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**Vogtle Project**

May 10, 1985

Director of Nuclear Reactor Regulation  
Attention: Ms. Elinor G. Adensam, Chief  
Licensing Branch #4  
Division of Licensing  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555

File: X7BC35  
Log: GN-605

REF: BAILEY TO DENTON, GN-598, ENCLOSURE B, DATED 5/6/85

NRC DOCKET NUMBERS 50-424 AND 50-425  
CONSTRUCTION PERMIT NUMBERS CPPR-108 AND CPPR-109  
VOGTLE ELECTRIC GENERATING PLANT - UNITS 1 AND 2  
REQUEST FOR ADDITIONAL INFORMATION: Q430.72

Dear Mr. Deaton:

Attached for the review of your staff is a revision to the response to Q430.72. This revision was requested by telephone on May 8, 1985 and supercedes the response provided in the referenced letter.

If your staff requires any additional information, please do not hesitate to contact me.

Sincerely,

J. A. Bailey  
Project Licensing Manager

JAB/sm

Attachment

xc: D. O. Foster  
R. A. Thomas  
J. E. Joiner, Esquire  
B. W. Churchill, Esquire  
M. A. Miller  
B. Jones, Esquire (w/o att.)  
L. T. Gucwa  
G. Bockhold, Jr.  
T. Johnson  
D. C. Teper  
L. Fowler  
Vogtle Project File

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Calculations have been performed to determine the effects of running the VEGP charging pumps at the degraded voltage setting (88%). The effect of running at this reduced voltage would be a temperature rise of the insulation system of the motor and the motor would run at a lower speed. The effects of running at the reduced voltage are a temperature rise <sup>of</sup> 85°C and speed of 1755 RPM (synchronous speed is 1800 RPM and operating speed is 1771 RPM).

The insulation system used in the GAE charging pump motors is thermalastic epoxy insulation designed to NEMA Class F requirements. Per Section MG1-20.40 of the NEMA Standards, the maximum temperature rise by resistance based on an ambient temperature of 40°C with 1.15 or higher service factor for Class F insulation systems is 105°C. The temperature rise of the GAE charging pump motors at 88% voltage is 85°C, which is lower than the maximum temperatures allowed by NEMA Standards for Class F insulation.

Attached are flow curves for comparison of the vendor minimum curve, accident analysis curve and the curve resulting from the degraded voltage. As can be seen, the degraded voltage curve is acceptable with respect to the analysis curve.

H vs. Q

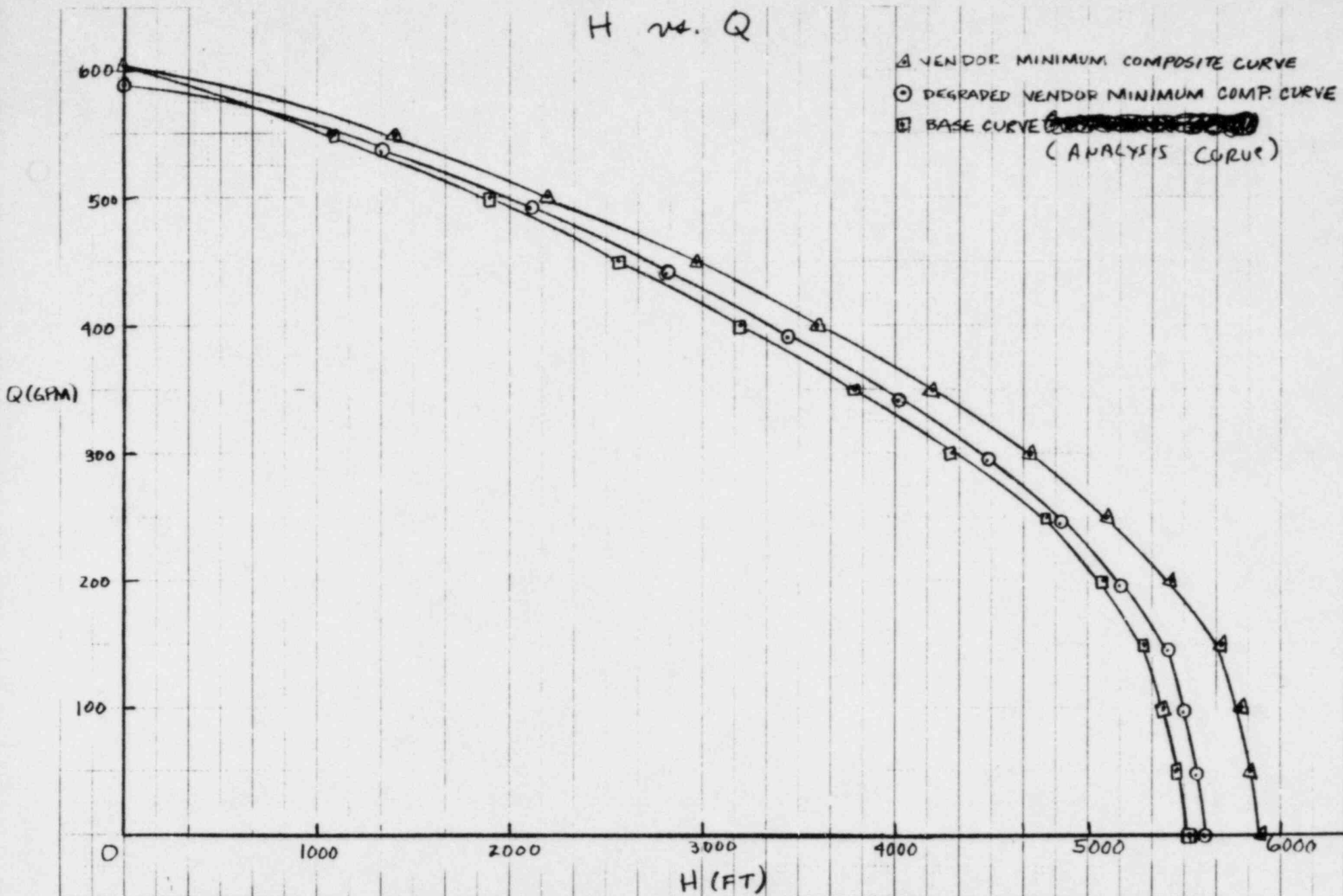


FIGURE 1

~~COMPARISON OF VENDOR, DEGRADED VENDOR & BASE CURVES~~ COMPARISON OF VENDOR, DEGRADED VENDOR & BASE CURVES