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 TERRY, C.D. Niagara Mohawk Power Corp.
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See lpt.

SUBJECT: Forwards proprietary & nonproprietary versions of "Core Shroud Repair 270 Degree Tie Rod Assembly Assessment," requested by NRC during 960325 & 26 telcons. Proprietary assessment withheld from public disclosure per 10CFR2.790.

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CARL D. TERRY
Vice President
Nuclear Engineering

April 30, 1996
NMPIL 1067

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

RE: Nine Mile Point Unit 1
Docket No. 50-220
DPR-63

Subject: *Generic Letter 94-03, "Intergranular Stress Corrosion Cracking of Core Shrouds in Boiling Water Reactors" (TAC No. M90102)*

Gentlemen:

Niagara Mohawk Power Corporation (NMPC) has performed a review of the final inspection of the core shroud repair installed during the spring 1995 refueling outage. The results of the review were discussed with the NRC in telephone conferences on March 25 and 26, 1996. At that time, we indicated that one of the deviations identified in our March 23, 1995 submittal was incorrectly described in that submittal. The deviation concerns the lower spring wedge which leans against a recirculation nozzle weld at the 270° location. Our original inspection indicated that the contact area between the lower wedge and the reactor pressure vessel wall appeared to be approximately 2/3 of the wedge area. Our most recent review has determined that the actual contact area is approximately 9% of the wedge area. This discrepancy was reported under 10CFR50.72 (b)(1)(ii)(B) on March 22, 1996 and 10CFR50.73(a)(2)(ii)(B) on April 22, 1996.

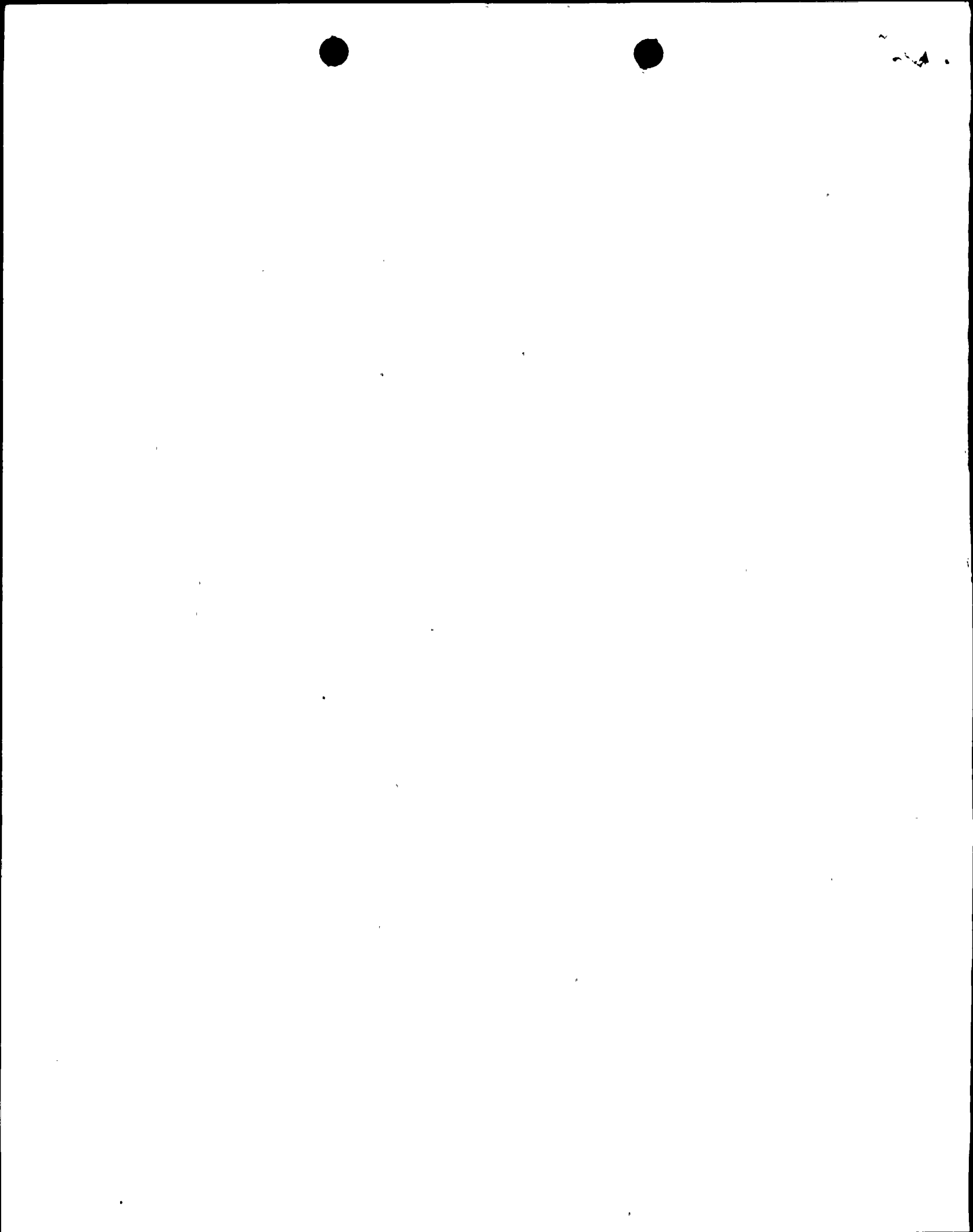
NMPC committed to supplement our original shroud repair submittal with an analysis of the as installed 270° tie rod assembly by April 30, 1996. The supplemental submittal is being submitted to the NRC staff for review and approval as an alternative repair, pursuant to 10CFR50.55a (a)(3)(i). The supplemental submittal provides a technical evaluation of the adequacy of the as installed condition of the 270° tie rod assembly to confirm the effectiveness of the core shroud repair. The supplemental submittal is included with this letter as Enclosure 1.

Enclosure 1 provides information and analyses requested by the NRC staff during the above referenced telephone conferences. A chronology of the events that eventually led to the discovery of the 270° lower wedge deviation is discussed along with an uncertainty analysis of the installed condition based on the videotape and computer aided drafting (CAD) review. Structural and seismic evaluations concluded that the as installed condition of the 270° tie rod assembly is acceptable and that all safety functions provided by the shroud repair are maintained. The evaluations performed have bounded the installation uncertainty associated with the lower wedge location on the nozzle blend radius. The first evaluation concluded that adequate friction exists to maintain contact stability of the lower wedge on the nozzle blend radius under all original design loading conditions. The second evaluation assumed the wedge slips to the bounding angle of

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uncertainty and the third evaluation assumed that contact stability is lost such that the lower wedge is assumed to slip off the nozzle rendering the lower spring ineffective. The third evaluation provides added confidence that the horizontal and vertical displacements of the core shroud will be maintained below allowable limits under seismic loading conditions assuming no friction. A flow induced vibration analysis was also performed assuming the absence of contact during normal operation.

Although the evaluations have concluded that the as installed condition of the core shroud repair is acceptable, NMPC is considering the implementation of a modification to the 270° tie rod assembly during the NMP1 spring 1997 refueling outage. However, specific design details, costs and durations are not well defined at this time. Modification options that would move the lower wedge off the nozzle blend radius such that full contact with the vessel wall is achieved, are currently under evaluation. Barring any unforeseen hardships associated with a modification, NMPC will submit its modification plans to the NRC by May 30, 1996. In the event that a modification is determined to be impractical compared to the modification costs and risks and compared to the safety significance of the as installed condition, NMPC will apprise the NRC of our alternate plans by May 30, 1996.

Enclosure 1 is considered by its preparer, General Electric, to contain proprietary information exempt from disclosure pursuant to 10CFR2.790. Therefore, on behalf of General Electric, Niagara Mohawk hereby makes application to withhold this document from public disclosure in accordance with 10CFR2.790(b)(1). An affidavit executed by General Electric detailing the reasons for the request to withhold the proprietary information has been included as Attachment 1. A non-proprietary version of this document has been included with this letter as Enclosure 2.

Very truly yours,

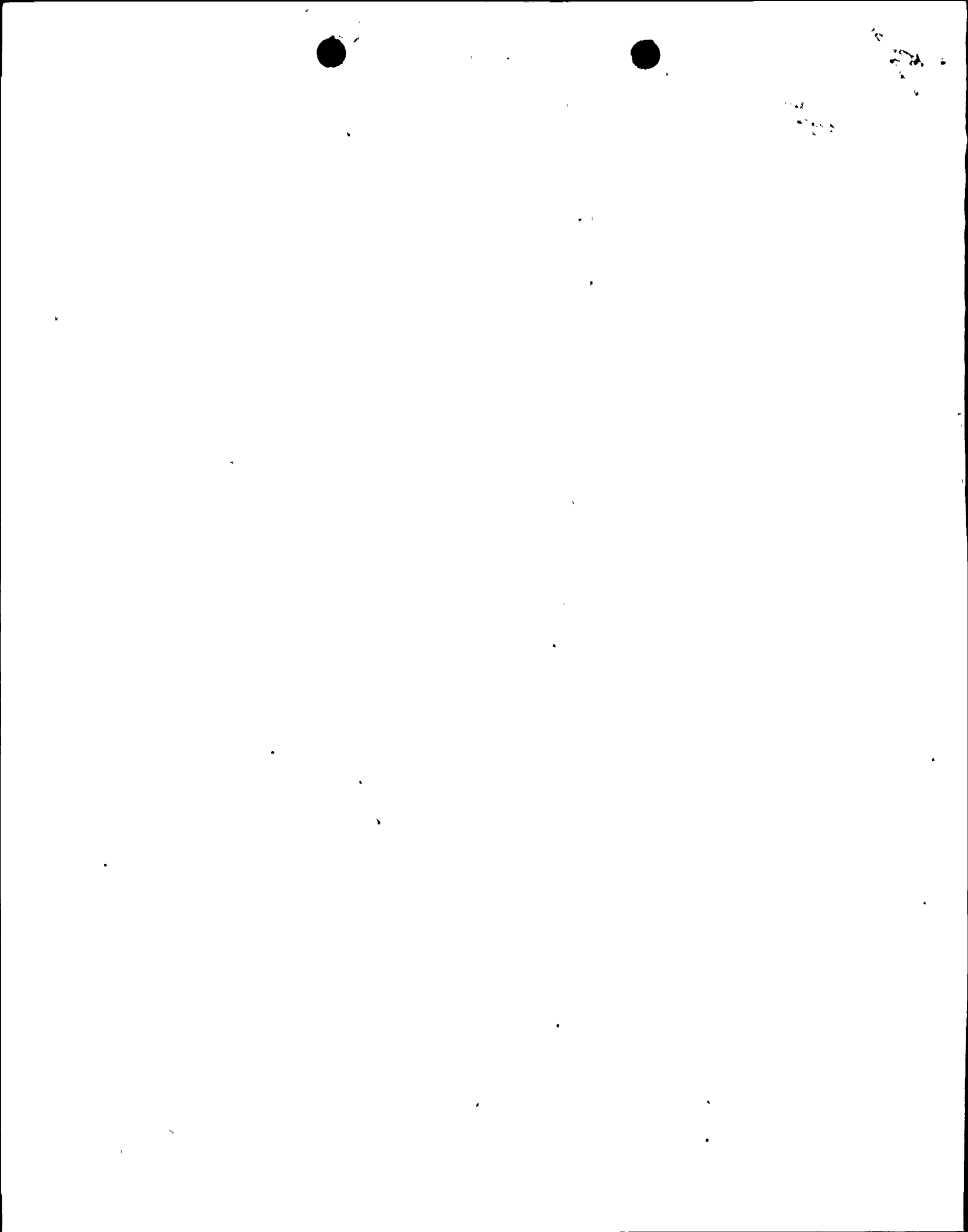


C. D. Terry

Vice President - Nuclear Engineering

CDT/TWR/lmc
Attachment

xc: Regional Administrator Region I
Mr. D. S. Hood, Senior Project Manager, NRR
Mr. B. S. Norris, Senior Resident Inspector
Records Management



ENCLOSURE 2

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