211	C-0S1312	C-121-01871	E110	2015-00	1-0 S OF A1	10-0 E OF AN	21051 A125/A126
A212	C-0S1312	C-121-01871	E110	2015-00	1-0 S OF A1	AN	N/A
A213	C-0S1312	C-121-01871	E110	2015-00	1-0 S OF A1	10-0 E OF AM	21051 A127
A214	C-0S1312	C-121-01871	E110	2015-00	1-0 S OF A1	AK	21051 A120
A215	C-0S1312	C-121-01871	E110	2015-00	1-0 N OF A2	AK	21051 A393/A492
A216	C-0S1312	C-121-01871	E110	2015-00	1-0 N OF A2	10-0 W OF AK	21051 A394/A395
A217	C-0S1312	C-121-01871	E110	2015-00	1-0 N OF A2	AM	21051 A396/A491
A218	C-0S1312	C-121-01871	E110	2015-00	1-0 N OF A2	10-0 W OF AM	21051 A397/A398
A219	C-0S1312	C-121-01871	E110	2015-00	1-0 N OF A2	AN	21051 A399/A400
A220	C-0S1312	C-121-01871	E110	2015-00	A2	1-0 W OF AN	A401/A490
A221	C-0S1312	C-121-01871	E110	2015-00	7-0 S OF A2	1-0 W OF AN	A402
A222	C-0S1312	C-121-01871	E110	2015-00	9-0 N OF A3	1-0 W OF AN	A403/A404
A223	C-0S1312	C-121-01871	E110	2015-00	A3	1-0 W OF AN	A405/A489
A224	C-0S1312	C-121-01871	E110	2015-00	8-6 S OF A3	1-0 W OF AN	21051 A406
A225	C-0S1312	C-121-01871	E110	2015-00	7-6 N OF A4	1-0 W OF AN	21051 A407/A408
A226	C-0S1312	C-121-01871	E110	2015-00	A4	1-0 W OF AN	21350 A409/A488
A227	C-0S1312	C-121-01871	E110	2015-00	7-0 N OF A5	1-0 W OF AN	21052 A410/A411
A228	C-0S1312	C-121-01871	E110	2015-00	1-5 S OF A5	1-0 W OF AN	21052 A412/A413
A229	C-0S1312	C-121-01871	E110	2015-00	9-0 N OF A6	1-0 W OF AN	21052 A414/A415
A230	C-0S1312	C-121-01871	E110	2015-00	A6	1-0 W OF AN	21316 A416/A487
A231	C-0S1312	C-121-01871	E110	2015-00	10-0 S OF A6	1-0 W OF AN	21051 A417/A418
A232	C-0S1211	C-121-00973	E201	1988-00	2-0 N OF A14	6-8 W OF AK	21470 INACCESSIBLE
A233	C-0S1212	C-121-01789	E210	1989-08	9-0 S OF A12	1-0 E OF CA	20980 A421/A422
A234	C-0S1212	C-121-01789	E210	1989-08	A12	1-0 E OF CA	20980 A419/A420
A235	C-0S1212	C-121-01789	E210	1989-08	A12	1-0 W OF AN	20980 A423
A236	C-0S1212	C-121-01789	E210	1989-08	8-0 N OF A12	1-0 E OF CA	20980 A424/A425
A237	C-0S1212	C-121-01789	E210	1989-08	8-0 S OF A10	1-0 W OF AN	20979 A426
A238	C-0S1212	C-121-01789	E210	1989-08	A10	1-0 E OF CA	20980 A427
A239	C-0S1212	C-121-01789	E210	1989-08	A10	1-0 W OF AN	N/A
A240	C-0S1212	C-121-01789	E210	1989-08	9-0 N OF A10	1-0 E OF CA	N/A
A241	C-0S1212	C-121-01789	E210	1989-08	9-0 N OF A10	1-0 W OF AN	20979 A428
A242	C-0S1212	C-121-01789	E210	1989-08	7-3 N OF A9	1-0 E OF CA	20980 A429
A243	C-0S1212	C-121-01789	E210	1989-08	10-0 N OF A8	1-0 W OF AN	20980 A430/A431
A244	C-0S1212	C-121-01789	E210	1989-08	1-0 S OF A12	AN	N/A
A245	C-0S1212	C-121-01789	E210	2015-00	A13	1-0 E OF CA	20980 A432
A246	C-0S1212	C-121-01789	E210	2015-00	A13	1-0 W OF AN	20980 A433/A434
A247	C-0S1212	C-121-01789	E210	2015-00	A11	1-0 W OF AN	20980 A435/A436
A248	C-0S1212	C-121-01789	E210	2015-00	8-0 N OF A11	1-0 W OF AN	20980 A437/A438
A249	C-0S1212	C-121-01789	E210	2015-00	A10	1-0 W OF AN	20980 A439/A440
A250	C-0S1212	C-121-01789	E210	2015-00	9-0 N OF A10	1-0 W OF AN	20980 A441/A442
A251	C-0S1212	C-121-01789	E210	2015-00	A9	1-0 W OF AN	20980 A443/A444
A252	C-0S1212	C-121-01789	E210	2015-00	1-0 N OF A9	4-4 E OF AN	20980 A445/A446

* JOINT	BECHTEL DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
A253	C-051212	C-121-01789	E210	2015-00	1-0 N DF A9	20980	A447/A448
A254	C-051212	C-121-01789	E210	2015-00	1-0 N DF A9	20980	A449
A255	C-051212	C-121-01789	E210	2015-00	2-0 S DF A8	20980	A450/A451
A256	C-051212	C-121-01789	E210	2015-00	2-0 S DF A8	20980	A452/A453
A257	C-051212	C-121-01789	E210	2015-00	2-0 S DF A8	20980	A454/A455
A258	C-051212	C-121-01789	E210	2015-00	2-0 S DF A8	20980	A456/A457
A259	C-051352	C-121-01685	E301	1989-00	3-0 N DF A3	21055	A345/A529
A260	C-051352	C-121-01685	E301	1989-00	A2.6	21055	A346
A261	C-051352	C-121-01685	E301	1989-00	A2	21465	A347/A844
A262	C-051352	C-121-01685	E301	1989-00	5-7 N DF A2	21465	A348/A845
A263	C-051352	C-121-01685	E301	1989-00	3-6 S DF A1	21055	A349
A264	C-051352	C-121-01685	E301	1989-00	0-6 N DF A3	21465	A350/A346
A265	C-051352	C-121-01685	E301	1989-00	0-6 N DF A3	21465	A351/A847
A266	C-051352	C-121-01685	E301	1989-00	3-6 N DF A3	21055	A352
A267	C-051352	C-121-01685	E301	1989-00	A2.6	21055	A353
A268	C-051352	C-121-01685	E301	1989-00	5-0 N DF A26	21055	A354
A269	C-051352	C-121-01685	E301	1989-00	5-0 S DF A2	21465	A355/A848
A270	C-051352	C-121-01685	E301	1989-00	5-7 N DF A2	21054	A363/A364
A271	C-051352	C-121-01685	E301	1989-00	3-6 S DF A1	21055	A356
A272	C-051352	C-121-01685	E301	1989-00	5-0 S DF A2	21055	A357
A273	C-051352	C-121-01685	E301	1989-00	A2	21055	A358
A274	C-051352	C-121-01685	E301	1989-00	3-6 S DF A1	21055	A360
A275	C-051352	C-121-01871	E301	1989-00	3-6 N DF A3	21055	A361
A276	C-051352	C-121-01871	E301	1989-00	A2	21055	A362
A277	C-051352	C-121-01871	E301	1989-00	3-6 S DF A1	21489	INACCESSIBLE
A278	C-051511	C-121-01622	F0821	2047-02	A13	21489	INACCESSIBLE
A279	C-051511	C-121-01622	F0821	2047-02	A11	20994	A373/A374
A280	C-051222	C-121-00127	E111	1989-08	A6	20994	A375/A376
A281	C-051222	C-121-00127	E111	1989-08	8-3 N DF A5	-----	N/A
A282	C-051222	C-121-00127	E111	1989-08	A4	20994	A377/A378
A283	C-051222	C-121-00127	E111	1989-08	1-0 N DF A2	20994	A379
A284	C-051222	C-121-00127	E111	1989-08	1-0 N DF A2	-----	N/A
A285	C-051222	C-121-00127	E111	1989-08	2-0 S DF A1	20994	A380/A381
A286	C-051222	C-121-00127	E111	1989-08	1-0 N DF A2	20994	A382
A287	C-051222	C-121-00127	E111	1989-08	2-0 S DF A1	20994	A383
A288	C-051242	C-121-00128	E112	2015-00	A3	21350	A843
A289	C-051242	C-121-00128	E112	2015-00	11-9 N DF A3	20991	A383/A384
A290	C-051242	C-121-00128	E112	2015-00	11-9 N DF A3	20992	A385/A640
A291	C-051242	C-121-00128	E112	2015-00	A2	20991	A386
A292	C-051242	C-121-00128	E112	2015-00	1-0 S DF A1	21350	A677/A678/A679
A293	C-051242	C-121-00128	E112	1989-08	A2	20991	A387/A388
A294	C-051242	C-121-00128	E112	1989-08	1-0 N DF A3	21350	A799
A295	C-051242	C-121-00128	E112	1989-08	2-0 S DF A1	20991	A389
A296	C-051242	C-121-00128	E112	1989-08	2-0 S DF A1	-----	N/A
A297	C-051242	C-121-00128	E112	1989-08	2-0 S DF A1	-----	N/A
A298	C-051242	C-121-00128	E112	1989-08	3-4 S DF A1	20992	A390
A299	C-051242	C-121-00128	E112	1989-08	8-4 S DF A1	20992	A391
A300	C-051242	C-121-00128	E112	1989-08	8-4 S DF A1	20992	A392
A301	C-051242	C-121-00980	E211	2016-02	1-0 N DF A14	21195	A756
A302	C-051242	C-121-00980	E211	2016-02	1-0 N DF A14	21195	A757
A303	C-051242	C-121-00980	E211	2016-02	1-0 N DF A13	21195	A715

BECHTEL

* JOINT	DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
A304	C-051242	C-121-00980	E211	2016-02	A11	2-0 E OF AK	N/A
A305	C-051242	C-121-00780	E211	2016-02	8-0 N OF A11	2-0 E OF AK	A716
A306	C-051242	C-121-00980	E211	2016-02	A10	2-0 E OF AK	N/A
A307	C-051242	C-121-00780	E211	2016-02	8-0 N OF A10	2-0 E OF AK	N/A
A308	C-051242	C-121-00980	E211	2016-02	A9	2-0 E OF AK	N/A
A309	C-051242	C-121-00980	E211	2016-02	1-6 N OF A12	1-6 M OF AJ	21313 A786
A310	C-051242	C-121-00980	E211	2016-02	8-0 N OF A11	1-6 M OF AJ	21195 A717/A718
A311	C-051242	C-121-00980	E211	2016-02	A10	1-6 M OF AJ	21195 A719
A312	C-051242	C-121-00980	E211	2016-02	8-0 N OF A10	1-6 M OF AJ	21195 A720
A313	C-051242	C-121-00980	E211	2016-02	A9	1-6 M OF AJ	21195 A721/A722
A314	C-051242	C-121-00980	E211	2016-02	7-0 N OF A9	1-6 M OF AJ	N/A
A315	C-051311	C-121-00130	E203	2000-00	A9	1-0 E OF CA	20924 A493/A494/A495/A496
A316	C-051311	C-121-00130	E203	2000-00	2-0 N OF A14	6-0 E OF CA	20933 A497/A498
A317	C-051311	C-121-00130	E203	2000-00	2-0 N OF A14	AN	20933 A517/A518/A519/A520
A318	C-051311	C-121-00130	E203	2000-00	2-0 N OF A14	AL	21352 A785
A319	C-051311	C-121-00130	E203	2000-00	2-0 N OF A14	7-8 E OF AL	20933 A521/A522/A780
A320	C-051311	C-121-00130	E203	2000-00	2-0 N OF A14	AK	20933 A499/A500
A321	C-051312	C-121-01871	E110	2015-00	1-0 N OF A9	AK	21350 A535/A536/A537/538
A322	C-051312	C-121-01871	E110	2015-00	A8	8-5 E OF AL	21052 A539
A323	C-051312	C-121-01871	E110	2015-00	A7	2-0 E OF AL	21051 A540/A761
A324	C-051312	C-121-01871	E110	2015-00	A6	2-0 E OF AL	21051 A541
A325	C-051312	C-121-01871	E110	2015-00	A6	2-0 E OF AL	N/A
A326	C-051321	C-121-00034	E103	2000-00	A4	1-0 E OF LA	20921 A479
A327	C-051321	C-121-00034	E103	2000-00	2-0 S OF A1	10-0 E OF AN	20922 A480/A481/A482/A526/A527/A528
A328	C-051321	C-121-00034	E103	2000-00	2-0 S OF A1	10-0 E OF AN	20922 A483/A484/A485/A486
A329	C-051331	C-121-01635	E204	2000-00	2-0 N OF A14	2-6 E OF AK	21399 A817
A330	C-051331	C-121-01635	E204	2000-00	2-0 N OF A14	2-6 M OF AJ	21399 A818
A331	C-051331	C-121-01635	E204	2000-00	2-0 N OF A14	2-6 M OF AG	21399 A819/A820/A821
A332	C-051552	C-121-01549	E302	2000-00	5-0 N OF A2.6	1-0 E OF AE	A641
A333	C-051552	C-121-01549	E302	2000-00	5-0 S OF A2	1-0 E OF AE	21050 A642
A334	C-051552	C-121-01549	E302	2000-00	5-7 N OF A2	1-0 E OF AE	21050 A643
A335	C-051552	C-121-01549	E302	2000-00	4-2 S OF A1	1-0 E OF AE	21050 A644
A336	C-051552	C-121-01549	E302	2000-00	0-6 N OF A3	1-0 M OF AC	21050 A645
A337	C-051552	C-121-01549	E302	2000-00	5-0 N OF A2.6	1-0 M OF AC	21050 A646
A338	C-051552	C-121-01549	E302	2000-00	5-0 S OF A2	1-0 M OF AC	21050 A647
A339	C-051552	C-121-01549	E302	2000-00	0-6 N OF A3	1-0 E OF AC	21050 A648
A340	C-051552	C-121-01549	E302	2000-00	5-0 N OF A2.6	1-0 E OF AC	21050 A649
A341	C-051552	C-121-01549	E302	2000-00	5-0 S OF A2	1-0 E OF AC	21050 A650
A342	C-051552	C-121-01549	E302	2000-00	A2.6	1-0 M OF AA	21050 A651
A343	C-051552	C-121-01549	E302	2000-00	5-0 N OF A2.6	1-0 M OF AA	21050 A652
A344	C-051552	C-121-01549	E302	2000-00	5-0 S OF A2	1-0 M OF AA	21050 A653
A345	C-051552	C-121-01549	E302	2000-00	A2	1-0 M OF AA	21050 A654
A346	C-051552	C-121-01549	E302	2013-06	3-0 S OF A3	1-0 E OF AE	21049 A655/A656
A347	C-051552	C-121-01549	E302	2013-06	3-6 N OF A3	1-0 E OF AE	21352 A781
A348	C-051552	C-121-01549	E302	2013-06	A2.6	1-0 E OF AE	21352 A782
A349	C-051552	C-121-01549	E302	2013-06	A3	1-0 M OF AC	21050 A658
A350	C-051552	C-121-01549	E302	2013-06	4-6 S OF A2.6	1-0 M OF AC	21050 A659
A351	C-051552	C-121-01549	E302	2013-06	A2.6	1-0 M OF AC	21352 A782
A352	C-051552	C-121-01549	E302	2013-06	4-6 S OF A2.6	1-0 E OF AC	21050 A660
A353	C-051552	C-121-01549	E302	2013-06	A2.6	1-0 E OF AC	21352 A783
A354	C-051552	C-121-01549	E302	2013-06	5-0 N OF A2.6	1-0 E OF AC	21050 A661

STRUCTURAL JOINTS TRACKING

E004530

*JOINT	BECHTEL DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
A355	C-0S1352	C-121-01549	E302	2013-06	5-0 S OF A2	1-0 E OF AC	21050 A662
A356	C-0S1352	C-121-01549	E302	2013-06	A2	1-0 E OF AC	21050 A663
A357	C-0S1352	C-121-01549	E302	2013-06	5-7 N OF A2	1-0 E OF AC	21049 A664/A665
A358	C-0S1352	C-121-01549	E302	2013-06	3-6 S OF A1	1-0 E OF AC	21049 A666/A667
A359	C-0S1352	C-121-01549	E302	2013-06	3-0 S OF A3	1-0 W OF AA	21050 A668
A360	C-0S1352	C-121-01549	E302	2013-06	3-6 N OF A3	1-0 W OF AA	21049 A669/A670
A361	C-0S1352	C-121-01549	E302	2013-06	A2.6	1-0 W OF AA	21352 A784
A362	C-0S1352	C-121-01561	FW815	2013-06	0-6 N OF A2	4-4 W OF AC	20942 A513
A363	C-0S1352	C-121-01561	FW815	2013-06	2-0 S OF A1	AD	20942 A514
A364	C-0S1352	C-121-01561	FW815	2013-06	2-0 S OF A1	4-4 W OF AC	20943 A515/A516
A365	C-0S1352	C-121-01561	FW815	2013-06	C2	DA	21352 A800
A366	C-0S1352	C-121-01561	FW815	2013-06	C2	DA	21352 A801
A367	C-0S1352	C-121-01561	FW815	2013-06	C2.6	DA	21352 A802
A368	C-0S1352	C-121-01633	E809	2026-00	A2.6	1-0 E OF AE	21352 A685
A369	C-0S1411	C-121-00165	E205	2026-00	1-0 N OF A14	AK	21024 INACCESSIBLE
A370	C-0S1411	C-121-00165	E205	2026-00	1-0 N OF A14	3-4 W OF AK	21022 A581/A582
A371	C-0S1411	C-121-00165	E205	2026-00	1-0 N OF A14	AN	21023 A583/A584
A372	C-0S1411	C-121-00165	E205	2026-00	A9	1-0 E OF CA	21022 A585/A586/A587/A803
A373	C-0S1421	C-121-00971	E105	2026-00	1-0 S OF A1	2-6 E OF CA	20910 A501/A502/A503
A374	C-0S1421	C-121-00971	E105	2026-00	1-0 S OF A1	AN	20910 A504/A505/A506
A375	C-0S1421	C-121-00971	E105	2026-00	1-0 S OF A1	10-0 E OF AN	20910 A507/A508/A509
A376	C-0S1431	C-121-00617	E206	2026-00	1-0 N OF A14	AJ	21350 A808
A377	C-0S1431	C-121-00617	E206	2026-00	1-0 N OF A14	AH3	21118 A689/A690
A378	C-0S1431	C-121-00617	E206	2026-00	1-0 N OF A14	3-10 E OF AH2	21118 A691/A692
A379	C-0S1431	C-121-00617	E206	2026-00	7-0 S OF A13	1-0 W OF AG	21118 A693/A694
A380	C-0S1431	C-121-00617	E206	2026-00	1-0 N OF A13.1	AG	21352 A778
A381	C-0S1431	C-121-00617	E206	2026-00	1-0 N OF A13.1	AF6	21118 A695/A696
A382	C-0S1431	C-121-00617	E206	2026-00	1-0 N OF A13.1	11-2 E OF AF6	21118 A697/A698
A383	C-0S1431	C-121-00617	E206	2026-00	14-11 N OF A13.1	1-0 W OF AD1	21118 A699/A700
A384	C-0S1441	C-121-01700	E106	2026-00	1-0 S OF A1	AJ	20903 A458/A459
A385	C-0S1441	C-121-01700	E106	2026-00	1-0 S OF A1	11-6 E OF AJ	20903 A460/A461/A462
A386	C-0S1441	C-121-01700	E106	2026-00	1-0 S OF A1	AH	20903 A463/A464/A465/A466
A387	C-0S1441	C-121-01700	E106	2026-00	1-0 S OF A1	8-6 E OF AH	20903 A467/A468
A388	C-0S1441	C-121-01700	E106	2026-00	1-0 S OF A1	AF	20903 A469/A470
A389	C-0S1441	C-121-01700	E106	2026-00	11-0 S OF A2	1-0 W OF AE	21352 A639
A390	C-0S1521	C-121-00912	E401	2047-06	A7	1-0 E OF CA	21399 A875
A391	C-0S1211	C-121-00973	E201	1988-00	2-0 N OF A14	AK	21144 A702/A703
A392	C-0S1531	C-121-00629	E502	2047-06	1-0 N OF A14	1-2 E OF AH2	21009 A574/A671
A393	C-0S1531	C-121-00629	E502	2047-06	1-0 N OF A13.1	AG	21352 A876
A394	C-0S1531	C-121-00629	E502	2047-06	1-0 N OF A13.1	AF6	21009 A744
A395	C-0S1531	C-121-00629	E502	2047-06	1-0 N OF A13.1	2-6 W OF AD1	21009 A575/A576
A396	C-0S1531	C-121-00629	E502	2047-06	14-11 N OF A13.1	1-0 W OF AD1	21008 A672
A397	C-0S1621	C-121-00274	E403	2073-02	A5	1-0 E OF CA	20935 A523/A524
A398	C-0S1621	C-121-00274	E403	2073-02	A4	1-0 E OF CA	20936 A525/A309
A399	C-0S1621	C-121-00274	E403	2073-02	A3	1-0 E OF CA	20936 A542
A400	C-0S1212	C-121-01776	FW825	1989-08	6-1 N OF A14	AN	----- N/A
A401	C-0S1212	C-121-01776	FW825	1989-08	A12	6-0 E OF CA	----- N/A
A402	C-0S1212	C-121-01776	FW825	1989-08	5-3 S OF A9	7-9 E OF AN	20923 A510
A403	C-0S1212	C-121-01776	FW825	1989-08	5-3 S OF A9	7-9 W OF AL	20923 A511
A404	C-0S1231	C-121-00976	E202	1988-00	2-0 N OF A14	2-6 E OF AK	20907 A471
A405	C-0S1231	C-121-00976	E202	1988-00	2-0 N OF A14	2-6 W OF AJ	20907 A472

STRUCTURAL JOINTS TRACKING

*JOINT	DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
A406	C-051231	C-121-00976	E702	1928-00	2-0 N OF A14	20907	VOID
A407	C-051231	C-121-00976	E702	1928-00	12-4 N OF A14	20907	A474
A408	C-051231	C-121-00976	E702	1928-00	2-0 N OF A13.1	21352	INACCESSIBLE
A409	C-051231	C-121-00976	E702	1928-00	2-0 N OF A13.1	21352	INACCESSIBLE
A410	C-051231	C-121-00976	E702	1928-00	2-0 N OF A13.1	21352	INACCESSIBLE
A411	C-051231	C-121-00976	E702	1928-00	2-0 N OF A13.1	21352	INACCESSIBLE
A412	C-051231	C-121-00976	E702	1928-00	2-0 N OF A13.1	20901	INACCESSIBLE
A413	C-051231	C-121-00976	E702	1928-00	11-7 N OF A13.1	20902	A477/A478
A414	C-051241	C-121-00007	E801	1928-00	5-5 OF A2	-----	N/A
A415	C-051241	C-121-00007	E801	1928-00	5-5 OF A2	-----	N/A
A416	C-051241	C-121-00007	E801	1928-00	5-5 N OF A2	-----	N/A
A417	C-051452	C-121-10675	E702	2037-06	6-6 S OF A3	-----	N/A
A418	C-051452	C-121-10675	E702	2037-06	A3	-----	A673
A419	C-051452	C-121-10675	E702	2037-06	8-9 S OF A2	21352	A753
A420	C-051452	C-121-10675	E702	2041-10	8-9 S OF A2	20995	A593/A594
A421	C-051452	C-121-10675	E702	2041-10	8-9 S OF A2	20995	A595/A596
A422	C-051452	C-121-10675	E702	2041-10	A2	-----	N/A
A423	C-051452	C-121-10675	E702	2041-10	2-0 S OF A1	20995	A597/A598
A424	C-051452	C-121-10675	E702	2041-10	2-0 S OF A1	-----	N/A
A425	C-051452	C-121-10675	E702	2041-10	2-0 S OF A1	20995	A610
A426	C-051452	C-121-10675	E702	2041-10	2-0 S OF A1	-----	N/A
A427	C-051452	C-121-10675	E702	2041-10	2-0 S OF A1	-----	N/A
A428	C-051452	C-121-10675	E702	2041-10	2-0 S OF A1	-----	N/A
A429	C-051452	C-121-10675	E702	2037-06	2-6 S OF A3	20996	A611
A430	C-051452	C-121-10675	E702	2037-06	A3	-----	N/A
A431	C-051452	C-121-10675	E702	2037-06	8-9 S OF A2	20995	A599/A600
A432	C-051452	C-121-10675	E702	2041-10	8-9 S OF A2	20995	A601/A602
A433	C-051452	C-121-10675	E702	2041-10	8-9 S OF A2	20995	A603
A434	C-051452	C-121-10675	E702	2041-10	A2	20995	A604
A435	C-051452	C-121-10675	E702	2037-06	2-6 S OF A3	-----	N/A
A436	C-051452	C-121-10675	E702	2037-06	A3	20995	A605/A606
A437	C-051452	C-121-10675	E702	2041-10	2-0 S OF A1	20995	A607
A438	C-051452	C-121-10675	E702	2041-10	2-0 S OF A1	20996	A612
A439	C-051452	C-121-10675	E702	2041-10	2-0 S OF A1	20996	A615/A616
A440	C-051452	C-121-10675	E702	2041-10	2-0 S OF A1	20995	A613/A614
A441	C-051452	C-121-10675	E702	2041-10	2-0 S OF A1	20996	A617
A442	C-051452	C-121-10675	E702	2041-10	2-0 S OF A1	-----	N/A
A443	C-051452	C-121-10675	E702	2041-10	2-0 S OF A1	-----	N/A
A444	C-051452	C-121-10675	E702	2041-10	2-0 S OF A1	-----	N/A
A445	C-051452	C-121-10675	E702	2037-06	6-6 S OF A3	-----	N/A
A446	C-051211	C-121-00961	FM812	1988-00	5-0 S OF A8	20995	A608/A609
A447	C-051211	C-121-00961	FM812	1988-00	5-0 S OF A8	-----	N/A
A448	C-051211	C-121-00961	FM812	1988-00	5-0 S OF A8	-----	N/A
A449	C-051211	C-121-00961	FM812	1988-00	4-6 S OF A5	-----	N/A
A450	C-051211	C-121-00961	FM812	1988-00	4-6 S OF A5	-----	N/A
A451	C-051211	C-121-00961	FM812	1988-00	A10	-----	N/A
A452	C-051211	C-121-00961	FM812	1988-00	7-0 N OF A10	-----	N/A
A453	C-051211	C-121-00961	FM812	1988-00	7-0 N OF A10	-----	N/A
A454	C-051211	C-121-00961	FM812	1988-00	6-6 N OF A9	21351	A610
A455	C-051211	C-121-01621	FM820	1988-00	6-6 N OF A9	-----	N/A
A456	C-051211	C-121-01621	FM820	1988-00	0-9 N OF A13	21020	A546
							A547

SAME AS JOINT AA

REV. TEL
DRAWINGS

EVALUATION NO.

MCR

LOCATION

ELEVATION

SECTION

DRAW

* JOINT	SECTION	DRAW	ELEVATION	LOCATION	MCR	EVALUATION NO.
A457	C-121-00962	FM813	1988-00	A3	AF	21010 A553
A458	C-121-00952	FM813	1988-00	11-0 S OF A2	AF	21010 A554/A555
A459	C-121-01836	E501	2047-02	1-0 N OF A14	AL	21044 A632/A804
A460	C-121-01836	E501	2047-02	1-0 N OF A14	AK	21044 A633/A634/A754/A755
A461	C-121-01780	FM827	1988-00	6-9 N OF A14	AL	21007 A548
A462	C-121-01780	FM827	1988-00	6-9 N OF A14	5-8 M OF AK	21007 A549
A463	C-121-01780	FM827	1988-00	6-3 S OF A13	AL	21007 A550
A464	C-121-01780	FM827	1988-00	6-3 S OF A13	6-8 M OF AK	21007 A551
A465	C-121-01945	FM839	1988-00	9-3 N OF A7	AK	20998 A556
A466	C-121-01945	FM839	1988-00	9-3 N OF A7	1-6 E OF AJ1	21352 A557/A758
A467	C-121-01945	FM839	1988-00	9-3 N OF A7	1-0 M OF AJ	21352 A558/A759
A468	C-121-01976	FM841	1988-00	5-3 M OF A9	3-4 M OF AK	----- N/A
A469	C-121-01976	FM841	1988-00	5-3 M OF A9	AK	21006 A552
A470	C-121-01883	FM838	2073-02	1-7 N OF A3.3	1-0 M OF AE	21045 A635/A636
A471	C-121-01883	FM838	2073-02	A3	1-0 M OF AE	21045 A637/A638
A472	C-121-01883	FM838	2073-02	A3	1-0 M OF AE	21674 A832/A883
A473	C-121-01884	E601	2011-06	12-10 S OF A11	1-0 M OF AD1	21000 A588
A474	C-121-01884	E601	2011-06	4-5 S OF A11	1-0 M OF AD1	20999 A589
A475	C-121-01884	E601	2011-06	A11	AG	21000 A590
A476	C-121-01884	E601	2011-06	8-6 S OF A9	1-6 E OF AJ	20999 A591
A477	C-121-01884	E601	2011-06	1-11 N OF A9	1-6 E OF AJ	20999 A592
A478	C-121-01885	E602	2012-03	1-6 N OF A5	2-5 M OF AH4	----- N/A
A479	C-121-01885	E602	2012-03	1-6 N OF A5	4-9 E OF AH4	21352 A532
A480	C-121-01885	E602	2012-03	1-8 N OF A3.3	1-0 M OF AE	21005 A533
A481	C-121-01885	E602	2012-03	8-5 N OF A3.3	1-0 M OF AE	21005 A534
A482	C-121-00978	E208	2062-05	1-0 N OF A14	AJ	21021 A618/A619
A483	C-121-00978	E208	2062-05	1-0 N OF A14	AH3	21021 A620
A484	C-121-01773	FM824	1988-00	5-3 S OF A5	7-0 M OF AJ	21399 A840
A485	C-121-01773	FM824	1988-00	5-3 S OF A5	AJ	----- N/A
A486	C-121-01773	FM824	1988-00	5-0 N OF A6	7-9 M OF AL	----- N/A
A487	C-121-01773	FM824	1988-00	5-0 N OF A6	AL	----- N/A
A488	C-121-01773	FM824	1988-00	5-0 N OF A6	3-4 E OF AL	----- N/A
A489	C-121-01773	FM824	1988-00	6-3 S OF A5	7-9 M OF AL	----- N/A
A490	C-121-01773	FM824	1988-00	6-3 S OF A5	AL	----- N/A
A491	C-121-01773	FM824	1988-00	6-3 S OF A5	8-4 E OF AL	----- V010
A492	C-121-01790	E811	2030-00	5-6 S OF A1	1-0 E OF AE	21025 A621
A493	C-121-01790	E811	2030-00	2-10 S OF A1	1-0 E OF AE	21025 A622
A494	C-121-01790	E811	2030-00	2-0 S OF A1	AD	21025 A623
A495	C-121-01790	E811	2030-00	2-10 S OF A1	1-0 M OF AC	21025 A624
A496	C-121-01790	E811	2030-00	5-6 S OF A1	1-0 M OF AC	21025 A625
A497	C-121-01790	E811	2030-00	5-6 S OF A1	1-0 E OF AC	21025 A626
A498	C-121-01790	E811	2030-00	2-10 S OF A1	1-0 E OF AC	21025 A627
A499	C-121-01790	E811	2030-00	2-0 S OF A1	A6	21025 A628
A500	C-121-01790	E811	2030-00	5-6 S OF A1	1-0 M OF AA	21025 A629
A501	C-121-01790	E811	2030-00	2-10 S OF A1	1-0 M OF AA	21025 A630
A502	C-121-12026	E706	2102-06	1-9 S OF A2	AE	21004 A559/A560
A503	C-121-12026	E706	2102-06	1-9 S OF A2	6-0 E OF AE	21003 A561
A504	C-121-12026	E706	2102-06	1-9 S OF A2	AD	21004 A562/A563
A505	C-121-12026	E706	2102-06	1-9 S OF A2	6-0 E OF AD	21004 A564/A565
A506	C-121-12026	E706	2102-06	1-9 S OF A2	AC	21003 A566
A507	C-121-12026	E706	2102-06	1-9 S OF A2	6-0 E OF AC	21004 A567/A568

NO CONNECTION REQUIRED

*JOINT	DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	MCR	EVALUATION NO.
A506	C-051751	C-121-12026	E706	2102-06	1-9 S DF A2	21003	A562
A509	C-051751	C-121-12026	E706	2102-06	1-9 S DF A2	21004	A570/A571
A510	C-051751	C-121-12026	E706	2102-06	1-9 S DF A2	2 003	A572
A511	C-051541	C-121-00627	E402	2047-06	10-6 S DF A2	21352	A798
A512	C-051221	C-121-01773	FM24	1988-00	4-0 N DF A5	21220	A725
A513	C-051221	C-121-01773	FM24	1988-00	4-0 N DF A5	-----	N/A
A514	C-051221	C-121-10657	FM34	1988-00	4-0 N DF A5	-----	N/A
A515	C-051241	C-121-10657	FM34	1988-00	4-0 N DF A5	-----	N/A
A516	C-051441	C-121-01700	E106	2026-00	A3	-----	N/A
A517	C-051621	C-121-00274	E403	2073-04	A6.3	21352	INACCESSIBLE
A518	C-051452	C-121-10731	E705	2090-00	4-6 S DF A3	21352	A806
A519	C-051452	C-121-10731	E705	2090-00	4-6 S DF A3	21352	A787
A520	C-051452	C-121-10731	E705	2090-00	A3	21352	A788
A521	C-051452	C-121-10731	E705	2090-00	6-3 N DF A2.6	21352	A789
A522	C-051452	C-121-10731	E705	2090-00	3-9 N DF A2	21352	A790
A523	C-051452	C-121-10731	E705	2090-00	2-6 S DF A3	21352	A791
A524	C-051452	C-121-10731	E705	2090-00	A3	21352	A792
A525	C-051452	C-121-10731	E705	2090-00	6-3 N DF A2.6	21352	A793
A526	C-051452	C-121-10731	E705	2090-00	3-9 N DF A2	21352	A794
A527	C-051452	C-121-10731	E705	2090-00	4-6 S DF A3	21212	A708
A528	C-051452	C-121-10731	E705	2090-00	AE	21212	A709/A710
A529	C-051452	C-121-10731	E705	2090-00	6-3 N DF A2.6	21212	A711/A712
A530	C-051751	C-121-12027	E707	2089-04	3-9 N DF A2	21212	A713/A714
A531	C-051751	C-121-12027	E707	2089-04	6-0 S DF A2	-----	N/A
A532	C-051751	C-121-12027	E707	2089-04	6-0 S DF A2	-----	N/A
A533	C-051751	C-121-12027	E707	2089-04	1-0 N DF A2	-----	N/A
A534	C-051019	C-121-00978	E208	2038-04	1-0 N DF A14	-----	N/A
A535	C-051019	C-121-00978	E208	2038-04	1-0 N DF A14	21399	A822/A823
A536	C-051019	C-121-00978	E208	2038-04	1-0 N DF A14	21399	A824/A825
A537	C-051019	C-121-00978	E208	2038-04	1-0 N DF A14	21399	A826/A827
A538	C-051211	C-121-00961	FM12	1988-0	10-8 S DF A7	-----	N/A
A539	C-051751	C-121-12025	E706	2096-03	1-9 S DF A2	-----	N/A
A540	C-051751	C-121-12027	E707	2096-10	1-9 N DF A2	21169	A707
A541	C-051906	C-131-05794	58-E1	2069-04	A1	-----	N/A
A542	C-051906	C-131-05794	58-E1	2073-01	A1	-----	N/A
A543	C-051906	C-131-05794	58-E1	2076-10	A1	-----	N/A
A544	C-051906	C-131-05794	58-E1	2080-07	A1	-----	N/A
A545	C-051906	C-131-05794	58-E1	2084-04	A1	-----	N/A
A546	C-051906	C-131-05794	58-E1	2069-04	A1	-----	N/A
A547	C-051906	C-131-05794	58-E1	2073-01	A1	-----	N/A
A548	C-051906	C-131-05794	58-E1	2076-10	A1	-----	N/A
A549	C-051906	C-131-05794	58-E1	2080-07	A1	-----	N/A
A550	C-051906	C-131-05794	58-E1	0884-04	A1	-----	N/A
A551	C-051906	C-131-05794	58-E1	2069-04	A1	-----	N/A
A552	C-051906	C-131-05794	58-E1	2073-01	A1	-----	N/A
A553	C-051906	C-131-05794	58-E1	2076-10	A1	-----	N/A
A554	C-051906	C-131-05794	58-E1	2080-07	A1	-----	N/A
A555	C-051906	C-131-05794	58-E1	2084-04	A1	-----	N/A
A556	C-051906	C-131-05794	58-E1	2069-04	A1	-----	N/A
A557	C-051906	C-131-05794	58-E1	2073-01	A1	-----	N/A
A558	C-051906	C-131-05794	58-E1	2076-10	A1	-----	N/A

STRUCTURAL JOINTS TRACKING

E004530

GWS WELDING REPORT, APPENDIX A, PAGE 12

*JOINT	BECHTEL DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
A559	C-051906	C-131-05794	58-E1	2080-07	A1	3-10 W OF AG	N/A
A560	C-051906	C-131-05794	58-E1	2084-04	A1	3-10 W OF AC	N/A
A561	C-051906	C-131-05794	58-E1	2069-04	A1	2-6 E OF AC	N/A
A562	C-051906	C-131-05794	58-E1	2073-01	A1	2-7 E OF AC	N/A
A563	C-051906	C-131-05794	58-E1	2076-10	A1	2-6 E OF AC	N/A
A564	C-051906	C-131-05794	58-E1	2080-07	A1	2-6 E OF AC	N/A
A565	C-051906	C-131-05794	58-E1	2084-04	A1	2-6 E OF AC	N/A
A566	C-051906	C-131-05794	58-E1	2069-04	A1	3-10 W OF AD	N/A
A567	C-051906	C-131-05794	58-E1	2073-01	A1	3-10 W OF AD	N/A
A568	C-051906	C-131-05794	58-E1	2076-10	A1	3-10 W OF AD	N/A
A569	C-051906	C-131-05794	58-E1	2080-07	A1	3-10 W OF AD	N/A
A570	C-051906	C-131-05794	58-E1	2084-04	A1	3-10 W OF AD	N/A
A571	C-051906	C-131-05794	58-E1	2069-04	A1	2-6 E OF AD	N/A
A572	C-051906	C-131-05794	58-E1	2073-01	A1	2-6 E OF AD	N/A
A573	C-051906	C-131-05794	58-E1	2076-10	A1	2-6 E OF AD	N/A
A574	C-051906	C-131-05794	58-E1	2080-07	A1	2-6 E OF AD	N/A
A575	C-051906	C-131-05794	58-E1	2084-04	A1	2-6 E OF AD	N/A
A576	C-051906	C-131-05794	58-E1	2069-04	A1	3-10 W OF AE	N/A
A577	C-051906	C-131-05794	58-E1	2073-01	A1	3-10 W OF AE	N/A
A578	C-051906	C-131-05794	58-E1	2076-10	A1	3-10 W OF AE	N/A
A579	C-051906	C-131-05794	58-E1	2080-07	A1	3-10 W OF AE	N/A
A580	C-051906	C-131-05794	58-E1	2069-04	A1	3-10 W OF AE	N/A
A581	C-051352	C-121-01549	E302	2013-06	2-0 S OF A1	AD	21224 A723
A582	C-051352	C-121-01549	E302	2013-04	A2	1-0 W OF AA	21224 A724
A583	C-051908	C-131-05798	31-E2	2029-00	1-0 N OF AB	14-4 W OF AL	N/A
A584	C-051908	C-131-05798	31-E2	2029-00	1-0 S OF A7	14-4 W OF AL	N/A
A585	C-051908	C-131-05798	31-E2	2029-00	7-7 N OF A8	1-0 W OF AL	21236 A731/A732
A586	C-051908	C-131-05798	31-E2	2029-00	9-0 S OF A7	1-0 W OF AL	N/A
A587	C-051908	C-131-05798	31-E2	2029-00	5-7 S OF A7	1-0 W OF AL	21236 A733
A588	C-051908	C-131-05798	31-E2	2029-00	1-0 N OF A7	7-11 W OF AL	N/A
A589	C-051908	C-131-05798	31-E2	2029-00	1-0 S OF A6	7-11 W OF AL	N/A
A590	C-051908	C-131-05798	31-E2	2029-00	5-10 N OF A7	1-0 W OF AL	N/A
A591	C-051908	C-131-05798	31-E2	2029-00	9-0 N OF A7	1-0 W OF AL	N/A
A592	C-051908	C-131-05798	31-E2	2029-00	7-10 S OF A6	1-0 W OF AL	21236 A734
A593	C-051909	C-131-05799	31-E3	2041-00	1-0 N OF A8	8-9 W OF AL	N/A
A594	C-051909	C-131-05799	31-E3	2041-00	1-0 S OF A7	8-9 W OF AL	N/A
A595	C-051909	C-131-05799	31-E3	2041-00	7-10 N OF A8	1-0 W OF AL	21237 A729/A730
A596	C-051909	C-131-05799	31-E3	2041-00	5-10 S OF A7	1-0 W OF AL	N/A
A597	C-051909	C-131-05799	31-E3	2041-00	1-0 N OF A7	8-9 W OF AL	N/A
A598	C-051909	C-131-05799	31-E3	2041-00	1-0 S OF A6	8-9 W OF AL	N/A
A599	C-051909	C-131-05799	31-E3	2041-00	5-10 N OF A7	1-0 W OF AL	N/A
A600	C-051909	C-131-05799	31-E3	2041-00	7-10 S OF A6	1-0 W OF AL	N/A
A601	C-051352	C-121-10639	FW833	2030-00	1-0 N OF A1	9-6 W OF AC	N/A
A602	C-051352	C-121-10639	FW833	2030-00	1-6 S OF A0	9-6 W OF AC	21470 A701/A760
A603	C-051352	C-121-10639	FW833	2030-00	1-0 N OF A1	4-0 W OF AC	N/A
A604	C-051352	C-121-10639	FW833	2030-00	1-6 S OF A0	4-0 W OF AC	N/A
A605	C-051352	C-121-10639	FW833	2030-00	1-0 N OF A1	4-0 E OF AC	N/A
A606	C-051352	C-121-10639	FW833	2030-00	1-6 S OF A0	4-0 E OF AC	N/A
A607	C-051352	C-121-10639	FW833	2030-00	1-0 N OF A1	8-0 E OF AC	N/A
A608	C-051352	C-121-10639	FW833	2030-00	1-6 S OF A0	3-0 E OF AC	N/A
A609	C-051452	C-121-10675	E702	2041-10	A2	3-9 E OF AE	21273 A736

RECELL

*JOINT	DRAWING	ERFECTON	DRAW	ELEVATION	LOCATION	MCR	EVALUATION NO.
A610	C-051452	C-121-10675	E702	2041-10	A2	21273	A737
A611	C-051452	C-121-10675	E702	2041-10	A2	21273	A738
A612	C-051452	C-121-10675	E702	2041-10	A2	21273	A739
A613	C-051452	C-121-10675	E702	2041-10	A2	21273	A740
A614	C-051452	C-121-10675	E702	2041-10	A2	21273	A741
A615	C-051452	C-121-10675	E702	2041-10	A2	21273	A742
A616	C-051452	C-121-10675	E702	2041-10	A2	21273	A743
A617	C-051313	C-121-01886	FM1	2011-06	A10	21287	A762
A618	C-051313	C-121-01886	FM1	2011-06	A10	21287	A764
A619	C-051313	C-121-01886	FM1	2011-06	A10	21287	A765
A620	C-051313	C-121-01886	FM1	2011-06	A10	21287	A766
A621	C-051313	C-121-10886	FM1	2011-06	A10	21287	A767
A622	C-051313	C-121-01887	FM2	2011-06	A11	21272	A746
A623	C-051313	C-121-01887	FM2	2011-06	A11	21272	A747
A624	C-051313	C-121-01887	FM2	2011-06	A11	21272	A748
A625	C-051313	C-121-01887	FM2	2011-06	A11	21272	A749
A626	C-051313	C-121-01887	FM2	2012-03	A3	21272	A750
A627	C-051313	C-121-01887	FM2	2012-03	A3	21272	A751
A628	C-051313	C-121-01887	FM2	2012-03	A3	21272	A751
A629	C-051313	C-121-01887	FM2	2012-03	A3	21272	A751
A630	C-051313	C-121-01887	FM2	2012-03	A3	21272	A751
A631	C-051313	C-121-01887	FM2	2012-03	A3	21272	A751
A632	C-051313	C-121-01887	FM2	2012-03	A3	21272	A751
A633	C-051313	C-121-01887	FM2	2012-03	A3	21272	A751
A634	C-051313	C-121-01887	FM2	2012-03	A3	21272	A751
A635	C-051313	C-121-01887	FM2	2012-03	A3	21272	A751
A636	C-051313	C-121-01886	FM1	2011-06	A8	21287	A766
A637	C-051313	C-121-01886	FM1	2011-06	A8	21287	A766
A638	C-051313	C-121-01886	FM1	2011-06	A8	21287	A766
A639	C-051313	C-121-01886	FM1	2011-06	A10	21287	A766
A640	C-051452	C-121-00934	E704	2055-06	0-4 N OF A3	21288	A767/A851/A852/A853
A641	C-051452	C-121-00934	E704	2055-06	0-4 N OF A3	21288	A768/A769/A854/A855
A642	C-051452	C-121-00934	E704	2055-06	0-4 N OF A2.6	21288	A770/A771/A856/A857
A643	C-051452	C-121-00934	E704	2055-06	0-4 N OF A2.6	21288	A772/A858/A859/A860
A644	C-051452	C-121-00934	E704	2055-06	0-4 N OF A3	21288	A773/A861/A862/A863
A645	C-051452	C-121-00934	E704	2055-06	0-4 N OF A3	21288	A774/A864/A865/A866
A646	C-051452	C-121-00934	E704	2055-06	0-4 N OF A2.6	21288	A775/A776/A867/A868
A647	C-051452	C-121-00934	E704	2055-06	0-4 N OF A2.6	21288	A777/A869/A870/A871
A648	C-051452	C-121-10731	E705	2090-00	2-6 S OF A3	21352	A795
A649	C-051441	C-121-01700	E106	2026-00	0-6 S OF A5	21399	INACCESSIBLE
A650	C-051212	C-121-01789	E210	1989-08	0-6 S OF A12	21399	INACCESSIBLE
A651	C-051751	C-121-12026	E706	2096-03	5-5 S OF A3.1	21399	INACCESSIBLE
A652	C-051441	C-121-01929	E404	2073-02	16-0 S OF A3	21399	INACCESSIBLE
A653	C-051232	C-121-01790	E811	1988-00	3-3 N OF A11	21399	A831
A654	C-051014	C-121-01790	E811	2030-00	2-0 S OF A1	21399	A831
A655	C-051014	C-121-01790	E811	2030-00	2-0 S OF A1	21399	A831
A656	C-051014	C-121-01790	E811	2030-00	2-0 S OF A1	21399	A831
A657	C-051014	C-121-01790	E811	2030-00	2-0 S OF A1	21399	A831
A658	C-051352	C-121-10639	FM833	2030-00	2-6 N OF A1	21399	A831
A659	C-051352	C-121-10639	FM833	2030-00	2-6 N OF A1	21399	A831
A660	C-051352	C-121-10639	FM833	2030-00	2-6 N OF A1	21399	A831

FCR 1-0360-C
NCR 1SH0739C
NCR 1SH3753C
NCR 1SH1283C
NCR 1SH2154C
NCR 1SH6117C
NCR 1SH6117C
NCR 1SH6117C
NCR 1SH6117C
NCR 1SH6117C
NCR 1SH6795C
NCR 1SH6795C
NCR 1SH6795C

BECHTEL

* JOINT	DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
A661	C-051352	C-121-10639	FM833	2030-00	5-6 N OF A1		N/A
A662	C-061232			1988-00	1-9 N OF A11	21399	A833
A663	C-051751	C-121-10657	FM834	2093-00	5-5 S OF A3.1		N/A
A664	C-051241	C-121-10657	FM834	1973-03	A3.1	21399	A834
A665	C-051241	C-121-10657	FM834	1973-03	A3	21399	A835
A666	C-051242	C-121-00128	E112	1989-08	A2		N/A
A667	C-051452	C-121-10675	E702	1989-08	A2	21399	INACCESSIBLE
A668	C-051452	C-121-10675	E702	2042-00	A2		N/A
A669	C-051452	C-121-10675	E702	2042-00	8-9 S OF A2		N/A
A670	C-051452	C-121-10675	E702	2042-00	8-9 S OF A2		N/A
A671	C-051452	C-121-10675	E702	2042-00	0-6 S OF A2		INACCESSIBLE
A672	C-051751	C-121-01979	A702	2096-03	11-0 N OF A3.1		N/A
A673	C-051751	C-121-01979	A702	2096-03	14-0 N OF A3.1		N/A
A674	C-051751	C-121-01979	A702	2096-03	11-0 N OF A3.1		N/A
A675	C-051751	C-121-01979	A702	2096-03	14-0 N OF A3.1		N/A
A676	C-051751	C-121-01979	A702	2096-03	11-0 N OF A3.1		N/A
A677	C-051751	C-121-01979	A702	2096-03	14-0 N OF A3.1		N/A
A678	C-051452	C-121-0936	759	2042-00	0-9 N OF A2		N/A
A679	C-051452	C-121-0936	759	2042-00	A2		N/A
A680	C-051452	C-121-0936	759	2042-00	8-7 N OF A2		N/A
A681	C-051452	C-121-10675	E702	2042-00	0-6 N OF A2		N/A
A682	C-051352	C-121-01683	E809	2026-00	A2	21352	A873
A683	C-051452	C-121-10675	E702	2042-00	2-0 S OF A1	21399	A837
A684	C-051452	C-121-10675	E702	2042-00	2-0 S OF A1	21399	A838
A685	C-051531			2047-06	7-2 N OF A8		N/A
A686	C-051531			2047-06	7-2 N OF A8		N/A
A687	C-051531			2047-06	A8		INACCESSIBLE
A688	C-051531			2047-06	8-0 N OF A8	21399	N/A
A689	C-051532			2047-06	7-4 S OF A10.9		N/A
A690	C-051241	C-121-10657	FM834	1985-00	A3.1		N/A
A691	C-051241	C-121-10657	FM834	1985-00	A3		N/A
AA	C-051231	C-121-06976	E202	1988-00	2-0 N OF A14	20568	A005
AB	C-051411	C-121-00165	E205	2026-00	1-0 N OF A14	20568	A002/A003
AC	C-051452	C-121-10675	E702	2037-06	8-9 S OF A2	20568	A006/A007
AD	C-051511	C-121-01636	E501	2047-02	1-0 N OF A14	20568	A004
AE	C-051521	C-121-00912	E401	2047-06	1-0 S OF A1	20568	A001
AF	C-051531	C-121-00629	E502	2047-06	1-0 N OF A14	20495	A008

..... END REPORT

NCR 1SN3779C
 NCR 1SN3779C
 NCR 1SN3779C
 NCR 1SN3779C
 FAB REQ. C-1050
 FAB REQ. C-1050
 SAME AS A406
 SAME AS A002

FAB REQ. 717
 FAB REQ. C-1050
 FAB REQ. C-1050
 SAME AS A002
 SAME AS A037

STRUCTURAL JOINTS TRACKING

*JOINT	BECHTEL DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
R001	C-052411	C-121-08504	E101			21170	R089/R090/R667
R002	C-052411	C-121-08504	E101			21170	R091
R003	C-052411	C-121-08504	E101			21170	R092
R004	C-052411	C-121-08504	E101			21170	R121
R005	C-052411	C-121-08504	E101			21170	R093
R006	C-052411	C-121-08504	E101			21170	R122
R007	C-052411	C-121-08504	E101			21170	R094/R095
R008	C-052411	C-121-08504	E101			21170	R096
R009	C-052411	C-121-08504	E101			21170	R097/R098
R010	C-052411	C-121-08506	E102			21078	R099/R100
R011	C-052411	C-121-08506	E102			21078	R101/R102
R012	C-052411	C-121-08506	E102			21078	VOID
R013	C-052411	C-121-08606	E102			21375	R621/R622
R014	C-052411	C-121-08506	E102			21078	R105/R106
R015	C-052411	C-121-08506	E102			21078	R107
R016	C-052421	C-121-13001	E103			21080	R123/R124/R125
R017	C-052421	C-121-13001	E103			21080	R126
R018	C-052421	C-121-13001	E103			21080	R127
R019	C-052421	C-121-13001	E103			21080	R128
R020	C-052421	C-121-13001	E103			21406	R637
R021	C-052511	C-121-08908	E105			21406	R645/R646
R022	C-052511	C-121-08908	E105			21406	R638/R639
R023	C-052511	C-121-08908	E105			21406	R649
R024	C-052511	C-121-08908	E105			21406	R650/R651
R025	C-052511	C-121-08908	E105			21406	R644
R026	C-052511	C-121-08908	E105			-----	INACCESSIBLE
R027	C-052511	C-121-08577	E106			-----	INACCESSIBLE
R028	C-052511	C-121-08577	E106			-----	INACCESSIBLE
R029	C-052511	C-121-08577	E106			-----	INACCESSIBLE
R030	C-052511	C-121-08577	E106			21116	R108/R109/R111
R031	C-052511	C-121-08577	E106			21116	R113
R032	C-052511	C-121-08577	E106			21116	R170
R033	C-052511	C-121-08577	E106			21116	R171
R034	C-052521	C-121-08576	E108			21117	R137/R138
R035	C-052521	C-121-08576	E108			21117	R139/R140
R036						-----	N/A
R037	C-052521	C-121-08576	E108			21117	R141/R142/R143
R038	C-052521	C-121-08576	E108			21117	R144/R145/R146
R039	C-052611	C-121-13093	E109			21072	R114/R115
R040	C-052611	C-121-13093	E109			21072	R116/R691
R041	C-052611	C-121-13093	E109			21072	R117
R042	C-052611	C-121-13093	E109			21072	R118
R043	C-052611	C-121-13093	E109			21072	R129
R044	C-052611	C-121-13093	E109			21078	R131
R045	C-052611	C-121-13093	E109			21072	R119
R046	C-052611	C-121-13093	E109			21072	R132/R133/R169
R047	C-052611	C-121-13093	E109			21072	R134
R048	C-052621	C-121-08523	E111			21077	R120
R049	C-052621	C-121-08523	E111			21077	R135/R136

SAME AS RB

NCR 15N2793C

STRUCTURAL JOINTS TRACKING

E004530

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*JOINT	BELTCL DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
R050	C-0S2311	C-121-08549	E601			21085	R245/R246/R247/R248
R051	C-0S2311	C-121-08549	E601			21085	R249/R250/R251
R052	C-0S2311	C-121-08549	E601			21073	R252/R253
R053	C-0S2311	C-121-08549	E601			21085	R254/R255/R256
R054	C-0S2311	C-121-08549	E601			21085	R257/R258/R259/R260
R055	C-0S2311	C-121-08549	E601			21085	R261/R262/R263
R056	C-0S2311	C-121-08549	E601			21085	R264/R265/R266/R267
R057	C-0S2311	C-121-08549	E601			21085	R268/R269/R270/R271
R058	C-0S2311	C-121-08549	E601			-----	N/A
R059	C-0S2311	C-121-08786	E604			21076	R272/R273/R274/R275
R060	C-0S2311	C-121-08786	E604			21074	R276/R277
R061	C-0S2311	C-121-08786	E604			-----	N/A
R062	C-0S2311	C-121-08786	E604			-----	N/A
R063	C-0S2311	C-121-08786	E604			-----	N/A
R064	C-0S2311	C-121-08786	E604			-----	N/A
R065	C-0S2311	C-121-08887	E605			-----	N/A
R066	C-0S2311	C-121-08887	E605			-----	N/A
R067	C-0S2311	C-121-08887	E605			-----	N/A
R068	C-0S2311	C-121-08887	E605			-----	N/A
R069	C-0S2311	C-121-08887	E605			21084	R278/R279
R070	C-0S2311	C-121-08887	E605			21084	R280/R281
R071	C-0S2311	C-121-08887	E605			21084	R282
R072	C-0S2311	C-121-08887	E605			21084	R283/R284
R073	C-0S2312	C-121-08982	E610			21075	R177
R074	C-0S2312	C-121-08982	E610			21075	R178
R075	C-0S2312	C-121-08982	E610			-----	N/A
R076	C-0S2312	C-121-08982	E610			-----	N/A
R077	C-0S2411	C-121-08504	E101			21170	R179
R078	C-0S2411	C-121-08504	E101			21170	R180/R181
R079	C-0S2411	C-121-08504	E101			21170	R182/P183
R080	C-1S2313	C-0X-2905				-----	N/A
R081	C-0S2904	C-121-08543	E124			21170	R298
R082	C-0S2904	C-121-08543	E124			21170	R299
R083	C-1S2313	C-0X-2905				-----	N/A
R084	C-1S2313	C-0X-2905				-----	N/A
R085	C-0S2904	C-121-08543	E124			21170	R300
R086	C-0S2904	C-121-08543	E124			21170	R301
R087	C-0S2904	C-121-08543	E124			21170	P302
R088	C-0S2904	C-121-08543	E124			21170	R303
R089	C-0S2421	C-121-08510	E104			21081	R210/R211
R090	C-0S2421	C-121-08510	E104			21081	R212
R091	C-0S2421	C-121-08510	E104			21081	R213
R092	C-0S2421	C-121-08510	E104			21081	R214
R093	C-0S2421	C-121-08510	E104			21081	R215
R094	C-0S2421	C-121-08510	E104			21081	R216
R095	C-0S2421	C-121-08510	E104			21081	R217
R096	C-0S2421	C-121-08510	E104			21081	R219/R221
R097	C-0S2421	C-121-08510	E104			21081	R222/R223
R098	C-0S2421	C-121-08510	E104			-----	N/A
R099	C-0S2421	C-121-08510	E104			21081	R224
R100	C-0S2421	C-121-13001	E103			-----	N/A

*JOINT	DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NER	EVALUATION NO.
R101	C-082421	C-121-13001	E103			21080	R232
R102	C-082421	C-121-13001	E103			21080	R233/R234
R103	C-082421	C-121-13001	E103			21080	R235/R236
R104	C-082421	C-121-13001	E103			21080	R237
R105	C-082421	C-121-13258	FW14				N/A
R106	C-082511	C-121-08909	E105			21096	R317
R107	C-082511	C-121-08909	E105				N/A
R108	C-082511	C-121-08909	E105			21096	R315/R316
R109	C-082511	C-121-08909	E105			21096	R318
R110	C-082511	C-121-08577	E106			21116	R307
R111	C-082511	C-121-08577	E106				VOID
R112	C-082511	C-121-08577	E106				VOID
R113	C-082511	C-121-08577	E106			21116	R304/R305/R306
R114	C-082511	C-121-08577	E106			21116	R308
R115	C-082511	C-121-08577	E106			21116	R309
R116	C-082511	C-121-08577	E106			21116	R310
R117	C-082511	C-121-08577	E106			21116	R311
R118	C-082511	C-121-08577	E106			21116	R312
R119	C-082511	C-121-08577	E106			21116	R313
R120	C-082511	C-121-08577	E106			21116	R314
R121	C-082521	C-121-08912	E107				N/A
R122	C-082521	C-121-08912	E107				N/A
R123	C-082521	C-121-08912	E107				N/A
R124	C-082521	C-121-08912	E107				N/A
R125	C-082521	C-121-08912	E107				N/A
R126	C-082521	C-121-08912	E107			21115	R319/R320/R321
R127	C-082521	C-121-08912	E107			21115	R322/R323/R324
R128	C-082521	C-121-08912	E107			21115	R325/R326
R129	C-082521	C-121-08912	E107			21115	R327/R328
R130	C-082521	C-121-08912	E107				N/A
R131	C-082521	C-121-08912	E107			21115	R329
R132	C-082521	C-121-08912	E107			21115	R330
R133	C-082521	C-121-08912	E107			21089	R194
R134	C-082521	C-121-13069	E125			21089	R195
R135	C-082521	C-121-13069	E125			21089	R196
R136	C-082521	C-121-13069	E125			21089	R197
R137	C-082521	C-121-13069	E125			21089	R198
R138	C-082521	C-121-13069	E125			21089	R199
R139	C-082521	C-121-13069	E125			21089	R200
R140	C-082521	C-121-13069	E125			21089	R201
R141	C-082521	C-121-13069	E125			21089	R202
R142	C-082521	C-121-13069	E125			21089	R203
R143	C-082521	C-121-13069	E125			21089	R204
R144	C-082521	C-121-13069	E125			21089	R205
R145	C-082521	C-121-13069	E125			21089	R206
R146	C-082521	C-121-13069	E125			21089	R207
R147	C-082521	C-121-13069	E125			21089	R208
R148	C-082521	C-121-13069	E125			21089	R209
R149	C-082521	C-121-08576	E108			21117	R331
R150	C-082521	C-121-08576	E108			21117	R332
R151	C-082521	C-121-08576	E108			21117	R333

SAME AS R139
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*JOINT	BECHTEL DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
R152	C-082521	C-121-08576	E108			21117	R334/R335
R153	C-082521	C-121-08576	E108			21117	R336
R154	C-082521	C-121-08576	E108			21117	R337/R338
R155	C-082521	C-121-08576	E108			----	VOID
R156	C-082521	C-121-08576	E108			----	VOID
R157	C-082521	C-121-08576	E108			21117	R339/R340
R158	C-082521	C-121-08576	E108			21117	R341
R159	C-082521	C-121-08576	E108			21117	R342
R160	C-082521	C-121-08576	E108			21117	R343/R344
R161	C-082611	C-121-13093	E109			21072	R183/R189
R162	C-082611	C-121-13093	E109			21072	R190
R163	C-082611	C-121-13093	E109			21072	R191/R192
R164	C-082611	C-121-13093	E109			21072	R193
R165	C-082611	C-121-08625	E110			21082	R184/R185/R186
R166	C-082611	C-121-08625	E110			21082	R187
R167	C-082621	C-121-08523	E111			21077	R173/R174/R591
R168	C-082621	C-121-08523	E111			21077	R175/R176
R169	C-082904	C-121-08543	E124			20509	R671
R170	C-082904	C-121-08543	E124			20509	R672
R171	C-082904	C-121-08543	E124			20509	R673
R172	C-082904	C-121-08543	E124			20509	R674
R173	C-082904	C-121-08543	E124			21290	R297
R174	C-082904	C-121-08543	E124			20509	R675
R175	C-082904	C-121-08543	E124			----	INACCESSIBLE
R176	C-082904	C-121-08543	E124			----	INACCESSIBLE
R177	C-082411	C-121-08506	E102			21078	R236/R237
R178	C-082411	C-121-08506	E102			21078	R240/R241
R179	C-082411	C-121-08506	E102			21078	R242
R180	C-082311	C-0X-2901				----	N/A
R181	C-082311	C-0X-2901				----	N/A
R182	C-082311	C-0X-2901				----	N/A
R183	C-082311	C-0X-2901				----	N/A
R184	C-082311	C-0X-2901				----	N/A
R185	C-082311	C-0X-2901				----	N/A
R186	C-082311	C-0X-2901				----	N/A
R187	C-082311	C-0X-2901				----	N/A
R188	C-082311	C-0X-2901				----	N/A
R189	C-082311	C-0X-2901				----	N/A
R190	C-082311	C-0X-2901				----	N/A
R191	C-082311	C-0X-2901				----	N/A
R192	C-082311	C-0X-2901				----	N/A
R193	C-082311	C-0X-2902				----	N/A
R194	C-082311	C-0X-2902				----	N/A
R195	C-082311	C-0X-2902				21375	INACCESSIBLE
R196	C-082311	C-0X-2902				----	N/A
R197	C-082311	C-0X-2902				----	N/A
R198	C-082311	C-0X-2902				----	N/A
R199	C-082311	C-0X-2902				21375	INACCESSIBLE
R200	C-082311	C-0X-2902				21375	INACCESSIBLE
R201	C-082311	C-0X-2902				----	N/A
R202	C-082311	C-0X-2902				----	N/A

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BEAM DELETED

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*JOINT	REVISION	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
R203	C-082311	C-0X-2902					
R204	C-082311	C-0X-2902					N/A
R205	C-082311	C-0X-2902				21079	R345
R206	C-082311	C-0X-2902					N/A
R207	C-082311	C-0X-2902					N/A
R208	C-082311	C-0X-2902					N/A
R209	C-082311	C-0X-2902					N/A
R210	C-082311	C-0X-2902				21375	N/A
R211	C-082311	C-0X-2902					N/A
R212	C-082311	C-0X-2902					N/A
R213	C-082311	C-0X-2902				21375	N/A
R214	C-082311	C-0X-2902				21375	INACCESSIBLE
R215	C-082311	C-0X-2902				21375	INACCESSIBLE
R216	C-082311	C-0X-2902					N/A
R217	C-082311	C-0X-2902					N/A
R218	C-082311	C-0X-2902					N/A
R219	C-082311	C-0X-2902					N/A
R220	C-082311	C-0X-2902					N/A
R221	C-082311	C-0X-2902					N/A
R222	C-082311	C-0X-2902					N/A
R223	C-082311	C-0X-2902				21083	R574
R224	C-082311	C-0X-2902				21083	R346
R225	C-082311	C-0X-2902				21375	INACCESSIBLE
R226	C-082311	C-0X-2902				21375	INACCESSIBLE
R227	C-082311	C-0X-2902				21375	N/A
R228	C-082311	C-0X-2902				21375	R635
R229	C-082311	C-0X-2902					N/A
R230	C-082311	C-0X-2902					N/A
R231	C-082311	C-0X-2902					N/A
R232	C-082311	C-0X-2902				21375	N/A
R233	C-082311	C-0X-2902					N/A
R234	C-082311	C-0X-2902					N/A
R235	C-082311	C-0X-2902					N/A
R236	C-082311	C-0X-2902				21375	INACCESSIBLE
R237	C-082311	C-0X-2902				21375	INACCESSIBLE
R238	C-082311	C-0X-2902				21375	INACCESSIBLE
R239	C-082311	C-0X-2902				21375	INACCESSIBLE
R240	C-082311	C-0X-2902				21375	INACCESSIBLE
R241	C-082311	C-0X-2902				21375	R575
R242	C-082311	C-0X-2902					N/A
R243	C-082311	C-0X-2902				21375	R576
R244	C-082311	C-0X-2902				21375	R577
R245	C-082311	C-0X-2902				21083	R578
R246	C-082311	C-0X-2902				21375	R579
R247	C-082311	C-0X-2902				21375	R580
R248	C-082311	C-0X-2902				21375	R581
R249	C-082311	C-0X-2902				21083	R582
R250	C-082311	C-0X-2902					N/A
R251	C-082311	C-0X-2902					N/A
R252	C-082311	C-0X-2902				21083	R347
R253	C-082311	C-0X-2902				21375	R583

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* JOINT	BECHTEL DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
R254	C-0S2311	C-0X-2902				21375	R584
R255	C-0S2311	C-0X-2902				21375	INACCESSIBLE
R256	C-0S2902	C-0X-2904				-----	N/A
R257	C-0S2902	C-0X-2904				-----	N/A
R258	C-0S2902	C-0X-2904				-----	N/A
R259	C-0S2902	C-0X-2904				-----	N/A
R260	C-0S2902	C-0X-2904				-----	N/A
R261	C-0S2902	C-0X-2904				-----	N/A
R262	C-0S2902	C-0X-2904				-----	N/A
R263	C-1S2313	C-0X-2905				-----	N/A
R264	C-1S2313	C-0X-2905				-----	N/A
R265	C-1S2313	C-0X-2905				-----	N/A
R266	C-1S2313	C-0X-2905				-----	N/A
R267	C-1S2313	C-0X-2905				-----	N/A
R268	C-1S2313	C-0X-2905				-----	N/A
R269	C-1S2313	C-0X-2905				-----	N/A
R270	C-1S2313	C-0X-2905				21375	N/A
R271	C-1S2313	C-0X-2905				21375	R354
R272	C-1S2313	C-0X-2905				21375	R355
R273	C-1S2313	C-0X-2905				-----	N/A
R274	C-1S2313	C-0X-2905				-----	N/A
R275	C-1S2313	C-0X-2905				21375	R612
R276	C-1S2313	C-0X-2905				-----	N/A
R277	C-1S2313	C-0X-2905				-----	N/A
R278	C-1S2313	C-0X-2905				-----	N/A
R279	C-1S2313	C-0X-2905				-----	N/A
R280	C-1S2313	C-0X-2905				-----	N/A
R281	C-1S2313	C-0X-2905				-----	N/A
R282	C-1S2313	C-0X-2905				-----	N/A
R283	C-1S2313	C-0X-2905				-----	N/A
R284	C-1S2313	C-0X-2905				-----	N/A
R285	C-1S2313	C-0X-2905				-----	N/A
R286	C-1S2313	C-0X-2905				-----	N/A
R287	C-1S2313	C-0X-2905				-----	N/A
R288	C-1S2313	C-0X-2905				-----	N/A
R289	C-1S2313	C-0X-2905				-----	N/A
R290	C-1S2313	C-0X-2905				-----	N/A
R291	C-1S2313	C-0X-2905				-----	N/A
R292	C-1S2313	C-0X-2905				-----	N/A
R293	C-1S2313	C-0X-2905				21377	N/A
R294	C-1S2313	C-0X-2905				21377	N/A
R295	C-1S2313	C-0X-2905				21377	N/A
R296	C-1S2313	C-0X-2905				21377	N/A
R297	C-1S2313	C-0X-2905				-----	N/A
R298	C-1S2313	C-0X-2905				-----	N/A
R299	C-1S2313	C-0X-2905				21377	N/A
R300	C-1S2313	C-0X-2905				21377	N/A
R301	C-1S2313	C-0X-2905				21377	N/A
R302	C-1S2313	C-0X-2905				-----	N/A
R303	C-1S2313	C-0X-2905				21377	N/A
R304	C-1S2313	C-0X-2905				21377	N/A

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* JOINT	BECHTEL DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
R305	C-1S2312	C-1X-2925					N/A
R306	C-1S2312	C-1X-2925					N/A
R307	C-1S2312	C-1X-2925					N/A
R308	C-1S2312	C-1X-2925					N/A
R309	C-1S2313	C-0X-2905					N/A
R310	C-1S2313	C-0X-2905					N/A
R311	C-1S2313	C-0X-2905					N/A
R312	C-1S2313	C-0X-2905					N/A
R313	C-1S2313	C-0X-2905					N/A
R314	C-1S2313	C-0X-2905					N/A
R315	C-1S2313	C-0X-2905				21377	N/A
R316	C-1S2313	C-0X-2905				21377	N/A
R317	C-1S2313	C-0X-2905				21377	N/A
R318	C-1S2313	C-1X-2950					N/A
R319	C-0S2511	C-1X-2950					N/A
R320	C-0S2511	C-1X-2950					N/A
R321	C-0S2511	C-1X-2950					N/A
R322	C-0S2511	C-1X-2950					N/A
R323	C-0S2511	C-1X-2950					N/A
R324	C-0S2511	C-1X-2950				21377	N/A
R325	C-0S2511	C-1X-2950					N/A
R326	C-0S2314	C-0X-2912					N/A
R327	C-0S2314	C-0X-2912					N/A
R328	C-0S2314	C-0X-2912					N/A
R329	C-0S2314	C-0X-2912					N/A
R330	C-0S2314	C-0X-2912					N/A
R331	C-0S2314	C-0X-2912					N/A
R332	C-0S2314	C-0X-2912					N/A
R333	C-0S2314	C-0X-2912					N/A
R334	C-0S2314	C-0X-2912					N/A
R335	C-0S2314	C-0X-2912				21114	R287
R336	C-0S2314	C-0X-2912					N/A
R337	C-0S2314	C-0X-2912					N/A
R338	C-0S2314	C-0X-2912				21114	R288
R339	C-0S2314	C-0X-2912					N/A
R340	C-0S2314	C-0X-2912					N/A
R341	C-0S2314	C-0X-2912					N/A
R342	C-0S2314	C-0X-2912					N/A
R343	C-0S2314	C-0X-2912					N/A
R344	C-0S2314	C-0X-2912					N/A
R345	C-0S2314	C-0X-2912					N/A
R346	C-0S2314	C-0X-2912					N/A
R347	C-0S2314	C-0X-2912					N/A
R348	C-0S2314	C-0X-2912					N/A
R349	C-0S2314	C-0X-2912					N/A
R350	C-0S2314	C-0X-2912					N/A
R351	C-0S2314	C-0X-2912					N/A
R352	C-0S2314	C-0X-2912					N/A
R353	C-0S2314	C-0X-2912					N/A
R354	C-0S2314	C-0X-2912					N/A
R355	C-0S2314	C-0X-2912					N/A

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* JOINT	BECHTEL DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
R356	C-052314	C-0X-2912					N/A
R357	C-052314	C-0X-2912					N/A
R358	C-052314	C-0X-2912					N/A
R359	C-052314	C-0X-2912					N/A
R360	C-052314	C-0X-2912					N/A
R361	C-052314	C-0X-2912					N/A
R362	C-052314	C-0X-2912				21114	R290
R363	C-052314	C-0X-2912				21114	R291
R364	C-052314	C-0X-2912					N/A
R365	C-052314	C-0X-2912					N/A
R366	C-052314	C-0X-2912					N/A
R367	C-052314	C-0X-2912					N/A
R368	C-052314	C-0X-2912					N/A
R369	C-052314	C-0X-2912					N/A
R370	C-052314	C-0X-2912				21114	R292
R371	C-052314	C-0X-2912					N/A
R372	C-052314	C-0X-2912					N/A
R373	C-052314	C-0X-2912					N/A
R374	C-052314	C-0X-2912					N/A
R375	C-052314	C-0X-2912					N/A
R376	C-052314	C-0X-2912					N/A
R377	C-052314	C-0X-2912					N/A
R378	C-052314	C-0X-2912					N/A
R379	C-052314	C-0X-2912					N/A
R380	C-052314	C-0X-2912					N/A
R381	C-052314	C-0X-2912					N/A
R382	C-052314	C-0X-2912					N/A
R383	C-052314	C-0X-2912					N/A
R384	C-052314	C-0X-2912					N/A
R385	C-052314	C-0X-2912					N/A
R386	C-052314	C-0X-2912					N/A
R387	C-052314	C-0X-2912					N/A
R388	C-052314	C-0X-2912					N/A
R389	C-052314	C-0X-2912				21406	R620
R390	C-052314	C-0X-2912					N/A
R391	C-052314	C-0X-2912					N/A
R392	C-052314	C-0X-2912					N/A
R393	C-052314	C-0X-2912					N/A
R394	C-052314	C-0X-2912					N/A
R395	C-052314	C-0X-2912					N/A
R396	C-052314	C-0X-2912				21406	R619
R397	C-052314	C-0X-2912					N/A
R398	C-052314	C-0X-2912					N/A
R399	C-052314	C-0X-2912					N/A
R400	C-052314	C-0X-2912					N/A
R401	C-052314	C-0X-2912					N/A
R402	C-052314	C-0X-2912					N/A
R403	C-052314	C-0X-2912					N/A
R404	C-052314	C-0X-2912					N/A
R405	C-052314	C-0X-2912					N/A

* JOINT	TECHNICAL DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	MCR	EVALUATION NO.
R407	C-0S2314	C-0X-2912					N/A
R408	C-0S2314	C-0X-2912					N/A
R409	C-0S2314	C-0X-2912					N/A
R410	C-0S2314	C-0X-2912					N/A
R411	C-0S2314	C-0X-2912					N/A
R412	C-0S2314	C-0X-2912					N/A
R413	C-0S2314	C-0X-2912					N/A
R414	C-0S2314	C-0X-2912					N/A
R415	C-0S2314	C-0X-2912					N/A
R416	C-0S2314	C-0X-2912				21114	R294
R417	C-0S2314	C-0X-2912				21114	R295
R418	C-0S2314	C-0X-2912					N/A
R419	C-0S2314	C-0X-2912					N/A
R420	C-0S2314	C-0X-2912					N/A
R421	C-0S2314	C-0X-2912					N/A
R422	C-0S2314	C-0X-2912				21114	R296
R423	C-0S2314	C-0X-2912					N/A
R424	C-0S2314	C-0X-2912					N/A
R425	C-0S2314	C-0X-2912					N/A
R426	C-0S2314	C-0X-2912					N/A
R427	C-0S2314	C-0X-2912					N/A
R428	C-0S2314	C-0X-2912					N/A
R429	C-1S2313	C-0X-2905					N/A
R430	C-1S2313	C-0X-2905					N/A
R431	C-1S2313	C-0X-2905				21377	N/A
R432	C-1S2313	C-0X-2905				21377	N/A
R433	C-1S2313	C-0X-2905					N/A
R434	C-1S2313	C-0X-2905					N/A
R435	C-1S2313	C-0X-2905					N/A
R436	C-1S2313	C-0X-2905					N/A
R437	C-1S2313	C-0X-2905					N/A
R438	C-1S2313	C-0X-2905					N/A
R439	C-1S2313	C-0X-2905					N/A
R440	C-1S2313	C-0X-2905					N/A
R441	C-1S2313	C-0X-2905					N/A
R442	C-1S2313	C-0X-2905					N/A
R443	C-1S2313	C-0X-2905					N/A
R444	C-1S2313	C-0X-2905					N/A
R445	C-1S2313	C-0X-2905					N/A
R446	C-1S2313	C-0X-2905					N/A
R447	C-1S2313	C-0X-2905					N/A
R448	C-1S2313	C-0X-2905					N/A
R449	C-1S2313	C-0X-2905					N/A
R450	C-1S2313	C-0X-2905					N/A
R451	C-1S2313	C-0X-2905					N/A
R452	C-1S2313	C-0X-2905					N/A
R453	C-1S2313	C-0X-2905					N/A
R454	C-1S2313	C-0X-2905					N/A
R455	C-1S2313	C-0X-2905					N/A
R456	C-1S2313	C-0X-2905				21131	R357
R457	C-1S2313	C-0X-2905					N/A

DEHREL

* JOINT, DRAWING

EJECTION

DRAWING, ELEVATION, LOCATION

MCR

EVALUATION NO.

* JOINT, DRAWING	EJECTION	DRAWING, ELEVATION, LOCATION	MCR	EVALUATION NO.
R458	C-1S2313	C-0X-2905		N/A
R459	C-1S2313	C-0X-2905		N/A
R460	C-1S2313	C-0X-2905		N/A
R461	C-1S2313	C-0X-2905		N/A
R462	C-0S2315	C-0X-2914		N/A
R463	C-0S2315	C-0X-2914		N/A
R464	C-0S2315	C-0X-2914		N/A
R465	C-0S2315	C-0X-2914		N/A
R466	C-0S2315	C-0X-2914		N/A
R467	C-0S2315	C-0X-2914		N/A
R468	C-0S2315	C-0X-2914		N/A
R469	C-0S2315	C-0X-2914		N/A
R470	C-0S2315	C-0X-2914		N/A
R471	C-0S2315	C-0X-2914		N/A
R472	C-0S2315	C-0X-2914		N/A
R473	C-0S2315	C-0X-2914		N/A
R474	C-0S2315	C-0X-2914		N/A
R475	C-0S2315	C-0X-2914		N/A
R476	C-0S2315	C-0X-2914		N/A
R477	C-0S2315	C-0X-2914		N/A
R478	C-0S2315	C-0X-2914		N/A
R479	C-0S2315	C-0X-2914		N/A
R480	C-0S2315	C-0X-2914	21289	R348
R481	C-0S2315	C-0X-2914		N/A
R482	C-0S2315	C-0X-2914		N/A
R483	C-0S2315	C-0X-2914		N/A
R484	C-0S2315	C-0X-2914		N/A
R485	C-0S2315	C-0X-2914		N/A
R486	C-0S2315	C-0X-2914		N/A
R487	C-0S2315	C-0X-2914		N/A
R488	C-0S2315	C-0X-2914		N/A
R489	C-0S2315	C-0X-2914		N/A
R490	C-0S2315	C-0X-2914		N/A
R491	C-0S2315	C-0X-2914		N/A
R492	C-0S2315	C-0X-2914		N/A
R493	C-0S2315	C-0X-2914		N/A
R494	C-0S2315	C-0X-2914		N/A
R495	C-0S2315	C-0X-2914		N/A
R496	C-0S2315	C-0X-2914		N/A
R497	C-0S2315	C-0X-2914		N/A
R498	C-0S2315	C-0X-2914		N/A
R499	C-0S2315	C-0X-2914		N/A
R500	C-0S2315	C-0X-2914		N/A
R501	C-0S2315	C-0X-2914	21289	R349
R502	C-0S2315	C-0X-2914		N/A
R503	C-0S2315	C-0X-2914		N/A
R504	C-0S2315	C-0X-2914		N/A
R505	C-0S2315	C-0X-2914		N/A
R506	C-0S2315	C-0X-2914		VOID
R507	C-0S2315	C-0X-2914		N/A
R508	C-0S2315	C-0X-2914		N/A

NO WELD REQUIRED

#JOINT	DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
R509	C-082315	C-0X-2914					N/A
R510	C-082315	C-0X-2914					N/A
R511	C-082315	C-0X-2914					N/A
R512	C-082315	C-0X-2914					N/A
R513	C-082315	C-0X-2914				21289	R351
R514	C-082315	C-0X-2914					N/A
R515	C-082315	C-0X-2914					N/A
R516	C-082315	C-0X-2914					N/A
R517	C-082315	C-0X-2914					N/A
R518	C-082315	C-0X-2914					N/A
R519	C-082315	C-0X-2914					N/A
R520	C-082315	C-0X-2914					N/A
R521	C-082315	C-0X-2914					N/A
R522	C-082315	C-0X-2914					N/A
R523	C-082315	C-0X-2914					N/A
R524	C-082315	C-0X-2914					N/A
R525	C-082315	C-0X-2914					N/A
R526	C-082315	C-0X-2914					N/A
R527	C-082315	C-0X-2914					N/A
R528	C-082315	C-0X-2914					N/A
R529	C-082315	C-0X-2914					N/A
R530	C-082315	C-0X-2914					N/A
R531	C-082315	C-0X-2914					N/A
R532	C-082315	C-0X-2914					N/A
R533	C-082315	C-0X-2914					N/A
R534	C-082315	C-0X-2914					N/A
R535	C-082315	C-0X-2914					N/A
R536	C-082315	C-0X-2914					N/A
R537	C-082315	C-0X-2914					N/A
R538	C-082315	C-0X-2914					N/A
R539	C-082315	C-0X-2914					N/A
R540	C-082315	C-0X-2914					N/A
R541	C-082315	C-0X-2914					N/A
R542	C-082315	C-0X-2914					N/A
R543	C-082315	C-0X-2914					N/A
R544	C-082315	C-0X-2914					N/A
R545	C-082315	C-0X-2914					N/A
R546	C-082315	C-0X-2914					N/A
R547	C-082315	C-0X-2914					N/A
R548	C-082315	C-0X-2914					N/A
R549	C-082315	C-0X-2914					N/A
R550	C-082315	C-0X-2914					N/A
R551	C-082315	C-0X-2914					N/A
R552	C-082315	C-0X-2914					N/A
R553	C-082315	C-0X-2914					N/A
R554	C-082315	C-0X-2914					N/A
R555	C-082315	C-0X-2914					N/A
R556	C-082315	C-0X-2914					N/A
R557	C-082315	C-0X-2914					N/A
R558	C-082315	C-0X-2914					N/A
R559	C-082315	C-0X-2914					N/A

NO WELD REQUIRED

* JOINT * DRAW * ERECTION * LOCATION * NCR * EVALUATION NO.

* JOINT *	* DRAW *	* ERECTION *	* LOCATION *	* NCR *	* EVALUATION NO. *
R560	C-082315	C-0X-2914			N/A
R561	C-082315	C-0X-2914			N/A
R562	C-082315	C-0X-2914			N/A
R563	C-082315	C-0X-2914			N/A
R564	C-082315	C-0X-2914			N/A
R565	C-082315	C-0X-2914			N/A
R566	C-082315	C-0X-2914			N/A
R567	C-082315	C-0X-2914			N/A
R568	C-082315	C-0X-2914			N/A
R569	C-082315	C-0X-2914			N/A
R570	C-082315	C-0X-2914			N/A
R571	C-082311	C-0X-2912			N/A
R572	C-082314	C-0X-2912			N/A
R573	C-082902	C-131-05734	E6		N/A
R574	C-082902	C-131-05734	E6		N/A
R575	C-082902	C-131-05734	E6		N/A
R576	C-082902	C-131-05734	E6		N/A
R577	C-082902	C-131-05734	E6		N/A
R578	C-082001	C-121-08367	E120		N/A
R579	C-082001	C-121-08367	E120		N/A
R580	C-082001	C-121-08367	E120		N/A
R581	C-082001	C-121-08367	E120		N/A
R582	C-082001	C-121-08367	E120		N/A
R583	C-082001	C-121-08367	E120		N/A
R584	C-082001	C-121-08367	E120		N/A
R585	C-082001	C-121-08367	E120		N/A
R586	C-082001	C-121-08367	E120		N/A
R587	C-082001	C-121-08367	E120		N/A
R588	C-082001	C-121-08367	E120		N/A
R589	C-082001	C-121-08367	E120		N/A
R590	C-082021	C-121-08950	E501		N/A
R591	C-082021	C-121-08950	E501		N/A
R592	C-082021	C-121-08950	E501		N/A
R593	C-082021	C-121-08950	E501		N/A
R594	C-182312	C-1X-2925			N/A
R595	C-182312	C-1X-2925			N/A
R596	C-182312	C-1X-2925			N/A
R597	C-182312	C-1X-2925			N/A
R598	C-182312	C-1X-2925			N/A
R599	C-182312	C-1X-2925			N/A
R600	C-182312	C-1X-2925			N/A
R601	C-182312	C-1X-2925			N/A
R602	C-082511	C-121-13017	FW205		N/A
R603	C-082511	C-121-13017	FW205		N/A
R604	C-082611	C-121-08999	FW1		N/A
R605	C-082611	C-121-08999	FW1		N/A
R606	C-082611	C-121-08999	FW1		N/A
R607	C-082611	C-121-08999	FW1		N/A
R608	C-082611	C-121-08999	FW1		N/A
R609	C-082611	C-121-08999	FW1		N/A
R610	C-082611	C-121-08999	FW1		N/A

*JOINT	BECHTEL DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
R611	C-082611	C-121-08999	FW1			-----	N/A
R612	C-082611	C-121-08999	FW1			21299	R486/R487
R613	C-082611	C-121-08999	FW1			21299	R488
R614	C-082611	C-121-08999	FW1			21299	R489
R615	C-082611	C-121-08999	FW1			21299	R490
R616	C-082611	C-121-08999	FW1			21299	R491
R617	C-082611	C-121-08999	FW1			21299	R492
R618	C-082611	C-121-08999	FW1			21299	R493
R619	C-082611	C-121-08999	FW1			21299	R655
R620	C-082611	C-121-08999	FW1			21375	R656
R621	C-082611	C-121-08999	FW1			21375	R494
R622	C-082611	C-121-08999	FW1			21375	R657
R623	C-082611	C-121-08999	FW1			21375	R505
R624	C-082611	C-121-08999	FW1			-----	N/A
R625	C-082611	C-121-08999	FW1			-----	N/A
R626	C-082611	C-121-08999	FW1			-----	N/A
R627	C-082611	C-121-08999	FW1			21406	R495
R628	C-082611	C-121-08999	FW1			21299	R496
R629	C-082611	C-121-08999	FW1			21299	R497
R630	C-082611	C-121-08999	FW1			21299	R498/R499
R631	C-082611	C-121-08999	FW1			21299	R500
R632	C-082611	C-121-08999	FW1			21299	R501
R633	C-082611	C-121-08999	FW1			21299	R502
R634	C-082611	C-121-08999	FW1			21299	R503
R635	C-082611	C-121-08999	FW1			21299	R504
R636	C-082611	C-121-13098	FW301			21207	R382
R637	C-082611	C-121-13098	FW301			21375	R624
R638	C-082611	C-121-13098	FW301			21375	R625
R639	C-082611	C-121-13098	FW301			21207	R383
R640	C-082611	C-121-13098	FW301			-----	N/A
R641	C-082611	C-121-13098	FW301			-----	N/A
R642	C-082611	C-121-13098	FW301			21375	R626
R643	C-082611	C-121-13099	FW302			-----	N/A
R644	C-082611	C-121-13099	FW302			21242	R450
R645	C-082611	C-121-13099	FW302			21242	R449
R646	C-082611	C-121-13099	FW302			-----	N/A
R647	C-082611	C-121-13099	FW302			-----	N/A
R648	C-082611	C-121-13099	FW302			-----	N/A
R649	C-082611	C-121-13099	FW302			-----	N/A
R650	C-082611	C-121-08825	E110			-----	N/A
R651	C-082611	C-121-08825	E110			-----	N/A
R652	C-082611	C-121-08825	E110			-----	N/A
R653	C-082914	C-121-08846	E606			-----	N/A
R654	C-082914	C-121-08846	E606			-----	N/A
R655	C-082914	C-121-08846	E606			21209	R373
R656	C-082914	C-121-08846	E606			21209	R374
R657	C-082914	C-121-08846	E606			21209	R375
R658	C-082914	C-121-08846	E606			21209	R376
R659	C-082914	C-121-08846	E606			21209	R377
R660	C-082914	C-121-08846	E606			21209	R378
R661	C-082914	C-121-08846	E606			21209	R379

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*JOINT	DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
R662	C-082914	C-121-08846	E606				N/A
R663	C-082919	C-121-08752	E602			21223	N/A
R664	C-082919	C-121-08752	E602			21223	N/A
R665	C-082919	C-121-08752	E602			21223	R435
R666	C-082919	C-121-08752	E602			21223	R436
R667	C-082919	C-121-08753	E603			21222	R429
R668	C-082919	C-121-08753	E603				N/A
R669	C-082919	C-121-08753	E603				N/A
R670	C-082919	C-121-08753	E603				N/A
R671	C-082919	C-121-08753	E603				N/A
R672	C-082919	C-121-08753	E603				N/A
R673	C-082919	C-121-08753	E603				N/A
R674	C-082919	C-121-08753	E603				N/A
R675	C-082919	C-121-08753	E603				N/A
R676	C-082919	C-121-08753	E603				N/A
R677	C-082919	C-121-08753	E603				N/A
R678	C-082919	C-121-08753	E603				N/A
R679	C-082919	C-121-08753	E603				N/A
R680	C-082919	C-121-08753	E603			21222	R430
R681	C-082919	C-121-08753	E603			21222	R431
R682	C-082919	C-121-08753	E603				N/A
R683	C-082919	C-121-08753	E603				N/A
R684	C-082919	C-121-08753	E603				N/A
R685	C-082919	C-121-08753	E603			21222	R432
R686	C-082919	C-121-08753	E603				N/A
R687	C-082919	C-121-08753	E603				N/A
R688	C-082919	C-121-08753	E603				N/A
R689	C-082919	C-121-08753	E603				N/A
R690	C-082919	C-121-08753	E603			21222	R433
R691	C-082919	C-121-08753	E603			21222	R434
R692	C-082919	C-121-08753	E603				N/A
R693	C-082919	C-121-08753	E603				N/A
R694	C-082919	C-121-08753	E603				N/A
R695	C-082919	C-121-08753	E603				N/A
R696	C-082919	C-121-08753	E603				N/A
R697	C-082919	C-121-08753	E603				N/A
R698	C-082919	C-121-08753	E603				N/A
R699	C-082919	C-121-08753	E603				N/A
R700	C-082936	C-131-05759	E13			21193	R388
R701	C-082936	C-131-05759	E13			21193	R389
R702	C-082936	C-131-05759	E13			21193	R390
R703	C-082936	C-131-05759	E13			21193	R391
R704	C-082936	C-131-05759	E13			21193	R392/R397
R705	C-082936	C-131-05759	E13			21193	R393/R398
R706	C-082936	C-131-05759	E13			21193	R394
R707	C-082936	C-131-05759	E13			21193	R395/R399
R708	C-082936	C-131-05759	E13			21193	R396/R400
R709	C-082937	C-131-05800	E4				N/A
R710	C-082937	C-131-05800	E4				N/A
R711	C-082937	C-131-05800	E4				N/A
R712	C-082937	C-131-05800	E4				N/A

* JOINT	* SUBJECT	* DRAWING	* ERECTION	* DRAW	* ELEVATION	* LOCATION	* MCR	* EVALUATION NO.
R713	C-052937	C-131-05800	E4					N/A
R714	C-052937	C-131-05800	E4					N/A
R715	C-052937	C-131-05800	E4					N/A
R716	C-052937	C-131-05800	E4					N/A
R717	C-052937	C-131-05800	E4					N/A
R718	C-052937	C-131-05800	E4					N/A
R719	C-052937	C-131-05800	E4					N/A
R720	C-052937	C-131-05800	E4					N/A
R721	C-052937	C-131-05800	E4					N/A
R722	C-052937	C-131-05800	E4					N/A
R723	C-052937	C-131-05800	E4					N/A
R724	C-052937	C-131-05800	E4					N/A
R725	C-052937	C-131-05800	E4					N/A
R726	C-052937	C-131-05800	E4					N/A
R727	C-052937	C-131-05800	E4					N/A
R728	C-052937	C-131-05800	E4					N/A
R729	C-052937	C-131-05800	E4					N/A
R730	C-052937	C-131-05800	E4					N/A
R731	C-052937	C-131-05800	E4					N/A
R732	C-052937	C-131-05800	E4					N/A
R733	C-052937	C-131-05800	E4					N/A
R734	C-052937	C-131-05800	E4					N/A
R735	C-052937	C-131-05800	E4					N/A
R736	C-052919	C-121-08772	E608					N/A
R737	C-052919	C-121-08772	E608				21286	R506
R738	C-052919	C-121-08772	E608				21286	R507
R739	C-052919	C-121-08772	E608				21286	R508
R740	C-052919	C-121-08772	E608				21286	R509
R741	C-052919	C-121-08772	E608				21286	R510
R742	C-052919	C-121-08772	E608				21286	R511
R743	C-052919	C-121-08772	E608				21286	R512
R744	C-052919	C-121-08772	E608				21286	R513
R745	C-052919	C-121-08772	E609					N/A
R746	C-052924	C-121-08773	E609					N/A
R747	C-052924	C-121-08773	E609				21197	R380
R748	C-052924	C-121-08773	E609					N/A
R749	C-052924	C-121-08773	E609					N/A
R750	C-052924	C-121-08773	E609					N/A
R751	C-052924	C-121-08773	E609					N/A
R752	C-052924	C-121-08773	E609					N/A
R753	C-052924	C-121-08773	E609					N/A
R754	C-052924	C-121-08773	E609					N/A
R755	C-052924	C-121-08773	E609					N/A
R756	C-052924	C-121-08773	E609					N/A
R757	C-052924	C-121-08773	E609					N/A
R758	C-052924	C-121-08773	E609					N/A
R759	C-052924	C-121-08773	E609					N/A
R760	C-052924	C-121-08773	E609					N/A
R761	C-052924	C-121-08773	E609					N/A
R762	C-052924	C-121-08773	E609					N/A
R763	C-052924	C-121-08773	E609					N/A

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*JOINT	BECITEL DRAWING	ERECTION	DRAW	ELEVATOR	LOCATION	NCR	EVALUATION NO.
R764	C-082924	C-121-08773	E609				N/A
R765	C-082924	C-121-08773	E609				N/A
R766	C-082924	C-121-08773	E609				N/A
R767	C-082924	C-121-08773	E609				N/A
R768	C-082924	C-121-08773	E609				N/A
R769	C-082924	C-121-08773	E609				N/A
R770	C-082924	C-121-08773	E609				N/A
R771	C-082924	C-121-08773	E609				N/A
R772	C-082924	C-121-08773	E609				N/A
R773	C-082924	C-121-08773	E609				N/A
R774	C-082924	C-121-08773	E609				N/A
R775	C-082924	C-121-08773	E609				N/A
R776	C-082924	C-121-08773	E609				N/A
R777	C-082924	C-121-08773	E609				N/A
R778	C-082924	C-121-08773	E609				N/A
R779	C-082924	C-121-08773	E609				N/A
R780	C-082924	C-121-08773	E609				N/A
R781	C-082924	C-121-08773	E609			21197	R384
R782	C-082924	C-121-08773	E609				N/A
R783	C-082924	C-121-08773	E609				N/A
R784	C-082924	C-121-08773	E609				N/A
R785	C-082924	C-121-08773	E609				N/A
R786	C-082924	C-121-08773	E609				N/A
R787	C-082924	C-121-08773	E609				N/A
R788	C-082924	C-121-08773	E609				N/A
R789	C-082924	C-121-08773	E609				N/A
R790	C-082924	C-121-08773	E609				N/A
R791	C-082924	C-121-08773	E609				N/A
R792	C-082924	C-121-08773	E609				N/A
R793	C-082924	C-121-08773	E609				N/A
R794	C-082924	C-121-08773	E609				N/A
R795	C-082924	C-121-08773	E609				N/A
R796	C-082924	C-121-08773	E609				N/A
R797	C-082924	C-121-08773	E609				N/A
R798	C-082924	C-121-08773	E609				N/A
R799	C-082924	C-121-08773	E609				N/A
R800	C-082924	C-121-08773	E609				N/A
R801	C-082924	C-121-08773	E609				N/A
R802	C-082924	C-121-08773	E609				N/A
R803	C-082924	C-121-08773	E609				N/A
R804	C-082924	C-121-08773	E609				N/A
R805	C-082924	C-121-08773	E609				N/A
R806	C-082924	C-121-08773	E609				N/A
R807	C-082924	C-121-08773	E609				N/A
R808	C-082924	C-121-08773	E609				N/A
R809	C-082924	C-121-08773	E609			21197	R385
R810	C-082711	C-121-08360	E117				N/A
R811	C-082711	C-121-08360	E117			21311	R514
R812	C-082711	C-121-08360	E117			21311	R515
R813	C-082711	C-121-08360	E117			21311	R516
R814	C-082711	C-121-08360	E117			21311	R517
						21311	R518

*JOINT	BECHTEL DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
R815	C-082711	C-121-08360	E117			21311	R519
R816	C-082711	C-121-08360	E117			21311	R520
R817	C-082711	C-121-08360	E117			21311	R521
R818	C-082711	C-121-08360	E117			21210	R522
R819	C-082711	C-121-08360	E117			21311	R523
R820	C-082711	C-121-08360	E117			21311	R524
R821	C-082711	C-121-08360	E117			21311	R525
R822	C-082711	C-121-08360	E117			21311	R526
R823	C-082711	C-121-08360	E117			21311	R527
R824	C-082711	C-121-08360	E117			21311	R528
R825	C-082711	C-121-08360	E117			21311	R529
R826	C-082711	C-121-08360	E117			21311	R530
R827	C-082711	C-121-08360	E117			21311	R531
R828	C-082711	C-121-08361	E121			21310	R532
R829	C-082711	C-121-08361	E121			21310	R533
R830	C-082711	C-121-08361	E121			21310	R534
R831	C-082711	C-121-08361	E121			21310	R535
R832	C-082711	C-121-08361	E121			21310	R536
R833	C-082711	C-121-08361	E121			21310	R537
R834	C-082711	C-121-08361	E121			21310	R538
R835	C-082711	C-121-08361	E121			21310	R539
R836	C-082711	C-121-08361	E121			21310	R540
R837	C-082711	C-121-08361	E121			21310	R541
R838	C-082711	C-121-08361	E121			21310	R542
R839	C-082711	C-121-08361	E121			21310	R543
R840	C-082711	C-121-08361	E121			21310	R544
R841	C-082711	C-121-08361	E121			21310	R545
R842	C-082711	C-121-08362	E121			21309	R546
R843	C-082711	C-121-08362	E123			21309	R547
R844	C-082711	C-121-08362	E123			21309	R548
R845	C-082711	C-121-08362	E123			21309	R549
R846	C-082711	C-121-08362	E123			21309	R550
R847	C-082711	C-121-08362	E123			21309	R551
R848	C-082711	C-121-08362	E123			21309	R552
R849	C-082711	C-121-08362	E123			21309	R553
R850	C-082711	C-121-08362	E123			21309	R554
R851	C-082711	C-121-08362	E123			21309	R555
R852	C-082711	C-121-08362	E123			21309	R556
R853	C-082711	C-121-08362	E123			21309	R557
R854	C-082711	C-121-08362	E123			21309	R558
R855	C-082711	C-121-08362	E123			21309	R559
R856	C-082711	C-121-08355	E122			21308	R560
R857	C-082711	C-121-08355	E122			21308	R561
R858	C-082711	C-121-08355	E122			21308	R562
R859	C-082711	C-121-08355	E122			21308	R563
R860	C-082711	C-121-08355	E122			21308	R564
R861	C-082711	C-121-08355	E122			21308	R565
R862	C-082711	C-121-08355	E122			21308	R566
R863	C-082711	C-121-08355	E122			21308	R567
R864	C-082711	C-121-08355	E122			21308	R568
R865	C-082711	C-121-08355	E122			21308	R569

* JOINT	DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.	
R866	C-052711	C-131-05355	E122			21308	R570	
R867	C-052711	C-121-08355	E122			21308	R571	
R868	C-052711	C-121-08355	E122			21308	R572	
R869	C-052711	C-121-08355	E122			21308	R573	
R870	C-052312	C-131-05743	E12			21232	N/A	
R871	C-053312	C-131-05743	E12			21232	R639	
R872	C-053312	C-131-05743	E12			21232	N/A	
R873	C-052312	C-131-05743	E12			21232	R439	
R874	C-052312	C-131-05743	E12			21232	N/A	
R875	C-052312	C-131-05743	E12			21232	N/A	
R876	C-052312	C-131-05743	E12			21232	R440	
R877	C-052312	C-131-05743	E12			21232	R634	
R878	C-05312	C-131-05743	E12			21232	R442	
R879	C-05312	C-131-05743	E12			21232	N/A	
R880	C-05312	C-131-05743	E12			21232	N/A	
R881	C-052312	C-131-05743	E12			21232	N/A	
R882	C-052312	C-131-05743	E12			21232	N/A	
R883	C-052312	C-131-05743	E12			21232	N/A	
R884	C-052312	C-131-05743	E12			21232	N/A	
R885	C-05312	C-131-05743	E12			21232	N/A	
R886	C-052312	C-131-05743	E12			21232	R441	
R887	C-052907	C-131-05666	E1			21375	N/A	
R888	C-052907	C-131-05666	E1			21375	N/A	
R889	C-052907	C-131-05666	E1			21375	R648	
R890	C-052907	C-131-05666	E1			21375	N/A	
R891	C-052907	C-131-05666	E1			21375	N/A	
R892	C-052907	C-131-05666	E1			21375	N/A	
R893	C-052907	C-131-05666	E1			21375	N/A	
R894	C-052907	C-131-05666	E1			21375	N/A	
R895	C-052907	C-131-05666	E1			21375	N/A	
R896	C-052907	C-131-05666	E1			21375	N/A	
R897	C-052907	C-131-05666	E1			21375	N/A	
R898	C-051907	C-131-05666	E1			21406	VOID	CONSTRUCTION NOT COMPLETED
R899	C-051907	C-131-05666	E1			21406	VOID	CONSTRUCTION NOT COMPLETED
R900	C-052907	C-131-05666	E1			21375	VOID	CONSTRUCTION NOT COMPLETED
R901	C-052907	C-131-05666	E1			21375	VOID	CONSTRUCTION NOT COMPLETED
R902	C-052907	C-131-05666	E1			21375	VOID	CONSTRUCTION NOT COMPLETED
R903	C-052907	C-131-05666	E1			21375	VOID	CONSTRUCTION NOT COMPLETED
R904	C-052907	C-131-05666	E1			21375	VOID	CONSTRUCTION NOT COMPLETED
R905	C-052907	C-131-05666	E1			21375	VOID	CONSTRUCTION NOT COMPLETED
R906	C-052907	C-131-05666	E1			21375	VOID	CONSTRUCTION NOT COMPLETED
R907	C-052907	C-131-05666	E1			21375	VOID	CONSTRUCTION NOT COMPLETED
R908	C-052907	C-131-05666	E1			21375	VOID	CONSTRUCTION NOT COMPLETED
R909	C-051907	C-131-05666	E1			21406	VOID	CONSTRUCTION NOT COMPLETED
R910	C-051907	C-131-05666	E1			21406	VOID	CONSTRUCTION NOT COMPLETED
R911	C-051907	C-131-05666	E1			21406	VOID	CONSTRUCTION NOT COMPLETED
R912	C-052907	C-131-05666	E1			21375	VOID	CONSTRUCTION NOT COMPLETED
R913	C-051907	C-131-05666	E1			21406	VOID	CONSTRUCTION NOT COMPLETED
R914	C-052907	C-131-05666	E1			21375	VOID	CONSTRUCTION NOT COMPLETED
R915	C-052907	C-131-05666	E1			21375	R647	CONSTRUCTION NOT COMPLETED
R916	C-052907	C-131-05666	E1			21406	VOID	CONSTRUCTION NOT COMPLETED

STRUCTURAL JOINTS TRACKING

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*JOINT	BECHTEL DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
R917	C-082907	C-131-05666	E1			-----	N/A
R918	C-082907	C-131-05666	E1			-----	N/A
R919	C-082907	C-131-05666	E1			-----	N/A
R920	C-082907	C-121-05666	E1			-----	N/A
R921	C-082907	C-131-05666	E1			-----	N/A
R922	C-082907	C-131-05666	E1			-----	N/A
R923	C-082907	C-131-05666	E1			-----	N/A
R924	C-082907	C-131-05666	E1			-----	N/A
R925	C-182312	C-1X-2925				-----	N/A
R926	C-182312	C-1X-2925				-----	N/A
R927	C-182312	C-1X-2925				-----	N/A
R928	C-182313	C-0X-2905				-----	N/A
R929	C-182312	C-1X-2925				-----	N/A
R930	C-182312	C-1X-2925				-----	N/A
R931	C-182312	C-1X-2925				-----	N/A
R932	C-182312	C-1X-2925				21406	N/A
R933	C-182312	C-1X-2925				-----	N/A
R934	C-182313	C-0X-2905				21406	N/A
R935	C-182313	C-0X-2905				21406	N/A
R936	C-182312	C-1X-2925				-----	N/A
R937	C-182312	C-1X-2925				-----	N/A
R938	C-182312	C-1X-2925				21406	N/A
R939	C-182312	C-1X-2925				-----	N/A
R940	C-182312	C-1X-2925				-----	N/A
R941	C-082315	C-0X-2917				-----	N/A
R942	C-082315	C-0X-2917				-----	N/A
R943	C-082315	C-0X-2917				-----	N/A
R944	C-082315	C-0X-2917				-----	N/A
R945	C-082511	C-121-08909	E105			21274	R466/R467
R946	C-082511	C-121-08909	E105			21274	N/A
R947	C-082511	C-121-08909	E105			21274	R458/R459
R948	C-082511	C-121-08909	E105			21274	N/A
R949	C-082511	C-121-08909	E105			21375	R613
R950	C-082511	C-121-08909	E105			21375	R614
R951	C-082511	C-121-08909	E105			21375	R615
R952	C-082511	C-121-08909	E105			21375	R616
R953	C-082511	C-121-08909	E105			21375	R617
R954	C-082511	C-121-08909	E105			21375	R618
R955	C-082311	C-0X-2902				-----	N/A
R956	C-082311	C-0X-2902				-----	N/A
R957	C-082311	C-0X-2902				-----	N/A
R958	C-082311	C-0X-2902				-----	N/A
R959	C-082511	C-121-08577	E106			21303	R468
R960	C-082511	C-121-08577	E106			21303	R469
R961	C-082511	C-121-08577	E106			21375	R587
R962	C-082511	C-121-08577	E106			21303	R470
R963	C-082511	C-121-08577	E106			21375	R588
R964	C-082311	C-0X-2902				-----	N/A
R965	C-082311	C-0X-2902				-----	N/A
R966	C-082521	C-121-08912	E107			21375	R627
R967	C-082521	C-121-08576	E108			21375	R628

JOINT	TECHNICAL DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
RG14							N/A
RG15							N/A
RG16							N/A
RG17							N/A
RG18							N/A
RG19							N/A
RG20							N/A
RG21							N/A
RG22							N/A
RG23							N/A
RG24						21211	R402
RG25							N/A
RG26						21221	R403
RG27						21221	R404
RG28							N/A
RG29						21221	R405
RG30						21221	R406
RG31						21221	R407
RG32							N/A
RG33							N/A
RG34							N/A
RG35							N/A
RG36							N/A
RG37							N/A
RG38							N/A
RG39							N/A
RG40							N/A
RG41							N/A
RG42							N/A
RG43							N/A
RG44							N/A
RG45							N/A
RG46							N/A
RG47							N/A
RG48							N/A
RG49							N/A
RG50							N/A
RG51						21221	R408
RG52						21221	R409
RG53						21221	R410
RG54						21221	R411
RG55						21221	R412
RG56							N/A
RG57							N/A
RG58							N/A
RG59							N/A
RG60							N/A
RG61							N/A
RG62						21221	R413
RG63						21221	R414
RG64							N/A

*JOINT
DEHNEL

*JOINT	DRAWING	ERECTION	DRAW	ELEVATOR	LOCATION	NCR	EVALUATION NO.
RG65							N/A
RG65							N/A
RG66							N/A
RG67							N/A
RG68							N/A
RG69						21221	R415
RG70							N/A
RG71						21221	R416
RG72							N/A
RG73						21221	R417
RG74						21211	R418
RG75							N/A
RG76						21211	R419
RG77							N/A
RG78							N/A
RG79							N/A
RG80							N/A
RG81							N/A
RG82							N/A
RG82							N/A
RG82							N/A
RG84							N/A
RG85							N/A
RG86							N/A
RG87							N/A
RG88							N/A
RG89							N/A
RG90							N/A
RG91							N/A
RG92							N/A
RG93							N/A
RG94							N/A
RG95						21221	R420
RG96							N/A
RG97							N/A
RG98							N/A
RG99						21221	R421
RH01						21321	R422
RH02							N/A
RH03							N/A
RH04							N/A
RH05							N/A
RH06							N/A
RH07							N/A
RH08							N/A
RH09							N/A
RH10							N/A
RH11							N/A
RH12							N/A
RH13							N/A
RH14							N/A
RH15							N/A

*JOINT	BECHTEL DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
RH16						----	N/A
RH17						----	N/A
RH18						----	N/A
RH19						----	N/A
RH20						----	N/A
RH21						----	N/A
RH22						----	N/A
RH23						----	N/A
RH24						----	N/A
RH25						----	N/A
RH26						----	N/A
RH27						----	N/A
RH28						----	N/A
RH29						----	N/A
RH30						----	N/A
RH31						----	N/A
RH32						----	N/A
RH33						----	N/A
RH34						----	N/A
RH35						----	N/A
RH36						----	N/A
RH37						----	N/A
RH38						----	N/A
RH39						----	N/A
RH40						----	N/A
RH41						----	N/A
RH42						----	N/A
RH43						----	N/A
RH44						----	N/A
RH45						----	N/A
RH46						----	N/A
RH47						----	N/A
RH48						----	N/A
RH49						----	N/A
RH50						----	N/A
RH51						----	N/A
RH52						----	N/A
RH53						----	N/A
RH54						----	N/A
RH55						----	N/A
RH56						----	N/A
RH57						----	N/A
RH58						----	N/A
RH59						----	N/A
RH60						----	N/A
RH61						----	N/A
RH62						----	N/A
RH63						----	N/A
RH64						----	N/A
RH65						----	N/A
RH66						----	N/A

*JOINT	BECHTEL DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
RH67							N/A
RH68							N/A
RH69							N/A
RH70							N/A
RH71							N/A
RH72							N/A
RH73							N/A
RH74							N/A
RH75							N/A
RH76							N/A
RH77							N/A
RH78							N/A
RH79							N/A
RH80							N/A
RH81							N/A
RH82							N/A
RH83							N/A
RH84							N/A
RH85							N/A
RH86							N/A
RH87							N/A
RH88							N/A
RH89							N/A
RH90							N/A
RH91							N/A
RH92						21221	R423
RH93							N/A
RH94							N/A
RH95							N/A
RH96							N/A
RH97							N/A
RH98							N/A
RH99							N/A
RI01							N/A
RI02							N/A
RI03							N/A
RI04							N/A
RI05							N/A
RI06						21221	R424
RI07							N/A
RI08							N/A
RI09							N/A
RI10							N/A
RI11						21221	R425
RI12						21221	R426
RI13						21221	R427
RI14						21221	R428
RI15							N/A
RI16							N/A
RI17							N/A
RI18							N/A

*JOINT	BECHTEL DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
RJ40	C-082521	C-121-08576	E108			----	N/A
RJ41	C-082511	C-121-08577	E106			----	N/A
RJ42	C-082621	C-121-08523	E111			----	N/A
RJ43	C-082621	C-121-08523	E111			21406	R659
RJ44	C-082611					----	N/A
RJ45	C-082611					----	N/A
RJ46	C-082611					----	N/A
RJ47	C-082611					----	N/A
RJ48	C-082611					----	N/A
RJ49	C-082611					----	N/A
RJ50	C-082611					----	N/A
RJ51	C-082611					----	N/A
RJ52	C-082521					----	N/A
RJ53	C-082521					21406	R640
RJ54	C-082521					----	N/A
RJ55	C-082521					21406	R641
RJ56	C-082521					21406	R642
RJ57	C-082521					----	N/A
RJ58	C-152313	C-0X-2905				21406	R643
RJ59	C-152313	C-0X-2905				21406	R660
RJ60						21406	N/A
RJ61	C-082919					----	VOID
RJ62	C-082919					----	INACCESSIBLE
RJ63		C-121-13266				----	INACCESSIBLE
RJ64		C-121-13266				21406	N/A
RJ65		C-121-13266				21406	R652
RJ66		C-121-13266				21406	N/A
RJ67		C-121-13266				21406	N/A
RJ68		C-121-13266				21406	N/A
RJ69		C-121-13266				21406	N/A
RJ70		C-121-13266				21406	N/A
RJ71		C-121-08759				----	INACCESSIBLE
RJ72		C-121-08759				----	INACCESSIBLE
RJ73		C-121-08133				----	N/A
RJ74		C-121-08133				----	N/A
RJ75		C-121-08987				----	N/A
RJ76		C-121-08987				----	N/A
RJ77		C-121-08987				----	N/A
RJ78		C-121-08987				----	N/A
RJ79		C-121-08039				21406	R162
RJ80		C-121-08039				----	N/A
RJ81		C-121-08039				----	N/A
RJ82		C-121-08039				----	N/A
RJ83	C-082611	C-121-08625	E110			20494	R676
RJ84	C-082611	C-121-08625	E110			20494	R677
RJ85	C-082621	C-121-08523	E111			20494	R678
RJ86	C-082621	C-121-08523	E111			20494	R679
RJ87	C-081924	C-121-08773	E609			20494	R086/R087/R088
RJ88	C-081924	C-121-08773	E609			20494	R077/R078/R079
RJ89	C-081924	C-121-08773	E609			20494	R080/R081/R082
RJ90	C-081924	C-121-08773	E609			20494	R083/R084/R085

SECRET

JOINT	DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
RJ91	C-052935	C-121-05671	35-E2				INACCESSIBLE
RJ92	C-052935	C-121-05671	35-E2				INACCESSIBLE
RJ93	C-052311	C-121-08786	E604			20494	R058/R062
RJ94	C-052311	C-121-08786	E604			20494	R063/R064

..... END REPORT

STRUCTURAL JOINTS TRACKING

*JOINT	DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
C001	C-0S3211	C-121-01426	E001	1984-00	2-0 N OF C8	5-8 W OF CB	21349 C352
C002	C-0S3311	C-121-01408	E002	2000-00	2-0 N OF C8	15-0 W OF CC	20947 C007/C008/C009
C003	C-0S3311	C-121-01408	E002	2000-00	2-0 N OF C8	14-6 W OF CA	20947 C010/C011/C012
C004	C-0S3311	C-121-01408	E002	2000-00	18-0 S OF C5	2-0 W OF CA	20947 C013/C014/C015
C005	C-0S3311	C-121-01408	E002	2000-00	13-0 S OF C5	2-0 W OF CA	20947 C016/C017/C018
C006	C-0S3311	C-121-01408	E002	2000-00	7-10 S OF C5	2-0 W OF CA	20947 INACCESSIBLE
C007	C-0S3311	C-121-01408	E002	2000-00	8-0 N OF C5	2-0 W OF CA	20948 INACCESSIBLE
C008	C-0S3311	C-121-01408	E002	2000-00	5-0 S OF C3	2-0 W OF CA	20947 C024/C025/C026/C027
C009	C-0S3311	C-121-01408	E002	2000-00	6-0 S OF C1	1-6 E OF CF	20947 C028/C029/C030/C031
C010	C-0S3411	C-121-01411	E003	2016-00	1-0 N OF C8	14-6 W OF CA	21349 C358
C011	C-0S3411	C-121-01411	E003	2016-00	11-6 N OF C3	2-0 W OF CA	20985 C101/C102/C103
C012	C-0S3411	C-121-01411	E003	2016-00	1-0 S OF C1	CC	20985 C104
C013	C-0S3411	C-121-01411	E003	2016-00	9-0 S OF C1	0-6 E OF CF	20985 C105/C106/C107
C014	C-0S3411	C-121-01411	E003	2016-00	8-0 N OF C3	0-6 E OF CF	20985 C108/C109
C015	C-0S3511	C-121-01414	E004	2032-00	1-0 N OF C8	8-0 W OF CC	21015 C110/C111
C016	C-0S3511	C-121-01414	E004	2032-00	11-6 N OF C3	2-0 W OF CA	21015 C112/C113
C017	C-0S3511	C-121-01414	E004	2032-00	4-3 S OF C1	2-0 W OF CA	21015 C114
C018	C-0S3511	C-121-01414	E004	2032-00	1-0 S OF C1	14-6 W OF CA	21349 C360
C019	C-0S3511	C-121-01414	E004	2032-00	1-0 S OF C1	CC	21014 C246
C020	C-0S3511	C-121-01414	E004	2032-00	1-0 S OF C1	14-6 E OF CF	21014 C343
C021	C-0S3511	C-121-01414	E004	2032-00	16-0 N OF C5	0-6 E OF CF	21015 C115
C022	C-0S3611	C-121-01417	E005	2047-06	1-0 N OF C8	8-0 W OF CC	21048 C032/C033/C034
C023	C-0S3611	C-121-01417	E005	2047-06	1-0 N OF C8	CC	21048 C035/C036/C037/C038
C024	C-0S3611	C-121-01417	E005	2047-06	1-0 N OF C8	7-10 E OF CC	21048 C396/C397/C398
C025	C-0S3611	C-121-01417	E005	2047-06	1-0 N OF C8	19-3 W OF CA	21048 C158/C159/C160/C161
C026	C-0S3611	C-121-01417	E005	2047-06	1-0 N OF C8	14-6 W OF CA	21349 C354
C027	C-0S3611	C-121-01417	E005	2047-06	13-6 N OF C7	2-0 W OF CA	21048 C162/C163/C164
C028	C-0S3611	C-121-01417	E005	2047-06	13-0 S OF C5	2-0 W OF CA	21048 C373/C374/C375
C029	C-0S3611	C-121-01417	E005	2047-06	7-10 S OF C5	2-0 W OF CA	21048 C376/C377
C030	C-0S3611	C-121-01417	E005	2047-06	8-0 N OF C5	2-0 W OF CA	21048 C039/C040/C041/C042
C031	C-0S3611	C-121-01417	E005	2047-06	5-0 S OF C3	2-0 W OF CA	21046 C362/C363/C364
C032	C-0S3611	C-121-01417	E005	2047-06	1-0 S OF C1	14-6 W OF CA	21349 C383
C033	C-0S3611	C-121-01417	E005	2047-06	1-0 S OF C1	15-10 W OF CC	21047 C042
C034	C-0S3611	C-121-01417	E005	2047-06	1-0 S OF C1	2-0 E OF CF	21046 C043
C035	C-0S3612	C-121-01484	E012	2059-03	1-0 N OF C8	10-9 E OF CC	21031 C044/C045/C046/C047
C036	C-0S3612	C-121-01484	E012	2059-03	C7	15-0 W OF CA	21032 C048/C049/C050
C037	C-0S3612	C-121-01484	E012	2059-03	0-6 N OF C7	13-8 W OF CA	21032 C051/C052/C053
C038	C-0S3612	C-121-01484	E012	2059-03	11-4 N OF C7	2-0 W OF CA	21031 C054/C055/C056/C057
C039	C-0S3612	C-121-01484	E012	2059-03	9-5 S OF C5	2-0 W OF CA	21031 C058/C059/C060/C061
C040	C-0S3612	C-121-01484	E012	2059-03	5-4 S OF C5	7-0 W OF CA	21032 C062/C063/C064
C041	C-0S3612	C-121-01484	E012	2059-03	C5	7-0 W OF CA	21031 C165/C166/C385
C042	C-0S3612	C-121-01484	E012	2059-03	7-7 N OF C5	7-0 W OF CA	21032 C055/C066/C067
C043	C-0S3612	C-121-01484	E012	2059-03	13-4 S OF C3	2-0 W OF CA	21031 C068/C069/C070
C044	C-0S3612	C-121-01484	E012	2059-03	C3	13-10 W OF CA	N/A
C045	C-0S3612	C-121-01484	E012	2059-03	1-0 S OF C1	9-0 W OF CC	21031 C071
C046	C-0S3612	C-121-01484	E012	2059-03	C3	0-6 E OF CF	21031 C072/C073/C074/C075
C047	C-0S3612	C-121-01484	E012	2059-03	C5	0-6 E OF CF	21031 C167/C168/C169/C387/C388
C048	C-0S3612	C-121-01484	E012	2059-03	6-5 S OF C5	0-6 E OF CF	21031 C076/C077/C078/C079
C049	C-0S3612	C-121-01484	E012	2059-03	9-5 S OF C5	0-6 E OF CF	21031 C080/C081/C082

*JOINT	DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
C050	C-0S3612	C-121-01484	E012	2059-03	11-4 N OF C7	0-6 E OF CF	21031 C083/C084/C085/C086
C051	C-0S3612	C-121-01484	E012	2059-03	3-4 N OF C7	0-6 E OF CF	21031 C087/C088
C052	C-0S3612	C-121-01484	E012	2059-03	0-6 N OF C7	3-0 E OF CF	21032 C089/C090/C091
C053	C-0S3612	C-121-01484	E012	2059-03	0-6 N OF C7	9-6 E OF CF	21032 C092/C093/C094/C389
C054	C-0S3612	C-121-01484	E012	2059-03	0-6 N OF C7	15-10 W OF CC	21032 C095/C096/C097
C055	C-0S3612	C-121-01484	E012	2059-03	0-6 N OF C7	9-5 W OF CC	21031 C098/C099/C100/C351
E056	C-0S3711	C-121-01420	E006	2073-06	1-0 N OF C8	2-0 E OF CF	21002 C116
C057	C-0S3711	C-121-01420	E006	2073-06	1-0 N OF C8	7-0 E OF CF	21002 C117
C058	C-0S3711	C-121-01420	E006	2073-06	1-0 N OF C8	10-11 W OF CC	21001 C118/C119
C059	C-0S3711	C-121-01420	E006	2073-06	1-0 N OF C8	8-0 W OF CC	21001 C120/C121
C060	C-0S3711	C-121-01420	E006	2073-06	1-0 N OF C8	CC	21001 C122/C123
C061	C-0S3711	C-121-01420	E006	2073-06	1-0 N OF C8	7-10 E OF CC	21001 C124/C125
C062	C-0S3711	C-121-01420	E006	2073-06	1-0 N OF C8	15-9 E OF CC	21002 C126
C063	C-0S3711	C-121-01420	E006	2073-06	1-0 N OF C8	14-8 W OF CA	21349 C355
C064	C-0S3711	C-121-01420	E006	2073-06	5-3 N OF C8	2-0 W OF CA	21002 C127
C065	C-0S3711	C-121-01420	E006	2073-06	4-3 S OF C7	2-0 W OF CA	21002 C128
C066	C-0S3711	C-121-01420	E006	2073-06	C7	2-0 W OF CA	21002 C129
C067	C-0S3711	C-121-01420	E006	2073-06	13-6 N OF C7	2-0 W OF CA	21002 C130
C068	C-0S3711	C-121-01420	E006	2073-06	13-0 S OF C5	2-0 W OF CA	21001 C131/C132/C133
C069	C-0S3711	C-121-01420	E006	2073-06	7-10 S OF C5	2-0 W OF CA	21002 C134/C135/C369/C370
C070	C-0S3711	C-121-01420	E006	2073-06	C5	2-0 W OF CA	21349 INACCESSIBLE
C071	C-0S3711	C-121-01420	E006	2073-06	8-0 N OF C5	2-0 W OF CA	21002 C170/C171/C367/C368
C072	C-0S3711	C-121-01420	E006	2073-06	5-0 S OF C3	2-0 W OF CA	21001 C136/C137/C138/C139
C073	C-0S3711	C-121-01420	E006	2073-06	C3	2-0 W OF CA	21002 C140
C074	C-0S3711	C-121-01420	E006	2073-06	11-6 N OF C3	2-0 W OF CA	21349 C356
C075	C-0S3711	C-121-01420	E006	2073-06	9-3 S OF C1	2-0 W OF CA	21001 C141
C076	C-0S3711	C-121-01420	E006	2073-06	5-3 S OF C1	2-0 W OF CA	21002 C142
C077	C-0S3711	C-121-01420	E006	2073-06	1-0 S OF C1	14-6 W OF CA	21349 C357
E078	C-0S3711	C-121-01420	E006	2073-06	1-0 S OF C1	15-9 E OF CC	21001 C143/C144
C079	C-0S3711	C-121-01420	E006	2073-06	1-0 S OF C1	7-10 E OF CC	21002 C145
C080	C-0S3711	C-121-01420	E006	2073-06	1-0 S OF C1	CC	21001 C146
C081	C-0S3711	C-121-01420	E006	2073-06	1-0 S OF C1	8-0 W OF CC	21002 C147
C082	C-0S3711	C-121-01420	E006	2073-06	1-0 S OF C1	13-6 W OF CC	21002 C148
C083	C-0S3711	C-121-01420	E006	2073-06	1-0 S OF C1	19-0 W OF CC	21001 C149
E084	C-0S3711	C-121-01420	E006	2073-06	1-0 S OF C1	8-3 E OF CF	21001 C150
C085	C-0S3711	C-121-01420	E006	2073-06	1-0 S OF C1	2-0 E OF CF	21033 C151/C152
C086	C-0S3711	C-121-01420	E006	2073-06	C3	0-6 E OF CF	21001 C153/C154
C087	C-0S3711	C-121-01420	E006	2073-06	C5	0-6 E OF CF	21001 C155/C156
C088	C-0S3711	C-121-01420	E006	2073-06	C7	0-6 E OF CF	21001 C157
C089	C-0S3211	C-121-01426	E001	1984-00	2-0 N OF C8	CD	20899 C172/C173/C174
C090	C-0S3211	C-121-01426	E001	1984-00	2-0 N OF C8	CC	20899 C312/C313/C314/C315
C091	C-0S3211	C-121-01426	E001	1984-00	2-0 N OF C8	1-9 W OF CB	21133 C353
C092	C-0S3211	C-121-01426	E001	1984-00	7-6 N OF C8	2-0 W OF CA	----- N/A
C093	C-0S3211	C-121-01426	E001	1984-00	C7	2-0 W OF CA	20899 C175/C176/C399
C094	C-0S3211	C-121-01426	E001	1984-00	8-0 S OF C5	2-0 W OF CA	20899 C316
C095	C-0S3211	C-121-01426	E001	1984-00	6-0 S OF C5	2-0 W OF CA	20900 C177
C096	C-0S3211	C-121-01426	E001	1984-00	C5	2-0 W OF CA	20900 C178
C097	C-0S3211	C-121-01426	E001	1984-00	C4	2-0 W OF CA	20900 C317
C098	C-0S3211	C-121-01426	E001	1984-00	8-0 N OF C4	2-0 W OF CA	20899 C179/C180/C181
C099	C-0S3211	C-121-01426	E001	1984-00	C3	2-0 W OF CA	20899 C182/C183/C184/C185
C100	C-0S3211	C-121-01426	E001	1984-00	5-9 N OF C3	2-0 W OF CA	20900 C186

STRUCTURAL JOINTS TRACKING

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*JOINT	BCHHEL DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
C101	C-083211	C-121-01426	E001	1984-00	E2	2-0 W OF CA	20899 C318
C102	C-083211	C-121-01426	E001	1984-00	6-10 N OF C2	2-0 W OF CA	20899 C319
C103	C-083211	C-121-01426	E001	1984-00	2-0 S OF C1	6-6 W OF CA	20900 C320
C104	C-083211	C-121-01426	E001	1984-00	2-0 S OF C1	CB	20899 C321/C322/C323/C324
C105	C-083211	C-121-01426	E001	1984-00	2-0 S OF C1	CC	20899 C187/C188/C189/C190
C106	C-083211	C-121-01426	E001	1984-00	2-0 S OF C1	CD	20899 C191/C192/C193/C194
C107	C-083211	C-121-01426	E001	1984-00	2-0 S OF C1	2-6 W OF CD	20900 C195
C108	C-083211	C-121-01426	E001	1984-00	5-9 N OF C2	1-6 E OF CF	20900 C196
C109	C-083211	C-121-01426	E001	1984-00	C2	1-6 E OF CF	----- N/A
C110	C-083211	C-121-01426	E001	1984-00	5-9 N OF C3	1-6 E OF CF	20900 C197
C111	C-083211	C-121-01426	E001	1984-00	C3	1-6 E OF CF	20899 C198/C199
C112	C-083211	C-121-01426	E001	1984-00	3-0 N OF C4	1-6 E OF CF	20900 C200
C113	C-083211	C-121-01426	E001	1984-00	C4	1-6 E OF CF	20899 C201/C202/C203/C204
C114	C-083211	C-121-01426	E001	1984-00	C5	1-6 E OF CF	20899 C205/C206/C207/C208
C115	C-083211	C-121-01426	E001	1984-00	8-0 N OF C6	1-6 E OF CF	20900 C209
C116	C-083211	C-121-01426	E001	1984-00	C7	1-6 E OF CF	20899 C210/C211
C117	C-083211	C-121-01426	E001	1984-00	7-6 N OF C8	1-6 E OF CF	20899 C212/C213
C118	C-083211	C-121-01408	E002	2000-00	2-0 N OF C8	3-0 E OF CF	20948 C214
C119	C-083211	C-121-01408	E002	2000-00	2-0 N OF C8	8-0 W OF CC	20947 C215/C216
C120	C-083211	C-121-01408	E002	2000-00	2-0 N OF C8	CC	20848 C217
C121	C-083211	C-121-01408	E002	2000-00	2-0 N OF C8	7-10 E OF CC	20947 C218/C219
C122	C-083211	C-121-01408	E002	2000-00	2-0 N OF C8	15-9 E OF CC	20947 C220/C221
C123	C-083311	C-121-01408	E002	2000-00	5-3 N OF C8	2-0 W OF CA	20948 C222
C124	C-083311	C-121-01408	E002	2000-00	9-3 N OF C8	2-0 W OF CA	20947 C223/C224
C125	C-083311	C-121-01408	E002	2000-00	13-6 N OF C8	2-0 W OF CA	20948 C225/C336
C126	C-083311	C-121-01408	E002	2000-00	C5	2-0 W OF CA	21349 INACCESSIBLE
C127	C-083311	C-121-01408	E002	2000-00	C3	2-0 W OF CA	20947 C226
C128	C-083311	C-121-01408	E002	2000-00	13-6 S OF C1	2-0 W OF CA	20912 C227/C228
C129	C-083311	C-121-01408	E002	2000-00	9-3 S OF C1	2-0 W OF CA	20947 C229/C230
C130	C-083311	C-121-01408	E002	2000-00	5-3 S OF C1	2-0 W OF CA	20948 C231
C131	C-083311	C-121-01408	E002	2000-00	2-0 S OF C1	20-6 E OF CC	20947 C232/C233/C234
C132	C-083311	C-121-01408	E002	2000-00	2-0 S OF C1	15-9 E OF CC	20947 C235/C236
C133	C-083311	C-121-01408	E002	2000-00	2-0 S OF C1	7-10 E OF CC	20947 C237/C238
C134	C-083311	C-121-01408	E002	2000-00	2-0 S OF C1	CC	20948 C239
C135	C-083311	C-121-01408	E002	2000-00	2-0 S OF C1	6-4 W OF CC	20948 C240
C136	C-083311	C-121-01408	E002	2000-00	2-0 S OF C1	12-8 W OF CC	20947 C241
C137	C-083311	C-121-01408	E002	2000-00	2-0 S OF C1	14-6 E OF CF	20947 C242/C243
C138	C-083311	C-121-01408	E002	2000-00	C3	1-6 E OF CF	20948 C244
C139	C-083311	C-121-01408	E002	2000-00	C7	1-6 E OF CF	20948 C245
C140	C-083411	C-121-01411	E003	2016-00	1-0 N OF C8	2-0 E OF CF	20916 C269
C141	C-083411	C-121-01411	E003	2016-00	1-0 N OF C8	8-0 W OF CC	20916 INACCESSIBLE
C142	C-083411	C-121-01411	E003	2016-00	1-0 N OF C8	CC	20915 C271/C272
C143	C-083411	C-121-01411	E003	2016-00	5-3 N OF C8	2-0 W OF CA	20916 C273
C144	C-083411	C-121-01411	E003	2016-00	9-3 N OF C8	2-0 W OF CA	20916 C274
C145	C-083411	C-121-01411	E003	2016-00	C7	2-0 W OF CA	20916 C275/C276
C146	C-083411	C-121-01411	E003	2016-00	7-10 N OF C7	2-0 W OF CA	20915 C277/C278
C147	C-083411	C-121-01411	E003	2016-00	18-0 S OF C5	2-0 W OF CA	20916 C279
C148	C-083411	C-121-01411	E003	2016-00	13-0 S OF C5	2-0 W OF CA	20916 C280
C149	C-083411	C-121-01411	E003	2016-00	7-10 S OF C5	2-0 W OF CA	20915 INACCESSIBLE
C150	C-083411	C-121-01411	E003	2016-00	C5	2-0 W OF CA	20916 C283
C151	C-083411	C-121-01411	E003	2016-00	8-0 N OF C5	2-0 W OF CA	20916 C284/C394

*JOINT	DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
C152	C-083411	C-121-01411	E003	2016-00	16-0 N OF C5	2-0 W OF CA	20916 C285
C153	C-083411	C-121-01411	E003	2016-00	8-0 S OF C3	2-0 W OF CA	20915 C286
C154	C-083411	C-121-01411	E003	2016-00	5-0 S OF C3	2-0 W OF CA	20916 C287
C155	C-083411	C-121-01411	E003	2016-00	C3	2-0 W OF CA	20916 C288
C156	C-083411	C-121-01411	E003	2016-00	8-0 N OF C3	2-0 W OF CA	20916 C289
C157	C-083411	C-121-01411	E003	2016-00	9-0 S OF C1	2-0 W OF CA	20915 C290/C400
C158	C-083411	C-121-01411	E003	2016-00	5-3 S OF C1	2-0 W OF CA	20915 C291
C159	C-083411	C-121-01411	E003	2016-00	1-0 S OF C1	14-6 W OF CA	21349 C359
C160	C-083411	C-121-01411	E003	2016-00	1-0 S OF C1	14-6 E OF CF	20915 C292
C161	C-083411	C-121-01411	E003	2016-00	C3	0-6 E OF CF	20916 C293
C162	C-083411	C-121-01411	E003	2016-00	8-0 S OF C3	0-6 E OF CF	20915 C294
C163	C-083411	C-121-01411	E003	2016-00	16-0 N OF C5	0-6 E OF CF	20916 C295
C164	C-083411	C-121-01411	E003	2016-00	8-0 N OF C5	0-6 E OF CF	20915 C296
C165	C-083411	C-121-01411	E003	2016-00	C5	0-6 E OF CF	20915 C297
C166	C-083411	C-121-01411	E003	2016-00	7-10 S OF C5	0-6 E OF CF	20916 C298
C167	C-083411	C-121-01411	E003	2016-00	15-9 N OF C7	0-6 E OF CF	20916 C299
C168	C-083411	C-121-01411	E003	2016-00	7-10 N OF C7	0-6 E OF CF	20916 C300
C169	C-083411	C-121-01411	E003	2016-00	C7	0-6 E OF CF	20916 C301
C170	C-083511	C-121-01414	E004	2032-00	1-0 N OF C8	2-0 E OF CF	21015 C247
C171	C-083511	C-121-01414	E004	2032-00	1-0 N OF C8	16-5 E OF CF	N/A
C172	C-083511	C-121-01414	E004	2032-00	1-0 N OF C8	CC	21015 C248
C173	C-083511	C-121-01414	E004	2032-00	1-0 N OF C8	14-6 W OF CA	21349 C361/C382
C174	C-083511	C-121-01414	E004	2032-00	5-3 N OF C8	2-0 W OF CA	21015 C305
C175	C-083511	C-121-01414	E004	2032-00	4-3 S OF C7	2-0 W OF CA	21015 C306
C176	C-083511	C-121-01414	E004	2032-00	C7	2-0 W OF CA	21015 C249
C177	C-083511	C-121-01414	E004	2032-00	7-10 N OF C7	2-0 W OF CA	21015 C250
C178	C-083511	C-121-01414	E004	2032-00	13-6 N OF C7	2-0 W OF CA	21014 C251
C179	C-083511	C-121-01414	E004	2032-00	13-0 S OF C5	2-0 W OF CA	21014 C252
C180	C-083511	C-121-01414	E004	2032-00	7-10 S OF C5	2-0 W OF CA	21015 C253/C366
C181	C-083511	C-121-01414	E004	2032-00	C5	2-0 W OF CA	21015 C254
C182	C-083511	C-121-01414	E004	2032-00	8-0 N OF C5	2-0 W OF CA	21015 C255/C365
C183	C-083511	C-121-01414	E004	2032-00	16-0 N OF C5	2-0 W OF CA	21014 C256/C257
C184	C-083511	C-121-01414	E004	2032-00	8-0 S OF C3	2-0 W OF CA	21015 C258
C185	C-083511	C-121-01414	E004	2032-00	5-0 S OF C3	2-0 W OF CA	21015 C259
C186	C-083511	C-121-01414	E004	2032-00	C3	2-0 W OF CA	21014 C260/C261
C187	C-083511	C-121-01414	E004	2032-00	8-0 N OF C3	2-0 W OF CA	21015 C307
C188	C-083511	C-121-01414	E004	2032-00	8-0 S OF C1	2-0 W OF CA	21015 C262
C189	C-083511	C-121-01414	E004	2032-00	C3	0-6 E OF CF	N/A
C190	C-083511	C-121-01414	E004	2032-00	8-0 S OF C3	0-6 E OF CF	21015 C344
C191	C-083511	C-121-01414	E004	2032-00	8-0 N OF C5	0-6 E OF CF	21015 C263
C192	C-083511	C-121-01414	E004	2032-00	C5	0-6 E OF CF	21015 C264
C193	C-083511	C-121-01414	E004	2032-00	7-10 S OF C5	0-6 E OF CF	21015 C265
C194	C-083511	C-121-01414	E004	2032-00	15-9 S OF C5	0-6 E OF CF	21015 C266
C195	C-083511	C-121-01414	E004	2032-00	7-10 N OF C7	0-6 E OF CF	21015 C267
C196	C-083511	C-121-01414	E004	2032-00	C7	0-6 E OF CF	21014 C268
C197	C-083611	C-121-01417	E005	2047-06	1-0 N OF C8	2-0 E OF CF	21047 C325
C198	C-083611	C-121-01417	E005	2047-06	1-0 N OF C8	15-0 W OF CC	21047 C345
C199	C-083611	C-121-01417	E005	2047-06	5-3 N OF C8	2-0 W OF CA	21047 C346
C200	C-083611	C-121-01417	E005	2047-06	4-3 S OF C7	2-0 W OF CA	21047 C347
C201	C-083611	C-121-01417	E005	2047-06	C5	2-0 W OF CA	21349 INACCESSIBLE
C202	C-083611	C-121-01417	E005	2047-06	C3	2-0 W OF CA	21046 C326/C327

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*JOINT	DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
C203	C-0S3611	C-121-01417	E005	2047-06	11-6 N OF C3	2-0 W OF CA	21046 C348
C204	C-0S3611	C-121-01417	E005	2047-06	9-3 S OF C1	2-0 W OF CA	21047 C349
C205	C-0S3611	C-121-01417	E005	2047-06	5-3 S OF C1	2-0 W OF CA	21047 C350
C206	C-0S3611	C-121-01417	E005	2047-06	1-0 S OF C1	15-9 E OF CC	21047 C328
C207	C-0S3611	C-121-01417	E005	2047-06	1-0 S OF C1	7-10 E OF CC	21046 C329/C330
C208	C-0S3611	C-121-01417	E005	2047-06	1-0 S OF C1	CC	21046 C331/C332
C209	C-0S3611	C-121-01417	E005	2047-06	1-0 S OF C1	8-0 W OF CC	21046 C333/C334
C210	C-0S3611	C-121-01417	E005	2047-06	1-0 S OF C1	9-10 E OF CF	21046 C335/C336
C211	C-0S3611	C-121-01417	E005	2047-06	C3	0-6 E OF CF	21046 C337
C212	C-0S3612	C-121-01484	E012	2059-03	1-0 S OF C1	12-3 E OF CF	20904 C338/C339/C340
C213	C-0S3612	C-121-01484	E012	2059-03	14-3 N OF C3	0-6 E OF CF	20904 C341/C342
C214	C-0S3612	C-121-01484	E012	2059-03	10-4 S OF C3	0-6 E OF CF	21349 C390
C215	C-0S3612	C-121-01484	E012	2059-03	10-9 N OF C5	0-6 E OF CF	21349 C391
C216	C-0S3811	C-121-09015	E007	2087-02	C7	2-3 E OF CF	21349 INACCESSIBLE
C217	C-0S3811	C-121-09015	E007	2087-02	C7	9-1 E OF CF	21349 INACCESSIBLE
C218	C-0S3811	C-121-09015	E007	2087-02	C7	15-11E OF CF	21349 INACCESSIBLE
C219	C-0S3811	C-121-09015	E007	2087-02	C7	10-9 W OF CC	21349 INACCESSIBLE
C220	C-0S3612	C-121-01485	E013	2059-03	C3	CC	21019 C308
C221	C-0S3612	C-121-01485	E013	2059-03	C5	CC	21019 C309
C222	C-0S3612	C-121-01485	E013	2059-03	C5	CC	21019 C310
C223	C-0S3612	C-121-01485	E013	2059-03	C7	CC	21019 C311
C224	C-0S3411	C-121-01411	E003	2016-00	1-0 N OF C8	15-0 W OF CC	20916 C302
C225	C-0S3411	C-121-01411	E003	2016-00	5-0 S OF C1	0-6 E OF CF	20915 C303/C304
C226	C-0S3711	C-121-01420	E006	2073-06	C7	9-10 E OF CF	----- N/A
C227	C-0S3711	C-121-01420	E006	2073-06	C7	15-10 W OF CC	21301 C371
C228	C-0S3612	C-121-01484	E012	2059-03	11-9 N OF C3	CC	21300 C372
C229	C-0S3612	C-121-01484	E012	2059-03	11-9 N OF C3	3-3 E OF CC	----- N/A
C230	C-0C3902	C-131-05505	4B-E7	2071-00	5-10 N OF C5	0-6 E OF CF	21349 INACCESSIBLE
C231	C-0C3902	C-131-05505	4B-E7	2060-02	5-10 N OF C5	0-6 E OF CF	21349 INACCESSIBLE
C232	C-0C3902	C-131-05505	4B-E7	2060-02	5-10 N OF C5	0-6 E OF CF	21349 INACCESSIBLE
C233	C-0C3902	C-131-05505	4B-E7	2049-04	5-10 N OF C5	0-6 E OF CF	21349 INACCESSIBLE
C234	C-0C3902	C-131-05505	4B-E7	2071-00	7-9 N OF C5	0-6 E OF CF	21349 INACCESSIBLE
C235	C-0C3902	C-131-05505	4B-E7	2060-02	7-9 N OF C5	0-6 E OF CF	21349 INACCESSIBLE
C236	C-0C3902	C-131-05505	4B-E7	2060-02	7-9 N OF C5	0-6 E OF CF	21349 INACCESSIBLE
C237	C-0C3902	C-131-05505	4B-E7	2049-04	7-9 N OF C5	0-6 E OF CF	21349 INACCESSIBLE
C238	C-0C3902	C-131-05505	4B-E7	2071-00	5-3 S OF C4	0-6 E OF CF	21349 INACCESSIBLE
C239	C-0C3902	C-131-05505	4B-E7	2060-02	5-3 S OF C4	0-6 E OF CF	21349 INACCESSIBLE
C240	C-0C3902	C-131-05505	4B-E7	2060-02	5-3 S OF C4	0-6 E OF CF	21349 INACCESSIBLE
C241	C-0C3902	C-131-05505	4B-E7	2049-04	5-3 S OF C4	0-6 E OF CF	21349 INACCESSIBLE
C242	C-0C3902	C-131-05505	4B-E7	2071-00	0-11 S OF C4	0-6 E OF CF	21349 INACCESSIBLE
C243	C-0C3902	C-131-05505	4B-E7	2060-02	0-11 S OF C4	0-6 E OF CF	21349 INACCESSIBLE
C244	C-0C3902	C-131-05505	4B-E7	2060-02	0-11 S OF C4	0-6 E OF CF	21349 INACCESSIBLE
C245	C-0C3902	C-131-05505	4B-E7	2049-04	0-11 S OF C4	0-6 E OF CF	21349 INACCESSIBLE
C246	C-0C3902	C-131-05505	4B-E7	2071-00	1-0 N OF C4	0-6 E OF CF	21349 INACCESSIBLE
C247	C-0C3902	C-131-05505	4B-E7	2060-02	1-0 N OF C4	0-6 E OF CF	21349 INACCESSIBLE
C248	C-0C3902	C-131-05505	4B-E7	2060-02	1-0 N OF C4	0-6 E OF CF	21349 INACCESSIBLE
C249	C-0C3902	C-131-05505	4B-E7	2049-04	1-0 N OF C4	0-6 E OF CF	21349 INACCESSIBLE
C250	C-0C3902	C-131-05505	4B-E7	2071-00	5-8 N OF C4	0-6 E OF CF	21349 INACCESSIBLE
C251	C-0C3902	C-131-05505	4B-E7	2060-02	5-8 N OF C4	0-6 E OF CF	21349 INACCESSIBLE
C252	C-0C3902	C-131-05505	4B-E7	2060-02	5-8 N OF C4	0-6 E OF CF	21349 INACCESSIBLE
C253	C-0C3902	C-131-05505	4B-E7	2049-04	5-8 N OF C4	0-6 E OF CF	21349 INACCESSIBLE

STRUCTURAL JOINTS TRACKING

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AWC WELDING REPORT, APPENDIX A, PAGE 1

* BENTEL

*JOINT . DRAWING . ERECTION . DRAW . ELEVATION . LOCATION . NCR . EVALUATION NO.

*JOINT	DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
C254	C-0C3111			2047-06	C3	9-6 W OF CC	N/A
C255	C-0C3111			2047-06	C3	9-6 W OF CC	N/A
C256	C-0S3711	C-121-01420	E6	2073-06	27-0 N OF C8	5-6 W OF CA	21349 INACCESSIBLE
C257	C-0S3711	C-121-01420	E6	2073-06	32-0 N OF C8	5-6 W OF CA	21349 INACCESSIBLE
C258	C-0S3211	C-121-01426	E1	1984-00	13-6 N OF C8	11-0 E OF CC	21395 C392
C259	C-0S3211	C-121-01426	E1	1984-00	21-3 N OF C8	11-0 E OF CC	21395 C393
CA	C-0S3311	C-121-01408	E002	2000-00	C5	1-6 E OF CF	20566 C006
CB	C-0S3511	C-121-01414	E004	2032-00	8-0 N OF C3	0-6 E OF CF	N/A
CC	C-0S3511	C-121-01414	E004	2032-00	9-0 S OF C1	0-6 E OF CF	N/A
CD	C-0S3611	C-121-01417	E005	2047-06	C7	0-6 E OF CF	20566 C003
CE	C-0S3611	C-121-01417	E005	2047-06	C5	0-6 E OF CF	20566 C004/C005
CF	C-0S3611	C-121-01417	E005	2047-06	C7	2-0 W OF CA	20566 C001/C002

..... END REPORT

STRUCTURAL JOINTS TRACKING

* BECHTEL

*JOINT . DRAWING . ERECTION . DRAW . ELEVATION . LOCATION . NCR . EVALUATION NO.

JOINT	DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
D001	C-085211	C-121-08958	E002	2029-07	1-0 N OF D6	3-3 W OF DB	20865 D012/D013
D002	C-085211	C-121-08958	E002	2029-07	1-0 N OF D6	3-9 W OF DA	20865 D014/D015
D003	C-085213	C-121-08840	E008	2031-02	10-6 S OF D1	1-0 E OF DB	21198 D016/D017
D004	C-085213	C-121-08840	E008	2031-02	0-6 S OF D1	1-0 E OF DB	21198 D018/D019
D005	E-085213	C-121-08840	E008	2045-06	3-1 S OF D2	24-3 E OF DC	21198 D069
D006	C-085213	C-121-08861	E009	2016-02	7-0 N OF D28	0-6 E OF DC	21732 D068
D007	C-085311	C-121-08831	E003	2047-02	D3	0-6 E OF DC	21186 D071/D101
D008	C-085311	C-121-08831	E003	2047-02	D2	0-6 E OF DC	21186 D072/D073
D009	C-085311	C-121-08831	E003	2047-02	7-0 N OF D2	0-6 E OF DC	21186 D074
D010	C-085311	C-121-08831	E003	2047-02	D5	1-0 W OF DB	21186 D075
D011	C-085311	C-121-08831	E003	2047-02	7-0 N OF D2	1-0 W OF DB	21186 D076/D077
D012	C-085311	C-121-08831	E003	2047-02	7-0 N OF D2	1-0 E OF DB	21741 D070
D013	C-085213	C-121-08861	E009	2016-02	D2	0-6 E OF DC	----- N/A
D014	C-085213	C-121-08861	E009	2016-02	D28	1-0 E OF DB	----- N/A
D015	C-085213	C-121-08861	E009	2016-02	7-0 N OF D28	1-0 E OF DB	----- N/A
D016	C-085213	C-121-08840	E008	2031-02	10-6 S OF D1	0-6 E OF DC	----- N/A
D017	C-085213	C-121-08840	E008	2031-02	0-6 S OF D1	0-6 E OF DC	----- N/A
D018	C-085213	C-121-08840	E008	2045-06	3-1 S OF D2	24-9 E OF DB	21198 D020
D019	C-085211	C-121-08958	E002	2029-07	1-0 N OF D6	15-9 W OF DB	----- N/A
D020	C-085211	C-121-08958	E002	2029-07	D5	0-6 E OF DC	21208 D021/D022
D021	C-085211	C-121-08958	E002	2029-07	D3	0-6 E OF DC	21208 D023/D024
D022	C-085211	C-121-08958	E002	2029-07	D4	1-0 W OF DB	----- VOID
D023	C-085211	C-121-08958	E002	2029-07	D2	1-0 W OF DB	----- N/A
D024	C-085211	C-121-08958	E002	2029-07	1-0 N OF D6	12-3 W OF DA	21208 D066
D025	C-085211	C-121-08958	E002	2029-07	D5	1-0 E OF DB	21208 D046
D026	C-085211	C-121-08958	E002	2029-07	D3	1-0 E OF DB	21208 D047
D027	C-085311	C-121-08831	E003	2047-02	D5	0-6 E OF DC	21186 D078/D079
D028	C-085311	C-121-08831	E003	2047-02	6-6 N OF D5	0-6 E OF DC	21186 D080/D081
D029	C-085311	C-121-08831	E003	2047-02	6-6 S OF D3	1-0 W OF DB	21186 D082/D083
D030	C-085311	C-121-08831	E003	2047-02	6-6 S OF D3	0-6 E OF DC	21186 D084/D085
D031	C-085311	C-121-08831	E003	2047-02	D5	1-0 E OF DB	21186 D050/D051
D032	C-085311	C-121-08831	E003	2047-02	6-6 N OF D5	1-0 E OF DB	21186 D052/D053
D033	C-085311	C-121-08831	E003	2047-02	6-6 S OF D3	1-0 E OF DB	21186 D054/D055
D034	C-085311	C-121-08831	E003	2047-02	D2	1-0 E OF DB	21186 D056/D057
D035	C-085311	C-121-08831	E003	2047-02	D3	1-0 E OF DB	21186 D058/D059
D036	C-085311	C-121-08831	E003	2047-02	D3	1-0 W OF DB	21186 D086/D087
D037	C-085311	C-121-08831	E003	2047-02	D2	1-0 W OF DB	21186 D088/D089
D038	C-085311	C-121-08831	E003	2047-02	D1	0-6 E OF DC	21186 D090/D091
D039	C-085311	C-121-08831	E003	2047-02	7-0 N OF D2	12-2 E OF DC	----- N/A
D040	C-085311	C-121-08831	E003	2047-02	D1	12-2 E OF DC	21186 D092
D041	C-085311	C-121-08831	E003	2047-02	7-0 N OF D2	8-8 W OF DB	----- N/A
D042	C-085311	C-121-08831	E003	2047-02	D1	8-8 W OF DB	----- N/A
D043	C-085311	C-121-08831	E003	2047-02	D1	1-0 W OF DB	21186 D093/D094
D044	C-085311	C-121-08831	E003	2047-02	D1	1-0 E OF DB	21186 D060/D061
D045	C-085311	C-121-08831	E003	2047-02	7-0 N OF D2	12-8 E OF DB	----- N/A
D046	C-085311	C-121-08831	E003	2047-02	D1	12-8 E OF DB	----- N/A
D047	C-085311	C-121-08831	E003	2047-02	7-0 N OF D2	5-2 W OF DA	21186 D062
D048	C-085311	C-121-08831	E003	2047-02	D1	5-2 W OF DA	21186 D063
D049	C-085211	C-121-08958	E002	2027-09	1-0 N OF D6	1-6 E OF DC	21208 D067

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* JOINT	DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
D050	C-055211	C-121-08958	E002	2029-07 D4	0-6 E OF DC	21208	D097
D051	C-055211	C-121-08953	E002	2029-07 D2	0-6 E OF DC	21208	D098/D099
D052	C-055211	C-121-08953	E002	2029-09 1-0 N OF D6	5-3 W OF DB	-----	N/A
D053	C-055211	C-121-08958	E002	2029-07 1-0 N OF D6	4-3 W OF DB	21208	D025
D054	C-055211	C-121-08958	E002	2029-07 D5	1-0 W OF DB	21208	D100
D055	C-055211	C-121-08958	E002	2029-07 D3	1-0 W OF DB	-----	N/A
D056	C-055211	C-121-08958	E002	2029-09 1-0 N OF D6	2-0 E OF DB	21208	D026
D057	C-055211	C-121-08958	E002	2029-07 D4	1-0 E OF DB	21208	D048
D058	C-055211	C-121-08958	E002	2029-07 D2	1-0 E OF DB	21208	D047
D059	C-055211	C-121-08958	E002	2029-09 1-0 N OF D6	1-9 W OF DA	21208	D027
D060	C-055211	C-121-08958	E002	2029-07 1-0 N OF D6	DA	21208	D028
D061	C-055901	C-121-13749	E004	2022-09 1-0 N OF D5	DA	20850	D029
D062	C-055212	C-121-08900	E007	2009-08 8-6 S OF D4	1-0 E OF DB	20851	D030
D063	C-055212	C-121-08900	E007	2006-01 8-3 S OF D4	1-0 E OF DB	-----	N/A
D064	C-055212	C-121-08900	E007	2009-08 5-6 N OF D4	1-0 E OF DB	20851	D031
D065	C-055212	C-121-08900	E007	2006-01 5-6 N OF D4	1-0 E OF DB	-----	N/A
D066	C-055212	C-121-08900	E007	2009-08 10-2 N OF D4	1-0 E OF DB	20851	D032
D067	C-055212	C-121-08900	E007	2006-01 10-2 N OF D4	1-0 E OF DB	-----	N/A
D068	C-055212	C-121-08900	E007	2009-08 8-6 S OF D4	0-6 E OF DC	20851	D033
D069	C-055212	C-121-08900	E007	2006-01 8-6 S OF D4	0-6 E OF DC	20851	D034
D070	C-055212	C-121-08900	E007	2009-08 5-6 N OF D4	0-6 E OF DC	20851	D035
D071	C-055212	C-121-08900	E007	2006-01 5-6 N OF D4	0-6 E OF DC	20851	D036
D072	C-055212	C-121-08900	E007	2009-08 10-2 N OF D4	0-6 E OF DC	20851	D037
D073	C-055212	C-121-08900	E007	2006-01 10-2 N OF D4	0-6 E OF DC	20851	D038
D074	C-055311	C-121-08831	E003	2047-02 6-6 N OF D5	1-0 W OF DB	21186	D095/D096
D075	C-055311	C-121-08831	E003	2047-02 1-0 N OF D6	DA	21186	D064
D076	C-055212	C-121-08899	E006	2019-03 1-10 N OF D6	0-6 E OF DC	20868	D040
D077	C-055212	C-121-08899	E006	2019-03 4-0 N OF D6	0-6 E OF DC	-----	N/A
D078	C-055212	C-121-08899	E006	2019-03 1-0 N OF D6	11-0 E OF DC	20858	D041
D079	C-055212	C-121-08899	E006	2016-03 1-0 N OF D6	11-0 E OF DC	-----	N/A
D080	C-055212	C-121-08899	E006	2019-03 1-0 N OF D6	11-6 W OF DB	-----	N/A
D081	C-055212	C-121-08899	E006	2016-03 1-0 N OF D6	11-6 W OF DB	-----	N/A
D082	C-055212	C-121-08899	E006	2019-03 1-0 N OF D6	8-6 W OF DB	-----	N/A
D083	C-055212	C-121-08899	E006	2019-03 1-0 N OF D6	4-6 W OF DB	-----	N/A
D084	C-055212	C-121-08899	E006	2019-03 1-0 N OF D6	1-10 W OF DB	-----	N/A
D085	C-055212	C-121-08899	E006	2019-03 6-6 N OF D6	1-0 W OF DB	20868	D042
D086	C-055212	C-121-08899	E006	2019-03 1-0 N OF D6	3-0 E OF DB	20867	D043
D087	C-055212	C-121-08899	E006	2016-03 1-0 N OF D6	3-0 E OF DB	20868	D044
D088	C-055212	C-121-08899	E006	2019-03 1-0 N OF D6	15-9 E OF DB	20867	D045
D089	C-055212	C-121-08899	E006	2016-03 1-0 N OF D6	15-9 E OF DB	20868	D039
D090	C-055212	C-121-08899	E006	2019-03 1-0 N OF D6	1-0 W OF DA	-----	N/A
D091	C-055212	C-121-08899	E006	2016-03 1-0 N OF D6	1-0 W OF DA	-----	N/A
D092	C-055213	C-121-08840	E008	2045-06 3-1 S OF D2	12-3 E OF DC	21307	D102
D093	C-055213	C-121-08840	E008	2045-06 3-1 S OF D2	12-9 E OF DB	21307	D103
DA	C-055211	C-121-08958	E002	2029-07 D4	1-0 W OF DB	21569	D104
DB	C-055213	C-121-08861	E009	2016-02 D2	1-0 E OF DB	20565	D009/D010/D011
DC	C-055213	C-121-08861	E009	2016-02 D2.8	0-6 E OF DC	20565	D007/D008
DD	C-055311	C-121-08831	E003	2047-02 D4	1-0 E OF DB	20565	D001/D002
DE	C-055311	C-121-08831	E003	2047-02 D4	1-0 W OF DB	20565	D003/D004
DF	C-055311	C-121-08831	E003	2047-02 D4	0-6 E OF DC	20565	D005/D006

..... END REPORT

STRUCTURAL JOINTS TRACKING

*JOINT	BECHTEL DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
F001	C-056311	C-121-19001	E002	2047-06	7-9 N OF F7	8-4 W OF FC	20986 F060/F061
F002	C-056311	C-121-19001	E002	2047-06	F6	8-4 W OF FC	20986 F062/F063/F115
F003	C-056311	C-121-19001	E002	2047-06	7-8 N OF F6	8-4 W OF FC	20986 F064/F065
F004	C-056311	C-121-19001	E002	2047-06	7-9 S OF F5	8-4 W OF FC	20986 F066/F067/F068
F005	C-056211	C-121-19027	E003	2026-00	2-0 S OF F1	1-0 E OF FD	20849 F051
F006	C-056211	C-121-19027	E003	2026-00	9-4 S OF F1	1-0 E OF FD	20849 F018
F007	C-056211	C-121-19027	E003	2026-00	5-10 N OF F2	1-0 E OF FD	20849 F019/F020
F008	C-056211	C-121-19027	E003	2026-00	F2	4-0 E OF FD	20849 F021
F009	C-056211	C-121-19027	E003	2026-00	6-8 S OF F2	1-0 E OF FD	20849 F022/F023
F010	C-056211	C-121-19027	E003	2026-00	6-8 N OF F3	1-0 E OF FD	20848 F024/F025
F011	C-056211	C-121-19027	E003	2026-00	6-8 S OF F3	1-0 E OF FD	20849 F026
F012	C-056211	C-121-19027	E003	2026-00	6-8 N OF F4	1-0 E OF FD	20849 F027
F013	C-056211	C-121-19027	E003	2026-00	6-4 S OF F4	1-0 E OF FD	20849 F028
F014	C-056211	C-121-19027	E003	2026-00	7- N OF F5	1-0 E OF FD	20849 F029
F015	C-056211	C-121-19027	E003	2026-00	1-0 S OF F5	9-4 W OF FC	20849 F030/F031
F016	C-056211	C-121-19027	E003	2026-00	F6	9-4 W OF FC	20849 F015/F016
F017	C-056211	C-121-19027	E003	2026-00	1-6 S OF F6	8-4 W OF FC	20849 F010/F011
F018	C-056211	C-121-19027	E003	2026-00	7-4 N OF F7	8-4 W OF FC	20849 F012
F019	C-056211	C-121-19027	E003	2026-00	4-0 N OF F7	FC	20849 F014
F020	C-056211	C-121-19027	E003	2026-00	F4	4-0 E OF FD	20849 F017
F021	C-056511	C-121-19029	E005	2083-06	F6	5-3 E OF FD	20864 F032/F033
F022	C-056511	C-121-19029	E005	2083-06	1-0 N OF F7	5-3 E OF FD	20864 F034/F035/F036
F023	C-056511	C-121-19029	E005	2083-06	1-0 N OF F7	5-3 W OF FA	20864 F037/F038/F039
F024	C-056511	C-121-19029	E005	2083-06	F6	5-3 W OF FA	VOID NO WELD REQUIRED
F025	C-056511	C-121-12029	E005	2083-06	6-6 S OF F5	1-0 W OF FA	N/A
F026	C-056511	C-121-12029	E005	2083-06	5-10 S OF F2	5-3 W OF FA	N/A
F027	C-056511	C-121-12029	E005	2083-06	2-2 S OF F2	5-3 W OF FA	VOID SAME AS F647
F028	C-056511	C-121-12029	E005	2083-06	1-10 N OF F2	5-3 W OF FA	VOID SAME AS F645
F029	C-056511	C-121-12029	E005	2083-06	1-0 S OF F1	5-3 W OF FA	20911 F042/F043
F030	C-056511	C-121-19029	E005	2083-06	11-3 N OF F4	5-3 E OF FD	N/A
F031	C-056511	C-121-19029	E005	2083-06	2-1 N OF F4	5-3 E OF FD	F131
F032	C-056005	C-121-19069	E007	2082-07	1-0 N OF F7	7-6 E OF FB	20859 F111/F112
F033	C-056005	C-121-19069	E007	2073-02	1-0 N OF F1	2-0 W OF FC	20888 F113/F114
F034	C-056005	C-121-19069	E007	2073-02	1-0 N OF F1	6-0 E OF FC	21353 F126/F127
F035	C-056005	C-121-19069	E007	2073-02	16-6 N OF F1	2-0 W OF FC	N/A
F036	C-056005	C-121-19078	E010	2026-00	0-6 S OF F5	1-7 E OF FC	20882 F047
F037	C-056005	C-121-19078	E010	2026-00	4-0 N OF F5	1-7 E OF FC	20883 F048
F038	C-056005	C-121-19078	E010	2026-00	4-0 N OF F5	5-7 E OF FC	20883 F049
F039	C-056005	C-121-19078	E010	2021-00	4-0 N OF F5	5-7 E OF FC	N/A
F040	C-056005	C-121-19078	E010	2057-06	13-6 S OF F4	1-0 W OF FA	N/A
F041	C-056005	C-121-19078	E010	2052-01	13-6 S OF F4	1-0 W OF FA	N/A
F042	C-056005	C-121-19078	E010	2057-06	2-0 S OF F4	1-0 W OF FA	20883 F050
F043	C-056005	C-121-19078	E010	2052-01	2-0 S OF F4	1-0 W OF FA	N/A
F044	C-056311	C-121-19001	E002	2047-06	6-8 N OF F5	1-0 E OF FD	20893 F069/F070
F045	C-056211	C-121-19027	E003	2026-00	F6	7-3 E OF FD	20848 F056/F057
F046	C-056211	C-121-19027	E003	2026-00	1-0 S OF F5	7-3 E OF FD	N/A
F047	C-056211	C-121-19027	E003	2026-00	F6	13-5 E OF FD	20869 F058
F048	C-056311	C-121-19001	E002	2047-06	6-8 S OF F4	1-0 E OF FD	N/A
F049	C-056311	C-121-19027	E003	2026-00	F6	15-6 W OF FC	N/A

*JOINT	BECHTEL DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
F050	C-056211	C-121-19027	E003	2026-00	1-0 S OF F5	15-6 W OF FC	N/A
F051	C-056211	C-121-19027	E003	2026-00	1-0 S OF F5	FC	20848 F059
F052	C-056211	C-121-19027	E003	2026-00	7-4 N OF F5	3-0 W OF FC	N/A
F053	C-056211	C-121-19027	E003	2026-00	6-4 S OF F4	3-0 W OF FC	N/A
F054	C-056211	C-121-19027	E003	2026-00	F4	3-0 W OF FC	N/A
F055	C-056211	C-121-19027	E003	2026-00	6-8 N OF F4	3-0 W OF FC	N/A
F056	C-056211	C-121-19027	E003	2026-00	6-8 S OF F3	3-0 W OF FC	N/A
F057	C-056211	C-121-19027	E003	2026-00	F3	3-0 W OF FC	N/A
F058	C-056211	C-121-19027	E003	2026-00	6-8 N OF F3	3-0 W OF FC	N/A
F059	C-056211	C-121-19027	E003	2026-00	6-8 S OF F2	3-0 W OF FC	N/A
F060	C-056211	C-121-19027	E003	2026-00	F2	3-0 W OF FC	N/A
F061	C-056211	C-121-19027	E003	2026-00	5-10 N OF F2	3-0 W OF FC	N/A
F062	C-056211	C-121-19027	E003	2026-00	9-4 S OF F1	3-10 W OF FC	N/A
F063	C-056211	C-121-19027	E003	2026-00	2-0 S OF F1	3-10 W OF FC	N/A
F064	C-056311	C-121-19001	E002	2047-06	F4	4-0 E OF FD	20893 F071
F065	C-056311	C-121-19001	E002	2047-06	6-4 N OF F4	1-0 E OF FD	20893 F072/F073
F066	C-056311	C-121-19001	E002	2047-06	6-8 S OF F3	1-0 E OF FD	20893 F074
F067	C-056311	C-121-19001	E002	2047-06	F3	4-0 E OF FD	20893 F075/F076
F068	C-056311	C-121-19001	E002	2047-06	7-0 N OF F3	1-0 E OF FD	20893 F077/F078
F069	C-056311	C-121-19001	E002	2047-06	6-8 S OF F2	1-0 E OF FD	20893 F079/F080
F070	C-056311	C-121-19001	E002	2047-06	F2	4-0 E OF FD	20893 F081/F082
F071	C-056311	C-121-19001	E002	2047-06	7-0 N OF F2	1-0 E OF FD	20893 F083/F084
F072	C-056311	C-121-19001	E002	2047-06	2-0 S OF F1	1-0 E OF FD	20893 F085
F073	C-056311	C-121-19001	E002	2047-06	4-0 N OF F7	FC	N/A
F074	C-056311	C-121-19001	E002	2047-06	1-0 S OF F5	FC	20893 F086
F075	C-056311	C-121-19001	E002	2047-06	6-8 N OF F5	3-0 W OF FC	20893 F087
F076	C-056311	C-121-19001	E002	2047-06	6-8 S OF F4	3-0 W OF FC	20893 F088
F077	C-056311	C-121-19001	E002	2047-06	F4	3-0 W OF FC	N/A
F078	C-056311	C-121-19001	E002	2047-06	6-4 N OF F4	3-0 W OF FC	20893 F089
F079	C-056311	C-121-19001	E002	2047-06	6-8 S OF F3	3-0 W OF FC	N/A
F080	C-056311	C-121-19001	E002	2047-06	F3	3-0 W OF FC	20893 F090
F081	C-056311	C-121-19001	E002	2047-06	7-0 N OF F3	3-0 W OF FC	20893 F091
F082	C-056311	C-121-19001	E002	2047-06	6-8 S OF F2	3-0 W OF FC	20893 F092
F083	C-056311	C-121-19001	E002	2047-06	F2	3-0 W OF FC	20893 F093
F084	C-056311	C-121-19001	E002	2047-06	7-0 N OF F2	3-0 W OF FC	20893 F094
F085	C-056311	C-121-19001	E002	2047-06	8-9 S OF F1	3-0 W OF FC	20893 F095
F086	C-056311	C-121-19001	E002	2047-06	2-0 S OF F1	3-0 W OF FC	20893 F096
F087	C-056311	C-121-19001	E002	2047-06	1-0 N OF F7	7-8 E OF FC	20893 F097
F088	C-056311	C-121-19001	E002	2047-06	1-0 N OF F7	7-0 W OF FB	20893 F098/F099/F100
F089	C-056311	C-121-19001	E002	2047-06	1-0 N OF F7	5-9 E OF FB	20893 F101/F102
F090	C-056311	C-121-19001	E002	2047-06	1-0 N OF F7	11-6 E OF FB	20893 F103/F104/F105
F091	C-056311	C-121-19001	E002	2047-06	1-0 N OF F7	6-6 W OF FA	20893 F106/F107/F125
F092	C-056311	C-121-19001	E002	2047-06	4-0 N OF F5	FB	20893 F108
F093	C-056311	C-121-19001	E002	2047-06	4-0 N OF F5	5-9 E OF FB	20893 F109
F094	C-056311	C-121-19001	E002	2047-06	4-0 N OF F5	11-6 E OF FB	20893 F110
F095	C-056311	C-121-19001	E002	2047-06	4-0 N OF F5	6-6 W OF FA	N/A
F096	C-056312	C-131-05765	E004	2048-06	1-0 S OF F5	17-11 E OF FD	N/A
F097	C-056312	C-131-05765	E004	2048-06	F6	25-0 E OF FD	21490 F143
F098	C-056312	C-131-05765	E004	2048-06	1-0 S OF F5	25-0 E OF FD	N/A
F099	C-056411	C-121-19030	E006	2065-00	F3	4-0 E OF FD	20876 F044
F100	C-056411	C-121-19030	E006	2065-00	8-0 N OF F3	1-0 E OF FD	20876 F045

*JOINT	BETHTEL DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
F101	C-086411	C-121-19030	E006	2065-00	4-0 S OF F2	1-0 E OF FD	N/A
F102	C-086411	C-121-19030	E006	2065-00	4-2 N OF F2	1-0 E OF FD	N/A
F103	C-086411	C-121-19030	E006	2065-00	10-2 S OF F1	1-0 E OF FD	20876 F046
F104	C-086411	C-121-19030	E006	2065-00	2-0 S OF F1	1-0 E OF FD	N/A
F105	C-086511	C-121-19029	E005	2083-06	6-6 N OF F9	1-0 E OF FD	N/A
F106	C-086511	C-121-19029	E005	2083-06	2-6 S OF F6	1-0 E OF FD	N/A
F107	C-086511	C-121-19029	E005	2083-06	2-6 N OF F6	1-0 E OF FD	N/A
F108	C-086511	C-121-19029	E005	2083-06	9-0 N OF F6	1-0 E OF FD	N/A
F109	C-086511	C-121-19029	E005	2083-06	6-6 S OF F5	1-0 E OF FD	N/A
F110	C-086511	C-121-19029	E005	2083-06	2-6 N OF F5	1-0 E OF FD	N/A
F111	C-086511	C-121-19029	E005	2083-06	8-4 N OF F6	1-0 E OF FD	21104 F116
F112	C-086511	C-121-19029	E005	2083-06	5-10 S OF F4	1-0 E OF FD	N/A
F113	C-086511	C-121-19029	E005	2083-06	2-6 N OF F4	1-0 E OF FD	N/A
F114	C-086511	C-121-19029	E005	2083-06	8-4 H OF F4	1-0 E OF FD	N/A
F115	C-086511	C-121-19029	E005	2083-06	5-10 S OF F3	1-0 E OF FD	N/A
F116	C-086511	C-121-19029	E005	2083-06	2-6 N OF F3	1-0 E OF FD	N/A
F117	C-086511	C-121-19029	E005	2083-06	8-4 N OF F3	1-0 E OF FD	20946 F124
F118	C-086511	C-121-19029	E005	2083-06	5-10 S OF F2	1-0 E OF FD	N/A
F119	C-086511	C-121-19029	E005	2083-06	2-6 N OF F2	1-0 E OF FD	N/A
F120	C-086511	C-121-19029	E005	2083-06	9-2 N OF F2	1-0 E OF FD	N/A
F121	C-086511	C-121-19029	E005	2083-06	6-8 S OF F1	1-0 E OF FD	N/A
F122	C-086511	C-121-19029	E005	2083-06	6-6 N OF F7	5-3 E OF FD	N/A
F123	C-086511	C-121-19029	E005	2083-06	2-6 S OF F6	5-3 E OF FD	N/A
F124	C-086511	C-121-19029	E005	2083-06	2-6 N OF F6	5-3 E OF FD	N/A
F125	C-086511	C-121-19029	E005	2083-06	9-0 N OF F6	5-3 E OF FD	N/A
F126	C-086511	C-121-19029	E005	2083-06	6-6 S OF F5	5-3 E OF FD	N/A
F127	C-086511	C-121-19029	E005	2083-06	F5	5-3 E OF FD	N/A
F128	C-086511	C-121-19029	E005	2083-06	2-6 N OF F5	5-3 E OF FD	N/A
F129	C-086511	C-121-19029	E005	2083-06	8-4 N OF F5	5-3 E OF FD	N/A
F130	C-086511	C-121-19029	E005	2083-06	5-10 S OF F4	5-3 E OF FD	N/A
F131	C-086511	C-121-19029	E005	2083-06	F4	5-3 E OF FD	N/A
F132	C-086511	C-121-19029	E005	2083-06	2-6 N OF F4	5-3 E OF FD	N/A
F133	C-086511	C-121-19029	E005	2083-06	8-4 N OF F4	5-3 E OF FD	N/A
F134	C-086511	C-121-19029	E005	2083-06	5-10 S OF F3	5-3 E OF FD	N/A
F135	C-086511	C-121-19029	E005	2083-06	F3	5-3 E OF FD	N/A
F136	C-086511	C-121-19029	E005	2083-06	2-6 N OF F3	5-3 E OF FD	N/A
F137	C-086511	C-121-19029	E005	2083-06	8-4 N OF F3	5-3 E OF FD	N/A
F138	C-086511	C-121-19029	E005	2083-06	5-10 S OF F2	5-3 E OF FD	N/A
F139	C-086511	C-121-19029	E005	2083-06	F2	5-3 E OF FD	N/A
F140	C-086511	C-121-19029	E005	2083-06	2-6 N OF F2	5-3 E OF FD	N/A
F141	C-086511	C-121-19029	E005	2083-06	9-2 N OF F2	5-3 E OF FD	N/A
F142	C-086511	C-121-19029	E005	2083-06	6-8 S OF F1	5-3 E OF FD	N/A
F143	C-086511	C-121-19029	E005	2083-06	1-0 S OF F1	5-3 E OF FD	20946 F117/F118
F144	C-086511	C-121-19029	E005	2083-06	6-8 N OF F7	5-3 W OF FA	N/A
F145	C-086511	C-121-19029	E005	2083-06	2-6 S OF F6	5-3 W OF FA	20946 F119
F146	C-086511	C-121-19029	E005	2083-06	2-6 N OF F6	5-3 W OF FA	N/A
F147	C-086511	C-121-19029	E005	2083-06	9-0 N OF F6	5-3 W OF FA	N/A
F148	C-086511	C-121-19029	E005	2083-06	6-6 S OF F5	5-3 W OF FA	N/A
F149	C-086511	C-121-19029	E005	2083-06	F5	5-3 W OF FA	N/A
F150	C-086511	C-121-19029	E005	2083-06	2-6 N OF F5	5-3 W OF FA	N/A
F151	C-086511	C-121-19029	E005	2083-06	8-4 N OF F5	5-3 W OF FA	N/A

RECHTEL

* JOINT * DRAWING * ERECTION * DRAW * ELEVATION * LOCATION * NCR * EVALUATION NO.

F152	C-056511	C-121-19029	E005	2083-06	5-10 S OF F4	5-3 W OF FA	N/A	
F153	C-086511	C-121-19029	E005	2083-06	F4	5-3 W OF FA	N/A	
F154	C-056511	C-121-19029	E005	2083-06	2-6 N OF F4	5-3 W OF FA	20946	F120
F155	C-086511	C-121-19029	E005	2083-06	8-4 N OF F4	5-3 W OF FA	N/A	
F156	C-056511	C-121-19029	E005	2083-06	5-10 S OF F3	5-3 W OF FA	N/A	
F157	C-086511	C-121-19029	E005	2083-06	F3	5-3 W OF FA	N/A	
F158	C-056511	C-121-19029	E005	2083-06	2-6 N OF F3	5-3 W OF FA	N/A	
F159	C-086511	C-121-19029	E005	2083-06	8-4 N OF F3	5-3 W OF FA	N/A	
F160	C-056511	C-121-19029	E005	2083-06	F2	5-3 W OF FA	N/A	
F161	C-086511	C-121-19029	E005	2083-06	2-6 N OF F2	5-3 W OF FA	N/A	
F162	C-056511	C-121-19029	E005	2083-06	9-2 N OF F2	5-3 W OF FA	N/A	
F163	C-086511	C-121-19029	E005	2083-06	6-8 S OF F1	5-3 W OF FA	N/A	
F164	C-056511	C-121-19029	E005	2083-06	6-6 N OF F7	1-0 W OF FA	N/A	
F165	C-086511	C-121-19029	E005	2083-06	2-6 S OF F6	1-0 W OF FA	N/A	
F166	C-056511	C-121-19029	E005	2083-06	2-6 N OF F6	1-0 W OF FA	N/A	
F167	C-086511	C-121-19029	E005	2083-06	9-0 N OF F6	1-0 W OF FA	N/A	
F168	C-056511	C-121-19029	E005	2083-06	6-6 S OF F5	1-0 W OF FA	VOID	
F169	C-086511	C-121-19029	E005	2083-06	2-6 N OF F5	1-0 W OF FA	N/A	
F170	C-056511	C-121-19029	E005	2083-06	8-4 N OF F5	1-0 W OF FA	20946	F121
F171	C-086511	C-121-19029	E005	2083-06	5-10 S OF F4	1-0 W OF FA	N/A	
F172	C-056511	C-121-19029	E005	2083-06	2-6 N OF F4	1-0 W OF FA	N/A	
F173	C-086511	C-121-19029	E005	2083-06	8-4 N OF F4	1-0 W OF FA	N/A	
F174	C-056511	C-121-19029	E005	2083-06	5-10 S OF F3	1-0 W OF FA	N/A	
F175	C-086511	C-121-19029	E005	2083-06	2-6 N OF F3	1-0 W OF FA	N/A	
F176	C-056511	C-121-19029	E005	2083-06	8-4 N OF F3	1-0 W OF FA	N/A	
F177	C-086511	C-121-19029	E005	2083-06	5-10 S OF F2	1-0 W OF FA	N/A	
F178	C-056511	C-121-19029	E005	2083-06	2-6 N OF F2	1-0 W OF FA	N/A	
F179	C-086511	C-121-19029	E005	2083-06	9-2 N OF F2	1-0 W OF FA	20946	F122
F180	C-056511	C-121-19029	E005	2083-06	6-8 S OF F1	1-0 W OF FA	20946	F123
F181	C-086312	C-131-05765	E004	2048-06	1-6 N OF F6	3-4 E OF FD	F144	
F182	C-056312	C-131-05765	E004	2048-06	5-0 S OF F5	1-0 E OF FD	N/A	
F183	C-086312	C-131-05765	E004	2048-06	1-0 S OF F5	4-6 E OF FD	21490	F145
F184	C-056312	C-131-05765	E004	2048-06	1-0 S OF F5	5-10 E OF FD	21490	F146
F185	C-086312	C-131-05765	E004	2048-06	1-0 S OF F5	8-4 E OF FD	21490	F147
F186	C-056312	C-131-05765	E004	2048-06	1-0 S OF F5	8-4 E OF FD	N/A	
F187	C-086312	C-131-05765	E004	2048-06	F6	8-4 E OF FD	N/A	
F188	C-056312	C-131-05765	E004	2048-06	F6	10-10 E OF FD	N/A	
F189	C-086312	C-131-05765	E004	2048-06	F6	17-11 E OF FD	N/A	
F190	C-056005	C-121-19069	E007	2082-07	3-0 N OF F7	1-6 E OF FB	N/A	
F191	C-086005	C-121-19069	E007	2082-07	1-0 N OF F7	2-6 E OF FB	N/A	
F192	C-056005	C-121-19069	E007	2070-00	1-0 N OF F7	4-3 E OF FB	N/A	
F193	C-086005	C-121-19069	E007	2067-00	1-0 N OF F7	4-3 E OF FB	N/A	
F194	C-056005	C-121-19069	E007	2070-00	1-0 N OF F7	10-6 E OF FB	N/A	
F195	C-086005	C-121-19069	E007	2067-00	1-0 N OF F7	10-6 E OF FB	N/A	
F196	C-056411	C-131-05813	E014	2047-06	1-3 S OF F1	0-11 E OF FC	N/A	
F197	C-086411	C-131-05813	E014	2047-06	6-8 N OF F5	0-11 E OF FC	N/A	
F198	C-056411	C-131-05813	E014	2047-06	6-8 N OF F5	9-2 W OF FA	N/A	
FA	C-056211	C-121-19027	E003	2026-00	1-0 S OF F5	13-5 E OF FD	N/A	F007
FB	C-086211	C-121-19027	E003	2026-00	F3	4-0 E OF FB	N/A	F008
FC	C-056311	C-121-19001	E002	2047-06	1-0 N OF F7	14-8 W OF FB	N/A	F003/F006
FD	C-086311	C-121-19001	E002	2047-06	4-0 N OF F7	FB	N/A	F003/F004

SAME AS F025

STRUCTURAL JOINTS TRACKING

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*JOINT	BECHTEL DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
FE	C-056311	C-121-19001	E002	2047-06	8-9 S OF F1	1-0 E OF FD	20569 F001/F002
FF	C-056312	C-131-05785	E004	2048-06	1-0 S OF F5	10-10 E OF FD	20569 F009
FG01	C-056511	C-121-19029	E005	2083-06	1 S OF F1	5-3 E OF FD	N/A
FG02	C-056511	C-121-19029	E005	2083-06	2 S OF F1	5-3 E OF FD	N/A
FG03	C-056511	C-121-19029	E005	2083-06	3 S OF F1	5-3 E OF FD	N/A
FG04	C-056511	C-121-19029	E005	2083-06	4 S OF F1	5-3 E OF FD	N/A
FG05	C-056511	C-121-19029	E005	2083-06	5 S OF F1	5-3 E OF FD	N/A
FG06	C-056511	C-121-19029	E005	2083-06	6 S OF F1	5-3 E OF FD	N/A
FG07	C-056511	C-121-19029	E005	2083-06	7 S OF F1	5-3 E OF FD	N/A
FG08	C-056511	C-121-19029	E005	2083-06	8 S OF F1	5-3 E OF FD	N/A
FG09	C-056511	C-121-19029	E005	2083-06	9 S OF F1	5-3 E OF FD	N/A
FG10	C-056511	C-121-19029	E005	2083-06	10 S OF F1	5-3 E OF FD	N/A
FG11	C-056511	C-121-19029	E005	2083-06	11 S OF F1	5-3 E OF FD	N/A
FG12	C-056511	C-121-19029	E005	2083-06	12 S OF F1	5-3 E OF FD	N/A
FG13	C-056511	C-121-19029	E005	2083-06	13 S OF F1	5-3 E OF FD	21398 F136
FG14	C-056511	C-121-19029	E005	2083-06	14 S OF F1	5-3 E OF FD	N/A
FG15	C-056511	C-121-19029	E005	2083-06	15 S OF F1	5-3 E OF FD	N/A
FG16	C-056511	C-121-19029	E005	2083-06	16 S OF F1	5-3 E OF FD	N/A
FG17	C-056511	C-121-19029	E005	2083-06	17 S OF F1	5-3 E OF FD	21398 F137
FG18	C-056511	C-121-19029	E005	2083-06	18 S OF F1	5-3 E OF FD	N/A
FG19	C-056511	C-121-19029	E005	2083-06	19 S OF F1	5-3 E OF FD	21270 F128
FG20	C-056511	C-121-19029	E005	2083-06	20 S OF F1	5-3 E OF FD	21270 VOID
FG21	C-056511	C-121-19029	E005	2083-06	21 S OF F1	5-3 E OF FD	21270 F132
FG22	C-056511	C-121-19029	E005	2083-06	22 S OF F1	5-3 E OF FD	21398 N/A
FG23	C-056511	C-121-19029	E005	2083-06	23 S OF F1	5-3 E OF FD	VOID
FG24	C-056511	C-121-19029	E005	2083-06	24 S OF F1	5-3 E OF FD	N/A
FG25	C-056511	C-121-19029	E005	2083-06	25 S OF F1	5-3 E OF FD	N/A
FG26	C-056511	C-121-19029	E005	2083-06	26 S OF F1	5-3 E OF FD	N/A
FG27	C-056511	C-121-19029	E005	2083-06	27 S OF F1	5-3 E OF FD	N/A
FG28	C-056511	C-121-19029	E005	2083-06	28 S OF F1	5-3 E OF FD	N/A
FG29	C-056511	C-121-19029	E005	2083-06	29 S OF F1	5-3 E OF FD	N/A
FG30	C-056511	C-121-19029	E005	2083-06	30 S OF F1	5-3 E OF FD	N/A
FG31	C-056511	C-121-19029	E005	2083-06	31 S OF F1	5-3 E OF FD	N/A
FG32	C-056511	C-121-19029	E005	2083-06	32 S OF F1	5-3 E OF FD	N/A
FG33	C-056511	C-121-19029	E005	2083-06	33 S OF F1	5-3 E OF FD	N/A
FG34	C-056511	C-121-19029	E005	2083-06	34 S OF F1	5-3 E OF FD	N/A
FG35	C-056511	C-121-19029	E005	2083-06	35 S OF F1	5-3 E OF FD	N/A
FG36	C-056511	C-121-19029	E005	2083-06	36 S OF F1	5-3 E OF FD	N/A
FG37	C-056511	C-121-19029	E005	2083-06	37 S OF F1	5-3 E OF FD	N/A
FG38	C-056511	C-121-19029	E005	2083-06	38 S OF F1	5-3 E OF FD	N/A
FG39	C-056511	C-121-19029	E005	2083-06	39 S OF F1	5-3 E OF FD	N/A
FG40	C-056511	C-121-19029	E005	2083-06	40 S OF F1	5-3 E OF FD	N/A
FG41	C-056511	C-121-19029	E005	2083-06	1 S OF F1	5-3 W OF FA	N/A
FG42	C-056511	C-121-19029	E005	2083-06	2 S OF F1	5-3 W OF FA	N/A
FG43	C-056511	C-121-19029	E005	2083-06	3 S OF F1	5-3 W OF FA	21270 F129
FG44	C-056511	C-121-19029	E005	2083-06	4 S OF F1	5-3 W OF FA	21270 F130
FG45	C-056511	C-121-19029	E005	2083-06	5 S OF F1	5-3 W OF FA	21270 F134
FG46	C-056511	C-121-19029	E005	2083-06	6 S OF F1	5-3 W OF FA	21270 F133
FG47	C-056511	C-121-19029	E005	2083-06	7 S OF F1	5-3 W OF FA	21270 F135
FG48	C-056511	C-121-19029	E005	2083-06	8 S OF F1	5-3 W OF FA	N/A
FG49	C-056511	C-121-19029	E005	2083-06	9 S OF F1	5-3 W OF FA	N/A

SAME AS F031

SAME AS F030

STRUCTURAL JOINTS TRACKING

E004530

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*JOINT	SECRET DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	NCR	EVALUATION NO.
FG50	C-086511	C-121-19029	E005	2083-06	10 S OF F1	5-3 W OF FA	N/A
FG51	C-086511	C-121-19029	E005	2083-06	11 S OF F1	5-3 W OF FA	N/A
FG52	C-086511	C-121-19029	E005	2083-06	12 S OF F1	5-3 W OF FA	N/A
FG53	C-086511	C-121-19029	E005	2083-06	13 S OF F1	5-3 W OF FA	N/A
FG54	C-086511	C-121-19029	E005	2083-06	14 S OF F1	5-3 W OF FA	N/A
FG55	C-086511	C-121-19029	E005	2083-06	15 S OF F1	5-3 W OF FA	N/A
FG56	C-086511	C-121-19029	E005	2083-06	16 S OF F1	5-3 W OF FA	21398 F139
FG57	C-086511	C-121-19029	E005	2083-06	17 S OF F1	5-3 W OF FA	21398 F140
FG58	C-086511	C-121-19029	E005	2083-06	18 S OF F1	5-3 W OF FA	21398 F141
FG59	C-086511	C-121-19029	E005	2083-06	19 S OF F1	5-3 W OF FA	N/A
FG60	C-086511	C-121-19029	E005	2083-06	20 S OF F1	5-3 W OF FA	N/A
FG61	C-086511	C-121-19029	E005	2083-06	21 S OF F1	5-3 W OF FA	N/A
FG62	C-086511	C-121-19029	E005	2083-06	22 S OF F1	5-3 W OF FA	N/A
FG63	C-086511	C-121-19029	E005	2083-06	23 S OF F1	5-3 W OF FA	N/A
FG64	C-086511	C-121-19029	E005	2083-06	24 S OF F1	5-3 W OF FA	N/A
FG65	C-086511	C-121-19029	E005	2083-06	25 S OF F1	5-3 W OF FA	N/A
FG66	C-086511	C-121-19029	E005	2083-06	26 S OF F1	5-3 W OF FA	N/A
FG67	C-086511	C-121-19029	E005	2083-06	27 S OF F1	5-3 W OF FA	N/A
FG68	C-086511	C-121-19029	E005	2083-06	28 S OF F1	5-3 W OF FA	N/A
FG69	C-086511	C-121-19029	E005	2083-06	29 S OF F1	5-3 W OF FA	N/A
FG70	C-086511	C-121-19029	E005	2083-06	30 S OF F1	5-3 W OF FA	N/A
FG71	C-086511	C-121-19029	E005	2083-06	31 S OF F1	5-3 W OF FA	N/A
FG72	C-086511	C-121-19029	E005	2083-06	32 S OF F1	5-3 W OF FA	N/A
FG73	C-086511	C-121-19029	E005	2083-06	33 S OF F1	5-3 W OF FA	N/A
FG74	C-086511	C-121-19029	E005	2083-06	34 S OF F1	5-3 W OF FA	N/A
FG75	C-086511	C-121-19029	E005	2083-06	35 S OF F1	5-3 W OF FA	N/A
FG76	C-086511	C-121-19029	E005	2083-06	36 S OF F1	5-3 W OF FA	N/A
FG77	C-086511	C-121-19029	E005	2083-06	37 S OF F1	5-3 W OF FA	N/A
FG78	C-086511	C-121-19029	E005	2083-06	38 S OF F1	5-3 W OF FA	N/A
FG79	C-086511	C-121-19029	E005	2083-06	39 S OF F1	5-3 W OF FA	N/A

..... END REPORT

*JOINT	DRAWING	ERECTION	DRAW	ELEVATION	LOCATION	MCR	EVALUATION NO.
P001	C-KS301	C-131-05381	E4	2000-00		20989	P001
P002	C-KS301	C-131-05381	E4	2000-00			N/A
P003	C-KS301	C-131-05381	E4	2000-00			N/A
P004	C-KS301	C-131-05381	E4	2000-00			N/A
F005	C-KS301	C-131-05381	E4	2000-00			N/A
F006	C-KS301	C-131-05381	E4	2000-00			N/A
F007	C-KS301	C-131-05381	E4	2000-00		20990	P002
F008	C-KS301	C-131-05381	E4	2000-00		20989	P003
F009	C-KS301	C-131-05381	E4	2000-00		20989	P004
F010	C-KS301	C-131-05381	E4	2000-00			N/A
F011	C-KS301	C-131-05381	E4	2000-00			N/A
F012	C-KS301	C-131-05381	E4	2000-00			N/A
F013	C-KS301	C-131-05381	E4	2000-00		20989	P005
F014	C-KS301	C-131-05412	E201	2000-00		20987	P006
F015	C-KS301	C-131-05412	E201	2000-00		20987	P007
F016	C-KS301	C-131-05412	E201	2000-00		20987	P008
F017	C-KS301	C-131-05381	E4	2000-00		20988	P009
F018	C-KS301	C-131-05381	E4	2000-00		21341	P010
F019	C-KS301	C-131-05381	E4	2000-00		21341	P011
F020	C-KS301	C-131-05381	E4	2000-00		21341	P012
F021	C-KS301	C-131-05412	E201	2000-00		21341	P013
F022	C-KS301	C-131-05412	E201	2000-00		21340	P014
F023	C-KS301	C-131-05382	E5	2009-00		21340	P015
F024	C-KS301	C-131-05382	E5	2005-08		21339	P016
F025	C-KS301	C-131-05382	E5	2009-00		21339	P017/P018
F026	C-KS301	C-131-05382	E5	2009-00		21339	P019
F027	C-KS301	C-131-05382	E5	2005-08		21339	P020
F028	C-KS301	C-131-05382	E5	2009-00		21339	P021
F029	C-KS301	C-131-05382	E5	2009-00		21339	P022
F030	C-KS301	C-131-05382	E5	2005-08		21339	P023
FA	C-KS301	C-131-05381	E4	2000-00		21339	P024
PB	C-KS301	C-131-05381	E4	2000-00			N/A
PC	C-KS301	C-131-05381	E4	2000-00			N/A
PD	C-KS301	C-131-05381	E4	2000-00			N/A
PE	C-KS301	C-131-05412	E201	2000-00			N/A
PF	C-KS301	C-131-05412	E201	2000-00			N/A

..... END REPORT

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 * BUILDING . BECHTEL ID . VENDOR ID . AWS WELDING REPORT
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BUILDING	BECHTEL ID	VENDOR ID
AUXILIARY	* C-121-00007	K6720-0-E301
AUXILIARY	C-121-00010	K6720-0-E001
AUXILIARY	C-121-00011	K6720-0-E003
AUXILIARY	* C-121-00034	K6720-0-E103
AUXILIARY	C-121-00037	K6720-0-E108
AUXILIARY	C-121-00110	K6720-0-E109
AUXILIARY	* C-121-00127	K6720-0-E111
AUXILIARY	* C-121-00128	K6720-0-E112
AUXILIARY	* C-121-00130	K6720-0-E203
AUXILIARY	* C-121-00165	K6720-0-E205
AUXILIARY	* C-121-00274	K6720-0-E403
AUXILIARY	C-121-00494	K6720-0-E1111
AUXILIARY	C-121-00495	K6720-0-E1121
AUXILIARY	C-121-00496	K6720-0-E1131
AUXILIARY	C-121-00497	K6720-0-E1141
AUXILIARY	C-121-00498	K6720-0-E1151
AUXILIARY	C-121-00549	K6720-0-E302
AUXILIARY	C-121-00581	K6710-0-E107
AUXILIARY	* C-121-00617	K6710-0-E206
AUXILIARY	C-121-00621	K6710-0-E209
AUXILIARY	* C-121-00627	K6710-0-E402
AUXILIARY	* C-121-00629	K6710-0-E502
AUXILIARY	C-121-00682	K6710-0-E405
AUXILIARY	C-121-00686	K6710-0-E503
AUXILIARY	C-121-00878	K6710-1-FW301
AUXILIARY	C-121-00880	K6720-0-E303
AUXILIARY	C-121-00881	K6720-0-E304
AUXILIARY	C-121-00883	K6720-0-E307
AUXILIARY	* C-121-00912	K6710-1-E401
AUXILIARY	C-121-00913	K6720-0-E701
AUXILIARY	C-121-00933	K6720-0-E703
AUXILIARY	* C-121-00934	K6720-0-E704
AUXILIARY	* C-121-00961	K6710-1-FW312
AUXILIARY	* C-121-00962	K6710-1-FW313
AUXILIARY	C-121-00963	K6710-1-FW314
AUXILIARY	C-121-00969	K6710-1-E101
AUXILIARY	C-121-00970	K6710-1-E102
AUXILIARY	* C-121-00971	K6710-1-E105
AUXILIARY	* C-121-00973	K6710-1-E201
AUXILIARY	* C-121-00976	K6710-1-E202
AUXILIARY	* C-121-00978	K6710-1-E208
AUXILIARY	* C-121-00980	K6710-1-E211
AUXILIARY	C-121-00982	K6710-1-E504
AUXILIARY	* C-121-01549	K6710-1-E302
AUXILIARY	* C-121-01561	K6710-1-FW315
AUXILIARY	C-121-01562	K6710-1-FW316
AUXILIARY	C-121-01563	K6710-1-FW317
AUXILIARY	C-121-01568	K6720-0-E308
AUXILIARY	C-121-01619	K6710-1-FW318

* Structurally significant joints identified on drawing with asterisk.

* BUILDING	* BECHTEL ID	* VENDOR ID
AUXILIARY	C-121-01620	K6710-1-FW819
AUXILIARY	* C-121-01621	K6710-1-FW820
AUXILIARY	* C-121-01622	K6710-1-FW821
AUXILIARY	* C-121-01634	K6710-1-E104
AUXILIARY	* C-121-01635	K6710-1-E204
AUXILIARY	* C-121-01636	K6710-1-E501
AUXILIARY	C-121-01631	K6710-1-FW822
AUXILIARY	* C-121-01683	K6720-0-E809
AUXILIARY	* C-121-01685	K6710-1-E301
AUXILIARY	C-121-01691	K6710-1-FW823
AUXILIARY	C-121-01692	K6710-1-FW829
AUXILIARY	* C-121-01700	K6710-1-E106
AUXILIARY	C-121-01701	K6710-1-E302
AUXILIARY	* C-121-01773	K6710-1-FW824
AUXILIARY	* C-121-01776	K6710-1-FW825
AUXILIARY	C-121-01779	K6710-1-FW826
AUXILIARY	* C-121-01780	K6710-1-FW827
AUXILIARY	C-121-01783	K6710-1-FW830
AUXILIARY	* C-121-01786	K6710-1-E207
AUXILIARY	* C-121-01789	K6710-1-E210
AUXILIARY	* C-121-01790	K6720-0-E811
AUXILIARY	C-121-01818	K6720-0-E812
AUXILIARY	C-121-01824	K6710-1-E806
AUXILIARY	* C-121-01871	K6710-1-E110
AUXILIARY	C-121-01874	K6710-1-FW837
AUXILIARY	* C-121-01883	K6710-1-FW838
AUXILIARY	* C-121-01884	K6720X1-0-E601
AUXILIARY	* C-121-01885	K6720X1-0-E602
AUXILIARY	* C-121-01886	K6720X1-0-FW1
AUXILIARY	* C-121-01887	K6720X1-0-FW2
AUXILIARY	* C-121-01929	K6710-1-E404
AUXILIARY	C-121-01939	K6720X1-0-FW3
AUXILIARY	C-121-01940	K6720X1-0-FW4
AUXILIARY	* C-121-01945	K6720-0-FW839
AUXILIARY	C-121-01947	K6720-0-E804
AUXILIARY	* C-121-01976	K6710-1-FW841
AUXILIARY	C-121-01980	K6720X4-0-FW12
AUXILIARY	C-121-10356	K6710-1-FW832
AUXILIARY	* C-121-10639	K6710-1-FW833
AUXILIARY	C-121-10645	K6710-1-FW831
AUXILIARY	* C-121-10657	K6710-1-FW834
AUXILIARY	* C-121-10675	K6710-1-E702
AUXILIARY	C-121-10725	K6710-0-E802
AUXILIARY	C-121-10728	K6710-1-FW835
AUXILIARY	* C-121-10731	K6710-1-E705
AUXILIARY	C-121-10739	K6710-1-FW836
AUXILIARY	C-121-12007	K6720-0-FW840
AUXILIARY	C-121-12010	K6720-0-FW101
AUXILIARY	C-121-12019	K6720X2-0-FW1
AUXILIARY	* C-121-12026	K6720X3-0-E706
AUXILIARY	* C-121-12027	K6720X3-0-E707

* BUILDING	. BECHTEL ID	. VENDOR ID
AUXILIARY	C-121-12043	K6720X3-0-E708
AUXILIARY	C-131-05412	M-412A-E201
AUXILIARY	C-131-05413	M-412A-E202
AUXILIARY	C-131-05482	M-312B-E104
AUXILIARY	C-131-05579	M-312B-E106
AUXILIARY	C-131-05725	M-312B-E109
AUXILIARY	C-131-05730	M-E1
AUXILIARY	* C-131-05794	58-E1
AUXILIARY	* C-131-05798	31-E2
AUXILIARY	* C-131-05799	31-E3

..... END REPORT

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* BUILDING . BECHTEL ID . VENDOR ID . AWS WELDING REPORT
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REACTOR	* C-0X2901	
REACTOR	* C-0X2902	
REACTOR	C-0X2903	
REACTOR	* C-0X2904	
REACTOR	* C-0X2905	
REACTOR	C-0X2906	
REACTOR	C-0X2907	
REACTOR	C-0X2908	
REACTOR	C-0X2909	
REACTOR	C-0X2910	
REACTOR	C-0X2911	
REACTOR	* C-0X2912	
REACTOR	C-0X2913	
REACTOR	* C-0X2914	
REACTOR	C-0X2915	
REACTOR	C-0X2916	
REACTOR	* C-0X2917	
REACTOR	C-0X2918	
REACTOR	C-0X2919	
REACTOR	C-0X2920	
REACTOR	C-0X2921	
REACTOR	C-0X2922	
REACTOR	C-0X2923	
REACTOR	C-0X2924	
REACTOR	* C-1X2925	
REACTOR	C-1X2950	
REACTOR	C-0X8902	
REACTOR	C-0X8903	
REACTOR	C-0X8904	
REACTOR	C-0X8905	
REACTOR	C-0X8906	
REACTOR	C-0X8907	
REACTOR	C-121-08081	K6724-0-E115
REACTOR	C-121-08082	K6724-0-E112
REACTOR	C-121-08083	K6724-0-E113
REACTOR	C-121-08122	K6724-0-E116
REACTOR	C-121-08302	K6724-0-E119
REACTOR	* C-121-08355	K6724-0-E122
REACTOR	* C-121-08360	K6724-0-E117
REACTOR	* C-121-08361	K6724-0-E121
REACTOR	* C-121-08362	K6724-0-E123
REACTOR	* C-121-08367	K6724-0-E120
REACTOR	C-121-08379	K6724-0-E105A
REACTOR	* C-121-08504	K6714-0-E101
REACTOR	* C-121-08506	K6714-0-E102
REACTOR	* C-121-08510	K6714-0-E104
REACTOR	* C-121-08523	K6714-0-E111
REACTOR	* C-121-08543	K6724-0-E124
REACTOR	* C-121-08549	K6724-0-E601

* BUILDING	* BECHTEL ID	* VENDOR ID
REACTOR	C-121-08562	K6724-0-E106A
REACTOR	C-121-08572	K6714-0-E114
REACTOR	* C-121-08576	K6714-0-E108
REACTOR	* C-121-08577	K6714-0-E106
REACTOR	C-121-08621	K6714-0-E118
REACTOR	* C-121-08625	K6714-0-E110
REACTOR	C-121-08741	K6714-1-FW602
REACTOR	* C-121-08752	K6724-0-E602
REACTOR	* C-121-08753	K6724-0-E603
REACTOR	* C-121-08772	K6724-0-E608
REACTOR	* C-121-08773	K6724-0-E609
REACTOR	* C-121-08786	K6724-0-E604
REACTOR	* C-121-08787	K6724-0-E605
REACTOR	C-121-08815	K6724X2-0-FW401
REACTOR	* C-121-08846	K6724-0-E606
REACTOR	C-121-08847	K6724-0-E607
REACTOR	C-121-08896	K6714-1-FW200
REACTOR	C-121-08897	K6714-1-FW204
REACTOR	* C-121-08909	K6714-1-E105
REACTOR	* C-121-08912	K6714-1-E107
REACTOR	* C-121-08950	K6724-0-E501
REACTOR	* C-121-08982	K6724X5-0-E610
REACTOR	C-121-08997	K6724X2-0-FW2
REACTOR	* C-121-08999	K6724X2-0-FW1
REACTOR	* C-121-13001	K6714-1-E103
REACTOR	* C-121-13017	K6724-0-FW205
REACTOR	C-121-13052	K6724X6-0-E126
REACTOR	C-121-13060	K6724X6-0-FW1
REACTOR	* C-121-13069	K6724X2-0-E125
REACTOR	C-121-13070	K6724X2-0-FW3
REACTOR	* C-121-13093	K6714-1-E109
REACTOR	* C-121-13098	K6724X7-0-FW301
REACTOR	* C-121-13099	K6724X7-0-FW302
REACTOR	C-121-13119	K6724X7-0-FW303
REACTOR	C-121-13120	K6724X7-0-FW101
REACTOR	C-121-13241	K6724X9-0-FW11
REACTOR	C-121-13242	K6724X9-0-E611
REACTOR	* C-121-13258	K6724X11-0-FW14
REACTOR	C-121-13259	K6724X11-0-FW15
REACTOR	* C-121-13265	K6724X11-0-FW13
REACTOR	C-121-19096	K6724X10-0-FW12
REACTOR	C-131-05649	M-36-E1
REACTOR	C-131-05650	M-36-E2
REACTOR	C-131-05651	M-36-E3
REACTOR	C-131-05652	M-36-E4
REACTOR	* C-131-05666	E1
REACTOR	C-131-05671	E2
REACTOR	C-131-05672	E3
REACTOR	C-131-05712	M-36-E5
REACTOR	C-131-05732	M-24-E1
REACTOR	* C-131-05734	M-36-E6

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* BUILDING : BECHTEL ID : VENDOR ID . AWS WELDING REPORT
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REACTOR	* C-131-05743	E12
REACTOR	* C-131-05759	E13
REACTOR	* C-131-05800	31-E4
REACTOR	C-131-05809	M-19-E2

..... END REPORT

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* BUILDING . BECHTEL ID . VENDOR ID . AWS WELDING REPORT
* APPENDIX B, PAGE 7
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CONTROL	C-121-01053	K6721-0-E10
CONTROL	C-121-01272	K6721-0-E11
CONTROL	C-121-01311	K6711-1-FW24
CONTROL	C-121-01312	K6711-1-FW25
CONTROL	C-121-01313	K6711-1-FW26
CONTROL	C-121-01314	K6711-1-FW27
CONTROL	C-121-01315	K6711-1-FW28
CONTROL	C-121-01316	K6711-1-FW44
CONTROL	C-121-01317	K6711-1-FW45
CONTROL	C-121-01318	K6711-1-FW46
CONTROL	C-121-01319	K6711-1-FW47
CONTROL	C-121-01320	K6711-1-FW49
CONTROL	C-121-01321	K6711-1-FW52
CONTROL	C-121-01322	K6711-1-FW53
CONTROL	C-121-01323	K6711-1-FW54
CONTROL	C-121-01324	K6711-1-FW55
CONTROL	C-121-01325	K6711-1-FW56
CONTROL	C-121-01326	K6711-1-FW57
CONTROL	C-121-01327	K6711-1-FW58
CONTROL	C-121-01328	K6711-1-FW59
CONTROL	C-121-01329	K6711-1-FW60
CONTROL	C-121-01330	K6711-1-FW62
CONTROL	C-121-01331	K6711-1-FW63
CONTROL	C-121-01332	K6711-1-FW65
CONTROL	C-121-01333	K6711-1-FW66
CONTROL	C-121-01334	K6711-1-FW77
CONTROL	* C-121-01408	K6711-1-E2
CONTROL	* C-121-01411	K6711-1-E3
CONTROL	* C-121-01414	K6711-1-E4
CONTROL	* C-121-01417	K6711-1-E5
CONTROL	* C-121-01420	K6711-1-E6
CONTROL	* C-121-01426	K6711-1-E1
CONTROL	C-121-01428	K6711-1-FW17
CONTROL	C-121-01430	K6711-1-FW19
CONTROL	C-121-01434	K6711-1-E9
CONTROL	* C-121-01484	K6711X1-1-E12
CONTROL	* C-121-01485	K6711X1-1-E13
CONTROL	* C-121-09015	K6711-1-E7
CONTROL	C-121-09023	K6711-1-E8
CONTROL	* C-131-05505	48-E7
CONTROL	C-131-05684	M-128-E107

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* BUILDING . BECHTEL ID . VENDOR ID . AWS WELDING REPORT
* APPENDIX B, PAGE 8

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DIESEL GEN.	C-121-08387	K6726-0-E1
DIESEL GEN.	C-121-08391	K6726-0-E5
DIESEL GEN.	* C-121-08331	K6716-1-E3
DIESEL GEN.	* C-121-08840	K6726X2-0-E8
DIESEL GEN.	* C-121-08861	K6716X3-0-E9
DIESEL GEN.	* C-121-08899	K6726X1-0-E6
DIESEL GEN.	* C-121-08900	K6726X1-0-E7
DIESEL GEN.	* C-121-08958	K6716-1-E2
DIESEL GEN.	C-121-08959	K6716-1-FW1
DIESEL GEN.	* C-121-13249	K6716-1-E4

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11 DEC 84 BECHTEL

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* BUILDING . BECHTEL ID . VENDOR ID . AWS WELDING REPORT
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FUEL	* C-121-05765	E4
FUEL	* C-121-05813	E14
FUEL	C-121-05821	M-19-E3
FUEL	C-121-19028	K6728-0-E4
FUEL	* C-121-19029	K6728-0-E5
FUEL	* C-121-19030	K6728-0-E6
FUEL	C-121-19032	K6728-0-E8
FUEL	C-121-19066	K6728X2-0-E10
FUEL	* C-121-19078	K6728X4-0-E10
FUEL	C-131-19000	K6728-0-E1
FUEL	* C-131-19001	K6728-0-E2
FUEL	* C-131-19027	K6728-0-E3
FUEL	* C-131-19069	K6718-1-E7

..... END REPORT

* FIELD FABRICATION REQUEST

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* BUILDING . NUMBER . DATE .

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BUILDING	NUMBER	DATE
REACTOR	RB0046	11-26-79
AUXILIARY	0556	11-03-82
REACTOR	RB0135	01-24-80
AUXILIARY	0030	02-14-79
AUXILIARY	0504	08-04-82
AUXILIARY	0503	08-04-82
AUXILIARY	0506	08-04-82
REACTOR	RB0006	09-10-79
REACTOR	RB1037	08-03-83
	0420	11-11-81
FUEL	F0073	01-18-82
REACTOR	RB0437	02-23-81
REACTOR	RB0671	04-27-82
REACTOR	RB0464	04-07-81
REACTOR	RB1019	07-13-83
FUEL	F0114	03-20-84
FUEL	F0091	11-10-82
REACTOR	RB0919	03-14-83
REACTOR	RB0717	07-13-82
REACTOR	RB1779	10-12-84
REACTOR		04-22-78
REACTOR	RB0842	11-18-82
REACTOR	RB0153	02-07-80
REACTOR	RB1351	02-06-84
REACTOR	RB0437	02-23-81
REACTOR	RB0360	11-18-80
REACTOR	RB0065	12-20-79
REACTOR	RB0135	01-24-80
ESWS	0012	02-25-82
DIESEL	D0012	02-26-79
	0010	06-03-80
FUEL	F0014	08-19-80
REACTOR	RB0065	12-20-79
REACTOR	RB0391	12-23-80
REACTOR	RB0623	02-24-82
REACTOR	RB0376	12-08-80
REACTOR	RB0360	11-18-80
AUXILIARY		08-10-78
AUXILIARY	N/A	08-15-78
AUXILIARY	0028	12-13-78
RADWASTE	RW0037	02-24-81
FUEL	F0020	10-27-80
FUEL	F0050	03-04-81
AUXILIARY	0697	10-03-83
AUXILIARY	0823	05-19-84
	0791	04-28-84
AUXILIARY	0901	08-24-84
ESWS	0029	09-17-84
DIESEL	0798	05-01-84

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FIELD FABRICATION REQUEST

AWS WELDING REPORT

BUILDING NUMBER DATE

APPENDIX C, PAGE 2

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ESWS	0031	09-23-84
ESWS	0028	09-17-84
ESWS	0030	09-17-84
REACTOR	RB0431	02-16-84
AUXILIARY	0451	02-15-82
AUXILIARY	0452	02-23-82
REACTOR	RB1133	11-22-83
CONTROL	0899	08-21-84
REACTOR	RB1112	11-14-83
REACTOR	RB1073	09-13-83
REACTOR	RB0928	03-31-83
REACTOR	RB0925	04-28-83
REACTOR	RB0853	01-25-83
REACTOR	RB0853	03-01-83
AUXILIARY	0646	05-26-83
FUEL	F0099	05-09-83
REACTOR	RB0970	05-04-83
REACTOR	RB0965	04-28-83
REACTOR	RB0952	04-18-83
REACTOR	RB0951	04-18-83
REACTOR	RB0941	04-13-83
REACTOR	RB0937	04-11-83
AUXILIARY	0630	03-30-83
REACTOR	RB0906	03-07-83
REACTOR	RB0900	02-28-83
REACTOR	RB0888	02-10-83
REACTOR	RB0894	02-16-83
AUXILIARY	0645	05-24-83
REACTOR	RB0982	05-17-83
REACTOR	RB0978	05-12-83
TURBINE	0491	06-03-82
AUXILIARY	0493	06-16-82
CONTROL	0493	06-16-82
REACTOR	RB0695	06-07-82
REACTOR	RB0716	07-09-82
RADWASTE	RW0042	07-15-82
REACTOR	RB0723	07-19-82
REACTOR	RB0721	07-19-82
REACTOR	RB0725	07-21-82
REACTOR	RB0729	07-29-82
AUXILIARY	0500	08-02-82
FUEL	F0109	11-14-83
AUXILIARY	0700	10-10-83
REACTOR	RB1086	09-28-83
AUXILIARY	0703	10-17-83
REACTOR	RB1058	08-25-83
REACTOR	RB0875	01-26-83
REACTOR	RB1061	08-29-83
REACTOR	RB1036	08-03-83
REACTOR	RB1034	08-03-83
AUXILIARY	0670	07-29-83

FIELD FABRICATION REQUEST

BUILDING . . . NUMBER . . . DATE . . .

BUILDING	NUMBER	DATE
	0487	05-13-82
AUXILIARY	0437	01-20-82
AUXILIARY	0436	01-20-82
REACTOR	RB0606	01-27-82
REACTOR	RB0617	02-10-82
AUXILIARY	0471	04-14-82
AUXILIARY	0472	04-14-82
REACTOR	RB0654	04-12-82
REACTOR	RB0646	08-30-82
REACTOR	RB0637	03-23-82
REACTOR	RB0639	03-23-82
REACTOR	RB0638	03-23-82
AUXILIARY	0458	02-25-82
AUXILIARY	0457	02-24-82
REACTOR	RB0620	02-17-82
FUEL	R0081	04-22-82
REACTOR	RB0676	05-04-82
RADWASTE	RW0003	03-27-79
REACTOR	R0005	10-24-78
REACTOR	R0001	09-07-78
REACTOR	R0002	09-07-78
REACTOR	RB0601	01-18-82
REACTOR	RB0602	01-19-83
AUXILIARY	0046	05-14-79
REACTOR	RB0618	02-16-82
REACTOR	RB0619	02-17-82
FUEL	F0076	03-04-82
REACTOR	RB0628	03-01-82
REACTOR	RB0616	02-10-82
FUEL	F0069	10-19-81
	0409	09-28-81
REACTOR	RB0498	06-16-81
REACTOR	RB0482	05-21-81
REACTOR	RB0466	05-04-81
RADWASTE	RW0038	04-01-81
REACTOR	RB0446	03-10-81
REACTOR	RB0446	03-03-81
REACTOR	RB0427	02-10-81
FUEL	F0045	02-09-81
REACTOR	RB0377	12-09-80
REACTOR	RB0366	11-24-80
REACTOR	RB0367	11-24-80
REACTOR	RB0335	10-27-80
REACTOR	RB0337	10-29-80
AUXILIARY	0119	12-26-79
REACTOR	RB0371	12-02-80
REACTOR	RB0370	12-02-80
REACTOR	RB0373	12-03-80
REACTOR	RB0022	10-16-79
REACTOR	RB0020	10-10-79
REACTOR	RB0573	11-04-81

FIELD FABRICATION REQUEST

* BUILDING . . . NUMBER . . . DATE . . .

REACTPR	RB0562	10-26-81
REACTOR	RB0798	09-30-82
REACTOR	RB0792	10-04-82
REACTOR	RB0795	10-05-82
CONTROL	0550	10-14-82
REACTOR	RB0803	10-15-82
REACTOR	RB0789	09-23-82
	0536	09-21-82
AUXILIARY	0513	09-08-82
	0022	08-23-82
REACTOR	RB0745	08-11-82
FUEL	F0090	11-02-82
REACTOR	R0003	10-03-78
REACTOR	RB1414	04-17-84
AUXILIARY	0665	07-12-83
AUXILIARY	0667	07-18-83
ESWS	0004	01-20-82
CORRIDOR	0673	08-09-83
AUXILIARY	0442	02-02-82
REACTOR	RB0507	06-27-81
AUXILIARY	0384	05-12-81
FUEL	F0043	02-02-81
FUEL	F0042	01-29-81
CONTROL	0320	01-29-81
CONTROL	0289	10-22-80
CONTROL	0288	10-21-80
	0280	10-13-80
CONTROL	0260	09-16-80
AUXILIARY	0257	09-10-80
REACTOR	RB0318	09-10-80
FUEL	F0016	09-03-80
CONTROL	0239	03-05-80
	0139	02-07-80
AUXILIARY	0122	01-09-80
	0097	10-25-79
DIESEL	0094	10-10-79
AUXILIARY	0066	08-04-79
AUXILIARY	0053	06-25-79
	0051	06-11-79
	0025	12-04-78
	0012	09-14-78
AUXILIARY	A0002	06-29-82
CONTROL	C0056	07-12-83
REACTOR	RB0822	04-25-83
REACTOR	RB0822	03-23-83
REACTOR	RB0929	03-31-83
REACTOR	RB0821	01-31-83
REACTOR	RB0853	02-03-83
REACTOR	RB0924	03-17-83
REACTOR	RB0821	01-31-83
REACTOR	RB0924	09-07-83

FIELD FABRICATION REQUEST

AWS WELDING REPORT
APPENDIX C, PAGE 5

* BUILDING . NUMBER . DATE .

BUILDING	NUMBER	DATE
REACTOR	RB0924	09-06-83
AUXILIARY	A0153	08-11-83
REACTOR	RB1133	11-22-83
REACTOR	RB0742	08-11-82
	B0018	06-28-82
	0450	02-15-82
	0013	10-05-78
DIESEL	D0322	08-06-79
FUEL	F0068	10-01-81
REACTOR	RB0822	11-18-82
REACTOR	RB0822	12-02-82
REACTOR	1374	04-11-84
REACTOR	RB0244	05-05-80
REACTOR	RB0353	01-13-83
REACTOR	RB1619	06-01-84
AUXILIARY	A0169	06-25-84
DIESEL	0155	03-03-80
DIESEL	0144	02-19-80
FUEL	F0093	11-29-82
REACTOR	RB0089	01-03-80
FUEL	F0019	10-20-80
FUEL	F0015	09-02-80
FUEL	F0013	08-05-80
FUEL	F0010	07-23-80
SITE	RVH0002	12-21-81
REACTOR	RB0271	06-10-80
REACTOR	RB0272	06-10-80
REACTOR	RB0923	03-17-83
AUXILIARY	0555	11-03-82
AUXILIARY	0557	11-04-82
AUXILIARY	0559	11-08-82
AUXILIARY	0560	11-11-82
AUXILIARY	0565	12-02-82
REACTOR	RB0583	12-01-81
AUXILIARY	0584	01-10-83
AUXILIARY	0585	01-10-83
AUXILIARY	0593	01-17-83
AUXILIARY	0744	01-30-84
REACTOR	RB0857	12-21-82
REACTOR	RB1312	03-22-84
REACTOR	RB1652	06-08-84
REACTOR	RB1671	06-12-84
REACTOR	RB1726	06-23-84
REACTOR	RB1739	07-07-84
REACTOR	RB0209	04-03-80
REACTOR	RB0191	03-24-80
REACTOR	RB0178	03-13-80
REACTOR	RB1259	02-15-84
RADWASTE	RW0044	05-10-84
ESWS	0032	10-02-84
REACTOR	RB0227	04-22-80

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FIELD FABRICATION REQUEST

* BUILDING . NUMBER . DATE .

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REACTOR RB0510 06-30-81

AUXILIARY 0104 11-29-79

0079 08-22-79

0078 08-22-79

0069 08-09-79

0170 03-24-80

AUXILIARY

0010 08-15-78

0011 08-15-78

..... END REPORT

LIST OF NONCONFORMANCE REPORTS

1-041-C	1-0503-C	LSN3516CW
1-042-C	1-0549-C	LSN3589C
1-043-C	1-0550-C	LSN3614C
1-045-C	1-0551-C	LSN3753C
1-047-C	1-0552-C	LNN3768C
1-048-C	LSN0738C	LSN3779C
1-049-C	LSN0899C	LSN3784C
1-074-C	LSN0972C	LSN3794C
1-082-C	LSN0992C	LSN3795C
1-083-C	LSN1056C	LSN3796C
1-084-C	LSN1057C	LSN3890C
1-085-C	LSN1277CW	LSN3891C
1-086-C	LSN1283C	LSN3892C
1-087-C	LSN1432M	LNN4121C
1-090-C	LSN1486C	LSN4276C
1-094-C	LSN1549C	LSN4283C
1-095-C	LSN1567C	LSN4293C
1-096-C	LSN1568C	LSN4389C
1-0104-C	LSN1649C	LNN4530C
1-0123-C	LSN1906C	LSN4536C
1-0124-C	LSN2061C	LSN5823C
1-0128-C	LSN2138C	LSN5847C
1-0136-C	LSN2154C	LNN6009C
1-0139-C	LSN2228C	LSN6117C
1-0143-C	LSN2419CW	LSN6299C
1-0148-C	LSN2489C	LSN6331C
1-0149-C	LNN2530C	LSN6795C
1-0158-C	LSN2585C	LSN6809C
1-0160-C	LSN2642C	LSN8312C
1-0166-C	LSN2647M	LSN8378C
1-0170-C	LSN2658C	LSN8590C
1-0178-C	LSN2698C	LSN8612C
1-0183-C	LSN2728C	LSN8890C
1-0189-C	LSN2793C	LNN8967C
1-0205-C	LSN2945C	LSN9119C
1-0238-C	LNN2972C	LSN9476C
1-0244-C	LSN2987C	LSN10026C
1-0255-C	LSN2992C	LSN10381PW
1-0266-C	LSN3013C	LSN10931C
1-0276-C	LSN3017C	LSN11086C
1-0277-C	LSN3039C	LSN11282C
1-0335-C	LSN3041C	LSN11592C
1-0338-C	LSN3111C	LSN11689C
1-0339-C	LSN3115C	LSN11986C
1-0340-C	LNN3132C	LSN12190C
1-0345-C	LSN3139C	LSN12517C
1-0355-C	LSN320CW	LSN13280C
1-0385-C	LSN3255C	LSN15220MW
1-0423-C	LSN3261C	LSN15352C
1-0433-C	LSN3385C	LSN15685PW
1-0434-C	LSN3386C	LSN15723CW
1-0439-C	LSN3475C	LSN16728CW
1-0445-C	LSN3482C	LSN16988CW
1-0446-C	LSN3483C	LSN19864C

LIST OF FIELD CHANGE REQUEST

1-0860-C
1-0901-C
1-0917-C
1-0928-C
1-0957-C
1-0974-C
1-0993-C
1-1007-C
1-1434-C
1-1440-C
1-1590-C

DATE 21 DEC 84 10:14:35 RID 1 13 NOV 84 BECHTEL
GENERAL NOTES F004532

AWS WELDING REPORT, APPENDIX D, PAGE 1 of 118

* JOINT TYPE US WD IC UR UC MM IJ GN
* A B C D A B C D E F G H I J K L A B C D A B A B A B C A B

- * JOINT TYPE F) BEAM FRAMING CONNECTION
 D) OTHER
- * (US) UNDERSIZED A) UNDERSIZED FOR PART OF LENGTH
 B) ONE LEG UNDER SIZED
 C) FULL LENGTH UNDERSIZED
 D) UNDERSIZED DUE TO FIT-UP/ROOT GAP
- * (WD) WELD DEFECTS A) OVERLAP
 B) INCOMPLETE PENETRATION
 C) LACK OF FUSION
 D) EXCESSIVE REINFORCEMENT
 E) EDGE CONSUMPTION
 F) CRACKED
 G) GOUGED/GRINDING
 H) SLAG
 I) POROSITY
 J) ARC STRIKE
 K) CONVEXITY
 L) OTHER
- * (IC) INCORRECT CONFIGURATION A) GAP IN CONTINUOUS WELD
 B) SPACING ON INTERMITTENT WELD
 C) OVERRUN
 D) WELD IN WRONG LOCATION/NOT WELDED PER DRAWING (RE: BEVEL VS. FILLET, ETC.)
- * (UR) UNDERRUN A) GREATER THAN 1 INCH
 B) LESS THAN 1 INCH IN LENGTH
- * (UC) UNDERCUT A) MAJOR/LENGTH NOT NOTED
 B) MINOR, LESS THAN 1 INCH
- * (MM) MISSING MATERIAL A) MATERIAL CHANGE-OUT
 B) MISSING MATERIAL
 C) MISSING WELD
- * (IJ) INACCESSIBLE JOINT A) TOTAL JOINT INACCESSIBLE
 B) WELD INACCESSIBLE/INDETERMINATE
- * (GN) GENERAL NOTES OK) ALL WELDS ACCEPTED

R FLAG IN DEFECT COLUMN INDICATES ALL DEFECTS ON END RETURN ONLY.
*FLAG IN DEFECT COLUMN INDICATES THAT A NOTE IS APPLICABLE.
NOTE: DEFECTS ARE TABULATED FOR ALL WELDS NOT INDICATED AS ACCEPTED ON INSPECTION REPORT FORM.
..... END REPORT

AUXILIARY BUILDING

F004532

AWS WELDING REPORT, APPENDIX D, PAGE 4

* JOINT TYPE	U	S	W D											I	C	U	R	U	C	M	M	I	J	GN							
*	A	B	C	D	A	B	C	D	E	F	G	H	I	J	K	L	A	B	C	D	A	B	A	B	A	B	C	A	B		
* A039 F		2	1						3										6											* 2	
*MM-C:SEAT TO BEAM WELDS ARE MISSING																															
* A040 F		2							2										6											* 2	
*MM-C:SEAT TO BEAM WELDS ARE MISSING																															
* A041 F		1			R 1				5										5										* 2	* 1	
*MM-C:SEAT TO BEAM WELDS ARE MISSING ; IJ-B:WELD IN PLACE, BUT MEASUREMENT NOT OBTAINABLE																															
* A042 F		*R1	3	3															6				1							* 1	
*US-A:ONE LEG IS UNDERSIZED FOR APPROXIMATELY 19% OF THE TOTAL LENGTH;MM-A:FILLER PLATE WAS INSTALLED																															
* A043 F		1						R 3											6			1								* 1	
*MM-A:FILLER PLATE WAS INSTALLED																															
* A044 F								*R1	R 4										R 4												
*WD-C:DEFECT LENGTH IS 1/4																															
* A045 F									5										R 4						1						
* A046 F		* 1	1	1															6											* 2	
*US-A:ONE LEG IS UNDERSIZED FOR PART OF THE LENGTH ; MM-C:SEAT TO BEAM WELDS ARE MISSING																															
* A047 F		R 3	3		3			* 1	7				R 1						5			1	1								
*WD-C:DEFECT LENGTH IS 3/8																															
* A048 F		2	R 1		R 1			* 1	3										R 4												
*WD-C:DEFECT LENGTH IS 5/8																															
* A049 F		2	2																6			2									
* A050 F		3	3						4										5												
* A051 F		2	5		* 1			* 1	R 4										R 4			1			2						
*WD-C:DEFECT LENGTH IS APPROX. 1/4 ; WD-A:DEFECT LENGTH IS APPROX. 4-3/8																															
* A052 F		1		2															7					2							
* A053 F																			7			1									
* A054 F		1		2															6			2	2								
* A055 F									R 2										R 4											* X	
*MM-B:BEAM SEAT IS NOT INSTALLED																															
* A056 F									5				* 1						R 4			1									
*WD-G:GOUGES (1/8 DEEP) ACROSS WELD BEAD																															
* A057 F		R 1						* 1	4										R 4												
*WD-C:DEFECT LENGTH IS 1/4																															

AUXILIARY BUILDING

F004532

AWS WELDING REPORT, APPENDIX D, PAGE 4

*JOINT TYPE U S W D I C U R U C M M I J G N

* A B C D A B C D E F G H I J K L A B C D A B A B A B C A B

*US-D:UNDERSIZED DUE TO 1/8 FIT-UP GAP

*A073 F 9 * 1 4 * 1 5 2

*WD-L: COLDLAP AT WELD'S END(DEFECT LENGTH IS 1/4) ; WD-C:DEFECT LENGTH IS 1/4

*A074 F 3 5 6 5 3

*A075 F R 1 2 6 5

*IJ-B:LOCATED IN BLOCKWALL

*A076 F *R1 *R1 3 R 4 1

*WD-C:DEFECT LENGTH IS 1/4 ; US-D:UNDERSIZED DUE TO 3/16 FIT-UP GAP

*A077 F R 1 3 * 2 *R1 6 R 4 2 * 4

*WD-A:DEFECT LENGTH IS 1/2 ; WD-C:DEFECT LENGTH IS 1/4

*MM-C:SEAT TO EMBED(TOP) & SEAT TO BEAM WELDS ARE MISSING-2 PLACES EACH

*A078 F R 4 R 4

*A079 F R 4 R 4

*A080 F R 4 R 4

*A081 F R 4

*A082 F R 4 R 4

*A083 F R 4 R 4

*A084 F R 4 R 4

*A085 F R 4 R 4

*A086 F R 4 R 4

*A087 F R 4

*A088 F R 4

*A089 F R 4

*A090 F R 4

*A091 F R 4

*A092 F R 4

*A093 F R 1 * 1 R 2 R 4

*WD-C:DEFECT LENGTH IS 3 (LACK OF FUSION BETWEEN BEADS)

*A094 F R 4 R 4

AUXILIARY BUILDING

F004532

AWS WELDING REPORT, APPENDIX D, PAGE 9

* JOINT TYPE U S W D I C U R U C M M I J GN
 * A B C D A B C D E F G H I J K L A B C D A B A B A B C A B

* A140 F OK
 * A141 F 2 R 2
 * A142 F R 2
 * A143 F OK
 * A144 F 2 * 1 * 1
 *WD-A & WD-H:DEFECT LENGTH IS 1
 * A145 F 3
 * A146 F 1 1 * 1 * 1
 *WD-G & UC-A:DEFECT LENGTH IS 1-1/2
 * A147 F 1 1
 * A148 F 1 1 * 1
 *WD-H:DEFECT LENGTH IS NOT SPECIFIED
 * A149 F 1
 * A150 F OK
 * A151 F OK
 * A152 F OK
 * A153 F 1 5 R 2 1
 * A154 F OK
 * A155 F OK
 * A156 F OK
 * A157 F 1
 * A158 F * 1 1
 *WD-C: BETWEEN BEADS(DEFECT LENGTH IS 1/4)
 * A159 F * 2 3
 *WD-C:DEFECT LENGTH IS 1/2 MAXIMUM
 * A160 F 2
 * A161 F OK
 * A162 F 2 * 1

* JOINT TYPE U S W D I C U R U C N M I J G H

* A B C D A B C D E F G H I J K L A B C D A B A B A B C A B

A211	F																				4	
A212	F																					OK
A213	F																				1	
*WD-C:DEFECT LENGTH IS 1/2 MAXIMUM																						
A214	F																					
*WD-A:DEFECT LENGTH IS 1/2																						
A215	F																				4	
A216	F			2																	R 2	
A217	F			1																	3	
A218	F			2																	R 2	1
A219	F			2	1																	1
A220	F																				4	
*WD-C:DEFECT LENGTH IS 1/8																						
A221	F																				R 2	
A222	F																				R 2	1
*WD-A:DEFECT LENGTH IS 3/8																						
A223	F																					
*WD-C:DEFECT LENGTH IS 5/16 MAXIMUM																						
A224	F																				R 2	
A225	F			1																	R 2	
A226	F																					
*WD-C:DEFECT LENGTH IS 1																						
A227	F																				R 2	
*US-C:UNABLE TO MEASURE ACCURATELY DUE TO GRINDING-SIZE VISUALLY REJECTED																						
A228	F																				R 2	
*WD-A:DEFECT LENGTH IS 1/2																						
A229	F																				R 2	
*WD-A:DEFECT LENGTH IS 2-3/8																						
A230	F																					
*WD-A:DEFECT LENGTH IS 1/4																						

AUXILIARY BUILDING

F004532

AWS WELDING REPORT, APPENDIX D, PAGE 17

* JOINT TYPE	U S	W D	I C	U R	U C	M M	I J	GN
A B C D	A B C D E F G H I J K L	A B C D A B A B A B C A B						

*WD-C: DEFECT LENGTH IS 1-3/8 ; GN: WELD & BASE METAL GOUGED BY CHIPPING

A320 F	2							
*MM-C: SEAT TO BEAM AND SEAT TO EMBED RETURN			R 3				* 4	4

A321 F								
*IJ-B: WELD SIZE AND/OR LENGTH IS INDETERMINATE								* 5

A322 F								
*A323 F	1							
A324 F								
A325 F								
A326 F								
*GN: WELD & BASE METAL GOUGED BY CHIPPING			R 4					*

A327 F		R 1						
*GN: WELD & BASE METAL GOUGED BY CHIPPING								*
A328 F								
*WD-L: COLDROLL -DEFECT LENGTH IS 1-1/2 MAXIMUM ; GN: WELD & BASE METAL GOUGED BY CHIPPING								*

A329 F								
A330 F		R 1						
A331 F	4	3						
A332 F								
*GN1: GOUGES IN WELD & BASE METAL								*

A333 F								
*GN1: GOUGES PRESENT								*
A334 F								
*GN1: GOUGES PRESENT								*
A335 F								
*GN1: GOUGES PRESENT								*

A336 F								
*GN1: GOUGES PRESENT								*
A337 F								
*GN1: GOUGES PRESENT								*
A338 F								

A339 F								
*GN1: GOUGES PRESENT								*

A340 F								
*GN1: GOUGES PRESENT								*
A341 F								
*GN1: GOUGES PRESENT								*

A342 F								
*GN1: GOUGES PRESENT								*
A343 F								
*GN1: GOUGES PRESENT								*

A344 F								
*GN1: GOUGES PRESENT								*
A345 F								
*GN1: GOUGES PRESENT								*

A346 F								
*GN1: GOUGES PRESENT								*
A347 F								
*GN1: GOUGES PRESENT								*

A348 F								
*GN1: GOUGES PRESENT								*

AUXILIARY BUILDING

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AWS WELDING REPORT, APPENDIX D, PAGE 22

*JOINT TYPE	U S				W D												I C												U R		U C		M M		I ;		GN	
	A	B	C	D	A	B	C	D	E	F	G	H	I	J	K	L	A	B	C	D	A	B	A	B	A	B	C	A	B									
* A418 F																																		R 4				
* A419 F			4	3																															4			
* A420 F			1																															R 2				
* A421 F																																				OK		
* A422 F			1																																R 2			
* A423 F																																				OK		
* A424 F																																			1			
* A425 F																																				OK		
* A426 F																																				OK		
* A427 F																																				OK		
* A428 F																																			R 1			
* A429 F																																				OK		
* A430 F			7																																R 1	4		
* A431 F			2	3																															R 3	4		
* A432 F			1																																			
* A433 F			2	1																																		
* A434 F																																					OK	
* A435 F			4	2																																R 1	4	
* A436 F																																				4		
* A437 F																																				R 2		
* A438 F																																				2		
* A439 F																																				R 1		
*WD-C:DEFECT LENGTH IS 3/8																																						
* A440 F																																				R 2		
* A441 F																																					OK	
* A442 F																																					OK	

* 1

AUXILIARY BUILDING

F004532

AWS WELDING REPORT, APPENDIX D, PAGE 23

* JOINT TYPE	U S				.	W D	.	I C . U R . U C . N M . I J G H														G H						
	A	B	C	D				A	B	C	D	E	F	G	H	I	J	K	L	A	B		C	D	A	B	A	B

* A443	F																																					OK	
* A444	F																																				OK		
* A445	F		1	4																																	OK		
* A446	O																																				OK		
* A447	F																																				OK		
* A448	F																																				OK		
* A449	F																																				OK		
* A450	O																																				OK		
* A451	O																																				OK		
* A452	O																																				OK		
* A453	O			2																																	OK		
* A454	O																																				OK		
* A455	F		2																																				
* A456	F		2																															2					
* A457	F		1																																R 2	*			
*GN:WELD & BASE METAL GOUGED BY CHIPPING																																							
* A458	F																																				R 4	3	*
*WD-C:DEFECT LENGTH IS 1/8																																							
*GN:WELD & BASE METAL GOUGED BY CHIPPING																																							
* A459	F		3																																	R 1	7		
* A460	F																																			*R1	R 2	1	10
*WD-L:EXCESSIVE CONCAVITY																																							
* A461	F																																					4	
* A462	F																																					3	
* A463	F																																					4	
* A464	F																																					4	
* A465	F																																					OK	
*GN:INSTALLED PER NCR 15N3021C																																							

AUXILIARY BUILDING

F004532

JOINT TYPE	U S				W D													I C												U R			U C			M M			I J		GN
	A	B	C	D	A	B	C	D	E	F	G	H	I	J	K	L	A	B	C	D	A	B	A	B	A	B	C	A	B												

A488	O																																								
A489	F																																								OK
A490	O																																								OK
A491	F																																								OK
*GN: CONNECTION NOT REQUIRED PER DRAWING NOTE - BEAM DISCARDED																																									
A492	F																																								
A493	F																																								R 4
A494	F																																								R 4
A495	F																																								R 4
A496	F																																								R 4
A497	F																																								R 4
A498	F																																								R 4
*WD-L: UNDERFILL																																									
A499	F																																								*R1
A500	F																																								R 4
A501	F																																								R 4
A502	F				3	2																																			R 4
A503	F																																								R 3
A504	F																																								R 4
A505	F																																		2	3					R 4
A506	F																																					1			R 3
A507	F																																								R 3
A508	F																																								R 4
A509	F																																								1
A510	F																																								R 4
A511	F																																								1
A512	O																																								1

x

AUXILIARY BUILDING

F004532

AWS WELDING REPORT, APPENDIX D, PAGE 30

* JOINT TYPE U S W D I C U R U C M M I J G N
 * A B C D . A B C D E F G H I J K L . A B C D . A B . A B . A B C . A B

Weld ID	Joint Type	U	S	W	D	I	C	U	R	U	C	M	M	I	J	G	N	
A612	F																	* 4
*MM-C:TEMPORARY CONSTRUCTION WELDS																		
A613	F																	* 4
*MM-C:TEMPORARY CONSTRUCTION WELDS																		
A614	F																	* 4
*MM-C:TEMPORARY CONSTRUCTION WELDS																		
A615	F																	* 4
*MM-C:TEMPORARY CONSTRUCTION WELDS																		
A616	F																	* 4
*MM-C:TEMPORARY CONSTRUCTION WELDS																		
A617	F		2			1												
*MM-C:TEMPORARY CONSTRUCTION WELDS																		
A618	F		3															2
*MM-C:TEMPORARY CONSTRUCTION WELDS																		
A619	F		3															
*MM-C:TEMPORARY CONSTRUCTION WELDS																		
A620	F		1	2														
*MM-C:TEMPORARY CONSTRUCTION WELDS																		
A621	F					1												
*MM-C:TEMPORARY CONSTRUCTION WELDS																		
A622	F									2								
*MM-C:TEMPORARY CONSTRUCTION WELDS																		
A623	F																	
*MM-C:TEMPORARY CONSTRUCTION WELDS																		
A624	F																	OK
*MM-C:TEMPORARY CONSTRUCTION WELDS																		
A625	F																	OK
*MM-C:TEMPORARY CONSTRUCTION WELDS																		
A626	F																	OK
*MM-C:TEMPORARY CONSTRUCTION WELDS																		
A627	F		1															OK
*MM-C:TEMPORARY CONSTRUCTION WELDS																		
A628	F																	
*MM-B:ONLY 1 OF THE 2 CLIP ANGLES IS INSTALLED																		
*MM-C:TEMPORARY CONSTRUCTION WELDS																		
A629	F		1															
*MM-C:TEMPORARY CONSTRUCTION WELDS																		
A630	D		3															
*MM-C:TEMPORARY CONSTRUCTION WELDS																		
A631	D																	
*MM-C:TEMPORARY CONSTRUCTION WELDS																		
A632	F																	OK
*MM-C:TEMPORARY CONSTRUCTION WELDS																		
A633	F																	OK
*MM-C:TEMPORARY CONSTRUCTION WELDS																		
A634	F																	* 4

R 1

* X

AUXILIARY BUILDING

F004532

AWS WELDING REPORT, APPENDIX D, PAGE 31

*JOINT TYPE	U S			W D													I C								U R								U C								M M								I J		GN
	A	B	C	D	A	B	C	D	E	F	G	H	I	J	K	L	A	B	C	D	A	B	A	B	A	B	A	B	C	A	B																				
* A634 F				1																															4	1															
* A635 F																																			2																
* A636 F				1																																															
* A637 F																																																			
* A638 F																																																			
* A639 F																																																			
* A640 F				2	1																																														
* A641 F				2	8	* 1																																													
* US-D: 3/32	FIT-UP GAP; UC-A:DEFECT LENGTH IS 3																																																		
* A642 F																																																			
* A643 F				5	7																																														
* A644 F				6																																															
* A645 F				1	1																																														
* A646 F				2	8																																														
* A647 F				7	4	3																																													
* A648 F																																																			
* A649 F																																																			
* A650 F																																																			
* A651 F																																																			
* A652 F					1																																														
* A653 0																																																			
* A654 F																																																			
* A655 F																																																			
* A656 F																																																			
* A657 F																																																			
* A658 F																																																			

OK
OK
OK

OK
OK
OK
OK
OK
OK
OK
OK

X
X
X

AUXILIARY BUILDING

F004532

AWS WELDING REPORT, APPENDIX D, PAGE 32

*JOINT	TYPE	U	S	D	A	B	C	D	E	F	G	H	I	J	K	L	A	B	C	D	A	B	A	B	A	B	C	A	B	GH	
A659	F																													OK	
A660	F																													OK	
A661	F																													OK	
A662	0																													OK	
A663	F																													OK	
A664	F																													OK	
A665	F																												X		
A666	F																												X		
A667	F																												X		
A668	F																												X		
A669	F																												X		
A670	F																												X		
*GN:PREVIOUSLY INSPECTED AS A669																															
A671	F																													OK	
A672	0																													OK	
A673	0																													OK	
A674	0																													OK	
A675	0																													OK	
A676	0																													OK	
A677	0																													OK	
A678	0																													OK	
A679	0																													OK	
A680	0																													OK	
A681	F																													OK	
A682	F																													OK	
A683	F																													X	

AUXILIARY BUILDING

F004532

AWS WELDING REPORT, APPENDIX D, PAGE. 33

*JOINT TYPE	U S	W D	I C	U R	U C	M M	I J	GN
A B C D	A B C D E F	G H I J K L	A B C	D A B A B A B	C A B			

* A684 F	3							
						R 4		
* A685 F								OK
* A686 F								OK
* A687 F								X
* A688 F								OK
* A689 F								OK
* A690 F								OK
* A691 F								OK

..... END REPORT

REACTOR BUILDING

F004532

AWS WELDING REPORT, APPENDIX D, PAGE 35

JOINT TYPE	US				WD												IC	UR	UC	MM			I	J	GN												
	A	B	C	D	A	B	C	D	E	F	G	H	I	J	K	L	A	B	C	D	A	B	A	B	A	B	C	A	B								
R025 F																																			R 4		
R026 F																																					
R027 F																																					X
R028 F																																					X
R029 F																																					X
R030 F			1	3																																R 4	
R031 F			1	2																																R 4	
R032 F																																				R 4	
R033 F																																				R 4	
R034 F			2																																	R 4	
R035 F			2	2		1																														R 4	3
R036 0																																					
R037 F			3	2									1																							R 4	
R038 F			7	2																																R 4	1
R039 F			5	5																																	
R040 F																																					
R041 F			2	2		1																															
R042 F			3																																		
R043 F			1	4			1																														
R044 F			R 1																																	R 1	
R045 F				R 1																																R 2	
R046 F			3																																	R 2	
R047 F			R 1	1																																	
R048 F			R 1																																	R 2	
R049 F																																				R 4	* 1

*WDL- UNDER FILL

OK

* JOINT TYPE	U	S	W D											I	C	U	R	U	C	M	M	I	J	BN							
*	A	B	C	D	A	B	C	D	E	F	G	H	I	J	K	L	A	B	C	D	A	B	A	B	A	B	C	A	B		
R193 F																															OK
R199 0																															13
R200 0																															7
R201 0																															OK
R202 0																															OK
R203 0																															OK
R204 0																															OK
R205 0																															OK
R206 0																															OK
R207 0																															OK
R208 0																															OK
R209 0																															OK
R210 0																															OK
R211 0																															OK
R212 0																															OK
R213 0																															9
R214 0																															13
R215 F																															OK
R216 F																															OK
R217 F																															OK
R218 F																															OK
R219 F																															OK
R220 F																															OK
R221 F																															OK
R222 F																															1
R223 F										I																					OK

* JOINT TYPE	U	S	W D												I	C	U	R	U	C	N	M	I	J	GH				
*	A	B	C	D	A	B	C	D	E	F	G	H	I	J	K	L	A	B	C	D	A	B	A	B	A	B	C	A	B

- * R326 0 OK
- * R327 0 OK
- * R328 0 OK
- * R329 0 OK
- * R330 0 OK
- * R331 0 OK
- * R332 0 OK
- * R333 0 OK
- * R334 0 OK
- * R335 0 OK
- * R336 0 OK
- * R337 0 OK
- * R338 0 OK
- * R339 0 OK
- * R340 0 OK
- * R341 0 OK
- * R342 0 OK
- * R343 0 OK
- * R344 0 OK
- * R345 0 OK
- * R346 0 OK
- * R347 0 OK
- * R348 0 OK
- * R349 0 OK
- * R350 0 OK

* R335 0 * 1
 *WD-B: PENETRATION HAS BEEN ACHIEVED BY MELT THROUGH ONLY

* R338 0 * 1
 *WD-B: PENETRATION HAS BEEN ACHIEVED BY MELT THROUGH ONLY

REACTOR BUILDING

F084532

AWS WELDING REPORT, APPENDIX D, PAGE 58

*JOINT TYPE	U	S	W	D	I	C	U	R	U	C	M	M	I	J	G	H	
	A	B	C	D	A	B	C	D	E	F	G	H	I	J	K	L	
	A	B	C	D	A	B	C	D	A	B	A	B	A	B	C	A	
R601	D																
		1															
R602	F																
																	OK
R603	F																
																	OK
R604	F																
																	5
R605	F																
																	* 2
*IJB-50% VISUALLY INACCESSIBLE																	
R606	F																
																	4
R607	F																
																	* 2
*IJB-50% VISUALLY INACCESSIBLE																	
R608	F																
																	OK
R609	F																
																	OK
R610	F																
																	OK
R611	F																
																	OK
R612	F																
			1														* 1
*IJB-50% INACCESSIBLE																	
R613	F																
																	1
R614	F																
																	1
R615	F																
																	1
R616	F																
																	1
R617	F																
																	* 2
*IJB-50% INACCESSIBLE																	
R618	F																
																	1
R619	F																
			1														5
R620	F																
																	5
R621	F																
																	* 1
*IJB-50% INACCESSIBLE																	
R622	F																
																	5
R623	F																
																	* 2
*IJB-50% INACCESSIBLE																	

REACTOR BUILDING

F004532

* JOINT TYPE A B C D A B C D A B C D A B C D A B C D A B C D
 * U S I C U R U C M M I J G H I J K L A B C D A B C D A B C D
 * AMS WELDING REPORT, APPENDIX D, PAGE 61
 * OK OK OK OK OK OK OK OK OK OK OK OK OK OK OK OK OK OK OK

* R674 F
 * R675 F
 * R676 F
 * R677 0
 * R678 0
 * R679 0
 * R680 F
 * R681 F
 * R682 F
 * R683 F
 * R684 F
 * R685 F
 * R686 F
 * R687 F
 * R688 F
 * R689 F
 * R690 F
 * R691 F
 * R692 F
 * R693 F
 * R694 F
 * R695 F
 * R696 F
 * R697 F
 * R698 F

* 2

* IC-0:2 GAPS EXIST DUE TO NAIL HOLES

1
1

REACTOR BUILDING

F004532

AWS WELDING REPORT, APPENDIX D, PAGE 13

*JOINT TYPE	US	WD	IC	UR	UC	MM	I	J	GN
A B C D A B C D E F G H I J K L A B C D A B A B A B C A B									
* R725 F									OK
* R726 F									OK
* R727 F									OK
* R728 F									OK
* R729 F									OK
* R730 F									OK
* R731 F									OK
* R732 F									OK
* R733 F									OK
* R734 F									OK
* R735 F									OK
* R736 0									OK
* R737 0									OK
* R738 0	2								
* R739 0	2								
* R740 0	2								
* R741 0	2								
* R742 0	2								
* R743 0	2								
* R744 0	2								
* R745 0	2								
* R746 0									
* R747 0									
* R748 0									OK
* R749 0									OK

REACTOR BUILDING

F004532

AWS WELDING REPORT, APPENDIX D, PAGE 68

JOINT TYPE	U S				W D												I C												U R				U C				M M				I J	GN															
	A	B	C	D	A	B	C	D	E	F	G	H	I	J	K	L	A	B	C	D	A	B	A	B	A	B	A	B	C	A	B																										
R851	0																																																				2				
R852	0																																										2														
R853	0																																										2														
R854	0																																										2														
R855	0																																										2														
R856	0																																										2														
R857	0																																										2														
R858	0																																										2														
R859	0																																										2														
R860	0																																										2														
R861	0																																										2														
R862	0																																										2														
R863	0																																										2														
R864	0																																										2														
R865	0																																										2														
R866	0																																										2														
R867	0																																										2														
R868	0																																										2														
R869	0																																										2														
R870	F																																														OK										
R871	F																																										R 2				OK										
R872	F																																														OK										
R873	F																																										2				OK										
R874	F																																														OK										
R875	F																																														I										
R876	F																																														R 1										

REACTOR BUILDING

F004532

AWS WELDING REPORT, APPENDIX D, PAGE 70

*JOINT TYPE	US			WD													IC													UR			UC			MM			IJ			GN
	A	B	C	D	A	B	C	D	E	F	G	H	I	J	K	L	A	B	C	D	A	B	A	B	A	B	C	A	B													

*GN: EQUIPMENT HATCH DOOR-CONSTRUCTION NOT COMPLETED YET

* R901 0

*GN: EQUIPMENT HATCH DOOR-CONSTRUCTION NOT COMPLETED YET

* R902 0

*GN: EQUIPMENT HATCH DOOR-CONSTRUCTION NOT COMPLETED YET

* R903 0

*GN: EQUIPMENT HATCH DOOR-CONSTRUCTION NOT COMPLETED YET

* R904 0

*GN: EQUIPMENT HATCH DOOR-CONSTRUCTION NOT COMPLETED YET

* R905 0

*GN: EQUIPMENT HATCH DOOR-CONSTRUCTION NOT COMPLETED YET

* R906 0

*GN: EQUIPMENT HATCH DOOR-CONSTRUCTION NOT COMPLETED YET

* R907 0

*GN: EQUIPMENT HATCH DOOR-CONSTRUCTION NOT COMPLETED YET

* R908 0

*GN: EQUIPMENT HATCH DOOR-CONSTRUCTION NOT COMPLETED YET

* R909 0

*GN: EQUIPMENT HATCH DOOR-CONSTRUCTION NOT COMPLETED YET

* R910 0

*GN: EQUIPMENT HATCH DOOR-CONSTRUCTION NOT COMPLETED YET

* R911 0

*GN: EQUIPMENT HATCH DOOR-CONSTRUCTION NOT COMPLETED YET

* R912 0

*GN: EQUIPMENT HATCH DOOR-CONSTRUCTION NOT COMPLETED YET

* R913 0

*GN: EQUIPMENT HATCH DOOR-CONSTRUCTION NOT COMPLETED YET

* R914 0

*GN: EQUIPMENT HATCH DOOR-CONSTRUCTION NOT COMPLETED YET

* R915

*IJ-B: GROUND FLUSH AND PAINTED

* R916 0

*GN: EQUIPMENT HATCH DOOR-CONSTRUCTION NOT COMPLETED YET

* R917 F

OK

REACTOR BUILDING

F004532

AWS WELDING REPORT, APPENDIX D, PAGE 74

* JOINT TYPE	U S	W D	I C	U R	U C	M M	I J	GN
	A B C D A B C D E F G H I J K L A B C D A B A B A B C A B							
R994 F								OK
R995 F							R 4	
R996 F								OK
R997 F							R 1	
R998 F								R 2
R999 F								R 2
RA F	3	1					R 1	* 1
* IJ B: UNABLE TO VERIFY SIZE-APPEARS UNDERSIZED								
RB F				R 2			R 4	
RC F								2
RD F								OK
RE F								OK
RF F		3	2				1	1
RG01 O								OK
RG02 O								OK
RG03 O								OK
RG04 O								OK
RG05 O								OK
RG06 O								OK
RG07 O								OK
RG08 O								OK
RG09 O								OK
RG10 O								OK
RG11 O								OK
RG12 O								OK
RG13 O		2					2	

REACTOR BUILDING

F004532

AWS WELDING REPORT, APPENDIX D, PAGE 81

* JOINT TYPE	U	S	W D											I	C	U R			U	C	M M		I	J	GH				
	A	B	C	D	A	B	C	D	E	F	G	H	I	J	K	L	A	B	C	D	A	B	A	B	A	B	C	A	B

* RH67 0																														OK
* RH68 0																														OK
* RH69 0																														OK
* RH70 0																														OK
* RH71 0																														OK
* RH72 0																														OK
* RH73 0																														OK
* RH74 0																														OK
* RH75 0																														OK
* RH76 0																														OK
* RH77 0																														OK
* RH78 0																														OK
* RH79 0																														OK
* RH80 0																														OK
* RH81 0																														OK
* RH82 0																														OK
* RH83 0																														OK
* RH84 0																														OK
* RH85 0																														OK
* RH86 0																														OK
* RH87 0																														OK
* RH88 0																														OK
* RH89 0																														OK
* RH90 0																														OK
* RH91 0																														OK
* RH92 0																														OK

REACTOR BUILDING

F004532

AWS WELDING REPORT. APPENDIX D. PAGE 86

* JOINT TYPE	U S	W D	I C	U R	U C	M M	I J	GN
	A B C D	A B C D E F G H I J K L	A B C D	A B A B A B	C A B			
RJ61	O							
*IJ-A:INCORE PIT PORT								* X
RJ62	O							* X
*IJ-A:INCORE PIT PORT								
RJ63	F							
RJ64	F							OK
RJ65	F							OK
RJ66	F							OK
RJ68	O							OK
FJ69	O							OK
RJ70	O							OK
RJ71	O							* X
*IJ-A:INCORE PIT								* X
RJ72	O							
*IJ-A:INCORE PIT PORT								
RJ73	F							OK
RJ74	F							OK
RJ75	F							OK
RJ76	O							OK
RJ77	O							OK
RJ78	O							OK
RJ79	F							OK
RJ80	F							OK
RJ81	F							OK
RJ82	F							OK
RJ83	O							9
RJ84	O							9
RJ85	O							9

R 2

1 1

* REACTOR BUILDING

F004532

AWS WELDING REPORT, APPENDIX D, PAGE 87

* JOINT TYPE	U	S	W D												I	C	U	R	U	C	M	M	I	J	G	H			
*	A	B	C	D	A	B	C	D	E	F	G	H	I	J	K	L	A	B	C	D	A	B	A	B	A	B	C	A	B

* RJ86 0 9

* RJ87 0 * X
*MM-B:INCORE INSTRUMENTATION TUBE SUPPORT BRACKET NOT INSTALLED

* RJ88 0 * X
*MM-B:INCORE INSTRUMENTATION TUBE SUPPORT BRACKET NOT INSTALLED

* RJ89 0 * X
*MM-B:INCORE INSTRUMENTATION TUBE SUPPORT BRACKET NOT INSTALLED

* RJ90 0 * X
*MM-B:INCORE INSTRUMENTATION TUBE SUPPORT BRACKET NOT INSTALLED

* RJ91 0 1

* RJ92 0 1

* RJ93 0 * X
*MM-B:PLATE NOT INSTALLED

* RJ94 0 * X
*MM-B:PLATE NOT INSTALLED

*

..... END REPORT

CONTROL BLDG

F004532

AWS WELDING REPORT, APPENDIX D, PAGE 97

*JOINT TYPE	U S	W D	I C	U R	U C	M M	I J	GN
A B C D	A B C D E F G H I J K L	A B C D A B A B A B C A B						
C202 F	R 2 3		R 4			1		
C203 F	R 1 1		R 3					* 2
*MMA-BOTTOM FLANGE WELDED TO PLATE BOTH SIDES								
C204 F			R 4					
C205 F			R 4					
C206 F			R 4					
C207 F	1		R 4					
C208 F			R 4			1		
C209 F		1	R 4					
C210 F			R 2			1		
C211 F	R 2		R 4					
C212 F			R 3		4 R 1	2		2
C213 F			R 5		R 1			
C214 O								X
C215 O								X
C216 O								2
C217 O								2
C218 O								2
C219 O								2
C220 F	R 1							
C221 F						R 2		
C222 F						R 2	1	
C223 F						R 2		
C224 F			R 4					
C225 F			R 2					
C226 F								

.DATE 18 JAN 85 14:17:17 RID 5 13 NOV 84 BECHTEL

* DG BLDG

F004532

AWS WELDING REPORT. APPENDIX D. PAGE 100

*JOINT TYPE

U S

W D

I C

U R

U C

M M

I J

GN

* A B C D A B C D E F G H I J K L A B C D A B A B A B C A B

DA F

R 1

* DB F * 1

R 2

4

*US-A:ONE LEG IS UNDERSIZED FOR APPROXIMATELY 11% OF THE TOTAL LENGTH

* DC F

OK

* DD F

4 R 1

* DE F 3

* DF F

R 4

2

* D001 F

R 3

2

* D002 F

R 4

2

* D003 F 1

R 1

2

* D004 F 3

2

* D005 0

2

* D006 F 1

4

* D007 F 1 * 2

3

*WD-G:GOUGES-DEFECT LENGTH IS 3/4 MAXIMUM

* D008 F 5 * 1

4

*WD-G:GOUGES-DEFECT LENGTH IS 1/2

* D009 F 1

4

* D010 F 5

* D011 F * 4

*WD-G:GOUGES-DEFECT LENGTH IS 2 3/16 MAXIMUM

* D012 F

4

* D013 F

OK

* D014 F

OK

* D015 F

OK

* D016 F

OK

* D017 F

OK

DG BLDG

F004532

AWS WELDING REPORT. APPENDIX D. PAGE 101

*JOINT TYPE

	A	B	C	D	A	B	C	D	E	F	G	H	I	J	K	L	A	B	C	D	A	B	A	B	A	B	C	A	B	GN
--	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	----

D018 0

2

D019 F

OK

D020 F

5

D021 F

R 1

4

D022 F

*GN:PREVIOUSLY INSPECTED AS JOINT DA

D023 F

OK

D024 F

R 2

D025 F

4

D026 F

4

D027 F

1

=GN:GOUGES NOTED BUT NOT LOCATED

R 4

1 3

D028 F

R 1

* 1

* 1

R 4

4

*WD-L:COLDLAP-DEFECT LENGTH IS 1/2 ;WD-G:GOUGES-DEFECT LENGTH IS 1/2

D029 F

6

R 2

D030 F

* 1

* 2

R 3

4

*WD-G:GOUGES-DEFECT LENGTH IS 1/2 MAXIMUM;US-A:ONE LEG IS UNDERSIZED FOR 20% OF THE TOTAL LENGTH

D031 F

4

4 3

D032 F

6

4 1

D033 F

4 4

R 1

4

D034 F

R 1

4

D035 F

1 5

4 R 1

D036 F

4

R 1

2

D037 F

4

R 2

1

D038 F

2

R 1

4

D039 0

OK

D040 0

* 1

*US-A:ONE LEG IS UNDERSIZED FOR APPROXIMATELY 17% OF THE TOTAL LENGTH

OG BLDG

* JOINT TYPE

* A B C D

* E F G H I J K L A B C D A B

* D091 F

* D092 0

* D093 0

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I C U R H C H M I J GH

D A B C D A B A B C A B

2

2

..... END REPORT

OK

FUEL BLDG

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AMS WELDING REPORT - APPENDIX D, PAGE 106

* JOINT TYPE US A B C D A B C D E F G H I J K L A B C D A B C A B C A B C

* F018 F R 1 1 2 R 2

* F019 F R 1 2 R 2

* F020 F 1 2 R 1

* F021 0 2 R 2

* F022 F 1 2 R 2

* GN SEAT BOLTED TO WALL, NO EMBED AVAILABLE

* F023 F R 2 R 1 2

* GN SEAT BOLTED TO WALL, NO EMBED AVAILABLE

* F024 0 R 2 1

* VOID, CONNECTION DOES NOT REQUIRE WELDING

* F025 0

* F026 F

* F027 0

* GN-SUPERCEDED BY FG47

* F028 0

* GN-SUPERCEDED BY FG45

* F029 F 1 R 1

* MDL-COLD ROLL

* F030 0

* F031 0

* F032 F

* IC-D:CAN'T BE WELDED PER DETAIL (FILLET)-ANGLE LESS THAN 60 DEGREES; MM-A: NOT PER DETAIL

* F033 F 1 4 R 1

* F034 F

* F035 F

* F036 0

* F037 F

* F038 F

* F039 0

OK

OK

OK

OK

FUEL BLDG

F004532

AWS WELDING REPORT, APPENDIX D, PAGE 108

*JOINT TYPE	U S			M D													I C . U R . U C . M M . I J GR													
	A	B	C	D	A	B	C	D	E	F	G	H	I	J	K	L	A	B	C	D	A	B	A	B	A	B	C	A	B	
F064 F			2																											
F065 F			3	R	1																									
F066 F			2																											
F067 F			1																											
F068 F	1	3	2																											
F069 F	1	2	1																											
F070 F		1	1																											
F071 F		2	1																											
F072 F		2																												
F073 F																														
F074 F		1																												
F075 F		1	1																											
F076 F		1																												
F077 F																														
F078 F		1																												
F079 F																														
F080 F		1																												
F081 F		1																												
F082 F	1	1																												
F083 F	1	1																												
F084 F		1																												
F085 F		1																												
F086 F	1	1																												
F087 F																														
F088 F		3																												
F089 F	R	1	4																											

R 2

1

R 1

1

OK

OK

OK

1

1

R 2

FUEL BLDG

F004532

AWS WELDING REPORT, APPENDIX D, PAGE 114

* JOINT TYPE U S W D I C U R U C M A I J G H
* A B C D A B C D E F G H I J K L A B C D A B A B A B C A B

* FG19 0	1	
* FG20 0		
* GN:PREVIOUSLY INSPECTED AS JOINT F31		
* FG21 0	1	
* FG22 0		OK
* FG23 0		
* GN:PREVIOUSLY INSPECTED AS JOINT F30		
* FG24 0		OK
* FG25 0		OK
* FG26 0		OK
* FG27 0		OK
* FG28 0		OK
* FG29 0		OK
* FG30 0		OK
* FG31 0		OK
* FG32 0		OK
* FG33 0		OK
* FG34 0		OK
* FG35 0		OK
* FG36 0		OK
* FG37 0		OK
* FG38 0		OK
* FG39 0		OK
* FG40 0		OK
* FG41 0		OK
* FG42 0		OK

