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Office of Nuclear Reactor Regulation
US Nuclear Regulatory Commission
Washington, DC 20555



MIDLAND PROJECT

DOCKET NOS 50-329, 50-330

RESPONSES TO NRC REQUESTS REGARDING PLANT FILL -

UPDATES OF DIESEL GENERATOR BUILDING AREA

SETTLEMENT AND PIEZOMETER PLOTS

FILE: 0485.16 SERIAL: 12809

ENCLOSURES: (1) DIESEL GENERATOR BUILDING 106 UPDATED

MARKER SETTLEMENT PLOTS AND

48 UPDATED PIEZOMETER PLOTS WITH LISTING

(2) EXPLANATORY NOTES FOR PIEZOMETER SETTLEMENT PLOTS

We are herewith forwarding six (6) copies of those enclosed and updated markers settlement and piezometer plots identified in the listing of Enclosure 1. Enclosure 1 includes the following types of updated plots: (1) settlement plots designated "DG"; (2) Borros anchor plots designated "BA", (3) settlement plate graphs designated "PL" and (4) piezometer plots designated "PZ".

These updated plots will provide additional and revised settlement information to replace that previously provided in the graphs of Question No 27 located in Volumes II and III of the "Responses to NRC Questions Regarding Plant Area Fill." The listing of Enclosure 1 includes a separate column in which we have characterized the changes on each figure as revised (R) and/or additional (A) data points. Please note that not all of the current plots have been changed to include revised and supplemental information. Borros anchor plots BA's 1, 55-58 and settlement plate graphs PL's 1-6, 8, 9, 11, 14, 15, 18, 20, 24-43 and 52 remain unchanged and are not included with Enclosure 1.

Enclosure 2 includes an explanation of the terms which appear on the piezometer plots to describe the abnormal readings obtained from select piezometers during certain periods. Also included are explanations of the aberrant readings of specific piezometers which can not be easily characterized in more general terms. It is intended that this information will enhance the NRC's understanding of those piezometers which appear to have behaved erratically.

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Thank you for your cooperation on this matter.

James W. Cook

JWC/RLT/cr

CC Atomic Safety & Licensing Appeal Board w/o plots
Atomic Safety & Licensing Board Panel w/o plots
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DIESEL GENERATOR BUILDING
LISTING OF UPDATED MARKER SETTLEMENT
AND PIEZOMETER PLOTS

Responses to 10 CFR 50.54		Revised (R)/ Additional (A)	Enclosure 1
<u>Markers</u>	<u>Figure</u>	<u>Data Points</u>	<u>Sheet No</u>
DG-1	Supplemental 27-51	A	1
DG-3	27-6	A	2
DG-4	Supplemental 27-52	A	3
DG-5	Supplemental 27-53	A	4
DG-6	Supplemental 27-54	A	5
DG-7	Supplemental 27-55	A	6
DG-8	Supplemental 27-56	A	7
DG-9	Supplemental 27-57	A	8
DG-10	Supplemental 27-58	A	9
DG-11	Supplemental 27-59	A	10
DG-12	Supplemental 27-60	A	11
DG-13	Supplemental 27-61	A	12
DG-14	Supplemental 27-62	A	13
DG-15	Supplemental 27-63	A	14
DG-16	Supplemental 27-64	A	15
DG-17	Supplemental 27-65	A	16
DG-18	Supplemental 27-66	A	17
DG-19	Supplemental 27-67	A	18
DG-20	Supplemental 27-68	A	19
DG-21	Supplemental 27-69	A	20
DG-22	Supplemental 27-70	A	21
DG-23	Supplemental 27-71	A	22
DG-24	Supplemental 27-72	A	23
DG-25	Supplemental 27-73	A	24
DG-26	Supplemental 27-74	A	25
DG-27	Supplemental 27-75	A	26
DG-28	Supplemental 27-76	A	27
DG-29	Supplemental 27-77	A	27A
BA-61 to 64	Supplemental 27-78	A	27B
BA-2	Supplemental 27-81	R	28
BA-3	Supplemental 27-82	R	29
BA-4	Supplemental 27-83	R	30
BA-5	Supplemental 27-84	R	31
BA-6	Supplemental 27-85	R	32
BA-7	Supplemental 27-86	R	33
BA-8	Supplemental 27-87	R	34
BA-9	Supplemental 27-88	R	35
BA-10	Supplemental 27-89	R	36
BA-11	Supplemental 27-90	R	37
BA-12	Supplemental 27-91	R	38

Response to 10 CFR 50.54				Enclosure 1	
Markers	Figure	Revised (R)/ Additional (A) Data Points		Sheet No	
BA-13	Supplemental 27-133	R		39	
BA-14	Supplemental 27-134	R		40	
BA-15	Supplemental 27-135	R		41	
BA-16	Supplemental 27-136	R		42	
BA-17	Supplemental 27-92	R		43	
BA-18	Supplemental 27-93	R		44	
BA-19	Supplemental 27-94	R		45	
BA-20	Supplemental 27-95	R		46	
BA-21	Supplemental 27-96	R		47	
BA-22	Supplemental 27-97	R		48	
BA-23	Supplemental 27-98	R		49	
BA-24	Supplemental 27-99	R		50	
BA-25	Supplemental 27-100	R		51	
BA-26	Supplemental 27-101	R		52	
BA-27	Supplemental 27-102	R		53	
BA-28	Supplemental 27-103	R		54	
BA-29	Supplemental 27-104	R		55	
BA-30	Supplemental 27-105	R		56	
BA-31	Supplemental 27-106	R		57	
BA-32	Supplemental 27-107	R		58	
BA-33	Supplemental 27-108	R		59	
BA-34	Supplemental 27-137	R		60	
BA-35	Supplemental 27-138	R		61	
BA-36	Supplemental 27-139	R		62	
BA-37	Supplemental 27-109	R		63	
BA-38	Supplemental 27-110	R		64	
BA-39	Supplemental 27-111	R		65	
BA-40	Supplemental 27-112	R		66	
BA-41	Supplemental 27-113	R		67	
BA-42	Supplemental 27-114	R		68	
BA-43	Supplemental 27-115			69	
BA-44	Supplemental 27-116	S		70	
BA-45	Supplemental 27-117	R		71	
BA-46	Supplemental 27-118	R		72	
BA-47	Supplemental 27-119	R		73	
BA-48	Supplemental 27-120	R		74	
BA-49	Supplemental 27-121	R		75	
BA-50	Supplemental 27-122	R		76	
BA-51	Supplemental 27-123	R		77	
BA-52	Supplemental 27-124	R		78	
BA-53	Supplemental 27-125	R		79	
BA-54	Supplemental 27-126	R		80	
BA-59	Supplemental 27-131	R		81	
BA-60	Supplemental 27-132	R		82	
PL-7	Supplemental 27-146	R		83	
PL-10	Supplemental 27-148	R		84	
PL-12	Supplemental 27-150	R		85	
PL-13	Supplemental 27-151	R		86	

Response to 10 CFR 50.54		Revised (R)/ Additional (A) Data Points	Enclosure 1 Sheet No
Markers	Figure		
PL-16	Supplemental 27-154	R	87
PL-17	Supplemental 27-155	R	88
PL-19	Supplemental 27-157	R	89
PL-21	Supplemental 27-159	R	90
PL-22	Supplemental 27-160	R	91
PL-23	Supplemental 27-161	R	92
PL-44	Supplemental 27-166	R	93A
PL-45	Supplemental 27-167	R	93B
PL-46	Supplemental 27-168	R	94
PL-47	Supplemental 27-169	R	95
PL-48	Supplemental 27-170	R	96
PL-49	Supplemental 27-171	R	97
PL-50	Supplemental 27-172	R	98
PL-51	Supplemental 27-173	R	99
PZ-1	Supplemental 27-5	R	100-101
PZ-2	Supplemental 27-6	R	102-103
PZ-3	Supplemental 27-7	R	104-105
PZ-4	Supplemental 27-8	R	106-107
PZ-5	Supplemental 27-9	R	108-109
PZ-6	Supplemental 27-10	R	110-111
PZ-7	Supplemental 27-11	R	112-113
PZ-8	Supplemental 27-12	R	114-115
PZ-9	Supplemental 27-13	R & A	116-118
PZ-10	Supplemental 27-14	R & A	119-121
PZ-11	Supplemental 27-50	New Plot/No Change	122
PZ-12	Supplemental 27-15	R	123-124
PZ-13	Supplemental 27-16	R	125-126
PZ-14	Supplemental 27-17	R	127-128
PZ-15	Supplemental 27-18	R	129
PZ-16	Supplemental 27-19	R	130-131
PZ-17	Supplemental 27-20	R & A	132-134
PZ-18	Supplemental 27-21	R & A	135-137
PZ-19	Supplemental 27-21A	R & A	138-140
PZ-20	Supplemental 27-22	R	141
PZ-21	Supplemental 27-23	R & A	142-144
PZ-22	Supplemental 27-24	R & A	145-147
PZ-23	Supplemental 27-25	R & A	148-150
PZ-24	Supplemental 27-26	R & A	151-153
PZ-25	Supplemental 27-27	R & A	154-156
PZ-26	Supplemental 27-28	R	157-158
PZ-27	Supplemental 27-29	R	159
PZ-28	Supplemental 27-30	R	161
PZ-29	Supplemental 27-31	R	162-163
PZ-30	Supplemental 27-32	R & A	164-166
PZ-31	Supplemental 27-33	R	167-168
PZ-32	Supplemental 27-34	R	169-170
PZ-33	Supplemental 27-35	R & A	171-173
PZ-34	Supplemental 27-36	R	174-175

Response to 10 CFR 50.54			
<u>Markers</u>	<u>Figure</u>	<u>Revised (R)/ Additional (A) Data Points</u>	<u>Enclosure 1 Sheet No</u>
PZ-35	Supplemental 27-37	R & A	176-178
PZ-36	Supplemental 27-38	R	179-180
PZ-37	Supplemental 27-39	R	181-182
PZ-38	Supplemental 27-40	R	183
PZ-39	Supplemental 27-41	R	184
PZ-40	Supplemental 27-42	R	185-186
PZ-41	Supplemental 27-43	R	187-188
PZ-42	Supplemental 27-44	R	189-190
PZ-43	Supplemental 27-45	R	191-192
PZ-44	Supplemental 27-46	R & A	193-195
PZ-45	Supplemental 27-50	New Plot/No Change	196
PZ-46	Supplemental 27-47	R	197
PZ-47	Supplemental 27-48	R	198
PZ-48	Supplemental 27-49	R	199-200

RLT
7/10/81

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EXPLANATORY NOTES
FOR
PIEZOMETER SETTLEMENT PLOTS

1. General Definitions

The following are general definitions of the terms used to describe other than normal readings of the piezometers. Item 2 below is a specific list of piezometers with exceptions which cannot be characterized by the following general definitions

- A. Inoperable - a reading was attempted, i.e., the tubing of the PZ reader was inserted into the piezometer, but no water was indicated. The tubing was inserted as far as it would go, generally, to a depth such that the piezometer was not believed obstructed. It could not be determined why the PZ reader did not indicate the presence of water.
- B. No Readings Taken - no piezometer readings were taken during this period.
- C. Inaccessible - inability to read piezometer due to temporary construction interferences.
- D. Permanently Inoperable - piezometer physically damaged beyond repair.

2. Specific Piezometers

This is a listing of specific exceptions to the preceeding general explanatory notes for the following piezometers.

PZ 9 - The difficulty experienced in October and November of 1980 may have been due to problems experienced with the piezometer reader.

PZ 10 - See note for PZ 9. Also, all piezometers were flushed during the week of 11/3/80, which may account for the readings after that date.

PZ 17 - See note for PZ 9. Also, mechanical difficulties were experienced with the PZ reader in May of 1980.

PZ 18 - See notes for PZ 9, PZ 10.

PZ 19 - For readings after 12/12/80 see note for PZ 10.

PZ 22 - See note for PZ 10.

PZ 23 - Location subject to construction interference during placing of concrete floor and diesel generators (1 of 2 working PZ's in Bay 1). For readings after 12/80 see note for PZ 10.

PZ 24 - Difficulty experienced soon after piezometer installation which indicates possible tampering.

PZ 30 - Difficulty in 1980 due to construction interference during placement of concrete floors and diesel generators (1 of 2 working piezometers in Bay 1). For readings after 12/80 see note for PZ 10.

PZ 35 - See note for PZ 10.