

DATE: December 12, 1985

TO: Don Norkin

FROM: John Nevshemal

SUBJECT: Mechanical Discipline - Comparison of the TUGCO and TERA Responses to the Comments Contained in Noonan's Letters Dated 8/9/85 and 9/30/85.

The following are the results of an item by item comparison of the TUGCO responses contained in the Council to Noonan letter dated 11/22/85 to the TERA responses presented in draft NRC/I&E letter (Taylor to Council). The results presented herein are keyed to the item designation utilized in the Taylor letter.

Item (Mech)	Comment	Notes
App 6 (DAP 3.2)		
(5)	Responses are consistent	(1)
(6)	Responses are consistent	(1)
(7)	Responses are consistent	(1)
(9)	Responses are consistent	(1),(3)
App 9 (DSAP X)		
(3)	Responses are consistent	(1)
(4)	Responses are consistent	(1)
OK X (9)	Responses have a MINOR inconsistency	(4)
App 10 (DSAP XI)		
(18)	Responses are consistent	
(19)	Responses are consistent	
(20)	Responses are consistent	
(25)	Responses are consistent	(1)
App 3 (Table 1)		
(1)	Responses are consistent	(1),(6)
(2)	Responses are consistent	(1),(6)
(5)	Responses are consistent	
(7)	Responses are consistent	
(8)	Responses are consistent	
X (9)	Responses have a MAJOR inconsistency	(7)
(10)	Responses are consistent	
X (11)	Responses have a MAJOR inconsistency	(8)
X (12)	Responses have a MAJOR inconsistency	(1),(9)
X (13)	Responses have a MAJOR inconsistency	(1),(10)
X (14)	Responses have a MAJOR inconsistency	(1),(11)
(15)	Responses are consistent	(1)
X (16)	Responses have a MINOR inconsistency	(1),(12)
(17)	Responses are consistent	
X (19)	Responses have a MINOR inconsistency	(13)
X (20)	Responses have a MAJOR inconsistency	(14)
(21)	Responses are consistent	(15)
X (26)	Responses have a MAJOR inconsistency	(16)

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Item (Mech)		Comment	Notes
(31)	X	Responses have a MAJOR inconsistency	(17)
(33)	X	Responses have a MAJOR inconsistency	(14)
(34)		Responses are consistent	
(36)		Responses are consistent	
(37)	X	Responses have a MAJOR inconsistency	(18)
(38)	X	Responses have a MAJOR inconsistency	(19)
(39)		Responses are consistent	
(41)	X	Responses have a MAJOR inconsistency	(20)
(42)		Responses are consistent	(21)
(44)		Responses are consistent	
(46)	X	Responses have a MAJOR inconsistency	(22)
(47)	X	Responses have a MAJOR inconsistency	(21) 20
(48)		Responses are consistent	

General: The Appendices to the NRC/I&E letter (Taylor to Council) accurately presents the commitments and agreements arrived at during the I&E audit of the TERA effort.

#### ATTACHMENT - (NOTES)

- (1) The phrase "Responses are consistent" is meant in the broadest of terms. The inspections during program implementation should take into account the specifics described in the TERA response.
- (2) The word "remote" should be changed to "runout" in the NRC Comment paragraph to the TERA response.
- (3) Recommend the staff require an Engineering Evaluation be provided to justify and document the position that "other mechanical inspections will envelope the concern".
- (4) The inconsistency lies in the fact that the TERA response commits to a Phase 3 scope expansion item that will require additional checklists but the TUGCO response shows the item to be already included in the Phase 2 review. It should be pointed out that the TUGCO response is modified by a comment which does result in a Phase 3 item for the electrical discipline. The TUGCO response is very confusing.
- (5) The inconsistency lies in the fact that the TERA response clarifies what is presented on their Mechanical matrix which indicates the item is being handled completely in Phase 2 but the TUGCO response commits to additional Phase 3 scope expansion.
- (6) The TERA response committed to revise a checklist, this should be identified as a requirement of closing the item but the TUGCO response does not recognize this commitment.
- (7) The TERA response indicates that the item is out of scope but the TUGCO response commits to a Phase 3 scope expansion effort which entails the development of an additional checklist.

- (8) The TERA response noted that Sump Design is a Phase 3 scope expansion item as a Candidate Given which is consistent with their Mechanical matrix. The TUGCO response did not recognize the inclusion of this item in the Phase 3 scope expansion effort also the assigned Comment No. 2 does not apply. The comment that does apply is Comment No. 38.
- (9) There is no TUGCO response for this item, whereas the TERA response commits to an expansion of an existing checklist plus a Phase 3 scope expansion item.
- (10) The TERA response recognizes the complexity of vortex protection in the containment sump which is already a Phase 3 scope expansion "Candidate Given". The TUGCO response only applies to Phase 2 review of the CST which in comparison is a trivial example of vortex protection.
- (11) There is no TUGCO response for this item, whereas the TERA response commits to a Phase 3 scope expansion into another system where the NPSH design activity is more complex.
- (12) The TUGCO response commits to a Phase 3 scope expansion item, whereas the TERA response only commits to an expansion of a Phase 2 checklist to cover a particular design attribute for this design element.
- (13) The TUGCO response commits to a Phase 3 scope expansion item, whereas the TERA response attempted to demonstrate that the item was adequately covered by an existing Phase 2 checklist.
- (14) The TERA response commits to a Phase 3 scope expansion item, whereas the TUGCO response indicates that the design element is out of scope. Also, the comment associated with the TUGCO response indicates the design element is included in a "Candidate Given" which would make it a Phase 3 item.
- (15) The TUGCO response designates this item as (20) which results in two items designated as (20). The TERA response designates the item as (21) which appears to be correct.
- (16) There is no TUGCO response for this item, whereas the TERA response commits to the inclusion of this design element on a Phase 3 scope expansion checklist(s).
- (17) The TERA response attempts to demonstrate that the design element is already included on a Phase 2 checklist but the TUGCO response indicates the item is out of scope and not even a design element.
- (18) The TERA response commits to a Phase 3 scope expansion item, whereas the TUGCO response indicates that the design element is out of scope. Also, the comment associated with the TUGCO response appears to apply to item (38) Max Flow Velocity Limitation.
- (19) The TERA response commits to a Phase 3 scope expansion item as part of a "Candidate Given" But the TUGCO response indicates that the design element is already part of the Phase 2 review scope. It also appears that the TUGCO comment (38) should apply to this item.
- (20) The TERA response indicates that the item is out of scope but the TUGCO response indicates that the design element is already part of the Phase 2 review.



(21) The TUGCO response designates this item as (41) which results in two items designated as (41). The TERA response designates the item as (42) which appears to be correct.

(22) The TERA response commits to a Phase 3 scope expansion item for positive displacement pumps but the TUGCO response indicates that the design element is already included in a Phase 2 review activity.

DON: I HAVE NOT DISCUSSED ANY OF THE INCONSISTENCIES WITH TERA AT THIS POINT IN TIME. I PLAN TO START DOING THAT TODAY (12/12/85). I WILL KEEP YOU UP-TO-DATE ON THE RESULTS OF THES DISCUSSIONS IN WRITING, ESPECIALLY IF THERE ARE ANY CHANGES TO WHAT IS IN THIS REPORT OR WHAT IS IN TAYLOR'S DRAFT LETTER. THANKS,  
JOHN.

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COMANCHE PEAK RESPONSE TEAM  
TRT/DA CONTACT LOG SHEET

FILE NO. DAP File 7.7, 14.3  
DIST. H. Davis, J. Dougherty, J. Schaffer,  
J. Neishmel, et al. Nuclear (AIRC)

SUMMARY OF TELECON X OR MEETING \_\_\_\_\_ DATE: December 16, 1985

SUBJECT: Clarifications to the Mechanical Response to the NRC Staff Evaluation

ORGANIZATION(S): Westec and TENERA

PARTICIPANTS: TERA: J. Schaffer,

OUTSIDE: J. Neishmel

SUMMARY: A number of discrepancies were identified in Attachment  
1.0 to the letter providing the Response to NRC Staff Evaluation  
of the Comanche Peak Response Team Program Plan, CPRT 113,  
dated 11/22/85. The purpose of this telecon was to clarify the  
content for the following responses in Attachment 1.0 of the above reference  
Interim responses are provided below:

- DSAPX item 9 - In addition to the Revision 2 scope activities,  
the mechanical Phase 3 scope includes generation of  
checklists to review temperature, humidity, radiation, and  
pressure conditions for environmental parameters.
- 8/9/85 letter, Table 1, item 9 - Radioactive Fluid Flow  
This item is outside the DAP scope. There are no radioactive  
fluid flow design activities in the safety related portion of  
this plant.

(continued)

ACTION: \_\_\_\_\_  
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\_\_\_\_\_  
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✓ • 8/9/85 Letter, Table 1, item 11 - Sump Design

This item is included as part of the Phase 3 scope expansion as a candidate given and note 38 applies.

✓ • 8/9/85 Letter, Table 1, item 12 - Storage Tank Design

This item is a Phase 3 scope expansion to address overpressurization and vacuum prevention for storage tank design in a system other than auxiliary feedwater system.

✓ • 8/9/85 Letter, Table 1, item 13 - Vortex Prevention

Phase 3 includes the review of vortex prevention as part of the containment sump candidate given. design verification in addition to that performed for the auxiliary feedwater system and note 38 applies.

✓ • 8/9/85 Letter, Table 1, item 14 - NPSH

This item is a Phase 3 scope expansion to review a more complex case of NPSH than that performed for the AFW system. This case is in addition to an NPSH case that involves pump fluid at or near saturation.

✓ • 8/9/85 Letter, Table 1, item 16 - Open/Close

This item includes an additional checklist attribute to verify that the service water and condensate storage tank isolation valves can not both be closed during AFW pump operation. Therefore, the response identifying Note 2 and a Phase 3 scope expansion are not correct.

(Continued)



- X. 8/9/85 Letter, Table 1, item 19 - Temperature Change  
This item is covered in the Revision 2 scope in mechanical checklists 3 and 15. Therefore, comment 2 is not applicable.
- X. 8/9/85 Letter, Table 1, item 20 - Surge Tank Sizing  
This item is a Phase 3 scope expansion and comment 38 is not applicable.
- X. 8/9/85 Letter, Table 1, item 26 - Series and Parallel Thermal Loads  
This item is a Phase 3 scope expansion to address design activities unique to closed system operation heat removal.
- X. 8/9/85 Letter, Table 1, item 31 - Change in Elevation  
This item is included in the Revision 2 scope as part of the hydraulic analysis verification and comment 40 is not applicable.
- X. 8/9/85 Letter, Table 1, item 33 - Requirement for Reactivity Control  
A review of the NSSS design is not within the DAP scope. The DAP review does consider the hydraulic aspects for low concentration boric acid as part of the Revision 2 scope. Therefore comment 38 is not applicable.
- X. 8/9/85 Letter, Table 1, item 37 - Positive Displacement Pump  
This item is a Phase 3 scope expansion to address positive displacement pumps and comment 38 does not apply.

(Continued)

- X. 8/9/85 letter, Table 1, item 38 - Maximum Slow Velocity  
This item is included as part of the Phase 3 scope expansion as a candidate given and comment 38 applies.
- X. 8/9/85 letter, Table 1, item 41 - Standby Hydraulic Requirements  
This item is outside of scope because the Westinghouse safety related systems do not require safety related charging or full support system requirements.
- X. 8/9/85 letter, Table 1, item 41 - Pressure/Slow Control  
This item was misnumbered in the referenced letter and should be item 42 to agree with the NRC letter, dated 8/9/85.
- X. 8/9/85 letter, Table 1, item 46 - Pump Protection Requirements  
This item is a Phase 3 scope expansion to review pump protection requirements (eg relief valves, recirculation lines) for positive displacement pumps. This is in addition to the verification activities identified for centrifugal pumps as part of Phase 2.
- X. 8/9/85 letter, Table 1, item 47 - Parallel Pump Protection  
This item is out of scope because the plant's safety related systems are designed for single train operation.