



STATUS OF TOPICAL REPORTS (Continued)

- CENPD- 162-A "CHF Correlation for C-E Fuel Assemblies with Standard Spacer Grids - Part 1; Uniform Axial Power Distribution". Accepted with caveat that we needed a report on non-uniform axial heat input which was provided in CENPD-207.
- CENPD-168-A "Design Basis Pipe Breaks for the Combustion Engineering Two Loop Reactor Coolant System". Accepted - This report gives break locations for restraint and support system design.
- CENPD-169 "Assessment of the Accuracy of PWR Operating Limits as Determined by Core Operating Limit Supervisory System". Accepted; however, although we have accepted the methodology for use of incore detectors to develop  $F_Q$ , the complete acceptance is dependent upon the results of our review of CENPD 145 and 153, neither of which is incorporated by reference, for uncertainty analyses.
- CENPD-170 "Assessment of the Accuracy of the PWR Safety System Actuation as Performed by the Core Protection Calculators". Accepted.
- CENPD-179 "C-E Thermo-Structural Fuel Evaluation Model". Not Accepted.
- CENPD-180 "Radioiodine Behavior in Reactor Coolant During Transient Operation". Review not complete; therefore not accepted. Report presents data obtained at operating plants and proposes a spiking model similar to that used by staff.
- CENPD-182 "Seismic Qualification of C-E Instrumentation Equipment". Review not complete, in fact can be characterized as dragging; therefore, report not accepted.
- CENPD-183 "C-E Methods for Loss of Flow Analysis". Review not complete, thus report not accepted. Report under review and next action is by staff; however, review of CENPD 177 must be completed before this report can be accepted. Note: CENPD 177 is not listed as being incorporated by reference by C-E.
- CENPD-187 "Method of Analyzing Creep Collapse of Oval Cladding", "HERMITE,  
-188 A Multi-Dimensional Time Kinetics Code for PWR Transients", and  
-190 "C-E Method for Control Element Assembly Ejection Analysis",  
respectively. Each accepted.
- CENPD-198 "Zircaloy Growth-In-Reactor Dimensional Changes in Zircaloy-4 Fuel Assemblies". Original report accepted with certain reservations. Supplement #1 of report not yet complete; therefore, Supplement #1 not yet approved.
- CENPD-201 "Reactor Coolant Pump Performance". Accepted, subject to C-E conducting pump test which is expected to be conducted in 1979.
- CENPD-206 "TORC Code Verification and Simplified Modeling Method". Under review, but staff progress appears to be extremely slow. (NOTE: It seems that CENPD-161 which describes TORC should also be incorporated by reference, but is not.)

STATUS OF TOPICAL REPORTS (Continued):

- CENPD-207 "Critical Heat Flux Correlation for C-E Fuel Assemblies With Standard Spacer Grids, Part 2, Non-Uniform Axial Power Distribution". Still under review, thus not approved, but review believed to be nearly complete. See comments on CENPD-162.
- CENPD-210 "A Description of the C-E NSSS Quality Assurance Program". Accepted
- CENPD-225 "Fuel and Poison Rod Bowing". Under review, thus not yet accepted. Additional information responding to staff positions is to be submitted in first quarter of 1979.
- CENPD-252 "Blowdown Analysis Method; Method for the Analysis of Blowdown Induced Forces in a Reactor Vessel". Reviewed and accepted subject to four qualifications (limitations) imposed in using the CEFLASH-4B computer program.
- CENPD-254 "Post-LOCA Long Term Cooling Evaluation Model". Still under review, thus not yet accepted, but review expected to be completed during the summer of 1979.
- CENPD-255 "Qualification of Combustion Engineering Class IE Instrumentation". Under review, but ~~it is believed that this~~ topical report will be rejected.

STATUS OF TOPICAL REPORTS INCORPORATED BY REFERENCE IN THE

CESSAR FSAR

REPORT NUMBER	COMMENTS
CENPD-26	LOCA model for Interim Acceptance Criteria - <u>Accepted</u> but no longer applicable. Was replaced by a model initially approved in June of 1975, and which has been subsequently amended.
CENPD-67	"Iodine Decontamination Factors During PWR Steam Generation and Steam Venting" - Although we have <u>approved</u> this topical report, we did not allow the use of anything in this report that was not subsequently put into SRP. (See also CENPD 180)
CENPD-80	"Moisture Carryover During an NSSS Steam Line Break Accident". The review of this report was never completed; last action was a request for information to CE on July 12, 1974. It seems that this report is to be superceded, but documentation of this action cannot be located; therefore, report <u>not approved</u> .
CENPD-98	"Coast Code Description". This report has been <u>accepted</u> ; however, the SER for the report limits use of code to predictions of flow during the first few seconds following a pump trip. (See also CENPD 183 and 177.)
CENPD-107	"CESEC" - This report is used to model overall NSSS responses and one supplement describes the ATWS model. The report is <u>not yet approved</u> ; however, all requests for additional information have been responded to except those pertaining to comparison with plant data. The plant data information is to be provided in the first quarter of 1979.
CENPD-105	"Fast Neutron Attenuation by the ANISN-SHADDRAC Analytical Method". It appears that this topical was submitted as a "for information only" type of report, and if so <u>should not be referenced</u> . No record of review found.
CENPD-118	"Densification of Combustion Engineering Fuel". This report has <u>not been approved</u> . It appears that the required information for ECCS fuel densification is incorporated in CENPD-139.
CENPD-132 -134 -135 -137 -138 and 213	"CEFLASH-4A Fortran IV Digital Computer Program for Reactor Blow-down Analysis", "COMPERC-II A Program for Emergency Refill-Reflood of the Core", "STRIKIN-II A Cylindrical Geometry Fuel Rod Heat Transfer Program", "Calculative Methods for the C-E Small Break LOCA Evaluation Model", "PARCH - A FORTRAN IV Digital Computer Program to Evaluate Pool-Boiling Axial Rod, and Coolant Heatup", and "Application of FLECHT Reflood Heat Transfer Coefficient to C-E 16 x 16 Fuel Bundles", respectively. Each of the above topical reports, including the latest supplements has been <u>approved</u> .

A N N E X 3

STATUS OF TOPICAL REPORTS INCORPORATED BY REFERENCE

IN THE CESSAR FSAR

ALTERNATIVES FOR REVIEW OF CESSAR EQUIPMENT  
 QUALIFICATION INFORMATION

	<u>FDA</u>	<u>OL</u>
1.	Criteria (like PDA)	Meth., Proc. & Data
2.	CENPD 255	FDA
3.	Good Meth.	FDA
4.	Good Meth.	Proc. & Data
5.	Good Meth & Sample Proc. & Data	Proc. & Data
6.	Good Meth. & Proc.	Final Proc. & Data
7.	Good Meth., Proc., Sample Data	Final Proc. & Data
8.	Good Meth. & Lead Plant Proc. & Data	Lead Plant Done Other Plants - fill in proc. & data for different equipment
9. Potential Antitrust Problem	Good Meth Spec eq't Proc. & Data	FDA

A N N E X 2

ALTERNATIVES FOR REVIEW OF CESSAR EQUIPMENT

QUALIFICATION INFORMATION

FEB 1 1979

C. J. Heltemes

- 3 -

In considering the identified problem, one should recognize that a Type 1 FDA, the type for which Combustion Engineering has tendered an application with the CESSAR, can be used for two purposes: (1) for referencing purposes in OL applications for those plants which previously referenced the CESSAR PSAR in their CP applications, and (2) for referencing purposes in new CP applications. If the FDA application were to be used merely to support OL applications for plants whose CP's were based on the CESSAR PSAR and for which equipment had already been procured, then there would be no antitrust concern, per se. This is true because the FSAR would be documenting information on the equipment that had already been purchased; therefore, the FSAR would have no adverse effect on antitrust consequences. However, if the CESSAR is to be used for forward referenceability purposes, then the aforementioned antitrust problems could occur.

As you know, we are meeting with Combustion Engineering on February 7, 1979, to discuss the acceptability of the CESSAR and policy matters that could affect its usage. It is, therefore, imperative that we have internal agreement as to how we are going to pursue this matter prior to the meeting.



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FEB 1 1979

breadth usually associated with a FSAR. Although this contention has merit, it appears that Combustion Engineering has taken extreme measures in the guise of avoiding antitrust problems. On the other extreme, some of the information being requested by the I&CSB seems to be too detailed and in direct conflict with our responsibilities with regard to antitrust matters. Thus, a substantial compromise on the part of C-E and the staff is required regarding the level of detail of information to be provided. A recommended solution would include the following ingredients: (1) the I&CSB question would delete all reference to manufacturer for equipment normally procured by either Combustion Engineering or an applicant referencing the CESSAR FSAR in CP applications, (2) in lieu of such information, the request should seek materials and performance specification type information used to purchase said equipment including the specifications and/or requirements for the qualification testing of the equipment, and (3) Combustion Engineering should be requested to provide, on a selected basis, the identification of specific equipment which meets these specifications, e.g., that provided on the CESSAR lead plant with the understanding that such information does not imply that all CESSAR plants would use identical equipment.

The thrust of the concern can be summarized as follows. On the one hand, the Commission's policy on standardization stipulates that the staff will monitor the standardization program to assure that each applicant properly considers antitrust matters in developing or using FDA designs. Towards this end, the staff is to take appropriate action if it detects the development of a situation that appears to have the potential for creating problems of an antitrust nature. One such potential problem is the specifying of procured equipment in the FDA-1 application in such a manner that it would favor or specify a particular supplier at the exclusion of other qualified suppliers. On the other hand, our current practice for reviewing FSARs submitted in support of OL applications is such that we request very detailed information. Such a request, if made prior to procuring equipment (i.e., during a CP review) could implicitly or explicitly cause adverse antitrust actions. The recent request for information generated by the I&CSB for the CESSAR acceptance review is a case in point. In attempting to obtain as much detailed information as possible on the environmental qualification of electrical equipment, the I&CSB is requesting that all Class IE electrical equipment be identified and that said identification include the manufacturer and the manufacturer's type and model number. In my opinion, such a request would require C-E to select a specific vendor for each such piece of equipment. If such is the case, we will have created the potential antitrust conflict described in the Commission's standardization policy.