Ashok Thadani
Draft
March 29, 1985

Summary of Presentation by Civil/Structural and Mechanical/Piping Team

On March 28, 1985, the Contention 5 Panel met with Larry Shao and several members of his group to discuss further developments in the Civil/Structural and Mechanical Piping areas (February 1, 1985 meeting minutes documented the Contention 5 Panel discussions held with this group on January 30, 1985). Larry described his group's preliminary reaction to the applicant's presentation (held the week of March 6, 1985), on the open issues, status and new allegations, and the group's assessment of the data sheets. The attached viewgraphs summarize Larry's presentation which was well focused. Two items of interest, not described in the attachment, are summarized below:

(1) New allegations:

a) Civil Structural

The review of the 27 new CASE allegations will be completed in about 4 weeks. The schedule for resolution of 3 new allegations (by allegers) has not yet been developed.

b) Mechanical Piping

Of the 280 allegations by A-45, the evaluation of those allegations considered important by the alleger is included in the the soon to be published SSER. The evaluation of the 10 new allegations by CASE

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will be completed in about 4 weeks. The schedule for the 11 new allegations (provided by the allegers during the week 3/4/85) has not yet been established.

(2) The group believed the data sheets would be of value in integration and overall assessment of activities on Comanche Peak. The reviewers indicated that the only difficult piece of information to provide was an estimate of the population from which the sample was selected. The reviewers also indicated their desire to provide feedback to further improve the quality of the data sheets.

MEETING WITH COMANCHE PEAK
CONTENTION 5 PANEL

PRESENTED BY
L. C. SHAO
CIVIL/STRUCTURAL & MECHANICAL/
PIPING GROUPS
MARCH 28, 1985

TOPICS

1. MEETINGS WITH TUEC ON PROPOSED ACTION PLANS

2. STATUS AND NEW ALLEGATIONS

3. DATA SHEET

CIVIL/STRUCTURAL
ACTION ITEM NUMBER II.A
REINFORCING STEEL IN THE REACTOR CAVITY

ISSUE

- STRUCTURAL ADEQUACY OF REACTOR CAVITY WALL WITH OMITTED REBAR BETWEEN ELEVATIONS 812'-0" AND 819'-0½"
- ADEQUACY OF ENGINEERING/FIELD INTERFACE WITH RESPECT TO COMMUNICATION OF DESIGN CHANGES
- EFFECTIVENESS OF FIELD PROCEDURES GOVERNING DISPOSITION OF OMITTED REBAR CASES

TUEC INITIATIVES

- ANALYSIS/DESIGN REVIEW OF REACTOR CAVITY AS-BUILD CONDITION
- IDENTIFICATION/EVALUATION OF ALL REBAR OMISSION CASES
- RE-EVALUATION/DESIGN REVIEW AS REQUIRED
- REVIEW PROCESS/ENGINEERING JUSTIFICATION FOR APPROVAL OR REBAR OMISSIONS
- REVIEW ENGINEERING/FIELD INTERFACE AND CONTROLS FOR COMMUNICATING IMPENDING DESIGN CHANGES

CIVIL/STRUCTURAL
ACTION ITEM NUMBER II.A
REINFORCING STEEL IN THE REACTOR CAVITY

PRELIMINARY TRT ASSESSMENT

- THE PROPOSED INITIATIVES APPEAR ADEQUATE
- THIRD PARTY REVIEW OF TUEC FINDINGS MAY BE REQUIRED

CIVIL/STRUCTURAL
ACTION ITEM NUMBER II.B
CONCRETE COMPRESSION STRENGTH

ISSUE

- ALLEGED FALSIFICATION OF RECORDS
- ADEQUACY OF CONCRETE STRENGTH

TUEC INITIATIVES

- VERIFICATION OF QUALITY OF PLACED CONCRETE VIA TEST
- SCHMIDT HAMMER TESTING BY SOUTHWEST RESEARCH INSTITUTE
- COMPARISON OF TESTS RESULTS BETWEEN CONCRETE AT ISSUE AND CONTROLLED CONCRETE

CIVIL/STRUCTURAL
ACTION ITEM NUMBER II.B
CONCRETE COMPRESSION STRENGTH

PRELIMINARY TRT ASSESSMENT

- TO PRESENT THIS DATA IN A MORE UNDERSTANDABLE MANNER

CIVIL/STRUCTURAL
ACTION ITEM NUMBER II.C
MAINTENANCE OF AIR GAP BETWEEN CONCRETE STRUCTURES

ISSUE

- EXTENT AND LOCATION OF DEBRIS BETWEEN STRUCTURES
- CONSISTENCY OF AS-BUILT CONDITION AND SEISMIC ANALYSIS
- EFFECTIVENESS OF QC PROGRAM

TUEC INITIATIVES

- PROFILING OF CURRENT AS-BUILT CONDITION VIA VIDEO INSPECTION
- ASSESSMENT OF DESIGN ADEQUACY OF AS-BUILT CONDITION
  - DESIGN REVIEW OF CALCULATIONS
  - REMOVAL OF DEBRIS (AS REQ'D)
- DETERMINATION OF CAUSE VIA:
  - REVIEW OF CONSTRUCTION HISTORY
  - REVIEW OF AVAILABLE DOCUMENTATION
  - EVALUATION OF AS-BUILT CONDITION

CIVIL/STRUCTURAL
ACTION ITEM NUMBER II.C
MAINTENANCE OF AIR GAP BETWEEN CONCRETE STRUCTURES

PRELIMINARY TRT ASSESSMENT

- BESIDES THE NEED FOR THIRD PARTY AUDIT OF DESIGN ADEQUACY CALCULATIONS THE PROPOSED INITIATIVES APPEAR TO BE ADEQUATE

CIVIL/STRUCTURAL
ACTION ITEM NUMBER II.D
SEISMIC DESIGN OF CONTROL ROOM CEILING ELEMENTS

ISSUE

- SEISMIC DESIGN ADEQUACY OF CONTROL ROOM CEILING ELEMENTS
  - FUNCTIONAL IMPACT TO SAFETY RELATED EQUIPMENT
  - INJURY TO OPERATORS
- ADEQUACY OF CATEGORY II SEISMIC ANALYSIS
- POSTULATION OF FAILURE OF NON-SEISMIC ITEMS

TUEC INITIATIVES

- CONTROL ROOM CEILING DESIGN CHANGES
- ARCHITECTURAL FEATURES/DAMAGE STUDY
- THIRD PARTY VERIFICATION OF DAMAGE STUDY PROGRAM

CIVIL/STRUCTURAL
ACTION ITEM NUMBER II.D
SEISMIC DESIGN OF CONTROL ROOM CEILING ELEMENTS

PRELIMINARY TRT ASSESSMENT

- DEFINITION OF ARCHITECTURAL FEATURES SHOULD BE BROAD AND ENCOMPASS ALL NON-SEISMIC ITEMS

- THE ANALYSIS PROCEDURES TO QUALIFY SEISMIC CATEGORY II ITEMS REQUIRE MORE SPECIFIC DESCRIPTION

- DAMPING VALUE FOR SEISMIC ANALYSIS UNDER SSE NEEDS CLARIFICATION

CIVIL/STRUCTURAL
ACTION ITEM NUMBER II.E
REBAR IN THE FUEL HANDLING BUILDING

ISSUE

- STRUCTURAL INTEGRITY OF FUEL HANDLING BUILDING SLAB CONSIDERING POTENTIAL REBAR CUTTING RESULTING FROM ANCHOR BOLT INSTALLATION

TUEC INITIATIVES

- ANALYSIS OF STRUCTURE ASSUMING REBAR WAS CUT
- REVIEW OF PROCEDURAL CONTROLS GOVERNING REBAR CUTTING
- EVALUATION OF WORK OF SUBJECT CONSTRUCTION CREW
- VERIFICATION OF SIMILAR BOLT INSTALLATIONS
- THIRD PARTY REVIEW OF DESIGN CALCULATION, DOCUMENTATION FOR REBAR CUTTING AND ADEQUACY OF IN PROCESS PROCEDURES

CIVIL/STRUCTURAL
ACTION ITEM NUMBER II.E
REBAR IN THE FUEL HANDLING BUILDING

PRELIMINARY TRT ASSESSMENT

- THE ABOVE DESCRIBED INITIATIVES APPEAR ADEQUATE

MECHANICAL & PIPING

ACTION ITEM

INSTALLATION OF MAIN STEAM LINE

ISSUE:

- POTENTIAL DAMAGE TO A UNIT 1 MAIN STEAM LINE DUE TO SETTLEMENT OF TEMPORARY SUPPORTS AND REPOSITIONING DURING ERECTION AND FLUSHING.

- ADEQUACY OF PROCEDURES FOR TEMPORARY SUPPORTS DURING CONSTRUCTION.

TUEC INITIATIVES:

- PERFORM ASSESSMENT OF POTENTIAL DAMAGE TO MAIN STEAM LINE.

- DEVELOP REINSPECTION PLAN FOR MAIN STEAM LINE, for welds, if necessary

- REVIEW ADEQUACY OF ERECTION PROCEDURES REGARDING TEMPORARY SUPPORTS.

- IDENTIFICATION OF SIMILAR CIRCUMSTANCES INVOLVING INADEQUATE TEMPORARY SUPPORTS.

MECHANICAL & PIPING
ACTION ITEMS
INSTALLATION OF MAIN STEAM LINE

PRELIMINARY TRT ASSESSMENT

- APPLICANT'S PRELIMINARY ANALYSES INDICATES MAIN STEAM LINE WAS NOT DAMAGED (MAXIMUM STRESS DURING INCIDENT WAS 11.1 KSI VS YIELD STRESS OF 44.0 KSI).

- APPLICANT'S RESPONSE REGARDING ADEQUACY OF PROCEDURES FOR TEMPORARY SUPPORTS DURING CONSTRUCTION AND IDENTIFICATION OF INCIDENTS INVOLVING INADEQUATE TEMPORARY SUPPORTS APPEAR TO BE ACCEPTABLE.

MECHANICAL & PIPING

ACTION ITEM

IMPROPER SHORTENING OF ANCHOR BOLTS IN STEAM GENERATOR UPPER LATERAL SUPPORT

ISSUE:

- IMPROPER SHORTENING OF ANCHOR BOLTS AND STRUCTURAL ADEQUACY OF AS-BUILT CONDITION

- ANY GENERIC IMPLICATIONS AND EFFECTIVENESS OF Q C. PROGRAM

TUEC INITIATIVES:

- UT INSPECTION TO DETERMINE BOLT ENGAGEMENT HAS BEEN COMPLETED AND ONLY 36 OF THE 144 BOLTS HAVE THE DESIGN ENGAGEMENT OF 2¼".
- THE AS-CONSTRUCTED CONFIGURATION HAS BEEN DETERMINED BY THE A/E TO BE SAFETY DEFICIENT.
- A 10 CFR 50.55(E) HAS BEEN ISSUED FOR THESE BOLTS ON 1-17-85. CORRECTIVE ACTIONS WILL BE PERFORMED TO ENSURE THESE BOLTS TO THEIR DESIGN ENGAGEMENTS.
- REVIEW THE GENERIC IMPLICATIONS AND DETERMINE ROOT CAUSES.

MECHANICAL AND PIPING

ACTION ITEM

IMPROPER SHORTENING OF ANCHOR BOLTS

STEAM GENERATOR UPPER LATERAL SUPPORTS

PRELIMINARY TRT ASSESSMENT:

- THE APPROACH SELECTED BY THE APPLICANT IS ADEQUATE FOR THE LATERAL SUPPORT.

- TRT WILL EVALUATE THE SCOPE AND DEPTH OF THE REVIEW OF SIMILAR TYPES OF CONFIGURATIONS.

MECHANICAL AND PIPING

ACTION ITEM

INSPECTION FOR CERTAIN TYPES OF SKEWED WELDS IN NF SUPPORTS

ISSUE:

- LACK OF PROPER INSPECTION DOCUMENTATION FOR SKEWED FILLET WELDS WHEN WELDING A PIPE STANCHION TO A PIPE STANCHION OR A PIPE STANCHION TO A CURVED PLATE FOR CLASS 2 AND 3 NF SUPPORTS.

TUEC INITIATIVES:

- ESTABLISH INSPECTION CHRONOLOGY.
- REVIEW PROCEDURES AND DOCUMENTATION.
- REINSPECT WELDS AS REQUIRED BASED ON DOCUMENTATION REVIEW.
- ASSESS ROOT CAUSE AND GENERIC IMPLICATIONS.

MECHANICAL AND PIPING

ACTION ITEM

INSPECTION FOR CERTAIN TYPES OF SKEWED WELDS IN NF SUPPORTS

PRELIMINARY TRT ASSESSMENT:

- TRT FEELS THAT IF THE SAMPLING IS ADEQUATE THE PROPOSED SOLUTION WILL BE SATISFACTORY.

MECHANICAL & PIPING

ACTION ITEM

UNAUTHORIZED WELD REPAIR OF MISDRILLED HOLES

ISSUE:

- EXISTENCE OF UNAUTHORIZED, UNDOCUMENTED AND UNINSPECTED WELD REPAIRS OF MISDRILLED HOLES IN SEISMIC CATEGIRY I PIPE SUPPORTS, BASE PLATES, AND CABLE TRAY SUPPORTS IN REACTOR UNITS 1 AND 2.
- STRUCTURAL ADEQUACY OF COMPONENTS CONTAINING SUCH WELDS.

TUEC INITIATIVES:

- REVIEW EXISTING ENGINEERING AND QC PROGRAMS AND DOCUMENTATION FOR WELD REPAIR AND INSPECTION OF MISDRILLED HOLES.
- DEVELOP A VISUAL INSPECTION METHOD FOR LOCATING MISDRILLED HOLES WHICH HAVE BEEN REPAIRED BY WELDING.
- INSPECT SAMPLES OF CABLE TRAY SUPPORTS, PIPE SUPPORTS AND BASE PLATES FOR UNAUTHORIZED WELD REPAIR OF MISDRILLED HOLES.
- INSPECT ALL UNAUTHORIZED WELD REPAIRS FOUND. ASSESS ADEQUACY OF COMPONENTS BASED ON FINDINGS.
- DETERMINE GENERIC IMPLICATIONS WITH RESPECT TO ADEQUACY OF QC DOCUMENTATION AND COMPONENT DESIGN.

MECHANICAL & PIPING

ACTION ITEM

UNAUTHORIZED WELD REPAIR OF MISDRILLED HOLES

PRELIMINARY TRT ASSESSMENT

TUEC INITIATIVES ARE ACCEPTABLE PROVIDED THAT Some VOLUMETRIC INSPECTION IS PERFORMED IF UNAUTHORIZED WELD REPAIRS ARE FOUND SINCE SUCH WELDS WERE MADE UNDER CIRCUMSTANCES WHICH MAY HAVE PRECLUDED PROPER REPAIR TECHNIQUE.

MECHANICAL & PIPING

ACTION ITEM

DESIGN CONSIDERATIONS FOR PIPING SYSTEMS BETWEEN SEISMIC CATEGORY I AND NON-SEISMIC CATEGORY I BUILDINGS

Region I identified this concern in 84 as part of their inspection

ISSUE:

- o INFLUENCE OF NON-SEISMIC PORTION OF A PIPING RUN ON THE SEISMIC CATEGORY I PORTION OF THE RUN.
- o PARTICULARLY IN A CASE WHEN PIPING GOES FROM SEISMIC CATEGORY I TO A NON-SEISMIC CATEGORY I BUILDING.
- o ISOLATION SHOULD BE PROVIDED BY SEPARATION, BARRIER OR CONSTRAINT.
- o IF ISOLATION IS NOT FEASIBLE, ONE MUST CONSIDER THE EFFECT ON SEISMIC CATEGORY I PIPING RUN DUE TO FAILURE OF NON-SEISMIC CATEGORY I PIPING RUN.

TUEC INITIATIVES:

- o IDENTIFY PIPING SYSTEMS THAT GO FROM SEISMIC CATEGORY I TO NON-CATEGORY I BUILDINGS.
- o IDENTIFY NON-SEISMIC PIPING THAT HAS INTERFACE WITH SEISMIC LINES.
- o REVIEW OF ISOLATION CRITERIA AND THEIR ADEQUACY.
- o REVIEW OF IMPLEMENTATION AND DOCUMENTATION.
- o IF CRITERIA OR IMPLEMENTATION IS INADEQUATE THEN REANALYSES OF PIPING AND IF DESIGN IS INADEQUATE THEN MODIFY AS REQUIRED.
- o ASSESSMENT OF ROOT CAUSE

NO. OF CIVIL/STRUCTURAL AND MECHANICAL/PIPING ALLEGATIONS

1. CIVIL/STRUCTURAL

		NO. OF ALLEGATIONS
1.1	ORIGINAL ALLEGATIONS	57
1.2	NEW ALLEGATIONS FROM CASE	27
1.3	NEW ALLEGATIONS FROM ALLEGERS (WEEK OF MARCH 4, 1985)	3
1.4	TOTAL CIVIL/STRUCTURAL ALLEGATIONS	87

2. MECHANICAL/PIPING

2.1	ORIGINAL ALLEGATIONS	151
2.2	NEW MISCELLANEOUS ALLEGATIONS FROM A-45	280
2.3	NEW ALLEGATIONS FROM CASE	10
2.4	NEW ALLEGATIONS FROM ALLEGERS (WEEK OF MARCH 4, 1985)	11
2.5	TOTAL MECHANICAL/PIPING ALLEGATIONS	452

3. TOTAL CIVIL/STRUCTURAL AND MECHANICAL/PIPING ALLEGATIONS 539

MEHCANICAL AND PIPING

ACTION ITEM

DESIGN CONSIDERATIONS FOR PIPING SYSTEMS BETWEEN SEISMIC CATEGORY I AND NON-SEISMIC CATEGORY I BUILDINGS

PRELIMINARY TRT ASSESSMENT:

- TUEC HAS A GOOD UNDERSTANDING OF THE PROBLEM AND THE ACTION PLAN FOR RESOLVING THIS OPEN ISSUE IS ACCEPTABLE.

- TUEC HAS JUST STARTED THIS REVIEW, THEREFORE, NO RESULTS WERE PRESENTED.

CIVIL/STRUCTURAL

SUMMARY OF ADDITIONAL ALLEGATIONS ORIGINATED FROM CASE

TWENTY-SEVEN (27) ALLEGATIONS WERE IDENTIFIED FROM A NOV. 7, 1984 MEETING BETWEEN THE TRT AND CASE AND A LETTER FROM CASE TO THE TRT DATED 12-1-84. THESE 27 ALLEGATIONS WERE GROUPED INTO TWELVE (12) CATEGORIES:

CATEGORY 18 REINFORCING STEEL - (AC-53, AC-55, AC-56, AC-58, AC-59, AC-60*) REINFORCING STEEL WAS OMITTED IN VARIOUS LOCATIONS.

CATEGORY 19 CONCRETE VOIDS - (AC-61*, AC-62) VARIOUS INSTANCES OF VOIDS AND HONEYCOMBING OF CONCRETE WERE IDENTIFIED.

CATEGORY 20 CRACKING OF CONCRETE - (AC-57, AC-63*, AC-64*) GENERAL CRACKING OF CONCRETE INCLUDING THE CRACKS IN THE UNIT 1 REACTOR CAVITY WALL.

CATEGORY 21 SCHMIDT HAMMER TESTING - (AC-65, AC-66) VALIDITY OF THE SCHMIDT HAMMER TESTS AND WHY SOME CONCRETE THAT WAS TO BE RETESTED WAS NOT.

CATEGORY 22 DESIGN AND ANALYSIS - (AC-68, AC-70) PROJECTILE RANGE USED IN THE DAMAGE STUDY PROGRAM AND THE USE OF A1.5 FACTOR IN STATIC LOAD CALCULATIONS.

SUMMARY OF ADDITIONAL ALLEGATIONS ORIGINATED FROM CASE (CONTINUED)

CATEGORY 23 CONCRETE STRENGTH - (AC-69, AC-71, AC-76) WHERE WAS 2500 PSI CONCRETE USED: DID ANALYSIS REFLECT 2500 PSI OR 4000 PSI AND WERE RICHMOND INSERTS INSTALLED IN 2500 PSI CONCRETE.

CATEGORY 24 CONCRETE COVER - (AC-54) INADEQUATE CONCRETE COVER OVER REBAR.

CATEGORY 25 SEISMIC GAP - (AC-67) AT A DOORWAY BETWEEN THE UNIT 1 CONTAINMENT AND THE SAFEGUARDS BUILDING NO GAP EXISTS.

CATEGORY 26 DAMPING VALVES AND HILTI-BOLT SAFETY FACTORS - (AC-75, AC-77) VALIDITY OF DAMPING VALVES USED FOR CABLE TRAY SUPPORTS AND SAFETY FACTORS USED FOR HILTI-BOLT IN CABLE TRAY SUPPORTS.

CATEGORY 27 STRUCTURAL INTEGRITY OF CABLE TRAY SUPPORTS AND LINER PLATE-(AC-72, AC-73, AC-74) HOLES WERE DRILLED THRU FLANGES OF CABLE TRAY SUPPORTS, DO ALLOWABLE STRESSES GO BEYOND YIELD FOR CABLE TRAY SUPPORTS IN THE CONTAINMENT, A PIPE SUPPORT ATTACHED TO LINER PLATE WAS STRESSED TO 100 KSI.

CATEGORY 28 STEAM GENERATOR UPPER LATERAL SUPPORT - (AC-78) STRESSES IN RESTRAINT BEAM AND SUPPORTING STRUCTURE DUE TO THERMAL EFFECTS.

CATEGORY 29 USE OF NON-APPROVED BACKFILL MATERIAL - (AC-79) NON APPROVED BACKFILL MATERIAL WAS USED AT JUNCTION OF UNIT #1 CONTAINMENT AND FUEL BUILDING.

* THESE ALLEGATIONS WERE PREVIOUSLY ADDRESSED BY THE CIVIL/STRUCTURAL GROUP

CIVIL/STRUCTURAL

NEW ALLEGATIONS RAISED BY ALLEGER ON 3/6/85

THREE ADDITIONAL NEW ALLEGATIONS WERE IDENTIFIED DURING A CLOSING INTERVIEW BETWEEN THE CIVIL/STRUCTURAL STAFF AND ALLEGER ON 3-6-85 AT GRANBURY, TEXAS.

1. #18 REINFORCING STEEL THAT WAS USED TO FABRICATE RADIAL SHEAR BARS FOR UNIT 1 AND 2 CONTAINMENT STRUCTURES WAS LONGITUDINALLY CRACKED OR SPLIT EXCESSIVELY (AC-79).

2. IN THE PROCESS OF CORE BORING HOLES THRU VARIOUS UNIDENTIFIED REINFORCED CONCRETE WALLS AND SLABS VOIDS AND CONCRETE OF POOR QUALITY WAS ENCOUNTERED (AC-80).

3. POTENTIAL VOIDS EXIST BEHIND THE STAINLESS STEEL LINERS OF THE REACTOR CAVITY REFUELING POOLS IN THE UNIT 1 CONTAINMENT BUILDINGS. ALSO DURING THE FABRICATION OF THE LINERS FOR UNITS 1 AND 2 VARIOUS CONSTRUCTION DEFICIENCIES OCCURRED: E.G., LEAK CHASE CHANNELS WERE OMITTED, GAPS BETWEEN ADJACENT PLATES WERE EXCESSIVE, FLOOR ELEVATIONS WERE OUT OF TOLERANCE (AC-81).

MECHANICAL & PIPING
MISCELLANEOUS CONCERNS OF A-45
280 ALLEGATIONS FROM ONE ALLEGER

BACKGROUND:

- 5 LOG BOOKS CONTAINING 280 ALLEGED DEFECTIVE ITEMS
- LIST OF 63 ITEMS WHICH THE ALLEGER CONSIDERED MOST SIGNIFICANT WERE SAMPLED BY REVIEWING 22 ITEMS IN 4 SEPARATE GROUPS:
  - FITUP & WELDING - 9 ITEMS ALL DEALING WITH IMPROPER FIT UP ON WELDED MEMBERS.
  - TORQUE - 2 ITEMS: ONE ITEM DEALS WITH TORQUING OF A-490 BOLTS AND THE SECOND ITEM DEALS WITH THE MEASURING OF BREAKAWAY TORQUE ON R.C. PUMP.
  - EQUIPMENT - 3 ITEMS:
    - PIPE WHIP RESTRAINT WELDING
    - REACTOR TOP CLOSURE HEAD
    - SUPPORT BEAM FOR SAFETY INJECTION WHIP RESTRAINT.
  - MISCELLANEOUS 8 ITEMS WHICH INCLUDED DCA AND NCR DOCUMENTS.

TRT RESULTS

THE TRT REVIEW OF THESE ITEMS FOUND THAT THERE IS NOTHING ABOUT ITEMS SAMPLED THAT WOULD CAUSE CONCERN. MOST OF THE ITEMS REVIEWED WERE UNCLOSED NCRs THAT WERE ENTERED IN THE ALLEGERS LOG. THESE NCRs WERE LATER CLOSED VIA THE NORMAL ENGINEERING PROGRAM. OTHER ITEMS WERE FOUND TO BE ACCEPTABLE AS CONSTRUCTED. RESULTS WERE FED BACK TO THE ALLEGER. THE ALLEGER WAS SATISFIED WITH THE TRT FINDINGS.

MECHANICAL & PIPING

NEW ALLEGATIONS FROM CASE

(10 ALLEGATIONS)

ISSUES:

- IN PIPING AREA:
  - o PIPE WALL THICKNESS DOES NOT MEET CODE REQUIREMENT
  - o VIOLATION OF MIN. PIPE WALL THICKNESS DUE TO TORCH BURNING DURING WELDING.
- IN SUPPORT AREA
  - o SUPPORTS UPGRADED FROM CLASS 2 TO CLASS 1 DO NOT MEET ALL REQUIREMENTS OF CLASS 1.
  - o GAP SIZE IN SUPPORTS WAS NOT PROPERLY MAINTAINED.
  - o MISINTERPRETATION OF PUNCHING SHEAR EFFECTS IN SUPPORT DESIGN.
- IN WELDING AREA:
  - o PIPE WELDING REPAIR WITHOUT RE-DONE HYDRO TEST.
  - o INADEQUATE INTERPASS TEMPERATURE CONTROL ON WELDING OF NOTCH TOUGHNESS MATERIALS.
  - o INADEQUATE NON-ELEVATED PREHEAT CONTROL ON WELDS.
  - o VIOLATION OF ASME CODE, SECTION XI DUE TO DIFFICULTIES IN SUPPORT TYPES FOR ISI.
- OTHERS:
  - o IMPROPER DISPOSITION OF 10 CFR 50.55(E) BY ALTERING NCR.

MECHANICAL AND PIPING

11 NEW ALLEGATIONS (WEEK OF 3/4/85)

11 NEW ALLEGATIONS AND IMPROPER CONSTRUCTION RELATED TO HILTI BOLTS, SUPPORTS AND WELDING.

MECHANICAL AND PIPING

NEW ALLEGATIONS (WEEK OF 3/4/85)

(11 NEW ALLEGATIONS)

ISSUES:

RELATED WITH HILTI BOLTS

- NUT JAMMED DUE TO GALLED THREADS. SHIMS WERE USED (B2)
- BENT THE BOLT STRAIGHT TO ACCOMMODATE 10° HOLE (B3)
- FILL OVERSIZED HOLE WITH GROUT AND EPOXY GLUE (B4)
- DRILLED HOLES OF A REMOVED WALL PLATE WERE NOT FILLED IN WITH GROUT (B5)
- A PIPE WAS GOUGED BY THE JAMMED DRILL DUE TO SKEWED DRILLING (B6)
- 10" MARKING WAS USED FOR AN ACTUALLY SHORTENED 6" BOLT (B11)

RELATED WITH SUPPORTS

- SHIMS WERE WELDED UNDER BOX MEMBERS OF PIPE SUPPORTS FOR FIT-UP PURPOSE (B1)
- A HANGER WAS REMOVED WITHOUT PROPER PAPERWORK (B7)
- A SCRAPED PIECE WAS WELDED TO AND CARRIED THE HEAT NUMBER OF A HANGER PIECE, WHICH WAS TOO SHORT (B9)

RELATED WITH WELDING

- o WELD RODS WERE LEFT OUT OVERNIGHT WITHOUT AUTHORIZATION (B8)
- o OVERSIZED FITUP GAP ON SKEWED WELDS WERE SLUGGED UP WITH WELDING MATERIAL (B10)

REMARKS

- o ALLEGER WILL POINT OUT EXACT LOCATIONS OF CONCERN
- o TRT REVIEW WILL FOLLOW
- o FOR 11 ALLEGATIONS, ONLY ONE SIMILAR TO OLD ALLEGATION AND WAS EVALUATED BY TRT

CONTENTION 5 DATA BASE

1. CIVIL/STRUCTURAL TRT

   1.1 57 ORIGINAL ALLEGATIONS IN DESIGN, TESTING AND INSPECTION, AND CONSTRUCTION.

   1.2 11 POTENTIAL VIOLATIONS.

   1.3 5 OPEN ISSUES.

   1.4 AVERAGE TIME PER ALLEGATION TO COMPLETE DATA SHEET - 29 MINUTES.

2. MECHANICAL/PIPING TRT

   1.1 15/ ORIGINAL ALLEGATIONS IN WELDING, PIPING, SUPPORTS AND OTHERS.

   1.2 280 MISCELLANEOUS ALLEGATIONS OF WHICH 22 WERE SELECTED AS A SAMPLING.

   1.3 26 POTENTIAL VIOLATIONS.

   1.4 5 OPEN ISSUES.

   1.5 AVERAGE TIME PER ALLEGATION TO COMPLETE DATA SHEET - 18 MINUTES.

C5 DATA SHEET INFORMATION

THE CPSES TRT CONSIDERS THE DISSEMINATION OF INFORMATION ACCUMULATED DURING THE ASSESSMENT OF THE ALLEGATIONS AS AN IMPORTANT CONTRIBUTION TO THE CONTENTION 5 PANEL. WITH THIS IN MIND, THE TRT HAS THE FOLLOWING COMMENTS IN REFERENCE TO THE INFORMATION ON THE DATA SHEETS.

POINT 1

ADJUSTING INPUT TO FIT DATA SHEETS.

POINT 2

DATA MANUPULATION TO DEVELOP TRENDS.

POINT 3

IMPROVE DATA SHEET TO MAKE INFORMATION MORE MEANINGFUL.

C5 DATA BASE INPUT SHEET

1. PRINCIPAL CONTENTION 5 AREA

    1.1 CAN THIS BE BROADENED/EXPANDED?

2. TOPICAL AREA

    2.1 BASED ON TRT FEEDBACK THIS COULD BE EXPANDED.

3. ACCIDENT PREVENTION/MITIGATION SYSTEM

    3.1 MANY CPSES SYSTEMS NOT LISTED.

4. NATURE OF WORK

    4.1 COULD BE EXPANDED TO INCLUDE PROCEDURES, TESTIMONY, ETC.

5. REPRESENTATIVE TYPE OF ITEM

    5.1 DIFFICULT TO ACTUALLY ESTIMATE A POPULATION FROM WHICH SAMPLE WAS SELECTED.

CYGNA

Phases	objective
1, 2	Supplementary assurance on quality of Comanche Peak plus responsive to NRC letters 5/4/83, 7/15/83 and 8/18/83 mtg.
3	Select a system exhibiting design characteristics (tubing & support designs) similar to the concerns raised with ASLB and address ASLB design control program concerns (corrective action etc.)
4	Independent, multi-discipline review of a system, As built verification plus evaluation of 2 other elements of design control programs.

Phases	Implementation
1, 2	RHR Train B, Spent fuel Pool Cooling Train A
3	Main steam Element, Component cooling water element also program reviews per ASLB concern with Program
4	CCWS, Main Steam System (Design Review, walkdowns and Design control)

A1-19

FOIA 85-310
A1/19

Role of CYGNA findings.

Many issues "open" from Phase 1, 2, 3 and perhaps 4.

CYGNA is also "voiding" some of their previous conclusions in Phases 1, 2, and 3 since information in later phases affects the basis for resolution of previously closed items.

How are CYGNA findings going to be folded in the staff CSERs? Do individual reviewers have copies of the Dec. 84 EG&G evaluation of CYGNA Phase 3.

Considering the scope of CYGNA work how can the "Panel" conclude on "quality" of CPSES until CYGNA findings are available.

Would all CYGNA conclusions be available on 1/25

Phase 4 completion schedule ~~was identified~~. mid May 1985 - Items 12, 13, 14, 15 not to be completed until mid to late April leaves heavily on the Panel ~~ever~~ responsibility.

** Incidently, I don't understand the EG&G report by Downward on B/A - This report is at the back of EG&G report by Bridges dated Dec. '84.

A1-20