



WCAP-16011-P, Rev 00 (Proprietary)
Project No. 694

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Wolf Creek

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Talwan Power Co.
Maanshan 1 & 2

October 15, 2004

WOG-04-531

Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Subject: Comments on WCAP-16011-P, Rev. 00 Draft Safety Evaluation (Task 1173)

Reference: Letter, R. Gramm (NRC) to G. Bischoff (WOG), "Draft Safety Evaluation for Topical Report WCAP-16011P, 'Startup Test Activity Reduction Program' (TAC No. MB8724)" dated September 10, 2004.

WCAP-16011-P, Rev. 00, "Startup Test Activity Reduction Program," was submitted by the Westinghouse Owners Group for NRC review and approval on May 31, 2003. On September 10, 2004, the staff issued the reference draft safety evaluation for this report.

The purpose of this letter is to transmit comments on the draft safety evaluation. These comments offer suggested editorial changes or provide recommended changes to ensure a clear interpretation of the safety evaluation.

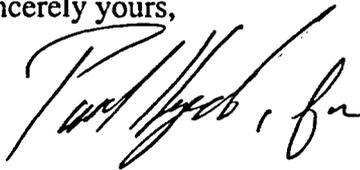
Review of the draft safety evaluation for WCAP-16011-P, Rev. 00 suggests a potential for misinterpretation of certain statements. Changes proposed to correct or clarify these safety evaluation statements are shown in Table 1. In addition, Westinghouse review has identified a number of editorial improvements; these suggested editorial changes are listed in Table 2.

As requested by the reference letter, Westinghouse has reviewed the draft safety evaluation for proprietary content. This review concluded that the draft safety evaluation does not contain any Westinghouse proprietary information.

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If you have any questions concerning this matter, please feel free to call Paul Hijeck at 860-731-6240.

Sincerely yours,



Frederick P. "Ted" Schiffley, II, Chairman
Westinghouse Owners Group

FPS:PJH:las

Attachments: Table 1, Table 2

cc: Analysis Subcommittee
Steering Committee
Licensing Subcommittee
R. A. Gramm, NRC
G. S. Shukla, NRC (via FedEx)
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Table 1
Recommended Clarifications to WCAP-16011 Draft Safety Evaluation

No.	SE Reference	Recommended Clarifications to STAR Safety Evaluation (strikeout = delete; italics = add)
1	Pg 5, lines 2, 3	Plants with deviations from the generic program are not considered in this review because the applicability requirements do not apply. <i>This appendix evaluates the impact of implementing the STAR Program in participating plants with deviations from the Generic Program. The deviations evaluated include tests that are either additions or alternatives to the tests in the generic program. The appendix examines each additional and/or alternative test for each participating plant to establish whether it is acceptable to eliminate the additional test and/or use the alternate test, when using the STAR Program.</i>
2	Pg 5, lines 5 - 8	This review is focused on the proposed elimination of CEA worth, ITC, and MTC measurements at HZP, the addition of the <i>an alternate MTC surveillance at HZP, the addition of the measured ITC at intermediate to full power, the critical boron concentration (CBC) at HZP, and the addition of the estimation of applicability requirements for core design, fabrication, refueling, startup testing, and CEA lifetime requirements.</i>
3	Pg 5, line 32	...and the <i>probability poolability</i> of the data using the Bartlett test.
4	Pg 6, line 3	Individual CEA Bank worth data analysis demonstrates that there is no bias <i>between recent data and past data used for benchmarking</i> and the subsets...
5	Pg 6, line 7	The same conclusion is reached in the analysis of the ITC data at HZP, i.e., there is no bias <i>between recent data and past data used for benchmarking and recent...</i>
6	Pg 6, line 8	The ITC probability poolability was...
7	Pg 6, lines 12, 13	This supports the conclusion of ANS 19.6.1 CE NPSD-911-P-A in elimination MOC and EOC...
8	Pg 6, lines 17, 18	Hence, there was a failure to recognize that these cores did not comply with the core applicability requirements. <i>The STAR applicability requirements would have prevented these problems.</i>
9	Pg 7, line 26	...measurement at HFP HZP but removes the ITC...
10	Pg 8, lines 21, 22	The test criteria for MTC will result in the detection of MTC noncompliance, because they the test criteria are used to establish the <i>based on</i> technical specification limits for MTC.
11	Pg 8, line 25	...combination with the core design quality assurance criteria is as...
12	Pg 10, lines 33, 34	An uncoupling error is an improper assignment <i>a loss of connection</i> of the individual control rods of a CEA or loss of connection to the driving...
13	Pg 12, lines 13, 14	Test performance problems can also result in non-detection of as-built core problems and subsequent operation outside the safety limits <i>analysis.</i>
14	Pg 12, line 32	...introduce a significant <i>the greatest</i> likelihood for error.
15	Pg 12, lines 38, 39	The STAR equipment error identification process <i>program</i> is as effective as or better than the generic program <i>in preventing test equipment errors</i> , and therefore, the NRC staff concludes that it is acceptable.
16	Pg 13, lines 19, 20	The STAR program does not change test result error detection <i>initiation</i> . Therefore, the NRC staff concludes that the <i>impact of STAR on the initiation of test result performance problems error detection process for the STAR method</i> is acceptable.
17	Pg 14, lines 6-8	Should any of the parameters of the STAR test results <i>program</i> fall outside of the <i>test criteria, the existing limits, either the cause of the discrepancy will be identified to ascertain the continuing validity of the applicability criteria, ascertain that the safety analysis and STAR applicability requirements are satisfied, or discontinue use of the STAR program will be discontinued for that loading fuel cycle.</i>

Table 2
Suggested Editorial Changes to WCAP-16011 Draft Safety Evaluation

No.	SE Reference	Suggested Editorial Changes to STAR Safety Evaluation (strikeout = delete; italics = add)
1	Pg 3, lines 22, 23	(Note: under some circumstances the MTC at HZP is maintained <i>the performance of the eliminated tests is an option in the STAR program and is required under some circumstances.</i>)
2	Pg 4, line 15	...elimination of the ITC and CEA <i>worth</i> measurements at HZP.
3	Pg 4, Line 16	...examine data variability and poolability for CEA <i>worth</i> and ITC.
4	Pg 4, lines 18, 19	...detecting as-built core problems <i>prior to and</i> during startup testing.
5	Pg 5, line 9	...the proposed method eliminates the CEA <i>worth</i> , ITC, and MTC...
6	Pg 5, line 16	...technical specification changes will be required to <i>fully</i> implement....
7	Pg 6, line 6	...CEA <i>worth</i> at HZP.
8	Pg 9, lines 24, 25	All of the <i>effective</i> fuel misloading <i>detection</i> methods are carried over to <i>incorporated in</i> the STAR program.
9	Pg 9, line 37	...drop time test or the other <i>effective</i> detection methods.
10	Pg 10, line 7	...the generic program do not <i>significantly</i> affect the fuel poison...
11	Pg 10, line 15	...generic program do not <i>significantly</i> affect the crudding detection.
12	Pg 10, line 29	...changes do not <i>significantly</i> impact the CEA misloading program.