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Mr. Bernard F. Saffell, Jr.  
Battelle Columbus Laboratory  
505 King Avenue  
Columbus, OH 43201

Dear Mr. Saffell:

In a memorandum titled Memo of Understanding on Code Package, dated September 4, 1985, and widely circulated, we commented on procedures for making changes to the Source Term Code Package (Task #9 of FIN-B7499). Because of the importance of STCP to current NRC activities and because of the involvement of another laboratory (BNL) with STCP, it is important that any changes made to STCP be made deliberately and with full knowledge of all parties involved. The following paragraphs will discuss in some detail the desired procedures for making changes.

Four types of changes are envisioned and may be needed from time to time. These are as follows: (1) Operational Changes that are plant specific and need to be made in order for the code run to proceed. (2) Small Error Corrections, which correct for clear mistakes, but have only a small impact on bottom-line results. (3) Large Error Corrections, which correct for clear mistakes that have a large impact on bottom-line results. (4) Basic Model Changes dealing with the mathematical equations that describe physical phenomena. The procedures for making these four types of changes will be discussed in turn.

(1) Operational Changes

These changes are to be made by BCL in the same manner that code input and systems modeling (control volume definition) are done by BCL. These changes are to be provided explicitly (i.e., highlighted) to BNL for review and auditing along with input and output values under the existing BNL verification program (FIN-A3290).

(2) Small Error Changes

These changes should be made in the updated version of the code, but not in the reference version of the code being used for NRC analyses (namely, the NUREG-1150 calculations and later production calculations for RES and NRR). From time to time (hopefully, not more frequently than 6 mos.) it will be desirable to upgrade the reference version to the status of the updated version (see attached figure). When BCL feels that such an upgrading is warranted, BCL (Task #9 FIN-B7499) should obtain BNL's (FIN-A3290) concurrence and forward the recommendation to NRC's Fuel Systems Research Branch for approval. During the course of the NUREG-1150 calculations, FSRB will obtain the concurrence of M. Ernst, Deputy Director, DRAO in all such considerations.

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## (3) Large Error Corrections

The need for such corrections should be brought to the immediate attention of BNL and NRC. Battelle should also assess the impact of such errors on previous calculations and notify BNL and NRC of the impact. Changes to correct the error should be formulated and proposed to NRC with BNL concurrence. The Fuel Systems Research Branch will obtain the required DRAO concurrence and act on such recommendations promptly.

## (4) Basic Model Changes

These changes are to be treated in the manner that Small Error Corrections and Large Error Corrections are treated, depending on the impact of the model change (i.e., small or large). In accordance with this procedure, I have checked with BNL and DRAO and determined that approval of the recent change to the decay heat model would not be forthcoming. Therefore, we ask that BCL return the decay heat model to the earlier form in agreement with our letter of August 29, 1985. Some assessment should be made of the impact of the interim model on the affected sequences for Sequoyah, Grand Gulf, and Surry.

The substance of the above paragraphs should be incorporated in the configuration control effort of Task #9 of FIN-B7499. A description of this effort, according to existing work plans, is to be included in one of the early FY 86 deliverables to the NRC.

Sincerely,

**Original Signed By**

M. Silberberg, Branch Chief  
Fuel Systems Research Branch  
Division of Accident Evaluation  
Office of Nuclear Regulatory Research

Enclosure:  
Figure

cc: A. Benjamin, SNL  
D. Williams, SNL  
R. Denning, BCL  
P. Cybulskis, BCL  
J. Gieseke, BCL  
R. Bari, BNL  
T. Pratt, BNL

DAE:FSRB  
Meyer:md  
11/8/85

DAE:FSRB  
Silberberg  
11/11/85

DRAO:RRBR  
Margulies  
11/12/85

*Concurrence  
by phone.  
Bill*

# Source Term Core Package Maintenance & Configuration Control

