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ACCESSION NBR:8401270092 DOC.DATE: 84/01/23 NOTARIZED: NO MAY DOCKET #
FACIL:50-410 Nine Mile Point Nuclear Station, Unit 2, Niagara Moha 05000410
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MANGAN,C.V. Niagara Mohawk Power Corp.
RECIP.NAME RECIPIENT AFFILIATION
SCHWENCER,A. Licensing Branch 2

SUBJECT: Forwards info showing comparison of plant diesel generators w/generators of other units demonstrating similarity.Diesel generator 200 start test need start 300 not be conducted. Requests exclusion from testing for preoperational program.

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NIAGARA MOHAWK

NIAGARA MOHAWK POWER CORPORATION/300 ERIE BOULEVARD WEST, SYRACUSE, N.Y. 13202/TELEPHONE (315) 474-1511

January 23, 1984
(7979)

A. Schwencer, Chief
Licensing Branch #2
United States Nuclear Regulatory Commission
Washington, DC 20555

Dear Mr. Schwencer:

Re: Nine Mile Point Unit 2
Docket No. 50-410

Enclosed is information relating to the Nine Mile Point Unit 2 diesel generators. Specifically, this information shows a comparison of the Nine Mile Point Unit 2 diesel generators and selected diesel generators at other units which demonstrates that our diesel generators are similar.

We believe that the Unit 2 diesel generators, as shown on the attached tables, are essentially the same as those previously tested during preoperational testing at other units. Specifically, IEEE 387 indicates that diesel generators that are essentially the same and have been previously tested, need not be service qualified. Therefore, the 300 Diesel Generator Start Test need not be performed at our plant.

On this basis, we request authorization from the Nuclear Regulatory Commission to exclude this testing from our current preoperational test program. To ensure that your decision on this matter does not affect our preoperational test program, we would appreciate your immediate consideration and approval by April 1, 1984.

Very truly yours,

C. V. Mangan
Vice President
Nuclear Engineering & Licensing

CVM/NLR:ja
Enclosure

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1/1

NMP2 DIVISIONS I, II AND III STANDBY DIESEL GENERATOR COMPLIANCE WITH REGULATORY GUIDE 1.9, REVISION 2 DATED DECEMBER 1979

The Division I and II diesel generators are Cooper Energy Services Model KSV-16-T. Commonwealth Edison Company's Zion Station and Pennsylvania Power and Light Company's Susquehanna Station also utilize CES KSV-16-T diesel generators for standby service. Both Commonwealth Edison Company and Pennsylvania Power and Light have performed a successful Regulatory Guide 1.9, Start and Load Acceptance Qualification Test (Section C.13, 300 Start Test) on these Zion and Susquehanna KSV-16-T diesel generators. A comparison of Nine Mile Point Unit 2, Zion and Susquehanna KSV-16-T standby diesel generators follows on Attachment 1, Pg. 1.

For the Divisions I and II diesel generators, the differences in total Wk^2 (Item 9) and BMEP (Item 6) are favorable to Unit 2 with regard to starting capability. The Unit 2 units have a higher continuous output rating. All other key parameters tabulated are identical for the three stations.

Both the Divisions I and II Cooper Energy Services standby diesel generators were shop-tested by the system vendor for 2 hours at their 4840-kW 2-hour, start-time rating. However, during this stop test, these units were not run at full load immediately before or preceding the 2-hour, 4840-kW test. In separate shop tests, each of these standby diesel generators were run at full load (4400 kW) for a 4-hour period.

The Cooper Energy Services KSV-16-T and KSV-20-T diesel generators are used extensively as standby units in the commercial nuclear industry. Cooper Energy Services's LSV-16 diesel engine is widely used in many applications outside the nuclear industry. This engine is a slower speed predecessor of the KSV-16-T model used at Nine Mile Point Unit 2; however, it is very similar to the KSV-16-T model in overall design.

Due to the reasons explained above, it is Niagara Mohawk Power Corporation's position that a Regulatory Guide 1.9, Load Capability Qualification Test (Section C.14) and a Start and Load Acceptance Qualification Test (300 Start Test) are <u>not</u> required for the Divisions I and II diesel generators. These tests are type tests required to confirm prototype standby diesel generator operating capability. Niagara Mohawk Power Corporation believes that previous industry experience, as described above, warrants that these tests need not be performed on the Divisions I and II diesel generators. All other Regulatory Guide 1.9, Revision 2 requirements will be met for the Divisions I and II standby diesel generators.

The Division III diesel generator is GM-EMD Model No. 20-645E4. Commonwealth Edison Company's LaSalle County - Unit 1 Station also utilizes GM-EMD Model No. 20-645E4 diesel generator for standby service. Attachment 1, Pg. 2 is a comparison of the Nine Mile Point Unit 2 and the LaSalle 1 standby diesel generators.

Comparison Summary of Unit 2
Divisions I and II Diesel Generators

Parameter Description	NMP2	Station Zion	Susquehanna
1. System	Cooper Energy Services	Cooper Energy Services	Cooper Energy Services
2. Model	KSV-16-T	KSV-16-T	KSV-16-T
3. Number of Cylinders	16	16	16
4. Stroke in Inches	16.5	16.5	16.5
5. Bore in Inches	13.5	13.5	13.5
6. Brake Mean Effective Pressure (psig)	214.3	194.9	194.9
7. Engine Piston Cycle	4	4	4
8. RPM	600	600	600
9. Total Engine and Generator Wk^2 ($lb\text{-}ft^2$)	137,600	146,700	158,800
10. Continuous Engine/ Generator kW Output Rating	4400	4000	4000
11. Generator Manufacturer	Electric Products	Ideal	Electric Products
12. Rated Voltage/Frequency/ Number of Phases	4160/60/3	4160/60/3	4160/60/3
13. Rated Power Factor	0.8	0.8	0.8
14. Generator Excitation	Static	Brushless	Static

Comparison Summary of
Nine Mile Point 2 and LaSalle 1 Division III Diesel Generators

Comparison Parameter	NMP-2	LaSalle 1
Engine		
Make	GM-EMD	GM-EMD
Model	20-645E4	20-645E4
BHP-Cont.	3600	3600
RPM	900	900
No. of Cyl.	20	20
Bore in Inches	9 1/16	9 1/16
Stroke in Inches	10	10
Brake Mean Effective Pressure (psig)	123	123
Generator		
Make	Ideal	Ideal
Model	SAB	SAB
RPM	900	900
kW (Continuous)	2850	2850
kVA	3562	3562
Current, Amps	495	495
Voltage	4160 V	4160 V
Power Factor	0.8	0.8
Exciter		
Make	Ideal	Ideal
Model	FRBA	FRBA
Type	Horiz. Brushless	Horiz. Brushless
kW/Volts	25/250	25/250
RPM	900	900