

JUL 20 1981

Docket Nos. 50-266
and 50-301

Mr. Sol Bursztein
Executive Vice President
Wisconsin Electric Power Company
231 West Michigan Street
Milwaukee, Wisconsin 53201



Dear Mr. Bursztein:

Subject: Information Request Regarding Station Blackout, Unresolved
Safety Issue A-44, Point Beach Nuclear Plant, Units 1 and 2

The NRC staff is currently addressing Unresolved Safety Issue (USI) A-44, Station Blackout. The purpose of this work is to establish the safety significance of an event resulting in a loss of all alternating current power and, if significant, to consider the need for any specific changes. Over the past several years information requests have been forwarded which requested information that is being used in the USI analysis. Your interest and cooperation in the past have been appreciated.

At this time the USI A-44 effort is being directed toward determining the reliability of the onsite standby diesel generators. The enclosed questionnaire has been prepared to provide accurate operating experience to serve as a basis for such a determination. More specifically, its purpose is to obtain more detailed data than were available in previous diesel generator studies such as AEC-00E-ES-002, NUREG/CR-0660, and NUREG/CR-1362.

The questionnaire (enclosure 1) requests information in tabular form and solicits data for the years 1976 through 1980, inclusive. There are four tables enclosed: (1) Diesel Generator Operations Data, (2) Diesel Generator Scheduled Down Time Record, (3) Diesel Generator Unscheduled Down Time Record, and (4) Onsite Emergency Diesel Generator and Auxiliary Equipment Modification Record. Also enclosed are examples of completed tables as well as a clarification of what should be entered. Please note that, although it may appear that only Licensee Event Report (LER) information is sought, data on all diesel generator malfunctions, independent of whether an LER was prepared, is requested.

Please find enclosed LER documentation (enclosure 2) presently docketed for your facility. You are requested to review these and to indicate if there are other reports which have not been enclosed. Finally, please find enclosed a copy of the appropriate portions of your response (enclosure

8107290241 810720
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OFFICE						
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DATE						

3) to our letter of March 6, 1978 which requested related, but different, information. This is being forwarded for your information only and should aid in preparing Tables 1 through 4.

In consideration of the time and effort necessary to obtain this information, the completion of Table 4 should be considered voluntary. However, it should be noted that if operational and hardware modifications are not identified, the positive or negative influence of these features on emergency alternating current power reliability may be lost in the evaluation of the data. The expected effect is that our generic reliability estimates may be lower than that which actually exists.

The above information is requested in accordance with Sections 103.b.(3) and 161.c of the Atomic Energy Act of 1954, as amended. To meet our schedule requirements for the resolution of USI A-44 and to incorporate as much real experience as possible into the reliability model for emergency power systems, it is requested that your response be provided within 120 days of the receipt of this letter. However, if this schedule is inconsistent with priority requirements for other licensing work, please provide us with your proposed date of response within 30 days. We plan to complete our analysis of this data by February 1982. Your data should be provided by that time so that an accurate assessment of onsite alternating current power sources can be made.

Mr. P. Baranowsky has been designated Task Manager for USI A-44. Should you have any questions, please feel free to contact him at (301) 443-5921. Your time and efforts are appreciated.

DISTRIBUTION

Docket Files 50-266/301

ARC & Local PDRs

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ORB#3 Reading

D. Eisenhut

R. Purple

J. Roe

T. Novak

Enclosures:

As Stated

cc: w/enclosures

See next page

R. Clark

P. Kreutzer

T. Colburn

T. Murley

F. Schroeder

K. Kniel

P. norian

P. Baranowsky

J. Butts

J. Heltemes

OELD

I&E (3)

ACRS (16)

Sincerely,

Original signed by
Robert A. Clark

Robert A. Clark, Chief
Operating Reactors Branch #3
Division of Licensing

This request for information was approved by the Office of Management and Budget under clearance number 3150-0067 which expires May 31, 1983. Comments on burden and classification may be directed to the Office of Management and Budget, Washington, D. C. 20503.

OFFICE	DST/GIB	DL:ORB#2	DL: 3#3	DL:ORB#3		
SURNAME	PE:norian:ib	PPolk	TColb	RAClark		
DATE	07/17/81	07/17/81	07/29/81	07/20/81		

Wisconsin Electric Power Company

cc:

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USNRC Resident Inspectors Office
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Two Rivers, Wisconsin 54241

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1516 Sixteenth Street
Two Rivers, Wisconsin 54241

Mr. Glenn A. Reed, Manager
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Mr. Gordon Blaha
Town Chairman
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Madison, Wisconsin 53703

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Federal Activities Branch
Region V Office
ATTN: EIS COORDINATOR
230 S. Dearborn Street
Chicago, Illinois 60604

Chairman
Public Service Commission of Wisconsin
Hills Farms State Office Building
Madison, Wisconsin 53702

TABLE 1

Diesel Generator Unscheduled Downtime Record
Calendar Year 19__

Enclosure 1 - Page 3

Plant Name _____

Unit No. _____

LER Abstract No. (Refer to attached LER Abstracts)	Downtime Hours				Comments - If any of the reported failures would not have been a failure under emergency conditions, please explain here. Refer to attached LERs or the failures listed in Table 1.
	Total Hours	Trouble-shooting	Parts, Delivery, etc	Repair/replace	

Plant Name _____
Unit No. _____

Onsite Emergency Diesel Generator and
Auxiliary Equipment Modification Record

TABLE 4

Equipment or procedure modified	Date of Mod.	Reason for Modification and Desired Improvement	Description of Modification

TABLE ENTRIES
EXPLANATION/CLARIFICATION

Table 1

Reason for DG Operation and Scheduled Duration of Run: This column contains the different categories of diesel generator operation. The categories are structured such that the start and run conditions are similar for all of the tests in a category. In this column, enter the scheduled run duration for each of the test categories. Also enter the number of diesel generator starts that are done for each type of test. For example, if on the monthly test there is one start from the local controls and one start from the remote controls, the number of starts per test is two. If two or more diesels are started simultaneously for any reason, please record it as a multiple start.

DG No.: Enter each diesel generator's identification number in this column as shown in the example.

Number of Starts: Enter the sum of the successful and unsuccessful start attempts for each category. If there are several starts for each test, include all of them, but be certain to record the number of starts per test in column one.

Number of Failures: Enter the sum of the failures for each category. A failure is counted if the objectives of the test are not achieved. A subsystem failure that does not cause failure of the diesel generator system is not counted as a failure. If the diesel generator did not start, run, and load as required by the test, a failure should be recorded. However, if the diesel generator would have supplied power in some capacity for an emergency, please explain in Table 3. For example, if the diesel started on the second attempt or the diesel was tripped to repair a minor oil leak that would not have been a problem in an emergency, this should be noted in Table 3.

Percent Loading of DG (KW): Enter the percentage that the diesel is loaded for each category. The continuous kilowatt rating is considered to be 100%.

Duration of Run Before Stop for each DG Failure: Record the run-time for each failure. If the diesel failed to start, the run-time would be 0 min.

Identification of Failures: Attached to this questionnaire are abstracts of the LERs related to the diesel generators. The abstracts are numbered starting with one. Refer to this number to identify the failures, but if there was a failure for which there is no abstract, assign the failure a number and include it in Table 3.

Table 2

Reason for Downtime: Enter in this column the categories of schedule maintenance that make the diesel generator unavailable for emergency service. If the diesel generator is unavailable for emergency service during surveillance testing, report that also.

Table 2 (cont'd)

Hours of Downtime: Enter the number of hours that the diesel generator is unavailable for emergency service. Report the hours under the column reactor shutdown or reactor not shutdown as appropriate.

Comments: Comment on time to return to service after maintenance has begun, or other pertinent information.

Table 3

LER Abstract No. (Refer to attached LER Abstracts): The attached LERs are numbered starting from one. Refer to this LER number in column one. Each LER abstract should have an entry in this table. If there was a failure not included in the attached abstracts, please assign it a number and enter it in this table.

Downtime Hours: Enter the number of hours that the diesel generator is unavailable for emergency service. Subdivide these total hours into troubleshooting, parts delivery, and repair or replacement.

Comments: Use this column to comment on the downtime and the failure. If the reported failure was only a technical specification violation, but would not be a complete failure of the diesel generator to supply power or would only be a delay, please elaborate in this column.

Table 4

Equipment or procedure modified: List in this column the equipment or procedures related to the emergency onsite power system that have been modified since the reactor became critical.

Date of Mod.: Enter the date that the modification was completed.

Reason for Modification and Desired Improvement: Report the reason for the modification and the desired or observed improvement in the system.

Description of Modification: Briefly describe what modification was made.

Diesel Generator Operations Data
 Calendar Year 1976

TABLE 1
 (Sample)

Reason for DG Operation, & Scheduled Duration of Run	DG No.	Number of Starts	Number of Failures	Percent Loading of DG (KW)	Duration of Run Before Stop for Each DG Failure	Identification of Failures (Refer to attached IERs or Table i)
Tech. Spec Req'd Test Monthly Surveillance (1 hour) (1 start/test)	1	12	2	100	30 min; 0 min	IER # 1 & 4
	2	12	0	100	---	
	3	12	1	100	0 min	IER # 2
Refueling Outage (12 hours) (1 start/test)	1	1	0	100	---	
	2	1	0	100	---	
	3	1	1	100	1 hour	IER # 3
Misc. Tech Spec Req'd Tests (Start Only) (1 start/test)	1	2	0	100	---	Table 3 No. 9
	2	4	0	100	---	
	3	2	0	100	---	
DG Actual Demand Starts not for Testing SIAS Signal (1 hour)	1	1	0	0	---	IER # 8 Multiple start of 3 DGs
	2	1	0	0	---	"
	3	1	0	0	---	"
Miscellaneous Tests (Specify Type) Verify Repairs (not full test) (Start Only)	1	6	1	1	0 min	Table 3 # 10
	2	4	0	0		
	3	4	0	0		

TABLE 2
(Sample)

Diesel Generator Scheduled Downtime Record
Calendar Year 19__

Enclosure 1 - Page 8
Plant Name _____
Unit No. _____

Reason for Downtime	Hours of Downtime										Comments	
	Reactor shutdown					Reactor not shutdown						
	DC# 1	DC# 2	DC# 3	DC#	DC#	DC# 1	DC# 2	DC# 3	DC#	DC#		
Scheduled Maintenance												
Preventive Maintenance Semi-annual & Annual	24	16	--					16				
Equipment Modification						8	8	8				Modified lube oil on each diesel. Diesels down at different times.
Time DC 1s unavailable for emergency service because of required tests Down 4 hrs per test		8				48	40	48				Diesel cannot be automatically started during test or for three hours afterwards

TABLE 3
(Sample)

Diesel Generator Unscheduled Downtime Record
Calendar Year 19__

Enclosure 1 - Page 9
Plant Name XXX
Unit No. 122

LER Abstract No. (Refer to attached LER Abstract)	Downtime Hours				Comments - If any of the reported failures would not have been a failure under emergency conditions, please explain here. Refer to attached LERs or the failures listed in Table 1.
	Total Hours	Trouble-shooting	Parts, Delivery, etc.	Repair/replace	
1	4	1	1	2	
2	3	0.5	1	1.5	
3	12	1	10	1	
4	0	0	0	0	
5	0	0	0	0	Diesel started in 15 sec instead of required 10 sec
6	0	0	0	0	Secondary air pressure low. Primary air satisfactory.
7	0	0	0	0	Secondary air pressure low. Primary air satisfactory.
8	0	0	0	0	Diesel started in 20 sec instead of required 10 sec.
No LER		0	0	0	False DG start signal. DG satisfactory
9	0	0	0	0	
10	0	0	0	0	Required DG starts after the failure of one diesel. Starts to verify repairs.

TABLE 5
(Cont'd)

Onsite Emergency Diesel Generator and
Auxiliary Equipment Modification Record

Enclosure 1 - Page 10

Plant Name _____

Unit No. _____

Equipment or procedure modified	Date of Mod.	Reason for Modification and Desired Improvement	Description of Modification
Lube oil system	2/76	Improve turbo charger lubrication for emergency starts.	Soak-back pump was removed and replaced with a continuous lube oil pump. New pump also continuously lubricates the crankshaft.
Relay cabinets	1/78	Prevent dirt from fouling relay contacts.	Cabinet doors with gaskets were installed.
Instrument Relocation	6/79	Eliminate vibration damage to instruments	Control and monitoring instrument panel was relocated from the engine skids to a free standing panel mounted on the engine room floor.

55/5/0000001-000000877

1

PAGE 446

ACCESSION NO. 002016353
 TITLE DIESEL GENERATOR FAILS TO CLOSE IN ON BUS AT POINT BEACH 1
 CORP AUTH WISCONSIN-MICHIGAN POWER CO.
 DATE 1981
 TYPE G
 MEMO LTR W/LEH 80-016 TO U.S. NRC, REGION 3, JAN 15, 1981. DOCKET
 50-260, TYPE--PWR, MFG--WEST, AE--BECH, DCS NO.--8101270574
 AVAIL AVAILABILITY - NRC PUBLIC DOCUMENT ROOM, 1717 H STREET,
 WASHINGTON, D. C. 20555 (05 CENTS/PAGE -- MINIMUM CHARGE
 \$2.00)
 ABSTRACT DATE OF EVENT - 121780. POWER LEVEL - 000%. CAUSE - SLIPPAGE
 OF FLEXIBLE SHAFT COUPLING. DURING TESTING THE 4D EMERGENCY
 DIESEL GENERATOR (COMMON TO UNITS 1 AND 2) FAILED TO CLOSE IN
 ON THE BUS. ADEQUATE ENGINE SPEED WAS NOT SENSED BY THE BUS
 BREAKER CLOSING LOGIC DUE TO SLIPPAGE OF A GENERAL MOTORS
 ELECTROMOTIVE DIVISION FLEXIBLE SHAFT COUPLING (P.N. 8276102)
 ON THE SPEED SENSING FREQUENCY GENERATOR DRIVE SHAFT. THE
 COUPLING WAS SECURED.
 COMPONENT CODE ENGINE-ENGINES, INTERNAL COMBUSTION
 SYSTEM CODE EE-EMERG GENERATOR SYS & CONTROLS

55/5/0000001-000000877

2

ACCESSION NO. 0020157040
 TITLE DIESEL GENERATOR FAILS TO START AT POINT BEACH 1
 CORP AUTH WISCONSIN-MICHIGAN POWER CO.
 DATE 1980
 TYPE G
 MEMO LTR W/LEH 80-004 TO U.S. NRC, REGION 3, APR 25, 1980. DOCKET
 50-260, TYPE--PWR, MFG--WEST, AE--BECH
 AVAIL AVAILABILITY - NRC PUBLIC DOCUMENT ROOM, 1717 H STREET,
 WASHINGTON, D. C. 20555 (05 CENTS/PAGE -- MINIMUM CHARGE
 \$2.00)
 ABSTRACT DATE OF EVENT - 040950. POWER LEVEL - 079%. CAUSE - BROKEN
 VANE IN STARTING AIR MOTOR. AT 0422, WITH THE PLANT AT NORMAL
 STEADY STATE, THE EMERGENCY DIESEL GENERATOR FAILED TO START
 DURING A ROUTINE SURVEILLANCE TEST. A SECOND START ATTEMPT AT
 0435 WAS ALSO UNSUCCESSFUL. AT THIS TIME THE 4D EDG WAS
 DECLARED INOPERABLE AND REMOVED FROM SERVICE FOR MAINTENANCE.
 THE OPERABILITY OF THE REDUNDANT EDG WAS VERIFIED AT 0436. THE
 FIRST START FAILURE WAS CAUSED BY A BROKEN VANE IN THE STARTING
 AIR MOTOR. THE SECOND START FAILURE COULD HAVE BEEN CAUSED BY
 THE AIR MOTOR OR BY A SHUTDOWN TIMER INITIATED BY THE OPERATOR
 FOLLOWING THE FIRST FAILURE. THE AIR MOTOR WAS REPLACED AND
 OPERABILITY OF THE DIESEL WAS VERIFIED. A REDUNDANT START
 SYSTEM WOULD HAVE FUNCTIONED ON LOSS OF AC.
 COMPONENT CODE MOTORX-ACTURE
 SYSTEM CODE EE-EMERG GENERATOR SYS & CONTROLS

55/5/0000001-000000877

3

ACCESSION NO. 0020152559
 TITLE DIESEL GENERATOR FAILS TO START AT POINT BEACH 1
 CORP AUTH WISCONSIN-MICHIGAN POWER CO.
 DATE 1979
 TYPE G
 MEMO LTR W/LEH 79-016 TO U.S. NRC, REGION 3, OCT 19, 1979. DOCKET
 50-260, TYPE--PWR, MFG--WEST, AE--BECH CONTROL--027201
 AVAIL AVAILABILITY - NRC PUBLIC DOCUMENT ROOM, 1717 H STREET,
 WASHINGTON, D.C. 20555. (05 /PAGE -- MINIMUM CHARGE \$2.00)
 ABSTRACT DATE OF EVENT - 100379. POWER LEVEL - 100%. CAUSE - FAULTY
 GOVERNOR. AT 0400 HOURS, 10-3-79, THE 3D EMERGENCY DIESEL
 GENERATOR (ONE OF TWO) FAILED TO START FOR ITS MONTHLY
 TECHNICAL SPECIFICATION TEST. THE 4D DIESEL GENERATOR WAS
 STARTED TO VERIFY ITS OPERABILITY. THE 3D DIESEL GENERATOR WAS
 RESTORED TO SERVICE AT 1720 HOURS, 10-3-79, AFTER COMPLETION OF
 REPAIRS AND A TEST RUN. THE GM ELECTROMOTIVE DIVISION 999-20
 DIESEL GENERATOR FAILED TO START BECAUSE THE WOODWARD UG6 DIAL
 CONTROL GOVERNOR (BULLETIN NO. 03004G) LOAD LIMIT STRAP STUCK
 IN THE STOP POSITION. THE FAULTY GOVERNOR WAS REPLACED WITH A
 SPARE AND WAS RETURNED TO THE FACTORY.
 COMPONENT CODE MECFUN-MECHANICAL FUNCTION UNITS
 SYSTEM CODE EE-EMERG GENERATOR SYS & CONTROLS

ACCESSION NO. 0020149533
 TITLE DIESEL GENERATOR MIGHT BE OVERLOADED BY SIMULTANEOUS SI
 ACTUATIONS AT POINT BEACH 1
 CORP AUTH WISCONSIN-MICHIGAN POWER CO.
 DATE 1979
 TYPE V
 MEMO LTR W/LEK 79-008 TO U.S. NRC, REGION 3, MAY 21, 1979. DOCKET
 50-266, TYPE--PWR, MFG--WEST, AE--BECH CONTROL--025655
 AVAIL AVAILABILITY - NRC PUBLIC DOCUMENT ROOM, 1717 H STREET,
 WASHINGTON D.C. 20555, (08 /PAGE -- MINIMUM CHARGE \$2.00)
 ABSTRACT DATE OF EVENT - 050279. POWER LEVEL - 100%. CAUSE - DESIGN
 DEFICIENCY. DURING A REVIEW OF AN NRC MANDATE TO PLACE
 PRESSURIZER LEVEL HISTABLES IN THE TRIPPED CONDITION IT WAS
 DISCOVERED THAT THERE WAS A REMOTE POSSIBILITY THAT THIS
 CONFIGURATION COULD LEAD TO SIMULTANEOUS SAFETY INJECTION IN
 BOTH UNITS AND RESULT IN EMERGENCY DIESEL OVERLOADING. THIS
 EVENT IS ALSO APPLICABLE TO UNIT 2. TO REDUCE THE EXTREMELY
 REMOTE POSSIBILITY OF A SIMULTANEOUS SAFETY INJECTION TO
 PROBABILITIES CONSISTENT WITH PLANT DESIGN, THE PRESSURIZER
 PRESSURE LOGIC AND POWER SUPPLIES HAVE BEEN CHANGED.
 COMPONENT CODE GENERA-GENERATORS
 SYSTEM CODE EE-EMERG GENERATOR SYS & CONTROLS

55/57000001-00000877

5

ACCESSION NO. 0020149210
 TITLE POTENTIAL PROBLEM WITH DIESEL TURBOCHARGER BEARING LUBRICATION
 AT POINT BEACH 1
 CORP AUTH WISCONSIN-MICHIGAN POWER CO.
 DATE 1979
 TYPE V
 MEMO LTR W/LEK 79-007 TO U.S. NRC, REGION 3, MAY 07, 1979. DOCKET
 50-266, TYPE--PWR, MFG--WEST, AE--BECH CONTROL--025681
 AVAIL AVAILABILITY - NRC PUBLIC DOCUMENT ROOM, 1717 H STREET,
 WASHINGTON D.C. 20555, (08 /PAGE -- MINIMUM CHARGE \$2.00)
 ABSTRACT DATE OF EVENT - 042479. POWER LEVEL - 100%. CAUSE - DESIGN
 ERROR. MANUFACTURER OF THE PLANT EMERGENCY DIESELS HAS ISSUED A
 BULLETIN ON A POTENTIAL PROBLEM WITH TURBOCHARGER BEARING
 LUBRICATION. IF ENGINE RECEIVES A REPEAT RAPID START
 COINCIDENT WITH A LOSS OF AC BETWEEN 15 AND 180 MINUTES AFTER A
 PREVIOUS HOT RUN, TURBOCHARGER BEARINGS MAY SMEAR. A SERIES OF
 SUCH STARTS MAY LEAD TO TURBOCHARGER FAILURE. THIS COULD OCCUR
 BECAUSE MAIN LUBE OIL SYSTEM "PRIME" MAY NOT BE MAINTAINED
 DURING THIS PERIOD. NO SERIOUS SAFETY ISSUE EXISTS PROVIDED
 SUCH STARTS ARE AVOIDED. ADMINISTRATIVE CONTROLS HAVE BEEN
 INSTITUTED TO ENSURE THAT AT LEAST ONE DIESEL IS AVAILABLE AT
 ALL TIMES AND TO ENSURE THAT SUCH STARTS ARE AVOIDED.
 MANUFACTURER IS DEVELOPING A MODIFICATION PACKAGE WHICH WILL
 PREVENT THE ABOVE PROBLEM FROM OCCURRING. PACKAGE WILL BE
 INSTALLED AS SOON AS PRACTICABLE AFTER IT BECOMES AVAILABLE.
 COMPONENT CODE ENGINE-ENGINES, INTERNAL COMBUSTION
 SYSTEM CODE EE-EMERG GENERATOR SYS & CONTROLS

55/57000001-00000877

6

ACCESSION NO. 0020134835
 TITLE DIESEL GENERATOR BREAKER FAILS TO CLOSE ON TO ESF BUS AT POINT
 BEACH 1
 CORP AUTH WISCONSIN ELECTRIC POWER CO., MILWAUKEE, WI
 DATE 1978
 TYPE V
 MEMO 2 PGS, LTR W/LEK 78-008/03L-0 TO NRC OFFICE OF I & E, REGION
 III, JUNE 5, 1978. DOCKET 50-266, TYPE--PWR, MFG--WEST.,
 AE--BECHTEL
 AVAIL AVAILABILITY - NRC PUBLIC DOCUMENT ROOM, 1717 H STREET,
 WASHINGTON, D. C. 20555 (08 CENTS/PAGE -- MINIMUM CHARGE
 \$2.00)
 ABSTRACT DATE OF EVENT - 051578. POWER LEVEL - 85%. CAUSE - DEFECTIVE
 LATCH-CHECKING SWITCH. WHILE ATTEMPTING TO PHASE THE 4D
 EMERGENCY DIESEL GENERATOR DURING A TEST AT 0410 HOURS ON
 5-15-78, BREAKER 1-A52-60 WOULD NOT CLOSE ON TO ENGINEERED
 SAFEGUARDS BUS 1-406. THE BREAKER FAILED TO CLOSE BECAUSE A
 WELTINGHOUSE ELECTRIC CAT. NO. 602A143H01 LATCH-CHECKING SWITCH
 WAS DEFECTIVE. THE SWITCH WAS REPLACED IN KIND. AFTER BREAKER
 1-A52-60 WAS REPAIRED, A SUCCESSFUL TEST RUN OF THE 4D EDG WAS
 COMPLETED AT 1110 HOURS, 5-15-78.

COMPONENT CODE CRTKRC-CIRCUIT CLOSERS/INTERRUPTERS
SYSTEM CODE LR-EMERG GENERATOR SYS & CONTROLS

55/5/0000001-000000377 7

ACCESSION NO. 0020134000
TITLE DIESEL GENERATOR FAILS TO START AT POINT BEACH 1
CORP AUTH WISCONSIN MICHIGAN POWER CO., WI

DATE 1977

TYPE U
MEMO 2 PGS, LTR W/LER 50-266/77-06 TO NRC OFFICE OF I & E, REGION III, JULY 21, 1977, DOCKET 50-266, TYPE--PWR, MFG--WEST., AC--BECHTEL

AVAIL AVAILABILITY - NRC PUBLIC DOCUMENT ROOM, 1717 H STREET, WASHINGTON, D. C. 20545 (08 CENTS/PAGE -- MINIMUM CHARGE \$2.00)

ABSTRACT DATE OF EVENT - 062977. POWER LEVEL - 0%. CAUSE - SET POINT DRIFT IN SPEED SENSING RELAY. DURING A TEST, EMERGENCY DIESEL GENERATOR 30, COMMON TO BOTH UNITS, FAILED TO START DUE TO A STARTING SEQUENCE LOGIC FAILURE IN START CIRCUIT 2. THE LOCAL CONTROL PANEL WAS USED TO START THE ENGINE. HOWEVER, A SECOND ATTEMPT FROM THE LOCAL PANEL FAILED. THE GM ELECTROMOTIVE DIV. MODEL EMD 8405014 SPEED SENSING PANEL ASSEMBLY RELAY PICKUP SET POINT HAD DRIFTED CAUSING THE STARTING SEQUENCE LOGIC FAILURE WHEN INDICATED SPEED WAS INSUFFICIENT AFTER 4 SEC. INTO THE SEQUENCE. THE SET POINT WAS RESET.

COMPONENT CODE ENGINE-ENGINES,INTERNAL COMBUSTION
SYSTEM CODE LR-EMERG GENERATOR SYS & CONTROLS

55/5/0000001-000000377 6

ACCESSION NO. 0020122930
TITLE DIESEL GENERATOR CIRCUIT BREAKER TRIPS AT POINT BEACH 1
CORP AUTH WISCONSIN MICHIGAN POWER CO., WI

DATE 1977

TYPE U
MEMO 2 PGS, LER 50-266/ 7-01 TO NRC, FEB. 21, 1977, DOCKET 50-266, TYPE--PWR, MFG--WEST., AC--BECHTEL

AVAIL AVAILABILITY - NRC PUBLIC DOCUMENT ROOM, 1717 H STREET, WASHINGTON, D. C. 20545 (08 CENTS/PAGE -- MINIMUM CHARGE \$2.00)

ABSTRACT DATE OF EVENT - 020977. POWER LEVEL - 100%. CAUSE - DIRT IN OVERCURRENT RELAY. DURING TESTING OF DIESEL GENERATOR 30, CIRCUIT BREAKER 1-A52-60 TRIPPED IMMEDIATELY UPON BEING CLOSED WHEN ATTEMPTING TO PHASE THE GENERATOR TO THE A105 BUS. THE CIRCUIT BREAKER WAS TRIPPED BY A WESTINGHOUSE STYLE 187523BA TYPE CO-5 OVERCURRENT RELAY. DIRT IN THE LOWER BEARING OF THE OVERCURRENT RELAY TIMING DISC PREVENTED THE DISC FROM FULLY RESETTING FOLLOWING ANY SHORT SURGE OF OVERCURRENT. THE RELAY WAS CLEANED, AND TESTED SUCCESSFULLY.

COMPONENT CODE RELAYX-RELAYS
SYSTEM CODE LR-EMERG GENERATOR SYS & CONTROLS