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NTD-NRC-95-4527
DCP/NRC0378
Docket No.: STN-52-003

August 10, 1995

Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D. C., 20555

ATTENTION: T. R. QUAY

SUBJECT: SUPPORTING INFORMATION FOR POST-LOCA SUMP pH ANALYSIS

Dear Mr. Quay:

Provided in this letter is information for Mr. Jay Lee concerning pH controls for the AP600 containment. This information was requested by Mr. Bill Huffman during a phone call on July 26, 1995.

1. Limiting pH tank NaOH volumes and concentrations

The requested information was provided during a telecon between T. Schulz (Westinghouse) and J. Lee (NRC) on July 26, 1995. The values provided were:

volume of tank:	200 ft ³
volume NaOH	165 ft ³ min 174 ft ³ max
conc NaOH	30 % min 34 % max

2. In-containment dose field information that can be applied to the cabling and jacketing.

The figures provided in Enclosure 1 reflect the AP600 post-accident radiation dose inside containment. This data is based on core activity inventories developed for a 24-month fuel cycle at a power rating of 1972 MWt. The instantaneous and integrated gamma dose rates following design basis LOCA are presented in Figure 1. The instantaneous and integrated beta dose information is presented in Figure 2. The design basis accident scenario assumes gap and early in-vessel releases. Similar information for a severe accident scenario is presented in Figures 3 and 4. The severe accident considers the design basis LOCA releases followed by the ex-vessel and late in-vessel releases as defined in NUREG-1465.

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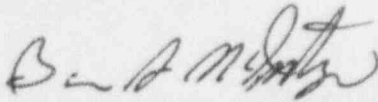
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3. The mass quantity of cable jacketing material is less than 30,000 pounds.
4. Post-LOCA containment temperature is provided in the file transmitted in response to RAI 470.23 (Westinghouse letter NTD-NRC-95-4430 dated 4/7/95).
5. Control volumes per coating material:

AP600 SSAR Tables 6.2.1.1-3 and 6.2.1.1-4 list the coatings on each heat sink with the correct MAAP4 control volumes. This information was provided to Mr. C. Weber (ORNL) by J. Scobel in July 1995.

Please contact Brian A. McIntyre on (412) 374-4334 if you have any questions concerning this transmittal.



Nicholas J. Liparulo, Manager
Nuclear Safety Regulatory and Licensing Activities

Enclosures

cc: W. Huffman, NRC
B. A. McIntyre, Westinghouse (w/o Enclosures)

**ENCLOSURE 1 to
Westinghouse letter NTD-NRC-95-4527**

FIGURE 1

AP600 PROJECT

Gamma Dose In Containment After Design Basis LOCA

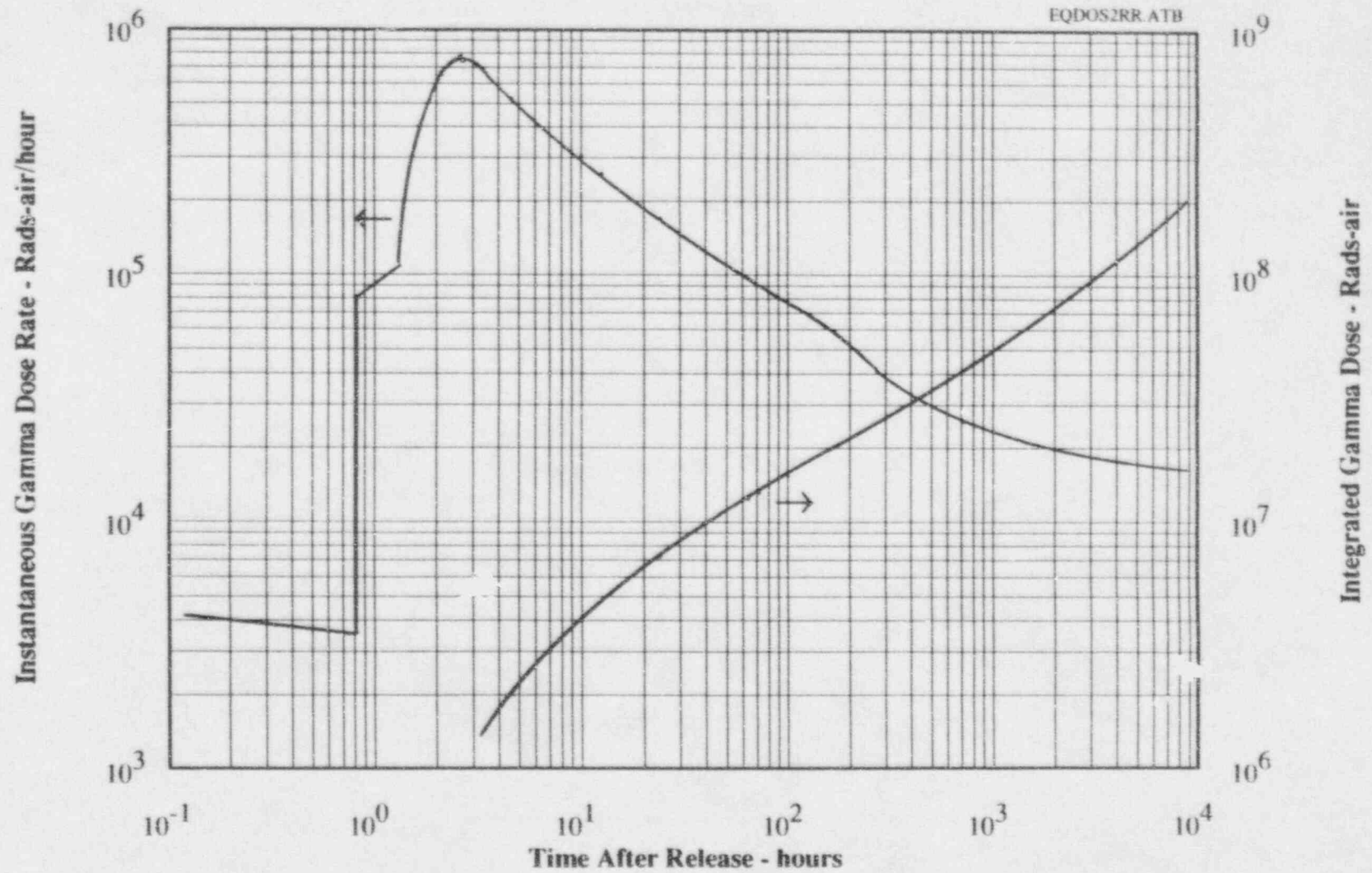


FIGURE 2

AP600 PROJECT

Beta Dose In Containment After Design Basis LOCA

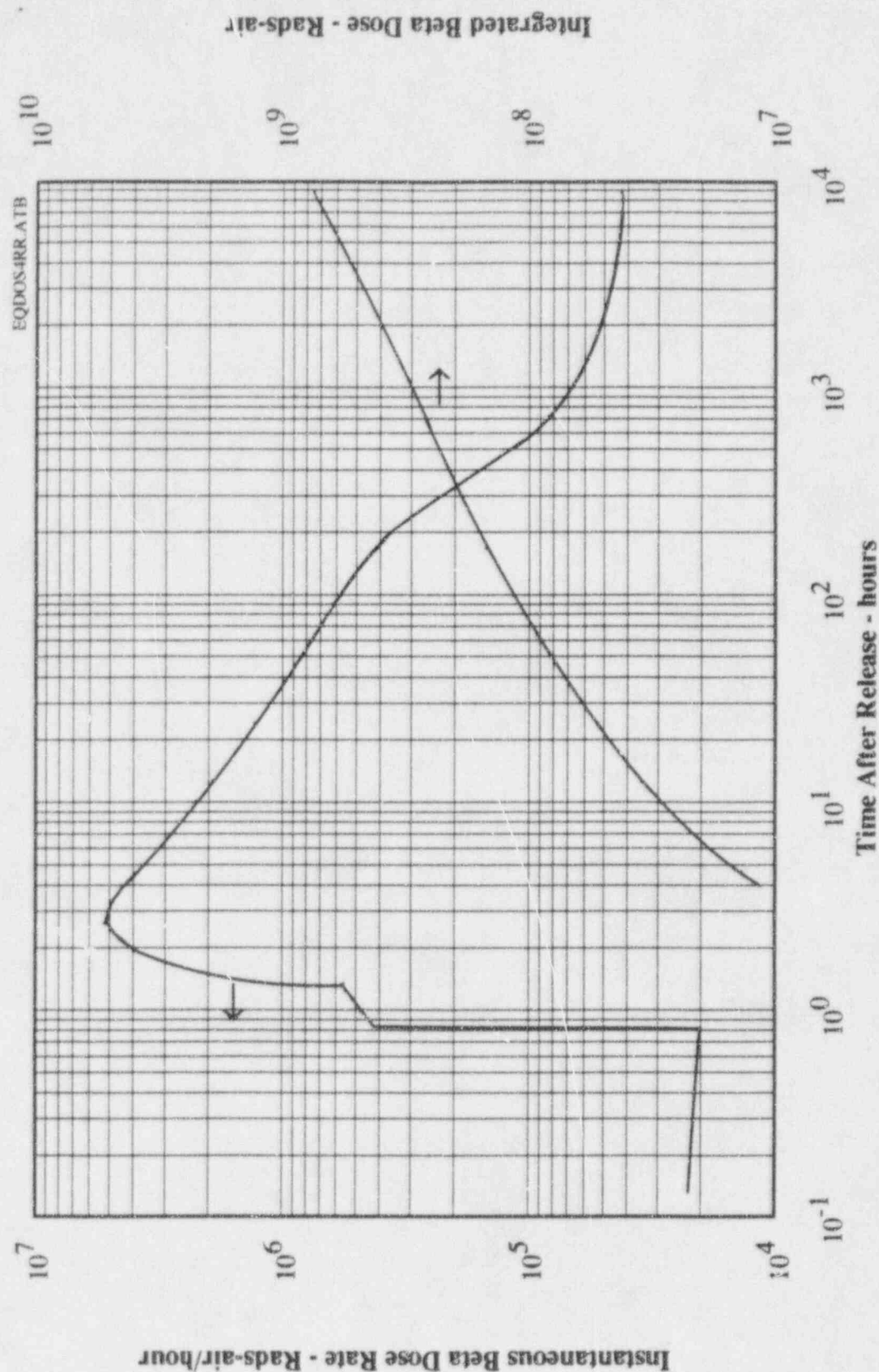


FIGURE 3

AP600 PROJECT

Gamma Dose In Containment After a Severe Accident

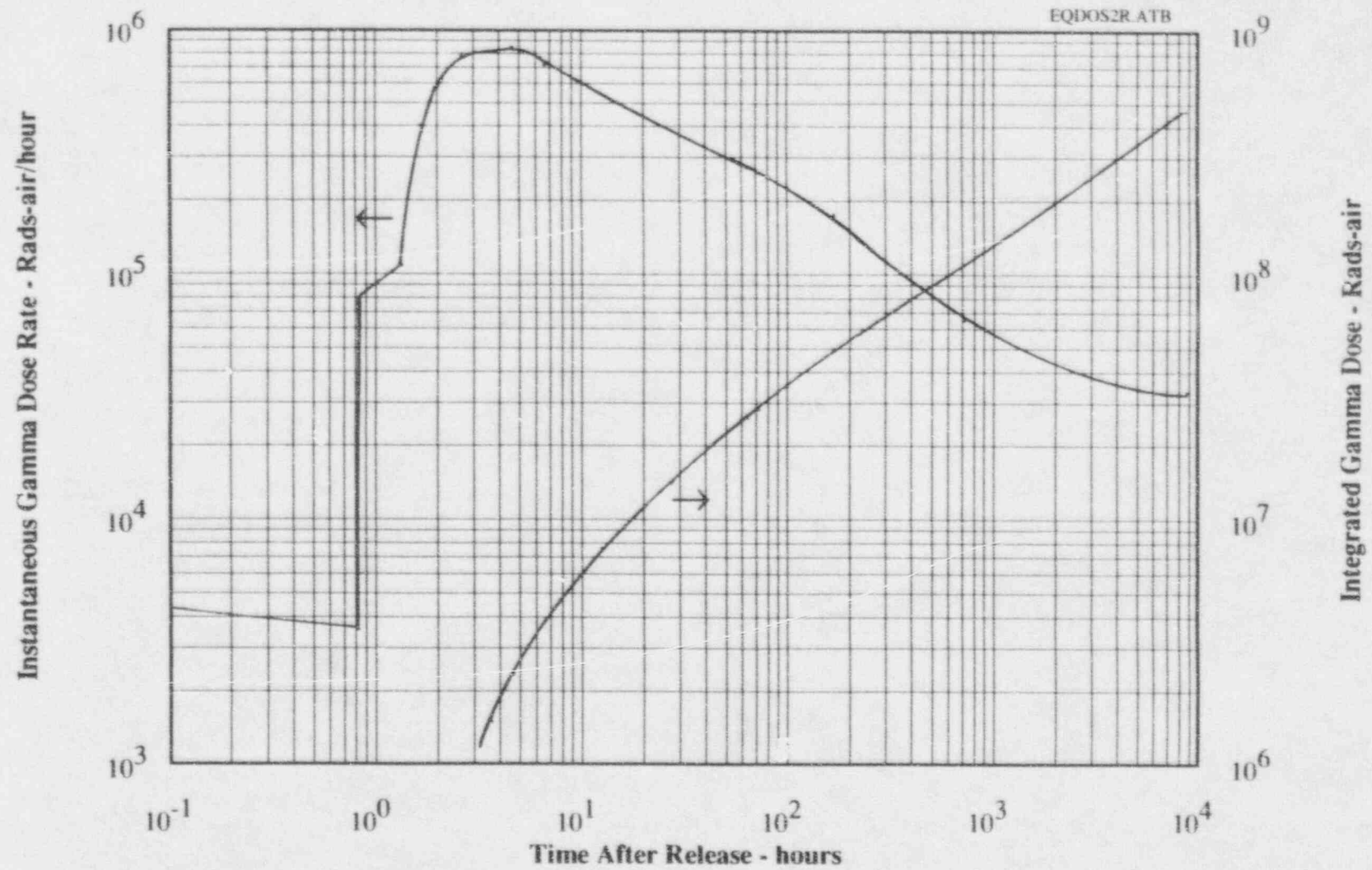


FIGURE 4

AP600 PROJECT

Beta Dose In Containment After a Severe Accident

