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March 18, 1981

Mr. T. A. Ippolito, Chief
Operating Reactors - Branch 2
Division of Operating Reactors
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Subject: Dresden Station Units 2 and 3
Adequacy of Station Electrical
Distribution System Voltages
NRC Docket Nos. 50-237/249

Reference (a): R. F. Janecek letter to D. G. Eisenhut dated August 18, 1980

Dear Mr. Ippolito:

This informatoin is provided in response to an NRC staff question concerning low voltage at equipment terminals for the condition of lowest grid voltage and maximum bus loading for the condition of a Unit 2 trip with the Unit 2 Reserve Auxiliary Transformer 22 carrying the Unit 3 ESF loads.

Attached is a revised table dated 3-11-81 showing the Dresden Unit 2 and 3 auxiliary power bus voltages when Unit 2 Reserve Auxiliary Transformer is carrying the Unit 2 shutdown load and the Unit 3 Essential Service Features load through the intertie between Units 2 and 3.

The difference between this calculation and the one submitted in Reference (a) is that the shutdown load is a realistic load assuming no manual operations to disconnect load after the unit trip.

The voltages at the 460 volt motor terminals were calculated using actual motor feeder impedences. A combination of the largest motor size and longest feeder length on each bus were selected for maximum voltage drop at the load.

The results indicate that the running voltage at all 4000 volt and 460 volt motors is above 90% of motor rated voltage.

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Please address any questions concerning this matter to this office.

One (1) signed original and thirty-nine (39) copies of this transmittal are provide for your use.

Very truly yours,

Robert F. Janecek

Robert F. Janecek
Nuclear Licensing Administrator
Boiling Water Reactors

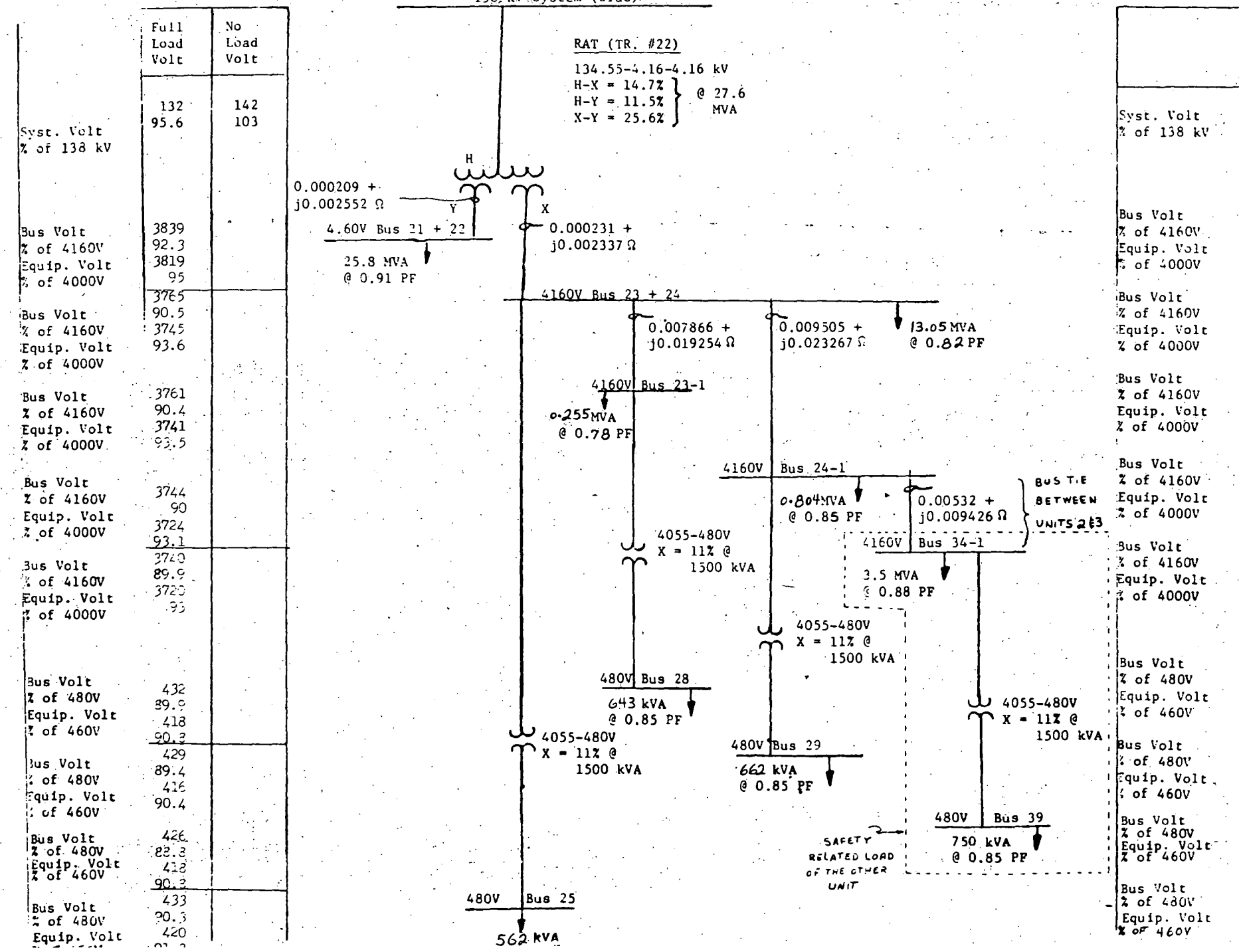
cc: RIII Inspector - Dresden

1549B

DRESDEN UNIT 2

RAT (TR.#22) CARRYING UNIT 2 SHUTDOWN LOAD AND UNIT 3 ESF LOAD THRU INTER.UNIT TIE

REVISED 3/11/81



	Full Load Volt	No Load Volt
Syst. Volt % of 138 kV	132 95.6	142 103
Bus Volt % of 4160V Equip. Volt % of 4000V	3839 92.3 3819 95	
Bus Volt % of 4160V Equip. Volt % of 4000V	3765 90.5 3745 93.6	
Bus Volt % of 4160V Equip. Volt % of 4000V	3761 90.4 3741 93.5	
Bus Volt % of 4160V Equip. Volt % of 4000V	3744 90 3724 93.1	
Bus Volt % of 4160V Equip. Volt % of 4000V	3740 89.9 3720 93	
Bus Volt % of 480V Equip. Volt % of 460V	432 89.9 418 90.8	
Bus Volt % of 480V Equip. Volt % of 460V	429 89.4 416 90.4	
Bus Volt % of 480V Equip. Volt % of 460V	426 88.8 418 90.8	
Bus Volt % of 480V Equip. Volt	433 90.3 420	