Enclosure 1

GPU Nuclear

GPU Nuclear Corporation
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Middletown, Pennsylvania 17057-0191
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TELEX 84-2386
Writer's Direct Dial Number:

5211-85-2105

May 31, 1985

Dr. Thomas E. Murley
Region I, Regional Administrator
U.S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, Pa. 19406

Dear Dr. Murley:

Three Mile Island Nuclear Station Unit 1 (TMI-1)
Operating License No. DPR-50
Docket No. 50-289
Restart License Condition - Power Ascension Schedule

One of the conditions imposed by the Commission in lifting the Shutdown Order to allow the restart of TMI-1 is as follows:

> "(I) To ensure a safe return to operation, licensee is to submit a power ascension schedule, with hold points as necessary at appropriate power levels, to the NRC staff for staff's approval. The plant cannot be restarted prior to staff approval of such a schedule . . ."

GPUN's power ascension schedule (sequence) which includes hold points at appropriate power levels is included as Attachment 1. The information provided in the attachment is from my affidavit which was filed on May 24, 1985 in order to state the readiness of TMI-1 to startup and complete the low power physics and power ascension test program without delay.

Included as part of my affidavit were copies of the detailed sequence prints along with an outline of the basic sequence and expected time durations for the restart power ascension test program. Updated copies of the sequence diagrams are also provided in Attachment 2. This revision incorporates the detailed sequencing of major elements of the test program. Minor revisions may be needed as additional information becomes available.

This schedule reflects our best current estimate of the time necessary to allow us to safely, carefully, and in a controlled manner complete the restart test program. Although we anticipate that the program will take 99 days, it is important to understand that each step must be performed satisfactorily in a controlled manner prior to beginning the next step without concern for how long it may take.

As stated in our letter in regard to Restart Hold Points dated May 24, 1985, during the restart sequence we will obtain verbal authorization from the Region I Regional Administrator prior to initial criticality; prior to proceeding beyond low power testing (i.e., nominal 5% power); prior to returning to power following the planned reactor trip on loss of feedwater; prior to continuing beyond the 48% power test period; and prior to continuing beyond the 75% power test period. Based on our recent discussions with the NRC staff, we will also obtain verbal concurrence from the Regional Administrator to proceed to 100% operation following the 100% power reactor trip.

We request NRC staff approval of our schedule in order to satisfy the above condition.

Sincerely,

H. D. Hukill
Director, TMI-1

HDH/MRK/spb

cc: J. F. Stolz
R. Conte

Attachments

0282A

ATTACHMENT I

TMI-1 RESTART POWER ASCENSION TEST PROGRAM SCHEDULE AND SEQUENCING

(a) Final Heatup and Surveillance Testing: 5 days required to heatup the plant using non-nuclear heat to hot shutdown conditions. In addition, surveillances (required tests and inspection of equipment and systems) necessary prior to criticality will be conducted during this period.

(b) Zero and Low Power Physics Testing: Initial criticality, followed by 2 days of zero and low power physics testing to verify and measure parameters associated with the refueled core, such as temperature coefficients, rod worth measurements, and shutdown margin verification.

(c) [redacted] Power Testing: 3 days of testing for verification and training of operators in natural and forced primary coolant circulation. Emergency feedwater automatic initiation and steam generator water level controls will also be tested during this period.

(d) 15% Power Testing: 2 days of testing consisting of nuclear and thermal power calibrations, integrated control system ("ICS") tuning, and commencement of turbine generator initial testing and operation.

(e) 25% Power Testing: 2 days of testing to continue turbine operation, including overspeed trip testing and further ICS tuning.

(f) 40% Power Testing: 5 days for core power distribution measurements, including incore detector testing and power imbalance detector correlation. At the end of this power plateau, a verification of plant performance will be conducted by initiating a loss of main feedwater resulting in a turbine and reactor trip.

(g) 48% Power: A month for required operator training and plant performance monitoring, as specified in the license.

(h) 75% Power Testing: 5 days for core power distribution measurements, including incore detector testing. Additionally, turbine generator and ICS performance will be monitored and adjusted during this period.

(i) 75% Power: A month for required operator training and plant performance monitoring, as specified in the license.

(j) 100% Power Testing: 5 days of testing, including final verification of core physics parameters and final ICS tuning. This testing will be concluded by verification of plant response to a turbine/reactor trip at 100% power.

(k) Recovery to 100% Operation: 10 days set aside for corrective maintenance as required, management review of plant and operator performance during the test program, and recovery of the plant to full-power operation.

Enclosure 2

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
631 PARK AVENUE
KING OF PRUSSIA, PENNSYLVANIA 19406

JUN 03 1985

Docket No. 50-289

GPU Nuclear Corporation
ATTN: Mr. H. D. Hukill
Vice President and Director of TMI-1
P.O. Box 480
Middletown, Pennsylvania 17057

Gentlemen:

Subject: Restart License Condition - Power Ascension Schedule

This is in response to your letter of May 31, 1985 in which you requested NRC staff approval of your power ascension schedule pursuant to Condition 1 of the Commission's Memorandum and Order CLI-85-09.

We have reviewed the schedule contained in your May 31, 1985 letter and find it acceptable. In addition, the hold points beyond which you will not proceed without my verbal concurrence are acceptable as specified in your May 31, 1985 letter. Satisfaction of the appropriate license conditions will be required prior to my concurrence to proceed beyond the hold points.

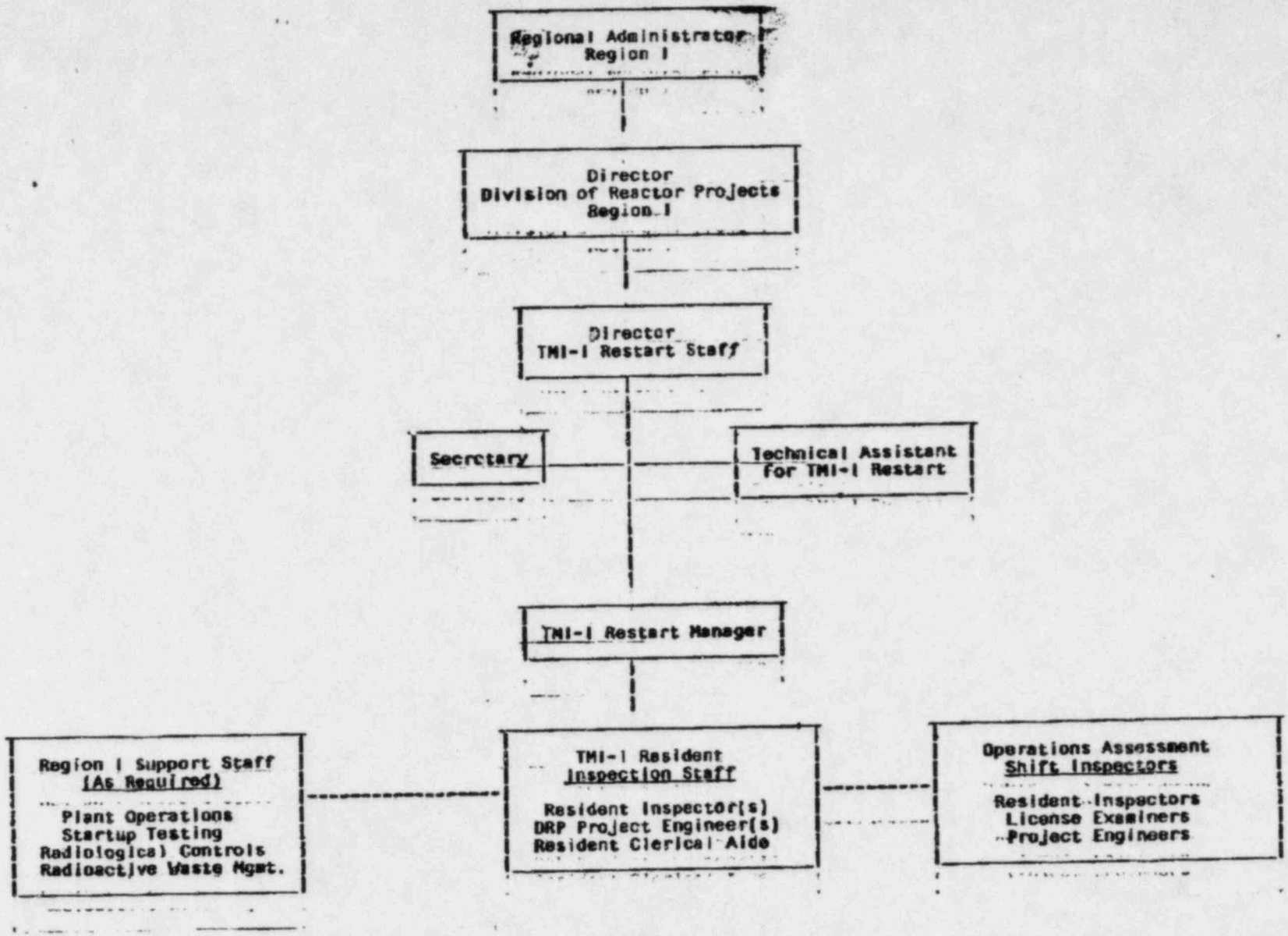
James M. Allan

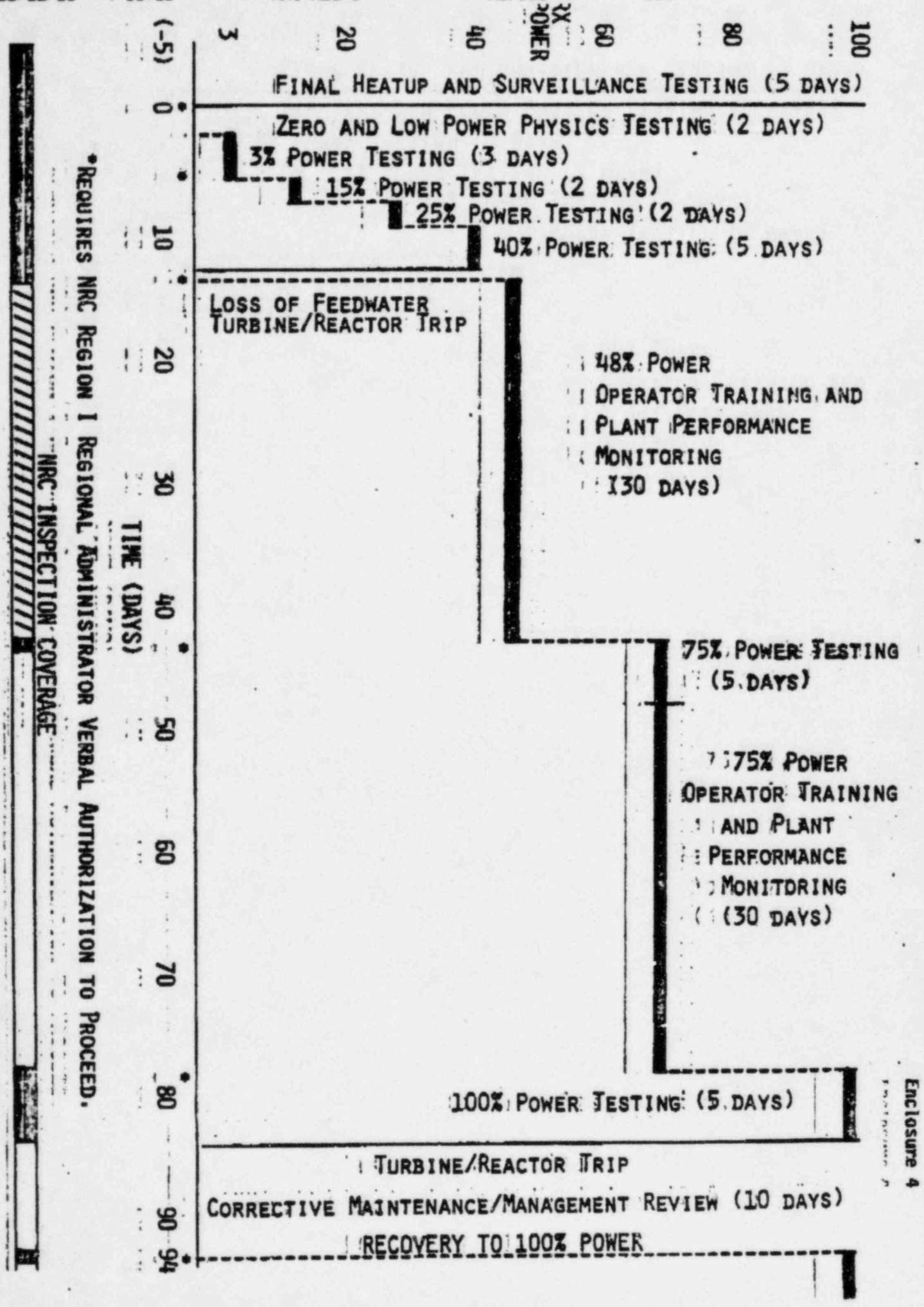
Thomas E. Murley
Regional Administrator

cc:
R. J. Toole, Operations and Maintenance Director, TMI-1
C. W. Smyth, Manager, TMI-1 Licensing
B. J. McGoey, Manager, PWR Licensing
G. F. Trowbridge, Esquire
TMI-1 Hearing Service List
Public document Room (PDR)
Local Public Document Room (LPDR)
Nuclear Safety Information Center (NSIC)
NRC Resident Inspector
Commonwealth of Pennsylvania

DR
8506100342

Enclosure 3


Regional Administrator
Region I
Director
Division of Reactor Projects
Region I
Director
TMI-1 Restart Staff
Secretary
Technical Assistant
for TMI-1 Restart
TMI-1 Restart Manager
Region I Support Staff
(As Required)
Plant Operations
Startup Testing
Radiological Controls
Radioactive Waste Mgmt.
TMI-1 Resident
Inspection Staff
Resident Inspector(s)
DRP Project Engineer(s)
Resident Clerical Aide
Operations Assessment
Shift Inspectors
Resident Inspectors
License Examiners
Project Engineers


RX POWER
3
20
40
60
80
100
(-5)
0
10
20
30
40
50
60
70
80
90
94
TIME (DAYS)
FINAL HEATUP AND SURVEILLANCE TESTING (5 DAYS)
ZERO AND LOW POWER PHYSICS TESTING (2 DAYS)
3% POWER TESTING (3 DAYS)
15% POWER TESTING (2 DAYS)
25% POWER TESTING (2 DAYS)
40% POWER TESTING (5 DAYS)
LOSS OF FEEDWATER TURBINE/REACTOR TRIP
48% POWER
OPERATOR TRAINING AND
PLANT PERFORMANCE
MONITORING
(30 DAYS)
75% POWER TESTING
(5 DAYS)
75% POWER
OPERATOR TRAINING
AND PLANT
PERFORMANCE
MONITORING
(30 DAYS)
100% POWER TESTING (5 DAYS)
TURBINE/REACTOR TRIP
CORRECTIVE MAINTENANCE/MANAGEMENT REVIEW (10 DAYS)
RECOVERY TO 100% POWER
INSPECTION COVERAGE KEY:
24 HRS/DAY
16 HRS/DAY
12 HRS/DAY
*REQUIRES NRC REGION I REGIONAL ADMINISTRATOR VERBAL AUTHORIZATION TO PROCEED.
NRC INSPECTION COVERAGE

Enclosure 4