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APPENDIX A



Number: DAP-19

#### Title: PROCESSING AND REVIEW OF Revision: 2 INFORMATION BETWEEN THE QUALITY OF CONSTRUCTION, QA/QC PROGRAM AND THE DESIGN ADEQUACY PROGRAM

1.0 PURPOSE

This procedure implements DAP responsibilities for CPRT program requirements for the interface between the Design Adequacy Program (DAP) and the Quality of Construction (QOC), QA/QC Program (QAP).

2.0 SCOPE

This procedure applies to the transmittal of information produced by the Design Adequacy Program (DAP) and forwarded to the Quality of Construction (QOC), QA/QC Program (QAP) in accordance with the Program Plan and to the review by the DAP of information transmitted from the QOC/QAP.

3.0 DEFINITIONS AND RESPONSIBILITIES

3.1 Definitions

3.1.1 "Information Only"

The receiving organization will provide a mechanism to ensure that appropriate personnel within their organization are aware of the existence of the input information and that is available for review. Appropriate mechanisms include, for example, routing copies, standard distribution and reference files. No further action is required. An example of this activity is the receipt by the DAP of the QA/QC ISAPs for "Information."

#### 3.1.2 "Review and Comment"

The organization with this responsibility will review input data and will, as required, provide the forwarding organization any comments in a timely manner.

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The forwarding organization will consider the comments and resolve any conflict prior to completing their investigation of subject issue. Documentation of the comments and any resolution will be placed in the working files. An example of this would be the "Review and Commen?" by the DAP of design related attributes for CPRT inspection activities.

3.1.3 "Action By"

The receiving organization is charged with responding to the input by the forwarding organization. This can range from a request for information to the identification of an issue that requires a new or revised action plan. A written response is to be provided by the receiving organization and action coordinated with the forwarding organization where necessary. An example of this activity is QA/QC-RTL forwarding to the DAP-RTL information on design related issues discovered during inspections, document reviews or external source material.

3.2 Responsibilities

3.2.1 Construction Quality Interface Manager

The Construction Quality Interface Manager is responsible for:

- Reviewing transmittals from the QOC/QAP to assess the scope and extent of action required by the DAP
- Forwarding transmittals to the responsible Discipline Coordinator or the DAP files as appropriate
- Tracking the status of those transmittals which require action by the DAP
- Transmittal to QOC/QAP of items from DAP which require action by QOC/QAP.

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3.2.2 DAP Discipline Coordinators and the Programmatic/Generic Implications Coordinator\* are responsible for:

- Completing the required action on documents received from the QOC/QAP
- Documenting the results of action taken for QOC/QAP transmittals that require action and forwarding the documentation to the Construction Quality Interface Manager
- Notifying the Construction Quality Interface Manager when a change is made in the assignment of the discipline responsible for resolution of a required action
- Identifying items within their areas of responsibility that require transmittal to the QOC/QAP in accordance with Attachment A and forwarding them to the Construction Quality Interface Manager.

#### 4.0 INSTRUCTIONS

#### 4.1 Processing of Transmittals from the QOC/QAP to DAP

Documents received on standard distribution from the QOC/QAP shall be screened by the Interface Manager for action by DAP and forwarded to the DAP files. A copy of all documents requiring DAP action (Review and Comment, or Action, as shown on Attachment A) shall be transmitted to the responsible DAP Discipline Coordinator using a QOC/QAP/DAP Interface Transmittal form (Attachment B) by the Construction Quality Interface Manager ("Interface Manager") or his designee.

The assigned Discipline Coordinator shall notify the Interface Manager if responsibility for resolution is reassigned to another discipline.

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Throughout the remainder of this procedure, "Discipline Coordinator" also includes the Programmatic/Generic Implications Coordinator.

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Documents transmitted for review and comment shall be reviewed by the responsible Discipline Coordinator or his designee. Resolution of comments shall be pursued directly with the responsible individual in the QOC/QAP. The final resolution shall be documented on a Contact Log Sheet (Attachment C) or a referencable memo as appropriate and a copy forwarded to the Interface Manager. Reviews that result in no comments shall be noted as such on the transmittal form and a copy of the transmittal form returned to the Interface Manager.

Resolution of items requiring action (other than review and comment) shall be documented as follows:

- If the item involves a discrepancy, the Discipline Coordinator shall process it in accordance with DAP-2 and forward a copy of the DIR to the Interface Manager
- o If the item involves an external issue, the Discipline Coordinator shall process it in accordance with DAP-2 and forward a copy of the Issue Record to the Interface Manager. Alternatively, a memo documenting that the item need not be considered by DAP or that it is being considered by DAP shall be prepared by the Discipline Coordinator and forwarded to the Interface Manager.
- If neither of the preceding cases apply, document the resolution on a Contact Log form or a referencable memo and forward a copy to the Interface Manager.

The Interface Manager shall transmit to the QOC/QAP a copy of the above documentation except documentation for which the DAP response is "no comments."

The Interface Manager shall maintain appropriate files that identify open DAP action items and document the resolution of closed DAP action items.

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#### 4.2 Review of Inspection Attribute Lists

The DAP is required to review the QOC Inspection Attributes List. Inspection attributes are defined by QOC/QAP for each QOC inspection population in the inspection basis document referenced in the inspection procedure (QI) and in more detail in the QI (see Appendix A). For most populations, separate attribute lists and QIs are prepared for the hardware reinspections and the document reviews. The purpose of the DAP review is to ensure that the attributes selected by the QOC/QAP:

 Adequately reflect the safety-significant inspection attributes important to the design for the population being inspected

 Incorporate any special considerations arising from CPSES design related issues/problems.

The assigned Discipline Coordinator, or his designee, shall review the Inspection Attribute Lists as described below and process the results in accordance with Section 4.1 of this procedure. Design issues/problems identified after the initial review is completed that change the acceptance criteria or require additional inspection attributes should be processed as a request for action by the QOC/QAP (see Section 4.4).

Level | Review (All QOC Inspection Populations)

For each QOC inspection population, the Interface Manager will transmit the inspection basis documents for review and comment by the assigned DAP Discipline Coordinator. This review is intended to be a "reasonableness" check of the attributes for all populations. The reviewers should evaluate, based on their experience, the consistency and sufficiency of the defined attributes and



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the justification provided in the inspection basis documents for any attributes excluded or alternate acceptance criteria utilized.

#### Level 2 Review

For the selected populations listed below, the reviewer shall select three design related inspection attributes from the applicable installation specification and verify that these attributes and their acceptance criteria have been correctly incorporated in the inspection procedure (QI). The results of this evaluation shall be documented in a referenceable memo or checklist identifying the attributes selected and the results of the review.

DAP Discipline

Mechanical

Civil/Structural

Electrical, I&C

Piping/Supports

#### **QOC/QAP** Population

- Large bore pipe supports (non-rigid)
- 2. Small bore pipe supports
- 3. Large bore piping configuration
- 4. Small bore piping configuration
- 1. HVAC equipment installation
- Mechanical equipment installation
- 1. Structural Steel
- 2. HVAC duct hangers
- I. Cables
- 2. Instrumentation equipment

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#### 4.3 Review of Safety Significance Assessments

Safety significance assessments are prepared by the QOC/QAP in accordance with Procedure CPP-016 and transmitted to DAP for review and comment or action as indicated in Attachment A. The nature of the review of these documents by DAP depends on which of the following categories the document falls within:

Safety significance assessments which conclude that a deviation is not safety-significant are reviewed by DAP on a selected basis to evaluate the consistency of DAP safety significance evaluations with QOC/QAP evaluations and to confirm that there are no design-related implications. The primary source of design-related problems identified by the QOC/QAP are the action transmittals identified in Attachment A.

 All safety significance assessments which conclude that the deviation is safety-significant, but which are not transmitted for action as a design-related problem, are reviewed to evaluate the consistency of DAP safety significance evaluations with QOC/QAP evaluations and to confirm that there are no design related implications.

 Safety-significant design related deficiencies are transmitted to DAP for action and coordination of results with QOC/QAP.

The Interface Manager shall select approximately ten percent of the QOC/QAP safety significance assessments that conclude that the deviation is not safety-significant. The documents selected shall be reviewed by the DAP Interface Manager or assigned to a Discipline Coordinator for review and comment. The results of the review shall be processed per Section 4.1 of this procedure.

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The DAP Interface Manager shall forward all deficiencies which are not transmitted as design related (including the associated safety significance assessment) to the responsible Discipline Coordinators for review and comment. The results of this review shall be processed in accordance with Section 4.1 of this procedure.

The DAP Interface Coordinator shall forward for DAP action all deficiencies (including the associated safety significance assessment) which are determined to be design related. The responsible Discipline Coordinator shall processes these transmittals in accordance with Section 4.1 of this procedure.

#### 4.4 Processing of Transmittals from DAP to the QOC/QAP Program

Attachment A identifies the types of information required to be transmitted from the DAP to the QOC/QAP. Items identified as "information only" shall be transmitted to the QOC/QAP Interface Coordinator via standard distribution. Items identified as review and comment, action, or coordination of results shall be transmitted via a QOC/QAP/DAP Interface Transmittal Form (Attachment B).

The DAP Program Manager shall identify those DAP documents required to be transmitted to the QOC/QAP via controlled distribution to meet the requirements of Attachment A. The individual designated by the DAP Manager shall transmit these documents directly to the QOC/QAP Interface Coordinator and shall maintain a file of the distribution lists for these documents.

#### 5.0 DOCUMENTATION

The Discipline Coordinators shall identify the documents within their areas of responsibility that need to be transmitted to the QOC/QAP for review and



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comment or action in accordance with Attachment A. These documents shall be forwarded to the DAP Interface Manager for transmittal to the QOC/QAP via a QOC/QAP/DAP Interface Transmittal Form. The top portion of the form, including the number and transmittal comments, is to be completed by the Discipline Coordinator or his designee. These transmittals shall be numbered consecutively within each discipline and use the following code to identify the originating discipline and sequential number:

> DAP - T - XX - YYY Sequential Number Discipline/Subject Code

Code	Discipline
C/S	Civil Structural
EIC	Electrical/1&C
G	Generic Implications
M	Mechanical
P	Piping/Supports
S	CPSES Site (DAP Interface Coordinator)
QOC	QOC/QAP Program Originated
E	Electrical*
1	Instrumentation*

The Discipline Coordinator will record each transmittal in a QAP/DAP Interface Transmittal log (Attachment D.)

\*NOTE: Use of "E" and "I" codes are optional alternatives to the "EIC" code. EIC may be used for both Electrical and I&C. "E" may be used when the document is relevant only to the electrical discipline. "I" may be used when the document is relevant only to Instrumentation and Control.

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#### ATTACHMENT A PART I

#### INFORMATION FROM DESIGN ADEQUACY PROGRAM TO QUALITY OF CONSTRUCTION, QA/QC ADEQUACY PROGRAM

ITEM	Information	Review & Comment by QOC/QAP	Action By QOC/QAP
Action Plan Results Reports	×		
Requests for QC Inspec- tions for Hardware			x
Requests for QA Evalua- tions of identified design process problems			×
Construction Items identified in external source review			×
Information on root cause analysis (no quality of construction or QA/QC concerns identified)	x		
Information on root cause analysis (QA/QC program or quality of construction concern identified)			×
Information on generic implications evaluation (no quality of construc- tion or QA/QC concerns identified)	x		



TN-85-6262/19 Attachment A

#### ATTACHMENT A PART I

#### INFORMATION FROM DESIGN ADEQUACY PROGRAM TO QUALITY OF CONSTRUCTION, QA/QC ADEQUACY PROGRAM (Continued)

ITEM	Information	Review & Comment by QOC/QAP	Action By QOC/QAP
Information on generic implications evaluation (QA/QC program or quality of construction concerns identified)			x
Collective Evaluation Report	×		
Information on Construction related issues discovered during walkdowns or document reviews			×
Safety Significant Construction or QA/QC Deficiencies			×



#### ATTACHMENT A PART 2

#### INFORMATION FROM QUALITY OF CONSTRUCTION, QA/QC ADEQUACY PROGRAM TO DESIGN ADEQUACY PROGRAM

ITEM	Information	Review & Comment DAP	Action By DAP
ISAP Results Report	x		
Information on design related issues dis- covered during inspec- tions and document reviews or review of external sources			x
Selection of design- related attributes for CPRT inspection activities		×	
Information on root cause analysis (no design concerns)	×		
Information on root cause analysis (design related concerns identified)			×
nformation on generic mplications evaluation no design related concerns)	×		
nformation on generic mplications evaluation (design related concerns dentified)			x



TN-85-6262/19 Attachment A

#### ATTACHMENT A PART 2

#### INFORMATION FROM QUALITY OF CONSTRUCTION, QA/QC ADEQUACY PROGRAM TO DESIGN ADEQUACY PROGRAM (Continued)

ITEM	Information	Review & Comment DAP	Action By DAP
Reinspection/Document Review Program Information Without Applicability to Design			
Sample Selection	x		
Population Descriptions	x		
Population Checklists	x		
Safety Significant	X		
Construction or QA/QC Deficiencies			
Results	X		
Collective Evaluation Report	×		
Periodic Trend Reports	×	*	
Safety Significance Evoluations		×	
Design Deviations Noted by QOC/QA			x
Safety-Significant Design-Related Deficiencies			x



#### ATTACHMENT B

# GOC/QAP/DAP INTERFACE DOCUMENT TRANSMITTAL FORM TRANSMITTAL NO. DAP-T-\_\_\_\_ TO: Dennis Alexander QA/QC Interface Coordinator FROM: John Honekamp DAP Interface Coordinator DAP Interface Coordinator

The attached document is transmitted for:

ACTION

REVIEW AND COMMENT

Document Title/Revision/Date

Transmittal Comments: (Includin rates due date):

Follow-up Assignment: (By ERC)

Assigned to: \_\_\_\_\_ By: \_\_\_\_\_ Date

Follow-up Comments:



TN-85-6262/19 Attachment B

ATTACHMENT C

COMANCHE PEAK RESPONSE TEAM TRT/DAP CONTACT LOG SHEET	FILE NO
SUMMARY OF TELECONOR MEETING	DATE:
SUBJECT:	
ORGANIZATION(S):	
PARTICIPANTS: DAP:	
OTHERS:	
SUMMARY:	
8	
ACTION:	



#### ATTACHMENT D

# COMANCHE PEAK DESIGN ADEQUACY PROGRAM LOG GAP/DAP INTERFACE TRANSMITTAL LOG

Transmittal No. DAP-T-XX-YYY	Transmittal Date	Requested Response Date	Document Description

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#### APPENDIX A

#### BACKGROUND

This appendix is a non-mandatory attachment to DAP-19. The purpose of this appendix is to provide general background information and references related to the Quality of Construction Program (QOC) that may be useful to DAP personnel involved in the implementation of DAP-19.

#### PROGRAM STRUCTURE

The Quality of Construction (QOC) and QA/QC Program (QAP) is described in Appendix B of the CPRT Program Plan and the following Issue-Specific Action Plans (ISAPs):

I.d.1	QC Inspector Qualifications
I.d.2	Guidelines for Administration of QC Inspector Tests
VII.a.I	Material Traceability
VII.a.2	Non-conformance and Corrective Action Systems
VII.a.3	Document Control
VII.a.4	Audit Program and Auditor Qualification
VII.a.5	Management Assessment
VII.a.6	Exit Interviews
VII.a.7	Housekeeping and System Cleanliness
VII.a.8	Fuel Pool Liner
VII.b.I	Onsite Fabrication
VII.b.2	Valve Disassembly
VII.b.3	Pipe Support Inspections
VII.b.4	Hilti Anchor Bolt Installation

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# APPENDIX A (Cont'd)

 VII.b.5
 Electrical Cable Tray Raceway Support Inspections

 VII.c
 Construction Reinspection
 Secumentation Review Plan

ISAP VII.c is the segment of the program under which the bulk of the hardware reinspections are performed, although ISAPs VII.b.1 through VII.b.5 also include some hardware reinspection. The reinspections under ISAP VII.c are structured by populations of hardware which involve similar work processes. A list of the VII.c hardware populations (Exhibit I) is issued periodically by the QOC/QAP.

#### PROGRAM DOCUMENTATION

The general types of documentation issued by the QOC/QAP are listed below. The DAP maintains duplicate ERC interface files in the Berkeley, Bethesda and Site offices which contain the bulk of these documents (see ERC Interface File Index for contents).

- Program Description: (Appendix B CPRT Program Plan)
- ISAPs: (Appendix C CPRT Program Plan)
- <u>ERC Manual</u>: Management Program Plan for the QA/QC Review Team and Quality Assurance Procedures
- ERC Manual: Comanche Peak Project Procedures (CPPs)
- ERC Manuals: Quality Instructions (QIs which contain the detailed inspection instructions)

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#### PROGRAM DOCUMENTATION (Cont'd)

- Population Descriptive Information:
  - o Work Process Definition (Exhibit 2)
  - Population Description (Exhibit 3)
  - o Population Items List (Exhibit 4)
- Inspection Attribute List (Exhibit 5)

(Note that this attribute list is attached to the description memorandum referenced in each QI and is located in the DAP/ERC interface file under "Inspection Checklist".)

- ERC Deviation Report (Exhibit 6)
- ERC Safety Significance Evaluation (Exhibit 7)

The QOC/QAP documents of most interest to the DAP are the population descriptive information, the inspection Attribute Lists, the QIs which describe the detailed inspection methods and inspection criteria and the safety significance evaluations for deviations found. All of these documents are contained in the DAP/QOC/QAP interface files. The preparation of these documents is controlled by the following ERC procedures which are also part of the DAP/QOC/QAP interface file.

CPP-001 Preparation of Project Procedures and Quality Instructions

CPP-005 Establishing Populations

CPP-006 Sample Selection

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#### PROGRAM DOCUMENTATION (Cont'd)

CPP-007 Preparation of Checklists and Data Base Reports

CPP-010 Preparation of Deviation Reports

CPP-016 Safety Significance Evaluations of Deviation Reports

#### PROGRAM ORGANIZATION

A copy of the ERC organization chart is included in the DAP/QOC/QAP interface file. The principal organizational units of interest to DAP are:

#### Construction Sample Reinspection Engineering

This group, which prepares the population descriptive information, the attribute lists and the QIs, is composed of three discipline areas which correspond to the structure of the master population list (Exhibit 1).

#### Safety Significance Evaluation Group

This group performs the safety significance evaluations of all deviations identified during the QAP reinspections. It is composed of the following four disciplines:

- Electrical
- Mechanical
- Structural
- Supports

#### Inspection Group

This group contains the inspectors who perform the QAP reinspections.





The following exhibits are examples of the first page of the types of documents listed below. They are provided to aid in the recognition of these types of documents.

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Exhibit I	-	Hardware Population List
Exhibit 2	-	Work Process Definition
Exhibit 3	-	Population Description
Exhibit 4	-	Population Items List
Exhibit 5	-	Inspection Attribute List
Exhibit 6	-	ERC Deviation Report
Exhibit 7	-	ERC Safety Significance Evaluation





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				E	XHIBITI					
			COM	ANCHE PEA	AK REVIE	W TEAM LIST				
PRE BY	: <u>A. P</u> QA/C	atterson C REINSPE SUP	CTION E ERVISOR	NGINEERIN	٩G	-	DATE:	Augus	t 13, 1	985
DISCIPLINE				POPULAT	ION				POPU DESC COMP DATE	LATION RIPTION LETION S
STRUCTURAL (S)	Con Str Fill Line Fuel Larg Smal Pipe Inst Cat HVAC	crete Plac actural St & Backfi ers (LINR)   Pool Lin ge Bore Pi ge Bore Pi l Bore Pi l Bore Pi l Bore Pi whip Res rument Pi l Conduit Duct Sup	ement ( eel (ST 11 Plac er (FPL pe Supp pe Supp traints pe/Tube Supports (1	CONC) EL) ement (Fi R) orts - Ri orts - No orts (SBF (PWRE) Supports ts (COSP) HVDS)	lll) lgid (LB on-Rigid PS) s (INSP)	SR) (LBSN)			8/0 8/0 8/8 8/8 7/24/ 7/24/ 7/24/ 6/1 8/0 8/08/	07/85 07/85 01/85 0/85 85Rev 1 85Rev 1 85Rev 1 9/85 6/85 7/85 85Rev 1
ELECTRICAL (E)	Cond Cabl Cabl Elec Inst	uit (CDUT) e (CABL) e Tray (CA trical Equ rumentatio	) MTY) sipment on Equip	(EEIN) ment (IN	IN)				7/10/ 7/18/ 7/19/ 6/1 6/1	85Rev 1 85Rev 1 85Rev 1 2/85 3/85
ECHANICAL (M)	HVAC HVAC Fiel Mech Larg Smal Larg Smal Tu Pipin	Ducts and Equipment d Fabricat anical Equ e Bore Pip Bore Pip Bore Pip Bore Pip be Welds/ ag System	Ple.um Instal ed Tank ing Con ing Con e - Wel e and I Materia Bolted	is (DU?L) lation (1 is (FFTA) Installar figuration figuration ds/Mater: nstrument 1 (SBWM) Joints/Mater	HVIN) tion (ME on (LBCO on (SBCO ial (LBW t Pipe/ aterials	(PBOM)			8/14// 7/1: 7/26// 8/10 6/20 6/20 6/20 6/20	85Rev 1 3/85 35Rev 1 0/85 5/85 5/85 5/85 26/85 5/85
SSUE APP	ISSUE	APP	ISSUE	APP	ISSUE	APP	ISSUE	APP	ISSUE	APP
0 0 P	1 1	8/2/185	2		3	•	4		5	
SSUE APP	ISSUE	APP	ISSUE	APP	ISSUE	APP	ISSUE	APP	ISSUE	APP
0	7		8		0		10		11	

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#### WORK PROCESS DEFINITION FOR LARGE BORE PIPE SUPPORT - NON-RIGID POPULATION GROUP (LBSN)

#### INTRODUCTION

The Large Bore Pipe Support - Non-Rigid Population includes supports for piping systems (2 1/2 inch nominal pipe size and larger) all of which are safety related, Safety Class 1, 2, or 3 and Seismic Category I. It includes only those supports which utilize constant or variable spring hangers or snubbers as components. It includes all the items shown on the pipe support detail drawings (BRHs).

The installation of all supports within this population requires the following work processes:

Fabrication - includes all activities prior to installing the support in its final location in the plant, i.e., before connecting the support structure or components to the building structure and the vendor supplied component item to the pipe attachment point. The process also includes modification of vendor supplied catalog ' items.

Installation - includes all activities required to install the support at its final location in accordance with the pipe support detail drawing (BRH) and the construction hanger package.

Welding - includes all welding processes during fabrication and installation.

The following work process descriptions demonstrate that reasonable homogeneity does exist at the work process level. Regardless of the type of support, size of pipe being supported or material and components used, each work process involves: a common specification, a common construction procedure, a common construction management organization, common craft labor performing the same basic types of operations, a common inspection instruction, and a common inspection organization. A sufficient number of samples will be randomly selected from the Large Bore Pipe Support-Non-Rigid population group to ensure that the required confidence level is achieved for each work process. This approach will permit meaningful conclusions to be drawn regarding the construction adequacy of all small bore pipe supports.

	EXHIBIT 3
	COMANCHE PEAK REVIEW TEAM POPULATION DESCRIPTION
	Page 1 of 2
)	TTON NAME, Larga Bara Ping Supports-Pinid
PREP	ARED BY:
	RESPONSIBLE QA/QC SUPPORT ENGINEER DATE: June 17, 1985
SYST	TEM, COMPONENTS, AND STRUCTURES:
•	Supports for piping systems designated in Section 17A of the FSAR that are safety related and are Safety Class 1, 2 and 3 and Seismic Category I. (see attachment)
POPL	TLATION BOUNDARY:
•	Supports for large bore piping (24-inch nominal pipe and larger) meeting the criteria for Safety Class 1, 2, and 3 and Seismic Category I. Support components as shown on pipe support drawings. (e.g. structural steel, NF welds, std. mfg. components, plate, bolting material, anchor bolts and nuts HILTI type and Richmond Studs, etc.)
	Supports that are construction complete and QC accepted up to and including June 17, 1985.
:	Supports located in Units 1, 2 and common areas.
•	Only supports which utilize anchors, guides, rigid restraints, and three dimensional restraints.
ITEM	IS NOT INCLUDED IN THE POPULATION:
•	Hydraulic or mechanical snubbers, pipe whip restraints and spring
•	hangers. Small bore pipe supports.
:	Large bore piping.
Ч.,	Building structural members.
PPRO	VED BY: REAL DISCIPLINE ENGINEER DATE: 6/18/85
	All of Polar
PRO	QA/QC REINSPECTION ENGINEERING
	SUPERVISOR

_	EXHIB!T 4
	COMANCHE PEAK REVIEW TEAM POPULATION ITEMS LIST Page 1 of 1
	POPULATION NAME: Large Bore Pipe Supports - Rigid
	PREPARED BY: RESPONSIBLE QA/QC SUPPORT ENGINEER DATE: July 30, 1985 REV: 1
	<section-header>         OPULATIONS LIST SOURCE:         The Anager Installation Tracking System, commonly known as "HITS" is the fource document for this population. The HITS program is a computerized party which contains information for all supports (i.e., Small Bore and trace bore) as to the system, unit, building, room number, support mark under and safety class. In addition, data pertaining to pipe size, the super and safety class. In addition, data pertaining to pipe size, the super and safety class. In addition, data pertaining to pipe size, the super and safety class. In addition, data pertaining to pipe size, the super and safety class. In addition, data pertaining to pipe size, the super attachments and construction status is provided.         Tor the entire HITS program, a listing of Rigid Large Bore Pipe Supports of the supports which are safety related, construction grape set of Attachment 2, regarding one of the Random Samplex.         SIS FOR ACCEPTING THE LIST: (Refer to Attachment 1)         Acceptance of the list is based on tandom sample verification of the entire for porgram content utilizing a separate source was a listing of Brown and to the Ranger Location (RHH) Drawings. Once the BHLTD rawing Sample was satablished, all supports contained on the sample drawings were checked satablished, all supports contained on the sample drawings were checked satablished, all supports of the HITS program was accurate and could be satablished. All support formed to verify the accuracy of support source status. It was established that the Banger Mark Number and construction status. It was established that the Banger Mark Number and construction status Content of the HITS program was accurate and could be sate as source for Large Bore Pipe Supports. Not Applicable         Market MITS to verify the Accuracy of support       Status Content ADDITIONAL ITEMS: Not App</section-header>
	PPROVED BY: Roman DATE: Ave. 6, 1985 QA/QC LEAD DISCIPLINE ENGINEER
F	PPROVED BY: A. A. Patters DATE: A- 6.1915 QA/QC REINSPECTION ENGINEERING SUPERVISOR

### EXHIBIT 5

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ATTACHMENT "A" Large Bore Pipe Supports-Non-Rigid Population List of Source Document for Each Attribute

Attribute	Source*
1. Identification	B&R QI-QAP 11.1-28, Rev. 31, Section 3.2
<ol> <li>Location and Orientation</li> </ol>	B&R CP-CPM 9.10, Rev. 14, Section 4.7 (Unit 2) TUGCO CP-EI-4.5-1, Rev. 12, Sections 3.2.3, 3.2.4 ( 1 and Common) Gibbs and Hill Specification No. 2323-MS-43A, Rev. Section 3.5.3 [For pipe nominal wall thickness].
3. Configuration	
A. Components	B&R QI-QAP 11.1-28, Rev. 31, Section 3.3
B. Material	B&R QI-QAP 11.1-28, Rev. 31, Sections 3.2 and 3.3
C. Installation	B&R QI-QAP 11.1-28, Rev 31, Attachment 3
D. Clearances	B&R CP-CPM 9.10, Rev. 14, Sections 4.7.4, 4.7.5, and 4.11.1
E. Baseplates	B&R CP-CPM 9.10, Rev. 14, Sections 4.9 and 4.10
4. Bolting	
A. Engagement	B&R QI-QAP 11.1-28, Rev. 31, Section 3.3.1.4
B. Contact	B&R CP-CPM 9.10, Rev. 14, Section 4.12
C. Richmond Insert	ts B&R CP-CPM 9.10, Rev. 14, Section 4.12.4
D. Locking Device:	s ASME III, Subsection NF B&R CP-CPM 9.10, Rev. 14, Section 4.17
E. U-Bolts	B&R CP-QP 11.2-1, Rev. 18, Section 3.10 B&R QI-QAP 11.1-28, Rev. 31, Section 3.3.1.4
F. Torque	B&R CP-CPM 9.10, Rev. 14, Section 4.13
G. Edge Distance	B&R QI-QAP-11.1-28, Rev. 29, Section 3.3.3.
H. Grout-in Anchor	TUSI CP-EI-13.0-3, Rev. 1
. Piping Welds	
A. Location	B&R QI-QAP 11.1-28, Rev. 31, Section 3.4.4
B. Size C. Profile	ASME 111, Subsection NB, NC, ND, Paragraphs 4427 B&R QI-QAP 11.1-28, Rev. 31, Section 3.4.4.
D. Reinforcement	ASME III, Subsections NB, NC, ND, Paragraphs 4426



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DR NUMBER	DRIGTNATOR	DATE
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ELOCATION ELEV. BIG'	3" 7' NORTH 4.35 1'-8" EA	ST B-S
DWG. BRHL-CC-I-SB-C	DI REV.5	
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	COMANCHE PEAK RESPONSE TERM SAFETY SIGNIFICANCE EVALUATION						
WALUATION NUMBE	R: T.S-LBSR-204-DR-5-SIE SHIT 1 312						
PREPARER:	ALAN R. PARKS Alan Rache DATE: 11/14/85 QA/QC SSEG DISCIPLINE ENGINEER						
CHECKER:	: DMilhe (SATYENDRA M. JHA) DATE: 11-15-85						
THE FOLLOWING AN THE CONDITION DE	ALYSIS SUPPORTS THE CONCLUSION CONCERNING THE SAFETY SIGNIFICANCE OF ESCRIBED IN THE DEVIATION REPORT NUMBER 1-S-LOSR -204-DR-5	F					
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CONCLUSION:	de la delar e deserva de la sub-sub-sub-sub-sub-sub-sub-sub-sub-sub-						
BASED UPON THIS OF THE AFFECTED	ANALYSIS, THE REPORTED CONDITION WILL WILL NOT RESULT IN THE INABILITEM TO PERFORM ITS INTENDED SAFETY RELATED FUNCTION.	.177					
QAT	QC SSEC LEAD DISCIPLINE ENGINEER DATE: 1/18/25						
APPROVED BY:	ames A Adda DATE: 11-22-85						