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SUBJECT: Responds to Ridgely request for field test data on diesel fuel comsumption rate for Div I, II & III diesels. Revised FSAR Page 3/4.8.1 encl.

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

September 18, 1986
(NMP2L 0880)

Ms. Elinor G. Adensam, Director
BWR Project Directorate No. 3
U.S. Nuclear Regulatory Commission
7920 Norfolk Avenue
Washington, DC 20555

Dear Ms. Adensam:

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

This letter responds to a request by Mr. Ridgely for field test data on diesel fuel consumption rate for the Division I, II, and III diesels. This information is to substantiate the 7-day fuel oil supply given in Section 9.5.4 of the Final Safety Analysis Report and Technical Specification 3/4.8.1. In addition, this information and the revised Final Safety Analysis Report page attached to this letter provide the information necessary to resolve your response to our SER comment 114 which was identified in our letter of July 16, 1986.

Tabulated below for the Division I and II diesels are the rated capacities of the respective diesels, the calculated fuel consumption rates based on vendor data, and the consumption rates as determined by preoperational testing at or above rated capacity.

	Rated Capacity	Fuel Consumption Rate (GPM) Vendor	Field
Division I	4400 kw	4.975	4.75
Division II	4400 kw	4.975	4.59

B001
1/1

For the Division III diesel, the Technical Specification 7-day fuel tank limit of 36,173 gallons is based upon the vendor's calculated fuel consumption rate of 3.361 GPM at 2850 kw. The measured fuel consumption rate for this diesel was 2.95 GPM as determined by pre-operational testing at or above rated capacity. Regulatory Guide 1.137, position C.1.C, stipulates that the fuel storage requirements should be based on the diesel generator's rated capacity; therefore, the Technical Specification limit for fuel storage for the 7-day tank for Division III is more conservative than the Regulatory Guide requirement.

Very truly yours,

C. V. Mangan
Senior Vice President

KWK/pns
2049G
Attachment

xc: W. A. Cook, NRC Resident Inspector
Project File (2)

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the Matter of)
Niagara Mohawk Power Corporation) Docket No. 50-410
(Nine Mile Point Unit 2))

AFFIDAVIT

C. V. Mangan, being duly sworn, states that he is Senior Vice President of Niagara Mohawk Power Corporation; that he is authorized on the part of said Corporation to sign and file with the Nuclear Regulatory Commission the documents attached hereto; and that all such documents are true and correct to the best of his knowledge, information and belief.

C V Mangan

Subscribed and sworn to before me, a Notary Public in and for the State of New York and County of Onondaga, this 18th day of September, 1986.

Christine Austin
Notary Public in and for
Onondaga County, New York

My Commission expires:
CHRISTINE AUSTIN
Notary Public in the State of New York
Qualified in Onondaga Co. No. 4787687
My Commission Expires March 30, 1987

GUNSTINE AUSTIN
Notary Public in the State of New York
Qualified in Onondaga Co. No. 4787627
My Commission Expires March 31, 19__

oil by the pumps. Each fuel oil transfer pump discharge line is equipped with a simplex-type sediment strainer sized for full pump flow. Although ANSI Standard N195-1976 recommends the use of duplex strainers in diesel fuel oil systems, one simplex strainer per pump accomplishes the same intent. By administrative operating procedure, the operation of one diesel fuel oil transfer pump shall serve the diesel generator with the other pump in standby mode. When high differential pressure across the transfer pump discharge strainer indicates a clogged condition, an alarm in the control room will alert the operator to initiate the operation of the standby pump. Approximately 329 gal of diesel fuel oil are available for the Division I and II diesels, and 202 gal for the Division III diesel, between the low level alarm setpoint and the diesel generator feed line connection. These volumes of diesel fuel oil allow each of the diesel engines to operate for 1-hr. at the DEMA rating of 10% overload of 4840 kw for the Division I and II diesels, and of 2860 kw for the Division III diesel.

3. Three diesel fuel oil day tanks, one for each diesel engine. Each day tank is located in the day tank room above the engine generator control panel room of its associated diesel generator. The elevated location of the tank provides adequate net positive suction head (NPSH) to the engine-driven fuel pump of the diesel engine. Each day tank is supplied with a manhole for maintenance access, an external vent, a sounding tube for manual confirmation of fuel oil level, and an overflow line for returning excess fuel oil to the fuel oil storage tank.

   The fuel oil capacity of each daytank is 660 gal including a dead volume of approximately 80 gal. Based on a fuel consumption of 5.472 gpm at a rated 4,840 kW for the Division I and II diesels, and 3.361 gpm at a rated 2,850 kW for the Division III diesel, the 1-hr running time volumes, including the dead volume in the tanks, are 409 gal and 282 gal, respectively.

Each fuel oil transfer pump is capable of supplying the maximum fuel demand of a standby diesel generator. For each storage tank, administrative operating procedures determine which of the two transfer pumps starts automatically when fuel oil in its corresponding day tank falls to the pump-on level, and stops automatically when fuel oil rises to the pump-off level. The second pump is on standby and can be