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August 17, 1984

Mr. Harold R. Denton, Director Office of Nuclear Reactor Regulation U.S. Nuclear Regulatory Commission Washington, D.C. 20555

Attention:

Ms. E.G. Adensam, Chief Licensing Branch No. 4

Re: Catawba Nuclear Station

Docket Nos. 50-413 and 50-414

Dear Mr. Denton:

On June 29, 1984 Duke Power Company submitted the Catawba Nuclear Station Diesel Engine 1A Component Revalidation Inspection Final Report. This report identified inspections and evaluations which were to be performed during reassembly of the engine. The purpose of this letter is to identify those items requiring action and provide the status of actions taken by Duke Power Company. Action items and their status are provided below:

1. Material Comparitor Tests on the Valves.

STATUS: All valves have been tested and determined to be of the same material; however, before the tests can be completed and evaluated, a material sample must be provided by Failure Analysis Associates.

2. Eddy-current Tests (ECT) of Fuel Line Tubing.

STATUS: This effort has been completed and the results found to be satisfactory.

3. Walkdown Inspections of Tubing, Piping and Electrical Conduit.

STATUS: Duke Power Company completed the walkdown inspections in accordance with their internal procedures and found everything to be satisfactory. The Owners Group Phase II inspections remain to be completed.

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4. Removal of Fuel Injection Pump Nozzle Valve Holders from the Engine for Inspection and Rework, if Required.

STATUS: All inspections of the nozzle valve holders are complete. Rework of 6R, 5R, 1L and 8L was required in order to obtain a satisfactory surface finish in the fuel line passages. The rework has been satisfactorily completed and no further effort is anticipated.

5. Replacement of Crankcase and Camshaft Cover Bolting.

STATUS: All existing crankcase and camshaft cover bolts were replaced with SAE Grade 8 bolts.

6. Replacement of Turbocharger Exhaust Gas Inlet Bolts with Bolts Manufactured From A286 Material.

STATUS: The existing bolts were temporarily replaced with new bolts manufactured from the same material. Availability of bolts manufactured from A286 material precluded their installation during turbocharger reassembly. They will be installed during the next reassembly of the turbocharger.

7. Replacement of Turbocharger Bolting.

STATUS: The turbocharger bolting was replaced using SAE Grade 8 bolts.

8. Verify the torque Used on the Jacket Water Pump External Spline Nut.

The 1A diesel engine jacket water pump external spline nut was torqued to 120 ft-lbs. in accordance with the TDI instruction manual. Duke Power Company used a tolerance of +8, -0 ft-lbs. to ensure the proper torque was obtained. The external spline nut on 1B diesel engine jacket water pump will be inspected on or before the first Unit 1 refueling outage.

9. Design Procure, and Install a Flexible Joint Turbocharger Adapter

STATUS: Duke Power Company will install a flexible joint turbocharger adapter prior to achieving 5% power.

10. Installation of Turbocharger Prelube System

STATUS: The turbocharger prelube system is part of the new turbocharger lube system which will be installed on the engine by September 1, 1984.

11. Turbocharger Bearing Inspection

The turbocharger bearings will be inspected for signs of deterioration during the first refueling outage.

12. Replacement of 6L Cylinder Head.

STATUS: This cylinder head will be replaced prior to achieving 5% power.

13. Inspection of Rocker Box (Subcover) Assembly.

STATUS: A failure analysis of the affected rocker box assemblies is being conducted by Failure Analysis Associates; the results will be provided to the NRC when they become available. Inspection of the rocker box assemblies will be conducted during refueling outages, in conjunction with push rod, rocker arm, cam and tappet inspections.

14. Inspection of the Replacement Cylinder Heads by Duke Power Company.

Upon receipt, replacement heads are visually inspected, liquid penetrant inspected in the valve seat area, and ultrasonically inspected in the fire deck area prior to installation.

15. Duke Power Company's Response to Preoperational Test Failure

Preoperational testing consists of: two types of fast start tests, one with turbocharger prelube and one without prelube; ten modified load starts; and one 24 hour engine run. The two fast starts have been successfully completed with the ten modified load starts and twenty-four hour run remaining to be completed.

A preoperational test failure is defined as a valid failure to start during the preoperational tests. The likelihood of a preoperational test failure is considered to be a remote possibility, however, should a failure occur during the remaining tests Duke Power Company will establish the cause of the failure and take the necessary corrective action to prevent recurrence. In the case of a valid failure to start during the modified load starts Duke Power Company shall notify the NRC and provide any pertinent information which may be required. Once the cause of the failure has been established and appropriate corrective measures taken, the ten modified load starts will be repeated. Should it become necessary to terminate the 24 hour engine run test prior to its completion, the test shall be repeated.

16. Replacement of Electrical Cables (TDI SIM 361)

STATUS: The SIM 361 will be completed by September 1984.

Duke Power Company has completed or will complete a majority of the outstanding items identified in the June 29, 1984 report by September 1, 1984. Those items completed include:

1. Eddy-current Tests of Fuel Line Tubing

- Duke Power Co. Walkdown Inspections of Tubing, Piping and Electrical Conduit
- 3. Fuel Injection Pump Nozzle Valve Holder Inspection & Rework
- 4. Replacement of Crankcase and Camshaft Cover Bolting
- 5. Replacement of Turbocharger Bolting

Items still Outstanding include:

1. Completion of the Material Comparitor Tests on Valves

2. Owners Group Phase II Walkdown Inspections

3. Replacement of Turbocharger Exhaust Gas Inlet Bolts

4. Installation of the Turbocharger Prelube System by September 1, 1984

5. Replacement of the 6L Cylinder Head

6. Completion of the Rocker Box (Subcover) Assembly Failure Analysis

7. Replacement of Electrical Cables

Outstanding items resulting from the August 1984 Pacific Northwest Laboratory Report include:

1. Design and Installation of a Flexible Joint Turbocharger Adapter

Should you have any questions regarding the items discussed above please let me know.

Very truly yours,

Hal B. Tucker, Vice President

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Nuclear Production

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Melanie Miller ONRR, U.S. Nuclear Regulatory Commission Washington, D.C. 20555 August 17, 1984 Harold R. Denton Page 5

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