



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

January 13, 1995

Mr. B. Ralph Sylvia  
Executive Vice President, Nuclear  
Niagara Mohawk Power Corporation  
Nine Mile Point Nuclear Station  
P. O. Box 63  
Lycoming, NY 13093

Dear Mr. Sylvia:

SUBJECT: RESPONSE TO GENERIC LETTER (GL) 94-03, "INTERGRANULAR STRESS CORROSION CRACKING OF CORE SHROUDS IN BWRs," FOR NINE MILE POINT NUCLEAR STATION UNIT NO. 1 (TAC NO. M90102)

By letter dated August 23, 1994, Niagara Mohawk Power Corporation (NMPC), responded to Generic Letter (GL) 94-03, "Intergranular Stress Corrosion Cracking of Core Shrouds in BWRs," for Nine Mile Point Nuclear Station Unit No. 1 (NMP-1). The NRC staff requested in GL 94-03 that licensees take the following actions with respect to their core shrouds: 1) inspect the core shrouds in BWR plants no later than the next refueling outage, 2) perform materials related and plant specific consequence safety analyses with respect to core shrouds, 3) develop core shroud inspection plans which address inspection of all core shroud welds and which takes into account the latest available inspection technology, 4) develop plans for evaluation and/or repair of their core shrouds, and 5) work closely with the BWR Owners Group with respect to addressing intergranular stress corrosion cracking of BWR internals.

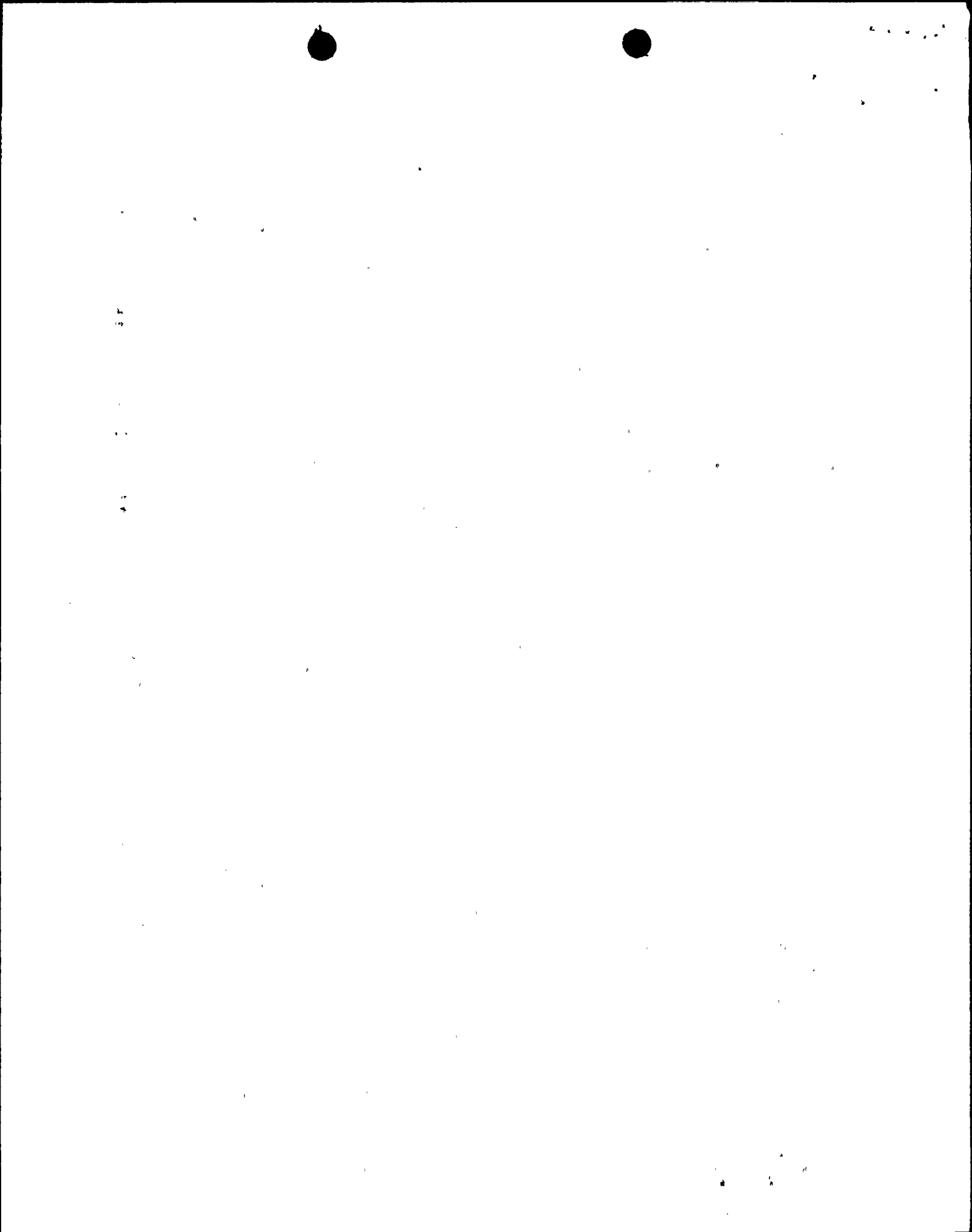
The NRC staff required that licensees submit, under oath or affirmation, the following information in response to GL 94-03 within 30 days of the date of issuance: 1) a schedule for inspection of their core shrouds, 2) a safety analysis, including a plant specific safety analysis as appropriate, which supports continued operation of their facilities until inspections are conducted, 3) drawings of the core shroud configurations, and 4) a history of shroud inspections completed to date. The NRC staff also required that licensees submit, under oath or affirmation, no later than 3 months prior to performing their core shroud inspections, their scope for inspection of their core shrouds and their plans for evaluating and/or repairing their core shrouds based on inspection results. The NRC staff further required licensees to submit, under oath or affirmation, their core shroud inspection results within 30 days of completing their shroud examinations.

The NRC staff has completed its review of NMPC's response. Based on the staff's review of NMPC's response to GL 94-03, and in regard to the information that was requested to be submitted within 30 days of the date of issuance of the GL, the staff has determined that NMPC has provided the necessary information for the staff to complete its review.

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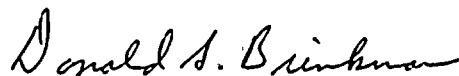
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The staff concludes that based on an assessment of the IGSCC susceptibility factors pertaining to the core shroud material properties, fabrication, and the past operational history as well as the industry-wide inspection experiences, extensive cracking in the NMP-1 core shroud cannot be ruled out. However, the core shroud cracking at NMP-1 is expected to be bounded by that of Oyster Creek; since both units were fabricated by the same vendor during the same time period, and NMP-1 had better water chemistry than that of Oyster Creek in the early five fuel cycles. Oyster Creek recently completed its core shroud inspection of welds H1 through H7. Extensive cracking was found at weld H4, however, the results of preliminary sizing showed that the cracks were not sufficiently deep to compromise structural integrity with the shroud. Based on previous core shroud inspections at NMP-1 and the recent Oyster Creek inspection results, NMP-1 core shroud is not likely to contain cracks which would compromise the structural integrity of the core shroud during the remainder of the current fuel cycle. In addition, other BWRs with core shrouds considered more susceptible to IGSCC have not identified any 360° through-wall cracking during inspections. Per the reporting requirements of GL 94-03, NMPC has submitted (by letter dated November 11, 1994) a plan for inspecting the NMP-1 core shroud during the refueling outage scheduled to begin in February 1995. NRC staff review of this inspection plan is in progress. NMPC will be notified regarding our evaluation of this plan in separate correspondence.

Sincerely,

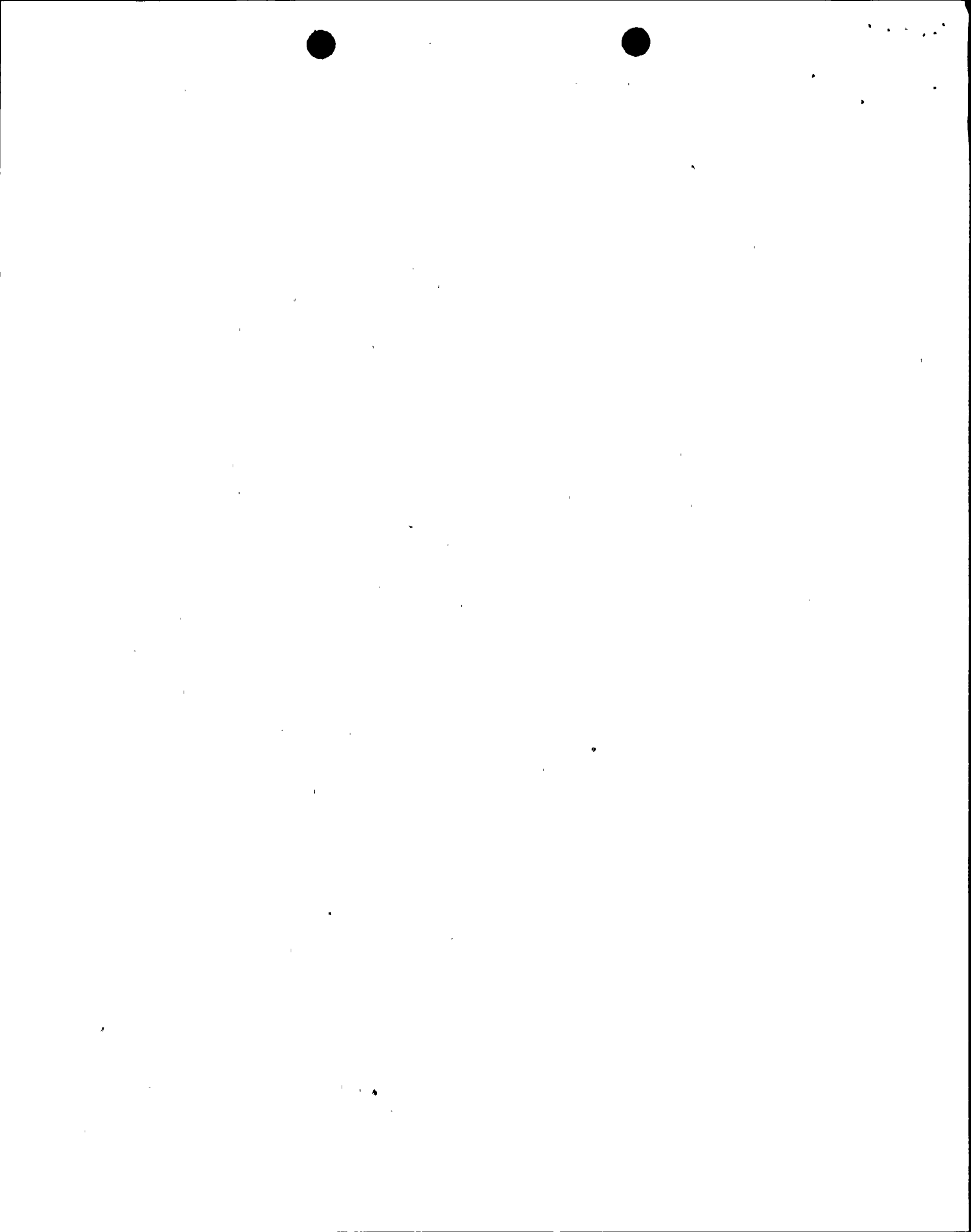


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Office of Nuclear Reactor Regulation

Docket No. 50-220

Enclosure: Safety Evaluation

cc w/encl: See next page



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