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VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

November 28, 1979

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
Attn: Mr. William Gammill, Acting
Assistant Director for Operating
Reactor Projects
Division of Operating Reactors
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Serial No: 673A/080879
PO/FHT:baw
Docket Nos: 50-338
50-339
License No: NPF-4
Permit No: CPPR-78

Subject: North Anna Power Station Units 1 and 2
GDC-17 Compliance Review Results

Dear Mr. Denton:

In our letter of October 9, 1979, Serial 673/080879, we referenced the results of our review of the adequacy of the station electric distribution systems for North Anna Units 1 and 2, and committed to provide additional information on the compliance with GDC-17 of the offsite power supply for North Anna. This letter provides the final results of our review.

The design of our offsite power supply for North Anna Units 1 and 2 is in full compliance with GDC 17. This statement is based on the sentence in GDC-17 which states "a switchyard common to both circuits is acceptable". However, the concern expressed in your letter of August 8, 1979, was "to determine if there are any events or conditions which could result in the simultaneous or consequential loss of both required circuits to the offsite network". We have determined that some minor modifications will be required in our switchyard to meet the intent of your August 8, 1979, requirements.

The first area of concern we mentioned in our October 9, 1979, letter involved a 34.5KV tie breaker between the two 34.5KV buses which supply the redundant offsite power supplies. This tie breaker would normally be open and would be automatically closed upon the loss of supply power to either 34.5KV bus. However, to eliminate any possibility of simultaneous loss of both offsite sources due to tie breaker failure, we will incorporate operating procedures to leave one or both 34.5KV disconnects open (one disconnect is installed on each side of the breaker). The automatic close feature will be removed and manual closing will be required.

The second item of concern we expressed in our October 9, 1979, letter involved the switchyard service transformers. Each of these 1500KVA transformers can supply the entire switchyard load. The primaries of these transformers are connected to each 34.5KV bus and the secondaries are routed in a common cable trough to manual throwover switches. The purpose of the throwover switches is to allow the loads to be transferred to either transformer. In

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order to eliminate the possibility of simultaneous loss of both offsite sources, switches will be installed in the secondary leads of both transformers and all the secondary leads of one of the transformers will be removed from the comm.n trough and installed in conduit. The new switches will be operated such that only one transformer source will be available at the throwover switch at any time.

Enclosed is a sketch which shows the changes described above. The remainder of the offsite power source is in full compliance with GDC-17 and these changes eliminate the concern of a single event causing simultaneous loss of both required circuits to the offsite source.

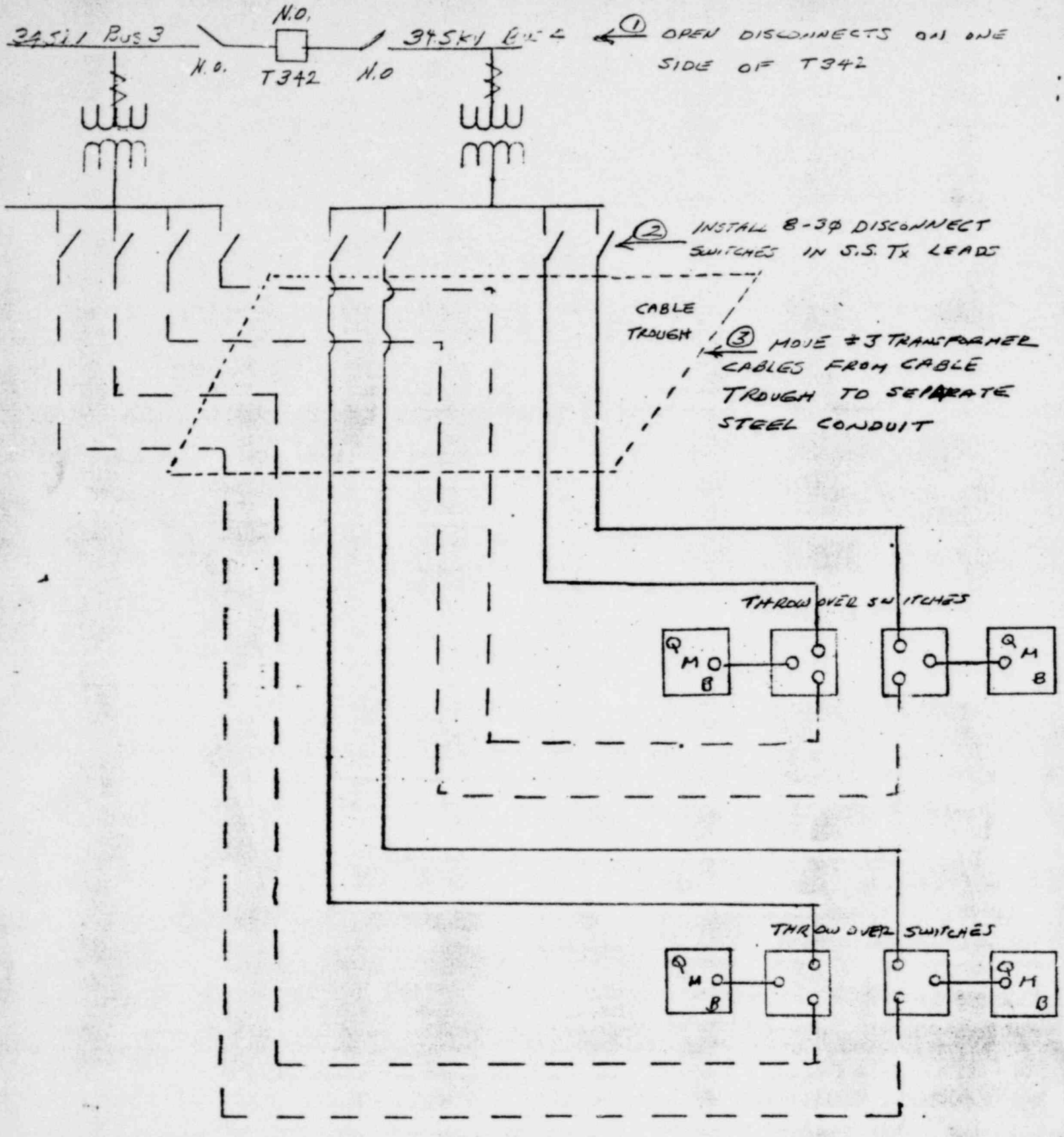
Very truly yours,

C. M. Stallings

C. M. Stallings
Vice President-Power Supply
and Production Operations

cc: Mr. James P. O'Reilly

NORTH ANNA SWITCHYARD



NEW DISCONNECT SWITCHES & ASSOCIATED THROW OVER CONTACTS TO BE OPERATED ALL OPEN OR ALL CLOSED AS REQUIRED.

NOTE: N.O. = NORMALLY OPEN

QMB ⇒ 240/120 VOLT DISTRIBUTION PANEL FOR SWITCHYARD LOADS

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