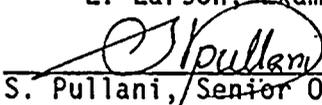


MAY 31 1990

U. S. NUCLEAR REGULATORY COMMISSION
REGION I

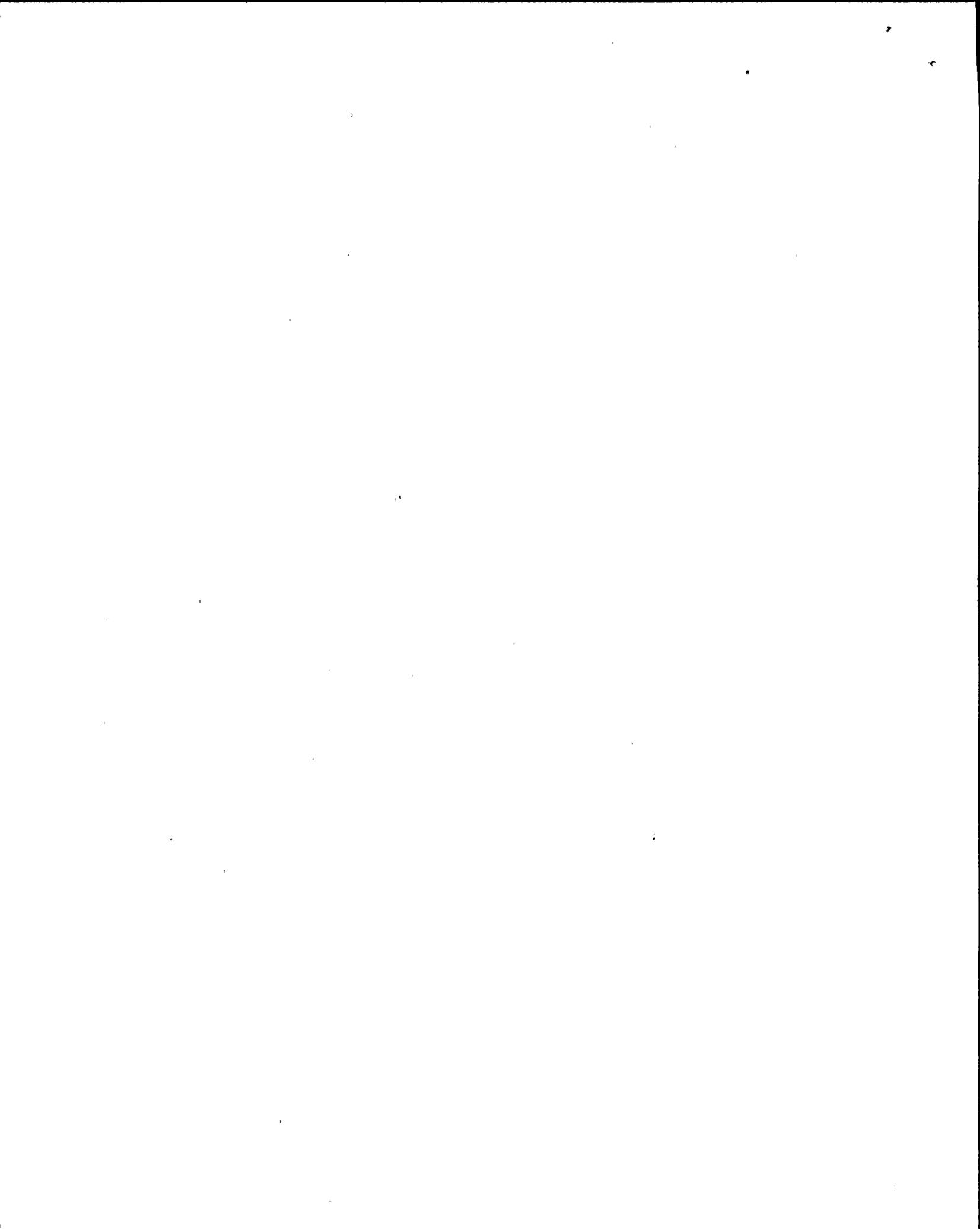
Combined Report No. 90-16 (OL)
Facility Docket No.: 50-410
Facility License No. NPF-14
Licensee: Niagara Mohawk Power Corporation
301 Plainfield Road
Syracuse, New York 13212
Facility: Nine Mile Point Nuclear Station, Unit 2
Examination Dates: April 30 - May 4, 1990
NRC Examiners: S. Pullani, Senior Operations Engineer
J. Williams, Senior Operations Engineer
P. Bonnett, Operations Engineer
G. Buckley, Examiner, PNL
L. Larson, Examiner, PNL

Chief Examiner:  5-30-90
S. Pullani, Senior Operations Engineer Date

Approved By:  5/30/90
for Richard J. Conte, Chief, BWR Section Date
Operations Branch, DRS

Summary: See Executive Summary

9006060044 900531
FDR ADDCK 05000410
PIC



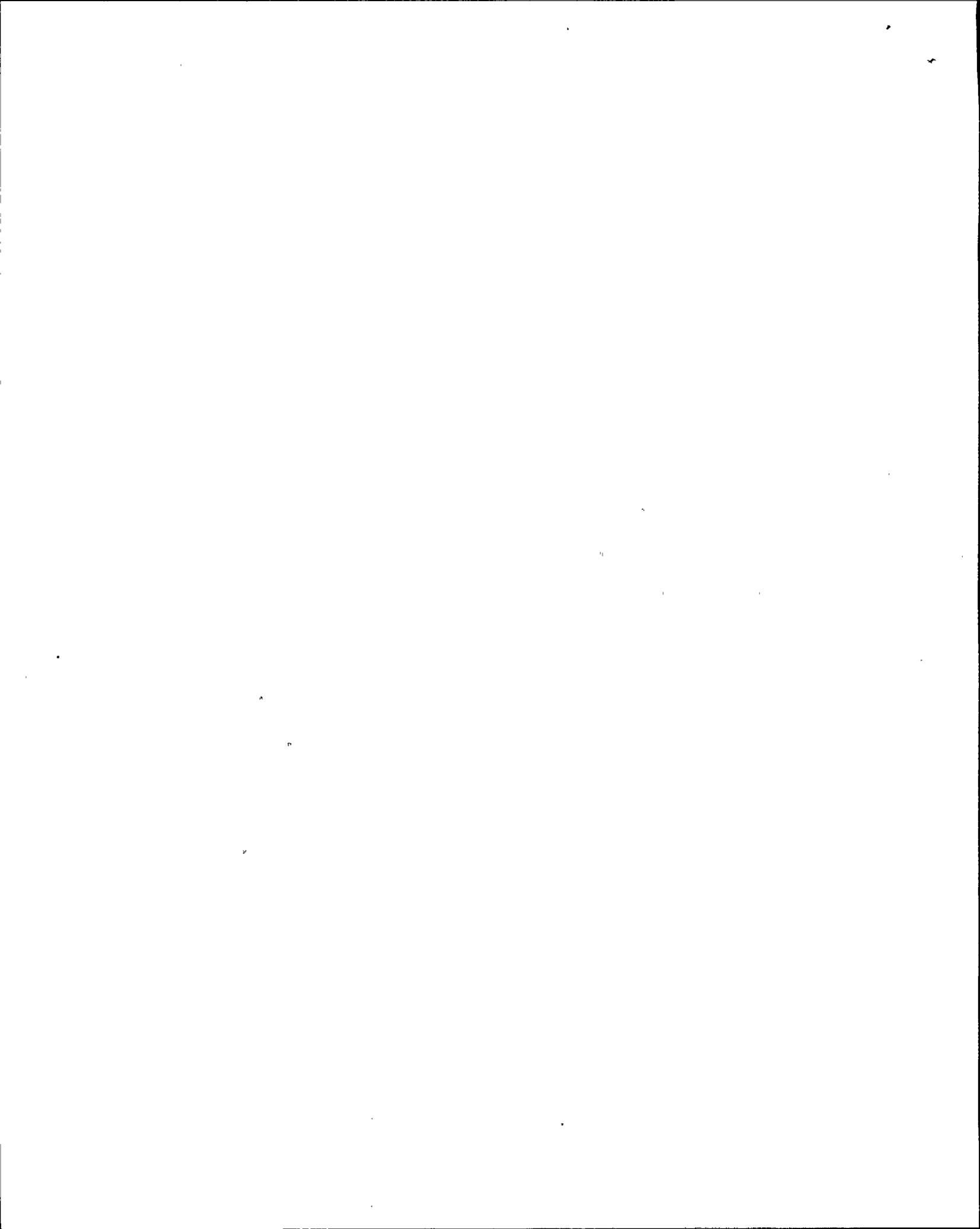
EXECUTIVE SUMMARY

Written and operating examinations were administered to three crews consisting of nine Reactor Operators (ROs) and six Senior Reactor Operators (SROs). The examinations were graded concurrently by the NRC and the facility training staff. The results of the NRC and the facility grading were identical. All of the ROs and all of the SROs examined passed all portions of the examination. All three crews that were evaluated performed satisfactorily on the simulator portion of the examinations.

During this examination process, the NRC team also reviewed the implementation of Niagara Mohawk's corrective actions to address the deficiencies identified during the July 1989 requalification examination which resulted in an unsatisfactory requalification program evaluation. These corrective actions are documented in the Requalification Program Action Plan attached to Niagara Mohawk's letter dated January 10, 1990. The team concluded that the corrective actions were essentially complete and generally effective and that a significant improvement in the requalification program was evident. To return the program to a satisfactory status, Niagara Mohawk must complete all short term corrective actions and certify that all program deficiencies have been addressed.

The examination team also made an assessment regarding Niagara Mohawk's Restart Action Plan (RAP) Underlying Root Causes 2 (Problem Solving) and 4 (Standards of Performance/Self-Assessment). A significant improvement in these areas was noted.

This report (Section 9) also documents a violation identified by Niagara Mohawk in its letter dated February 21, 1990, involving medical examinations of licensed operators. In reviewing this matter, the NRC staff has determined that issuing a Notice of Violation is not appropriate. The staff has chosen to exercise this discretion because the violation meets all of the criteria of Appendix C of 10 CFR Part 2, Section G, for a licensee identified violation.



DETAILS

1. Introduction

During the examination period, the NRC administered requalification examinations to 15 licensed operators (9 ROs and 6 SROs). Ten of the 15 operators belong to two regular plant operating shifts crews (five per shift) and the remaining five belong to one licensed staff crew. The 15 operators were divided into 3 crews for the simulator part of the examination. The examiners used the process and criteria described in NUREG 1021, "Operator Licensing Examiner Standards," Revision 5, section ES-601, "Administration of NRC Requalification Program Evaluations." The examiners also reviewed the licensee's procedures for conducting licensed operator training and the results of the requalification examinations administered by the facility.

An entrance meeting was held with the licensee on April 9, 1990, at the site. The purpose of this meeting was to brief the licensee on the requirements of the requalification program evaluation and to outline a prospective schedule for the examination. The licensee personnel contacted during the examination are listed in Attachment 1. The members of the combined NRC/facility examination team, and the facility evaluators are also identified in Attachment 1.

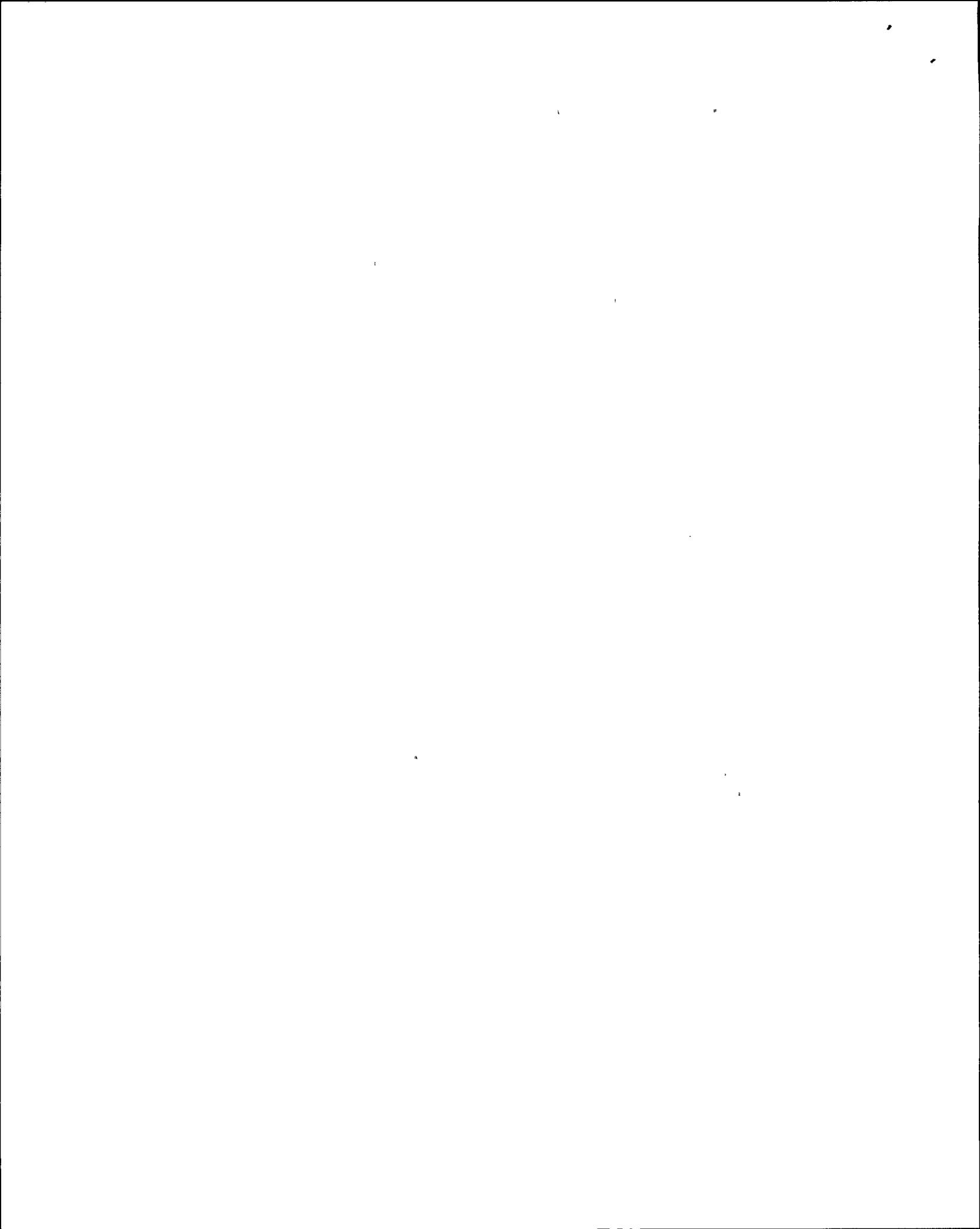
2. Examination Results

2.1 Individual Examination Results

The following is a summary of the individual examination results:

	RO	SRO	TOTAL
NRC Grading	Pass/Fail	Pass/Fail	Pass/Fail
Written	9/0	6/0	15/0
Simulator	9/0	6/0	15/0
Walk-Through	9/0	6/0	15/0
Overall	9/0	6/0	15/0

	RO	SRO	TOTAL
Facility Grading	Pass/Fail	Pass/Fail	Pass/Fail
Written	9/0	6/0	15/0
Simulator	9/0	6/0	15/0
Walk-Through	9/0	6/0	15/0
Overall	9/0	6/0	15/0



2.2 Generic Strengths and Weaknesses

The following is a summary of generic strengths and weaknesses noted by the NRC from the preparation, administration, and grading of the requalification examinations. This information is being provided to aid the licensee in upgrading the requalification training program. No licensee response is required.

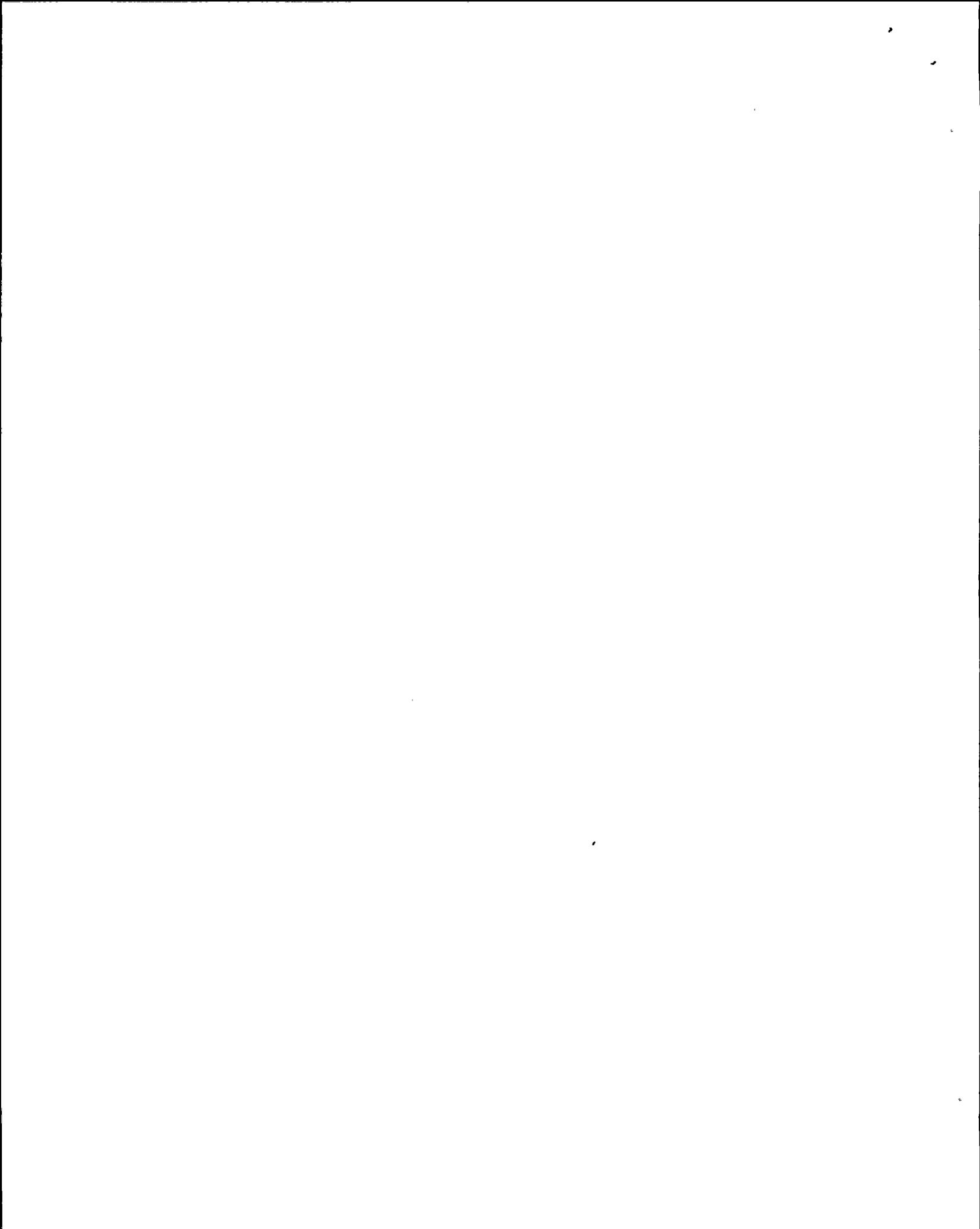
2.2.1 Operator Strengths and Weaknesses

Strengths:

- Teamwork among the crews has improved. A chain-of-command, accountability, and improved communications has helped organize and co-ordinate crew actions.
- Communication skills have improved since the previous examination. Formal repeat backs, acknowledgement of reports/directions and use of precise language resulted in a professional atmosphere in the control room.
- Station Shift Supervisor (SSS)/Assistant Station Shift Supervisor (ASSS) direction and control of the shift provided the operators a sense of priority and accountability for their responsibilities and those of the other operators.
- The crew's ability to identify and evaluate plant conditions enabled them to mitigate the effects of the event or failure on the plant. This included timely response to alarms and awareness of changing plant parameters that occurred prior to the alarm annunciating.
- The operators used procedures when appropriate, and went back to check the procedure if a task was performed without a procedure in hand.
- The operators displayed a detailed knowledge of the control room panels.
- Overall, performance of the Job Performance Measures (JPMs), both in plant and simulator, was considered a strength.

Weaknesses:

- Although communication skills have improved, there are still a few weaknesses. The operators did not always speak loudly enough to ensure all operators in the control room were aware of changes occurring in the plant. During



emergencies, all of the operators were not always kept abreast of trends and changes in plant parameters concerning the reactor and containment.

- The SSS/ASSS did not always ensure that the entire crew was aware of equipment that was declared inoperable; when the classification of an emergency event had occurred and the reason for it; and when reentry into the EOPs had taken place.
- During emergencies, role identification was not consistent among the various crews examined. Even though the work was completed in a timely manner, there was some confusion of who should perform a specific duty.

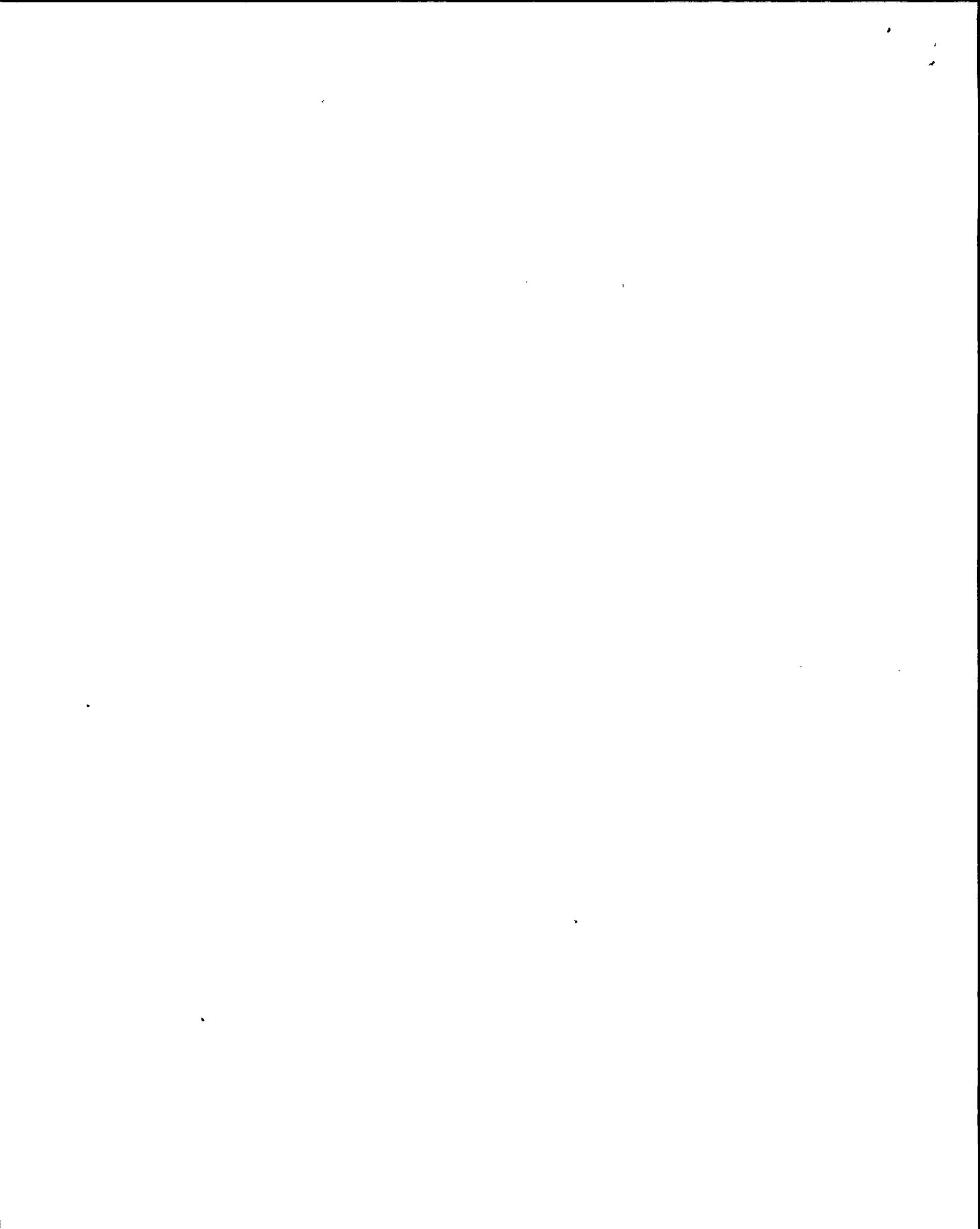
2.2.2 Program Strengths and Weaknesses

Strengths

- Clear and consistent briefings and instructions by evaluators were considered strengths.
- The facility examines requalification candidates on Licensee Event Report (LER) based training.
- The facility training personnel were very receptive and responsive to examination comments.
- The facility personnel were very responsive to requests for additional reference materials.
- The facility Simulator Instructor was very knowledgeable and versatile with the simulator as well as plant knowledge.
- Written examination questions were applicable to an open reference examination with few exceptions.
- Time validation of the written examinations was accurate.

Weaknesses:

- Specific weaknesses with JPMs were identified:
 - There were no questions unique to SRO level.
 - It was not apparent that JPMs and questions had been given a thorough review by the facility. This conclusion is based upon NRC identification of expected vs. given answers, typographical, and spelling errors.



- Weaknesses identified in the performance of the JPMs were not generally probed by additional questioning.
- The method for identifying and obtaining procedures at the start of JPM was not clearly defined and therefore not always consistent.
- Examination questions related to LERs were not identified as such.
- One of the Section A scenarios had to be substituted with one of the alternate scenarios due to the similarity (of topics covered) with the other scenario selected for the exam.
- There were some multiple choice questions with no stem other than a system category and choices that were 4 unrelated true/false statements.
- There were some instances of distractors for multiple choice questions being obviously incorrect.
- Several short answer questions had more than one correct answer; the stem of the question did not contain sufficient discriminating information.

This weakness was also identified by the Instructional Technologist Group (of the Niagara Mohawk Training Department) and had been addressed by the facility (see Section 7.2 of this report for further details).

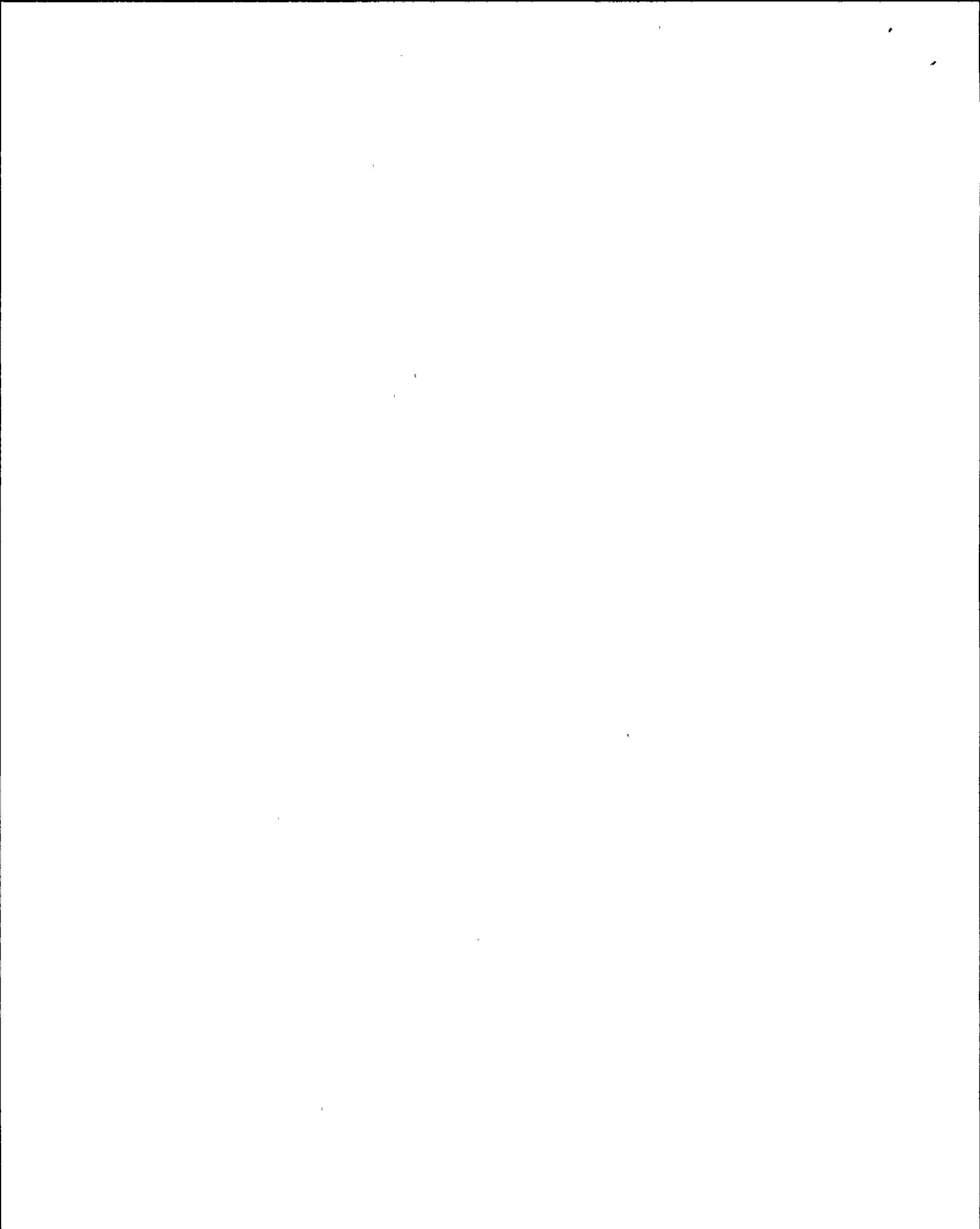
- The written examination questions were supplied without a reference to learning objectives.

The process of assigning learning objectives to examination questions is in progress as part of the Systems Approach to Training (SAT) Program.

- The written examination questions were supplied with only a K/A value and not with the K/A number from NUREG 1123.

The facility supplied a cross reference during the onsite preparation week which matrixes the facility task number to the applicable K/A number.

- Incorrect facility task numbers were assigned to some questions.
- There were some instances of questions written on tasks which were not applicable to the license held or with little safety significance.



Note: The facility resolved most of the above weaknesses for the current examination questions. To address these weaknesses for the requalification examination question bank, the facility plans to review the entire bank by October 31, 1990.

3. Requalification Program Evaluation Results

The facility program for licensed operator requalification training met all criteria established in ES-601, "Administration of NRC Requalification Program Evaluation."

Note: The examination results for the individual who had failed two previous NRC requalification examination and was retested during this examination were not used in the evaluation of the facility requalification program.

The criteria in ES-601 are:

- a. Ninety percent pass/fail decision agreement between the NRC and the facility grading the written and operating examinations. There was 100% agreement on this criterion.
- b. At least 75% of all operators pass the examination; not including individuals selected who had previously passed the examination.

NRC grading is the only consideration for this criterion. There were no individuals selected who had previously passed the examination. All operators (100%) passed the examination.

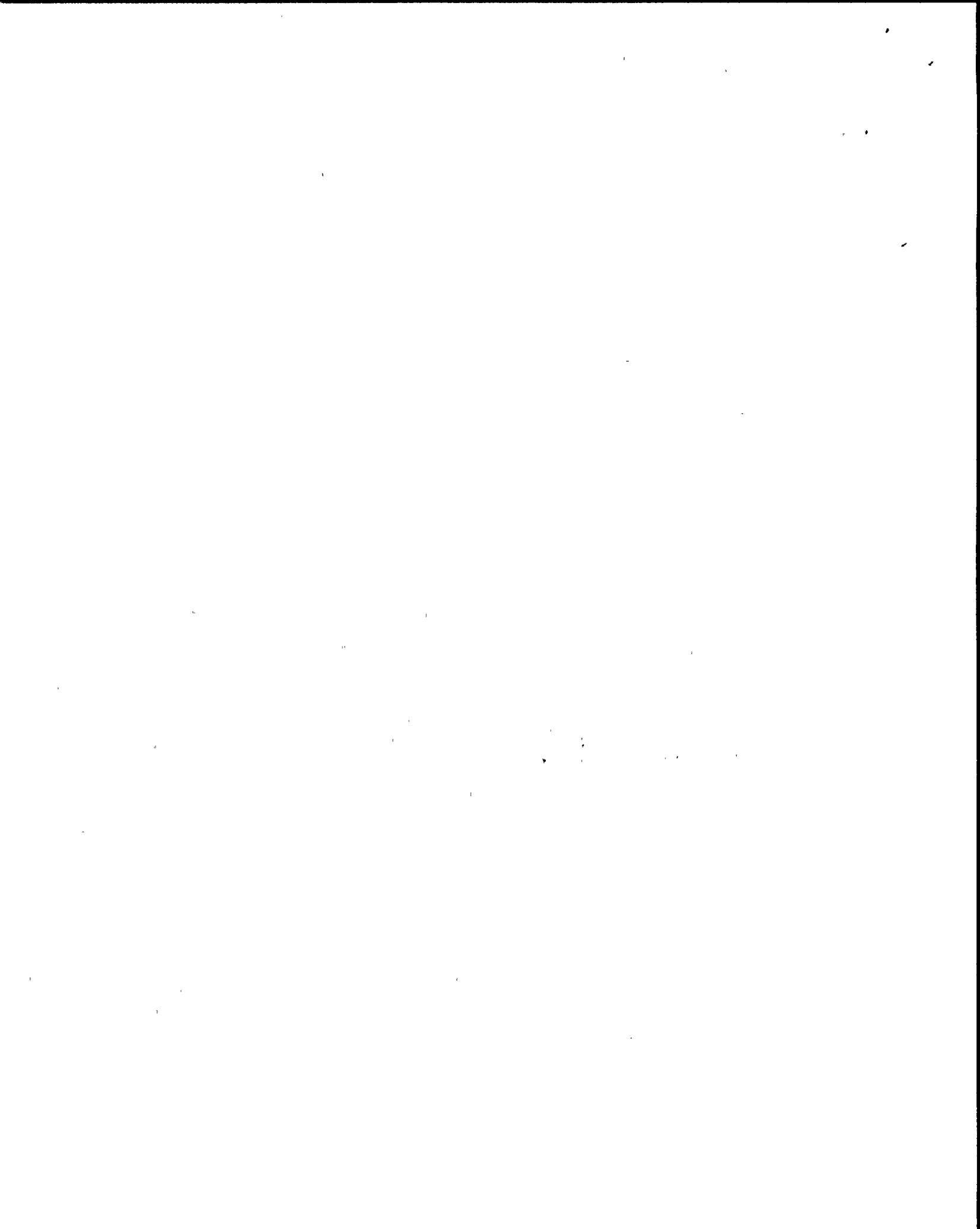
- c. There shall be no more than one crew failure during the simulator portion of the operating examination, although the failure of one crew MAY cause the program to be considered unsatisfactory.

NRC grading is the only consideration for this criterion. Three crews were evaluated and all three crews passed the simulator portion of the operating examination.

- d. The program meets the requirements of 10 CFR 55.59 (c)(2), (3) and (4), or is based on systems approach to training.

The review of the licensee's procedures for conduct of licensed operator training indicated that the requalification program meets the requirements of 10 CFR 55.59(c)(2), (3), and (4) for lectures, on-the-job training, and evaluations.

In addition, ES-601 contains criteria that may contribute to a program being determined unsatisfactory. None of these criteria were applicable.



4. Regualification Examination Preparation

The licensee submitted reference materials, test items, and a Sampling plan approximately 60 days before the examinations were administered. These materials were reviewed in the Regional Office and the specific test items proposed by the facility were reviewed on-site by the combined NRC/facility examination team. The facility then revised the items and produced the examination that was administered to the examinees. The test items that were administered to the operators are listed in Attachment 2.

The NRC-facility examination team spent a considerable amount of time in improving the quality of the simulator scenarios proposed for the examination. Some of unnecessary operator action evaluation steps and Individual Simulator Critical Task (ISCT) steps were deleted from the scenarios. The ISCTs were reviewed against the "four-fold criteria" in the proposed ES-601, Revision 6, as additional guidance. The team's effort in this area helped in identifying valid ISCTs for the examination.

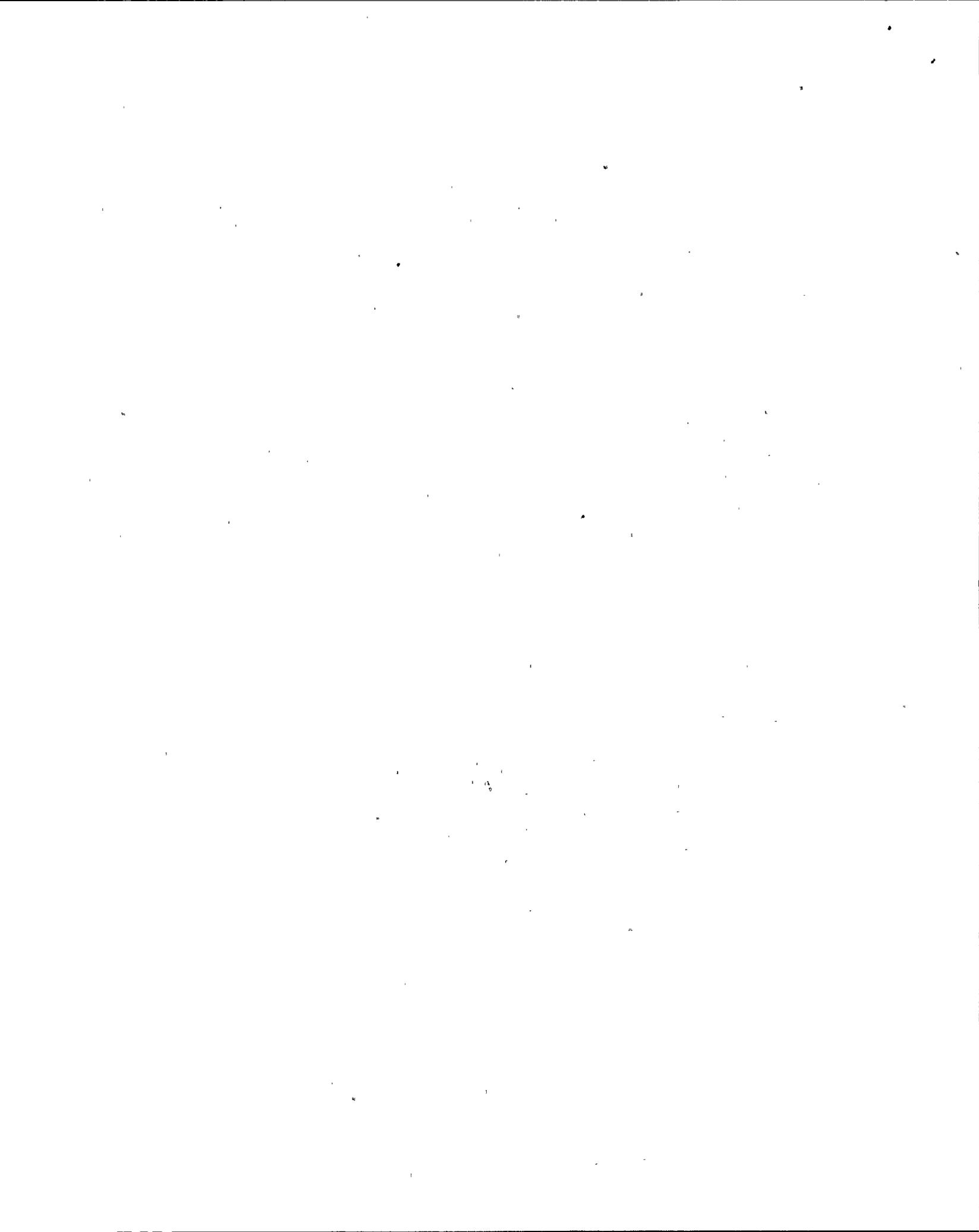
Only minor revisions were required to the JPMs proposed for the examination. The JPMs were generally of good quality. However, several JPM questions had to be replaced because they were simple "look up" types for which answers would be found easily by reading the related procedural precautions or steps.

The Sampling Plan submitted for the examination was adequate for the purpose. The plan indicated the emphasis that each topic received during the most recent requalification cycle and included a summary of the specific examination subject requirements.

The written examination questions submitted for NRC review were generally satisfactory. However, the quality of the questions could be further improved as indicated by several weaknesses identified by the NRC.

The facility has a general task listing with each task having assigned a specific K/A and value. When a specific task question (as opposed to a general task) is written, the K/A and value assigned to the general task is transferred to the specific task. In most instances the specific tasks are of a lower safety importance than the general task and the assigned K/A and value are not applicable. In fact, there were several questions when compared with the specific item in NUREG 1123 which did not meet the 3.00 K/A value cut-off criteria for the requalification examinations. However, the questions were retained in the examination to meet the sampling plan.

Quality control was adequate for the examination materials that were submitted to the NRC following the review by the combined NRC/facility examination team. The facility had a week to make changes and review the corrected materials prior to submittal to the NRC for final review. The examination materials that were submitted contained the specific test items and the required revisions that had been agreed upon by the examination team.



Refer to Section 2.2.2 for strengths and weaknesses identified during the preparation of the examinations.

5. Regualification Examination Administration

The dedication of the facility training personnel during the extensive hours that were required for administration of the examinations was a strength of the program. The stress of the long hours did not affect the quality of the evaluations. Training and operations personnel were very cooperative throughout the examination process.

Administration of the examinations was generally satisfactory. Time validation of the static simulator and open reference examinations appeared satisfactory.

The simulator portion of the examination was conducted smoothly and efficiently. The scenarios required minimal setup time and the simulator operator did not allow any delays to occur during performance of the scenarios. The time of introduction of malfunctions by the simulator operator during scenario was sufficiently flexible and coordinated by one facility evaluator to allow all evaluators to complete all required evaluations.

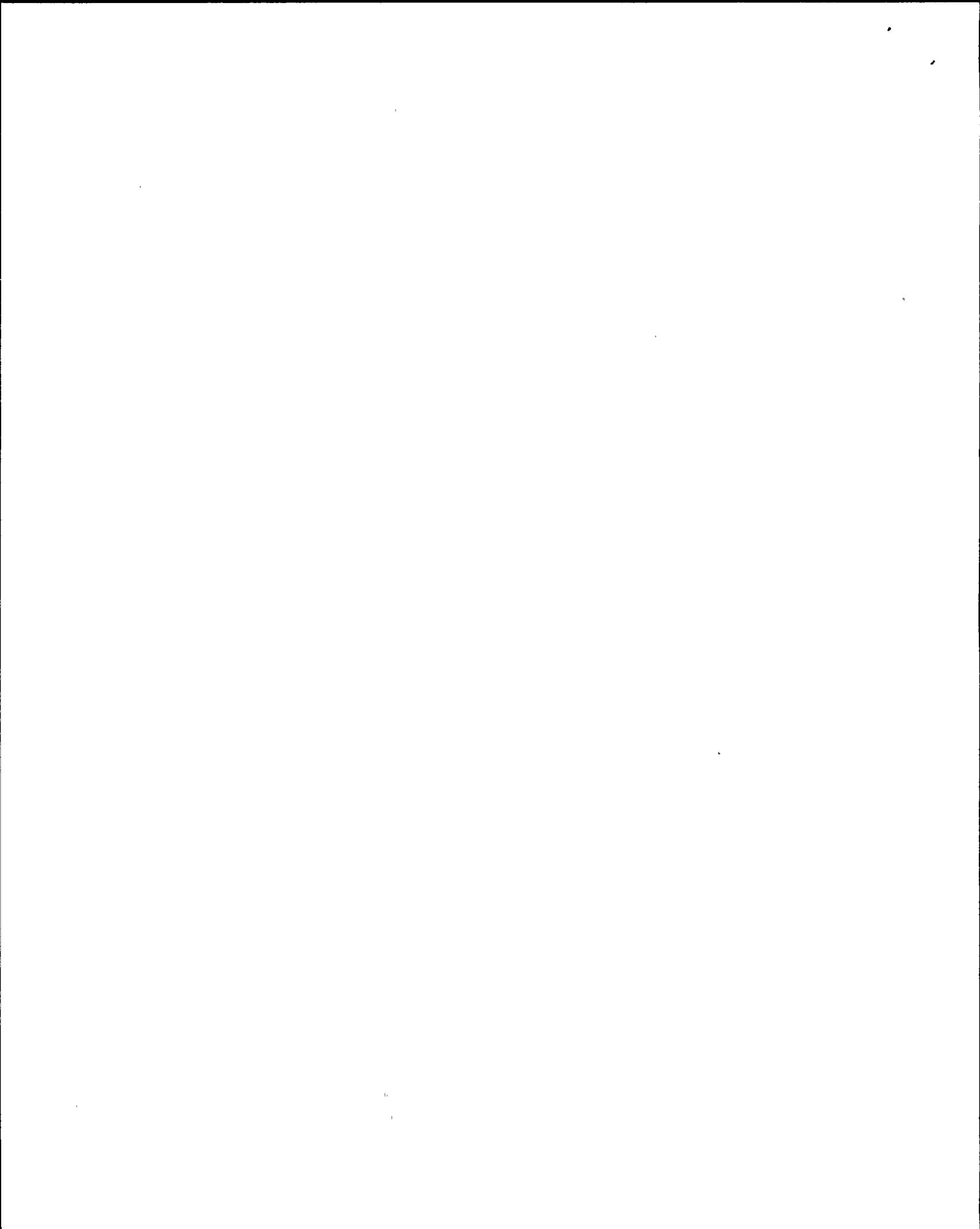
The team assessed the simulator's capabilities as limited. The limited number of malfunctions, the high dependence on instructor overrides (IOs), and limited number of prepared scenarios restricts the flexibility of training and evaluation. Specific items related the simulator fidelity were discussed with the simulator instructors. The facility representatives informed the team that many new simulator enhancements are being added, and a program to write additional scenarios has been established. The simulator performed well during the examination, in that there were no delays due to simulator down time.

The logistics of the walk-through examinations (JPMs) went smoothly. The time validation of the JPMs was reasonably accurate, but could be improved using the data collected during administration of the examination.

Refer to Section 2.2.2 for strengths and weaknesses identified during the administration of the examination.

6. Examination Grading and Analysis of Results

Crew performance on the simulator portion of the examination was critiqued by the lead facility examiner immediately following completion of both scenarios. These critiques were satisfactory and included input from the licensed operators. The NRC and the facility evaluations discussed the results of the simulator examination and the followup questions to be asked the examinees following each individual scenario. In the majority of instances, the NRC and the facility evaluators agreed on all the areas that were evaluated. Follow-up questions were asked as necessary to clarify operator actions.



The results of the individual JPMs were discussed immediately following administration of the walk-through examinations. The NRC and the facility evaluators did not agree on the evaluation of an individual JPM in two cases and an individual JPM question in four cases, but the facility was more conservative.

A summary of facility grading on all parts of the examination is included in Attachment 4 to this report. Comparison of the NRC grading and the facility grading indicated general agreement between the two. In general, the facility grading was found to be more conservative.

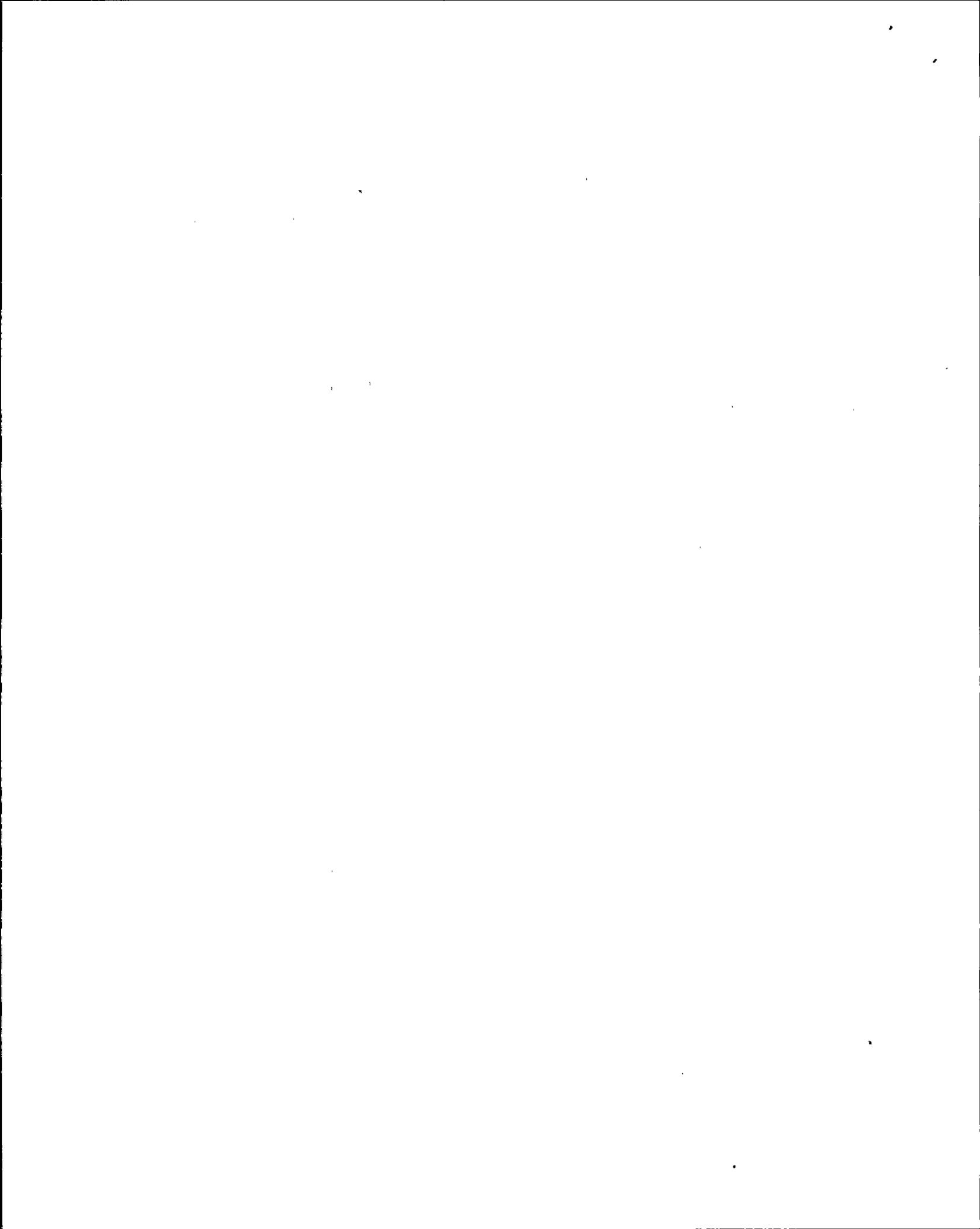
7. Follow-up on Previously Identified Requalification Program Deficiencies and Corrective Actions

As a result of the requalification examination conducted during the weeks of July 17 and July 24, 1989, weaknesses in the individual operator performance and the Nine Mile Point 2 requalification program were identified. The results of the examination and the weaknesses were documented in the examination report 50-410/89-12(OL). The program was determined to be unsatisfactory. Based on that evaluation, Nine Mile Point Unit 2 implemented a Requalification Program Action Plan to correct these deficiencies. The latest revision of the Requalification Program Action Plan (Revision 2) was attached to Niagara Mohawk's letter NMP2L 12223 to the NRC, dated January 10, 1990.

During the week of April 9, 1990, the NRC staff reviewed the corrective actions implemented by Niagara Mohawk to address the specific issues addressed by the Requalification Program Action Plan. The results of this review are summarized below.

7.1 Unsatisfactory Requalification Program

Niagara Mohawk's corrective actions in this area listed in the Requalification Program Action Plan are essentially complete. The only corrective action in this area which was open at the time of this review was Item 1.B.10. This item was subsequently closed on April 24, 1990. This item is related a follow-up assessment of the Unit 2 Requalification program by an Independent Assessment Team (IAT). At the time of the initial NRC review, the IAT had just completed their assessment and concluded that the Requalification Program Action Plan is being implemented and the original (October 27, 1989) recommendations by the IAT have either been implemented or are being addressed. The IAT also concluded that significant improvements in management oversight, operations and training communication interface, and attention to detail are now evident, but continued management attention is needed in some areas to ensure that improvements are completed. Based on NRC review of a sample of the completed corrective actions in this area, the staff concludes that the corrective actions in this area are essentially complete and significant improvement in the requalification program is evident.



The observations by the examination team in the course of preparation and conduct of the requalification examination administered during the week of April 30, 1990 support the above conclusion. Based on this evaluation, Niagara Mohawk's corrective actions on this issue are considered satisfactory.

7.2 Written Examination Structure

Four corrective actions were identified to satisfy the concerns with the 1989 written requalification examinations. These concerns were:

1. Test item construction was not clear.
2. Point values for multiple part answers were not specified.
3. Several double jeopardy questions were noted.
4. Questions requiring multiple responses were not separated out.

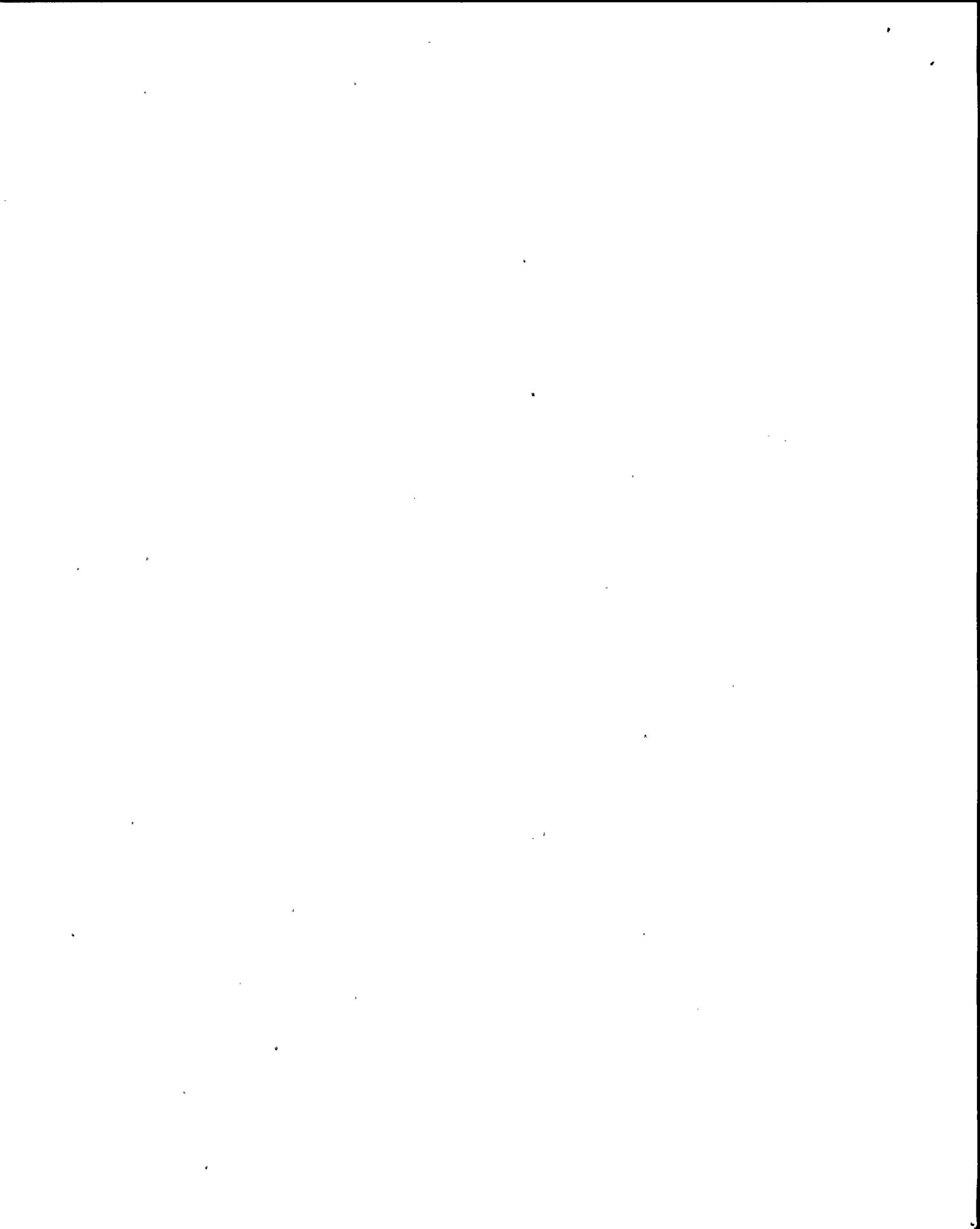
The facility has formally closed out all four of the corrective actions. The NRC's review of the corrective action files indicates that the corrective actions have been completed. However, the NRC's review of the April 1990 requalification written examinations indicates that some double jeopardy questions (Item 3 above) do exist in the examination question bank. The facility plans to review all bank questions by October 31, 1990.

Niagara Mohawk's corrective actions and plans to re-review the exam bank are considered satisfactory.

7.3 Operator Knowledge Deficiencies

The licensee's evaluation of the 1989 written examination raised concerns about operator knowledge deficiencies. Six corrective actions were established to correct those deficiencies. The corrective actions for this issue included: review of the written examination results for weaknesses in the requalification training program, and development and implementation of a remediation plan.

All corrective actions for this issue were complete and found to be satisfactory except for corrective action item 3.B.4.6 in the Requalification Program Action Plan. One licensed operator had not completed the EOP training required by this corrective action. The NMP-2 training department planned to train the one remaining individual by the end of May 1990. Successful completion of training by the remaining individual will close this issue.



completed training in verbal communications for operators and instructors. Observations of the operating crew and training instructors are being made by the plant management personnel during the simulator training sessions for identifying and correcting weaknesses in the crew and the instructor performance. Niagara Mohawk has also established a plan and a schedule to continue the required corrective actions on an ongoing basis, for preventing the recurrence of identified deficiencies in this area.

A significant improvement in verbal communication skills was noted during the simulator portion of the April 1990 requalification examination. Out of the three crews examined, one crew exhibited excellent communication skills, whereas performance of the other two crews was average and could be further improved.

The corrective actions in this area which were not fully complete at the time this inspection were Items 4.B.3, 4.B.4, and 4.B.5 involving crew communications. Niagara Mohawk plans to complete and close out these items by May 14, 1990. Subject to completion of these items, Niagara Mohawk's corrective actions on this issue are considered satisfactory.

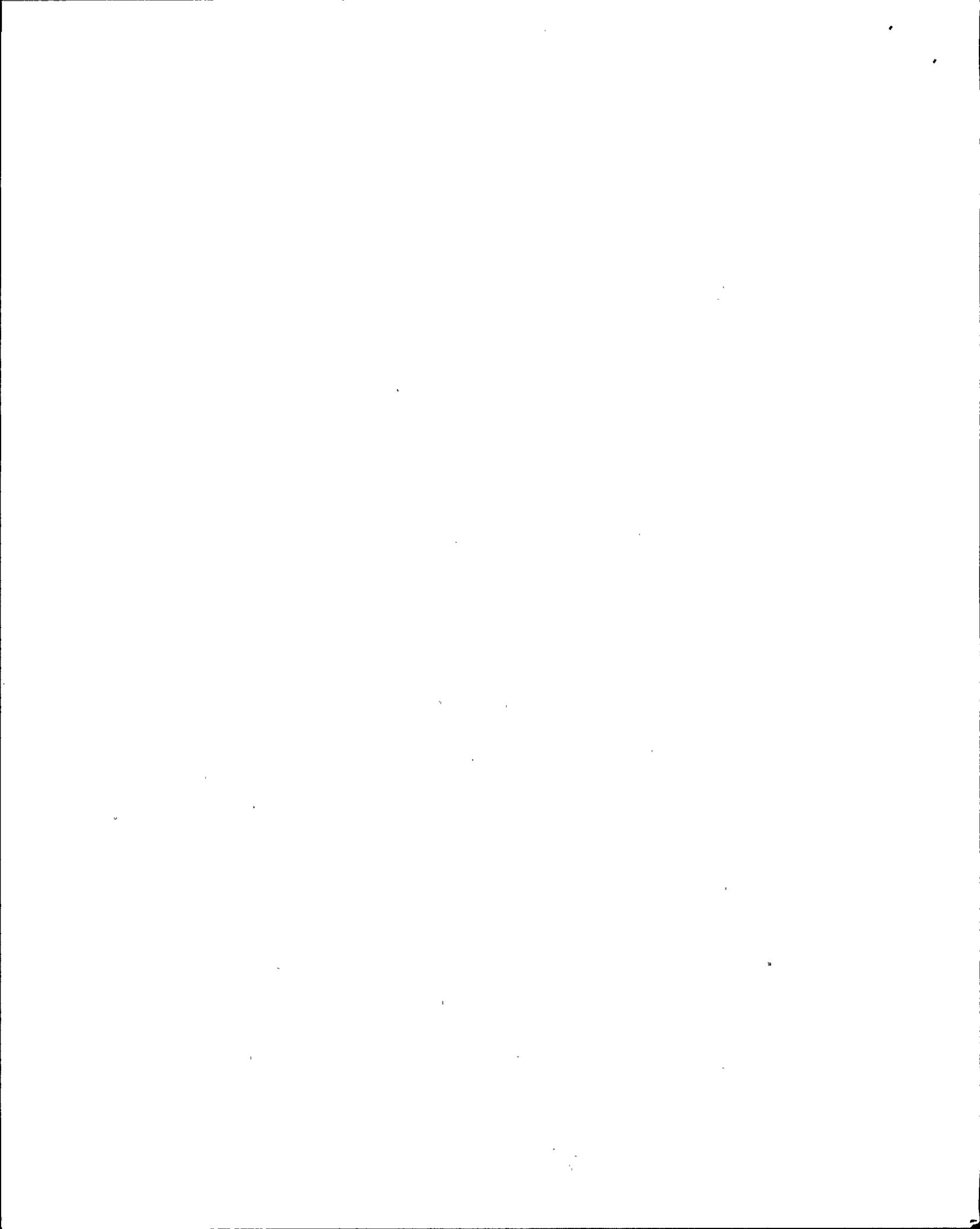
7.5 STA Involvement in Plant Assessment and Event Control

This issue deals with clarifying STA responsibilities (a collateral responsibility of Assistant Station Shift Superintendent) during emergencies and providing training in this area. The STA responsibilities are described in N2-PDI-1.08, "Operations Policy for Emergency Procedures," Revision 3, dated October 1989. STAs and instructors have been trained on these responsibilities. A program has been established by the licensee, and is ongoing, for management observation of simulator training. The NRC team reviewed the supporting documentation and discussed these activities with Niagara Mohawk's personnel. In addition, the performance of the STA in the simulator during the April 1990 requalification examinations was observed, to identify any weaknesses associated with this issue. No concerns were identified. The Niagara Mohawk actions on this issue are considered satisfactory.

7.6 Operator Actions for EOPs

The specific issue was that operator actions were not always in accordance with the guidance provided in the Emergency Operating Procedures (EOPs). The corrective actions were reviewed by the NRC team. No discrepancies were noted.

Operational directives that establish management expectations have been developed and incorporated into plant operations and training. Management has also established a formal review process in which management personnel will observe simulator training and identify



weaknesses in the crews or training instructors. The development of lesson plans covering Mitigation of Core Damage is continuing and expected to be completed by the end of the year. The licensee's corrective actions on this issue are considered satisfactory.

7.7 Operator Actions for Normal Operating Procedures

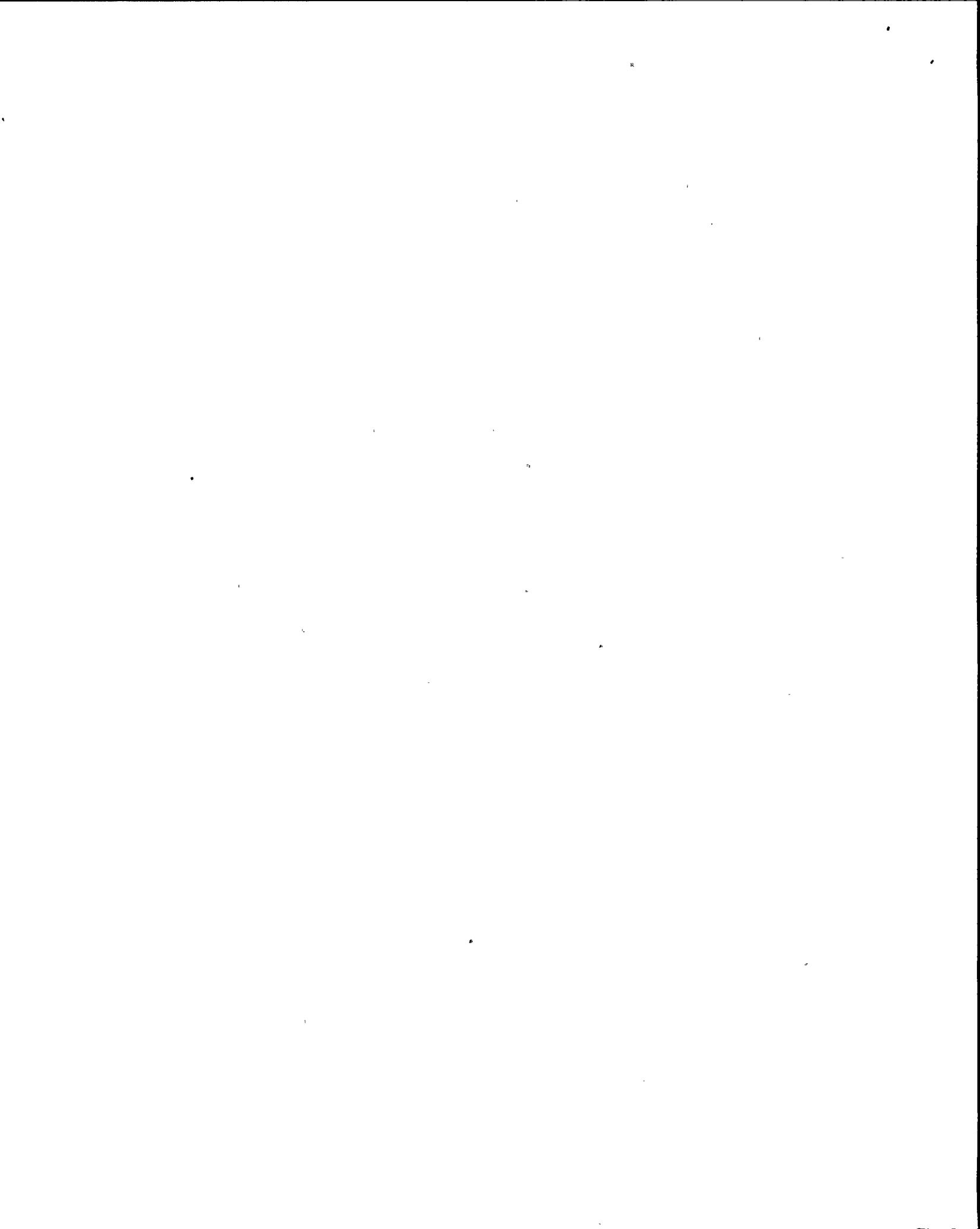
This issue deals with deficiencies in operator actions during emergency events when considering the requirements of normal operating procedures. The licensee conducted training in the areas where deficiencies were noted during EOP refresher training. The tasks that operators were expected to perform with a procedure were identified and training is included in the 1990/1991 Requalification Program. The licensee's document N2-ODI-1.09, "EOP Users Guide," defines management expectations for verification of immediate actions taken during emergency conditions. The NRC team reviewed the supporting documentation and discussed these activities with licensee personnel. Also, operator performance on the simulator during the April 1990 Requalification Examination was observed to identify any weakness in immediate actions taken by the operators. No weaknesses were noted. This issue is considered satisfactorily resolved.

7.8 Dynamic Simulator Scenarios

The dynamic simulator scenarios previously used were not always realistic, manageable, and of approximately 50 minute duration as set forth in ES-601. The corrective actions for this issue concerning the quality of the dynamic simulator scenarios were reviewed. It was noted that all but three of the fifteen scenarios were one hour in length vice 50 minutes. This is, however, consistent with ES-601 guidelines. Ten new scenarios were to be developed and incorporated into the 1990/1991 Requalification Program. Nine of the ten were completed and scheduled in the program. This issue is considered satisfactorily resolved.

7.9 Teamwork During Emergency Events

The issue was that teamwork, including prioritization of crew actions, evaluation of plant conditions, and communications, was weak during emergency events. The corrective actions for this issue concerning the weakness in teamwork, evaluation of plant conditions, and communications were reviewed and the following discrepancy was noted. Item 9.B.3 states that operator crews and training instructors will be trained to the latest revision of Operation Department Instruction, concerning verbal communications and EOP usage. This training was completed; however, insufficient training records were available to show that training was administered to all personnel concerned. The training department has made a commitment to retraining (by June 30, 1990) in this area to ensure all personnel have received this training (48% completed as of April 30, 1990).



Subject to the retraining of all personnel as discussed above and retention of sufficient training records, Niagara Mohawk's corrective actions on this issue are considered satisfactory.

7.10 Summary of Review

The NRC review of Niagara Mohawk's actions indicates that the corrective actions were essentially complete and generally effective, and that a significant improvement in the requalification program was evident.

The NRC review identified certain incomplete actions (see Sections 7.2, 7.3, 7.4 and 7.9 of this report). Niagara Mohawk has made a commitment to complete the short term actions by July 13, 1990, and one long term action by October 31, 1990. This is an unresolved item pending completion of the actions and their review by NRC (50-410/90-16-01).

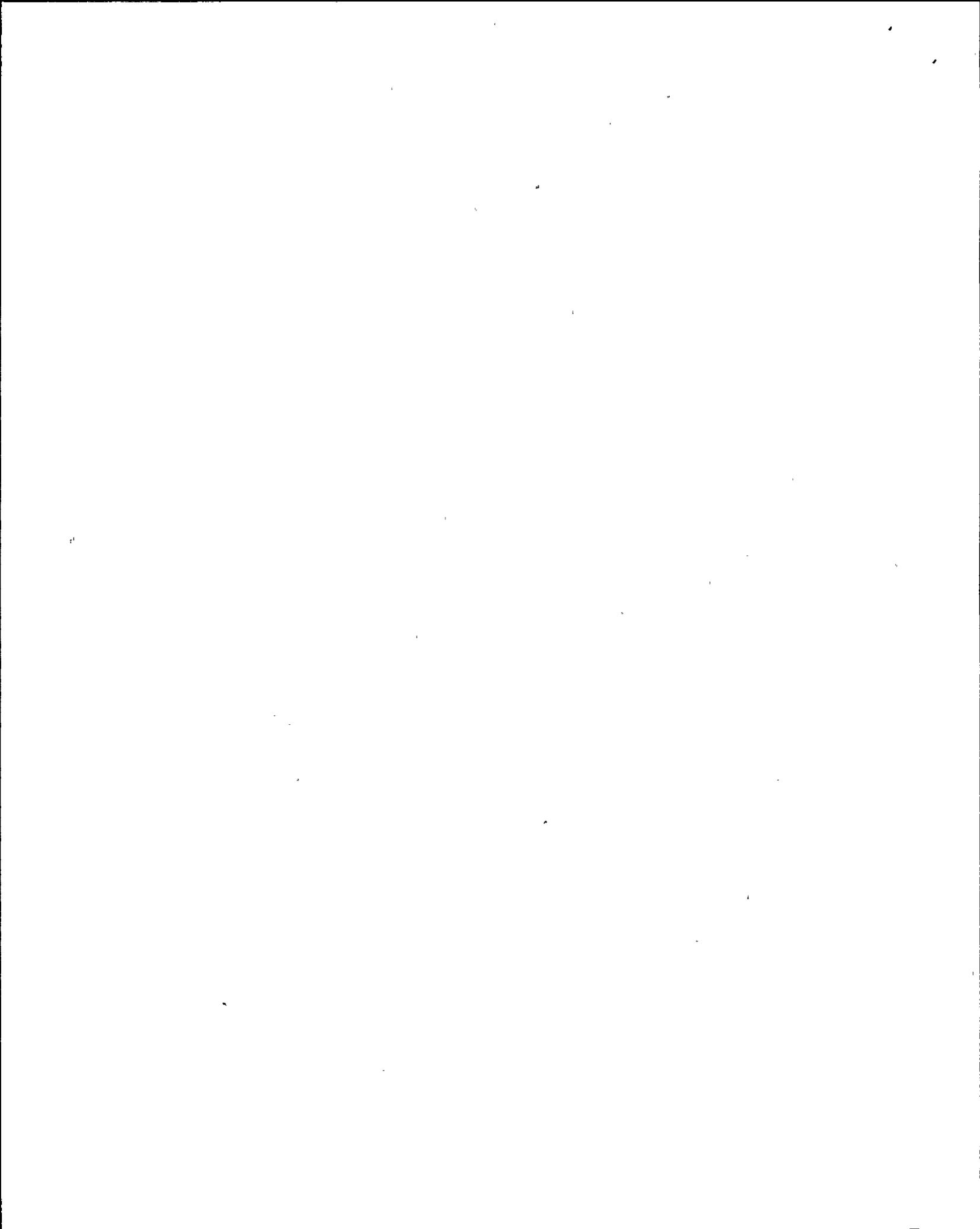
8. Assessment Regarding RAP Underlying Root Causes 2 and 4

Confirmatory Action Letter 88-17, dated July 24, 1988, required Niagara Mohawk Power Corporation to perform a root cause analysis of why they had not been effective in recognizing and remedying problems. In addition, Niagara Mohawk was required to develop and implement a Restart Action Plan which documented the underlying root causes of their management deficiencies and their associated corrective actions.

During the weeks of October 9 and 16, 1989, an Integrated Assessment Team Inspection (IATI) reviewed the effectiveness of Niagara Mohawk's actions toward resolving the programmatic and technical issues addressed in their Restart Action Plan. The IATI concluded that Niagara Mohawk's Restart Action Plan, with respect to the five identified underlying root causes was in place and well understood by the Nuclear Division personnel; however, the plan was being implemented with varying degrees of effectiveness and performance.

Specifically, the IATI determined that progress on underlying root causes (URCs) 1, 3 and 5, (Planning and Goal Setting, Organizational Culture, and Teamwork, respectively) showed clear improvement. For URCs 2 and 4 (Problem Solving and Standards of Performance/Self-Assessment), the IATI concluded that progress was slow as demonstrated by limited improvement in both of these areas. Several team observations indicated that while problems were being identified, the problems were frequently not being resolved. Further, although station personnel were cognizant of the new standards of performance, their actions did not demonstrate that they were incorporating them into their daily work activities.

During the preparation and administration of the April 1990 requalification examination, the NRC team made the following assessment of Niagara Mohawk's performance under the areas of Problem Solving (URC2) and



Standards of Performance/Self-Assessment (URC4) with respect to its Requalification Program for licensed operators.

8.1 Problem Solving (URC2)

The NRC team reviewed the implementation of corrective actions in the Niagara Mohawk's Requalification Program Action Plan for the deficiencies identified during the July 1989 requalification examination. The team concluded that the corrective actions are essentially complete and generally effective and that a significant improvement in the requalification program was evident. The team also found that Niagara Mohawk has made a concerted effort to complete the required corrective actions in a timely manner and to track the progress of these actions using its Nuclear Commitment Tracking System (NCTS).

8.2 Standards of Performance/Self-Assessment (URC 4)

One of the corrective actions in the Requalification Program Action Plan was to train all operators and instructors in verbal communications during the Emergency Operating Procedure (EOP) simulator scenario training sessions. Niagara Mohawk has completed this training. A significant improvement in verbal communication skills was noted during the simulator portion of the April 1990 requalification examination. Out of the three crews examined, one crew exhibited excellent communication skills, whereas the performance of the other two crews was considered average.

Observations of the operating crew and training instructors are being made by the plant management personnel during the simulator training sessions for identifying and correcting weaknesses in the crew and instructor performance. Niagara Mohawk has also established a plan and a schedule to continue the observations on an ongoing basis for preventing the recurrence of identified deficiencies in this area.

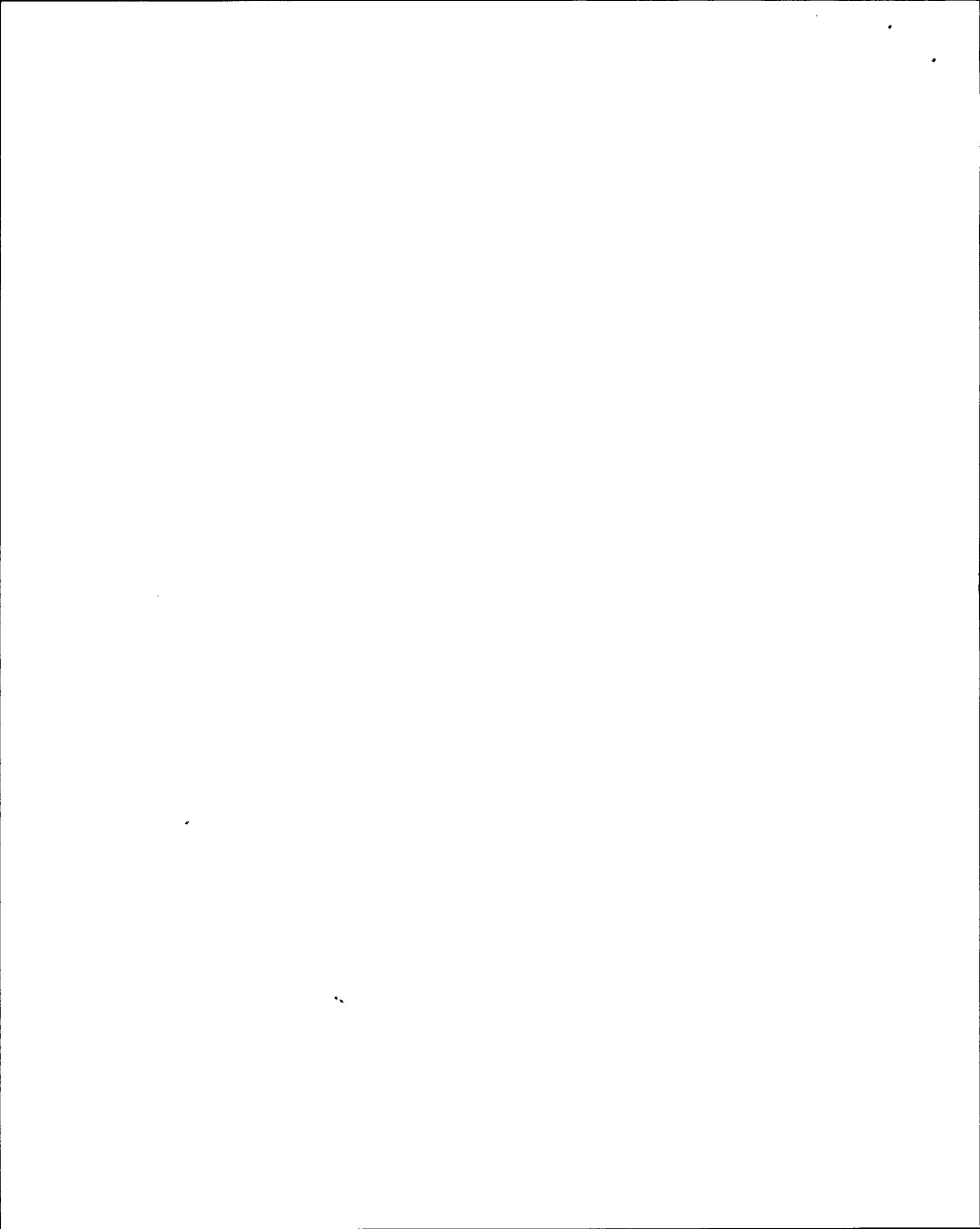
The team also noted good procedural adherence by the operators during the performance of the simulator and Job Performance Measure (JPM) portions of the April 1990 Requalification examination.

These observations were considered positive indications in the areas of self-assessment and implementation of the standards of performance.

9. Follow-up on Licensee-Identified Violation

The purpose of this section is to document a licensee identified violation at Nine Mile Point involving medical examinations of licensed operators.

Niagara Mohawk is committed to Regulatory Guide (RG) 1.134, Rev. 1 (March 1979), for meeting the requirements needed for medical certification of its licensed operators (10 CFR 55). This revision of RG 1.134 references



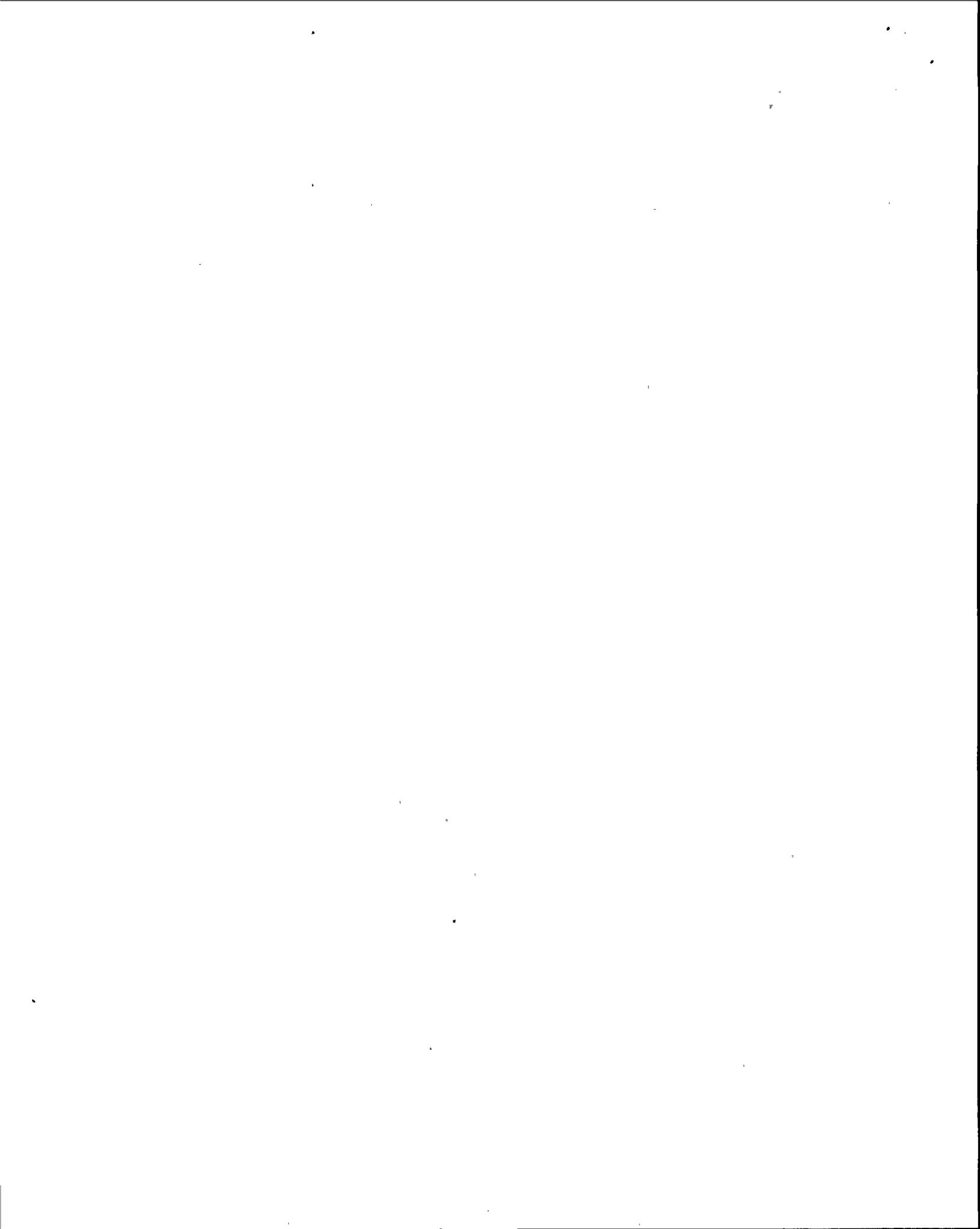
ANSI 546-1976, which is essentially identical to ANSI 3.4 - 1983. Regulatory Guide 1.134 was revised in April 1987, to reference the later ANSI standard; and, since then, Niagara Mohawk has used the new revision as guidance. The licensee's previous doctor apparently misinterpreted the guidelines on the need for laboratory testing as a part of the medical examination. The misinterpretation resulted in some deficiencies in medical examinations; namely, laboratory work was not done. The Certification of Medical Examination (NRC Form 396) states that the guidance in ANSI 3.4-1983 was followed; and, as such, a licensee representative certifies, by signature, that the information on the Form 396 is true and correct.

Section 50.9 of 10 CFR Part 50 states, in part, that information provided to the Commission by a licensee shall be complete and accurate in all material respects. Contrary to the above, not all medical examinations were complete and accurate. This is a Severity Level IV violation.

In reviewing this matter, the NRC staff has determined that issuing a Notice of Violation (NOV) is not appropriate. The staff has chosen to exercise discretion because the violation meets all of the criteria of Appendix C of 10 CFR Part 2, Section G as discussed below.

1. The violation was identified by the licensee. They discovered the inaccuracies during discussions between their physician and the license holders.
2. The violation is normally classified at Severity Level IV or V. This is a Level IV.
3. The violation was reported. The licensee telephoned the Region I office and followed this up with a letter to the Region (Attachment 5 to this report) documenting the issues.
4. The violation has been corrected. As stated in a letter, dated March 12, 1990, from Niagara Mohawk to the Regional Administrator, all licensed operators have been re-examined using the guidance of ANSI/ANS 3.4-1983 (see Attachment 6 of this report). It is expected that future medical certifications will continue to be accurate.
5. The violation was not willful nor could it have been prevented by corrective action for a previous violation. There are no indications of any deliberate falsification of documents nor are there any indications that the licensee was reluctant to promptly notify the Region once the errors were discovered. Furthermore, these errors were the result of one doctor's interpretation of the guidance.

In summary, the NRC staff has determined that enforcement discretion is the correct response to this matter and that no further action is necessary.

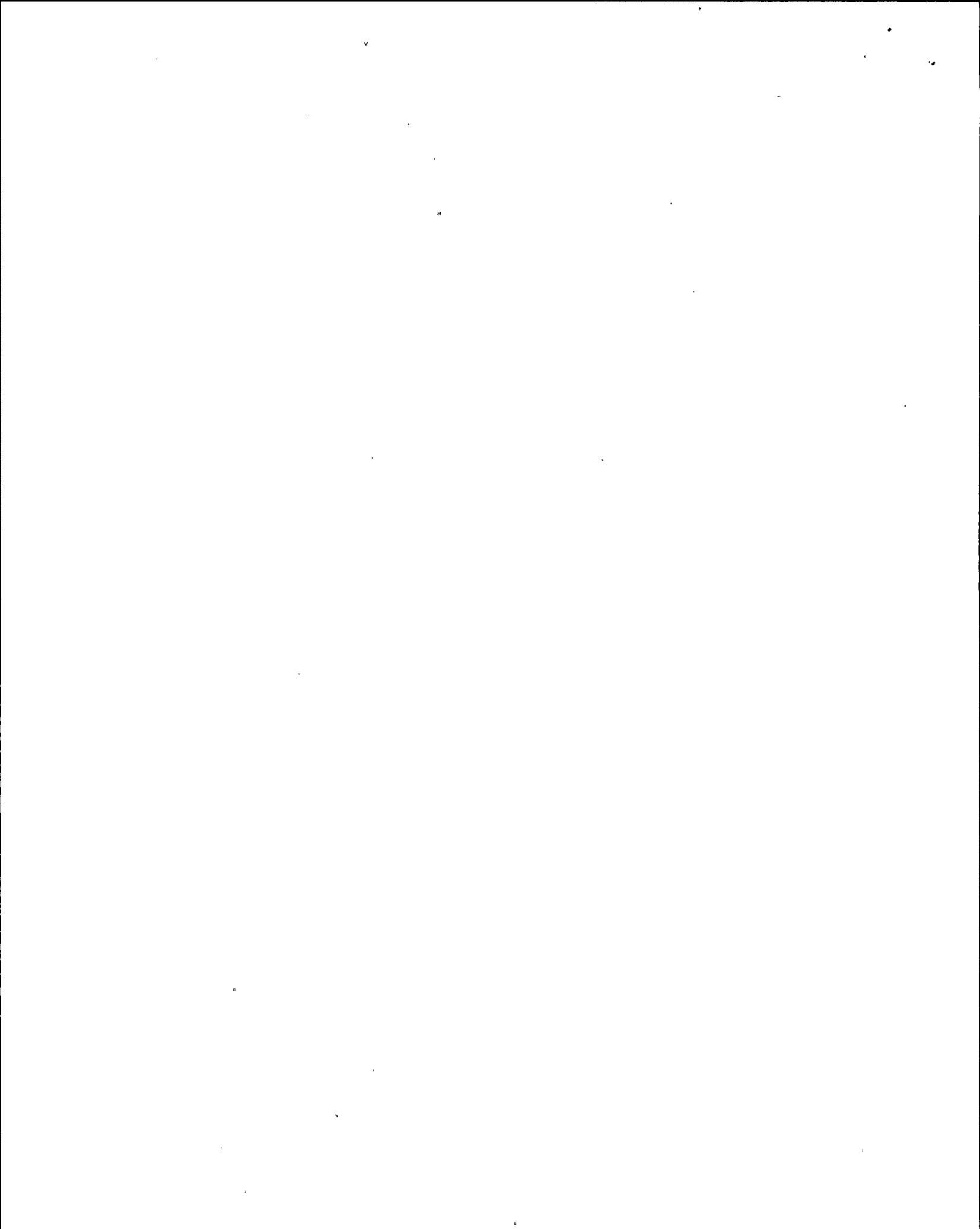


10. Exit Meeting

An exit meeting was held at the conclusion of the examinations on May 4, 1990. The personnel in attendance are indicated in Attachment 1. The preliminary NRC results of the simulator and walk-through portions of the examinations were presented. Examination preparation and administration were discussed along with the results of the facility administered examinations.

Attachments:

1. Persons Contacted
2. Requalification Examination Test Items
3. Documents Reviewed
4. Licensee Results, Licensee's Letter to NRC, dated May 18, 1990
5. Licensee's Letter to NRC, dated February 21, 1990
6. Licensee's Letter to NRC, dated March 12, 1990



Attachment 1

Persons Contacted

1. Niagara Mohawk Power Corporation (NMPC)

R. Abbott, Station Superintendent (2)
W. Bandla, Unit 1 Asst. Supdt. Operations (2)
R. Brown, Instructor (1), (2), (4)
G. Brownell, Nuclear Regulatory Compliance (2)
S. Burton, Unit 1 Requalification Training (2)
G. Brownell, Nuclear Regulator Compliance (1)
J. Cobb, Facility Evaluator (2) (4)
M. Colomb, Operations Superintendent (1), (2), (4)
G. Corbin, Supervisor Simulator Tech. (1), (2)

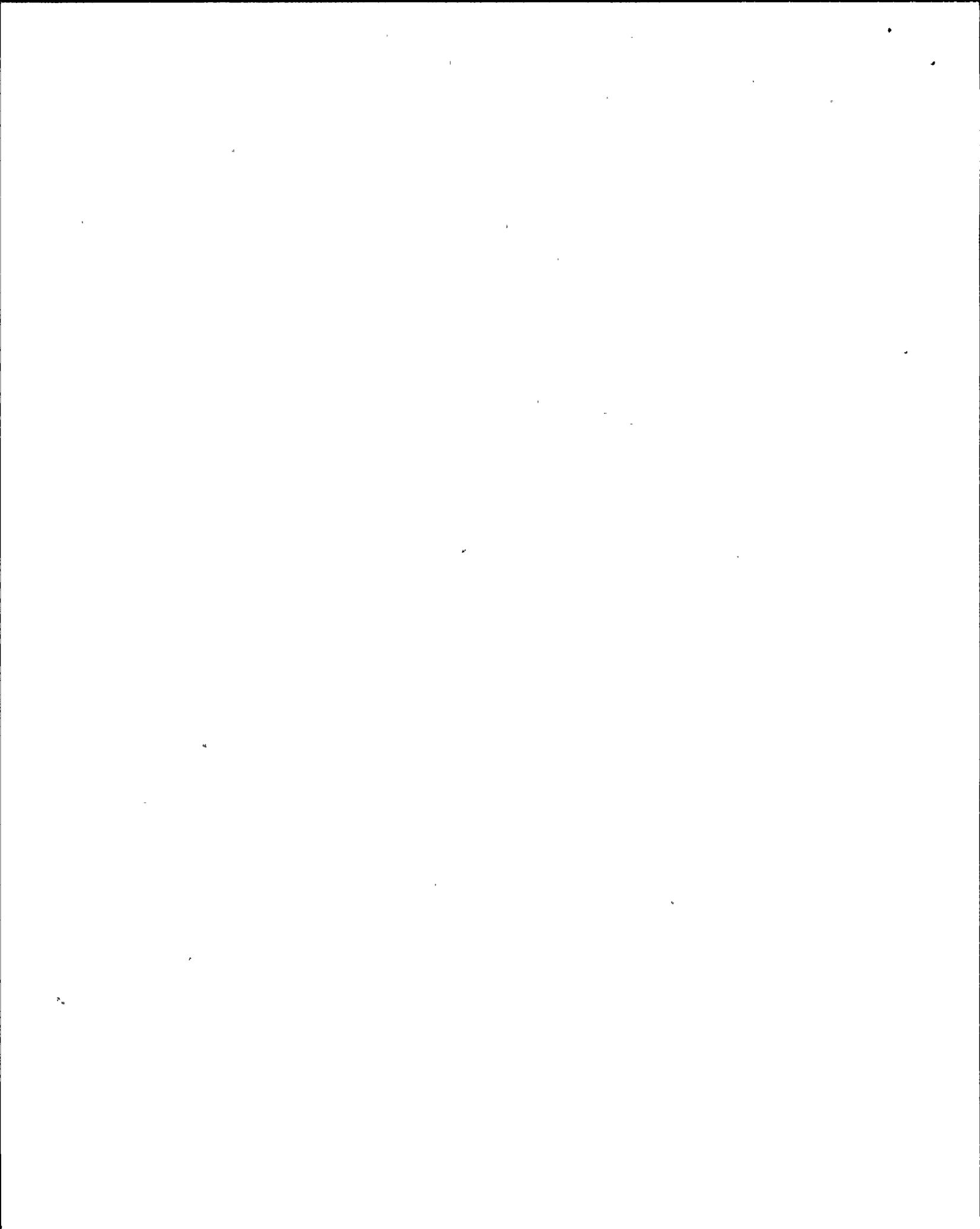
B. Hennigan, Instructor (1), (2), (3)
J. Kaminski, Unit 1 Operations Training (2)
J. Pointexter, Training Supervisor (1)
A. Rivers, Superintendent Training Nuclear (2)
R. Seifried, Asst. Supdt. Training (1) (2)
J. Throckmorton, Facility Evaluator (2), (4)
J. Toothaker, Facility Evaluator (2), (4)
E. Townsend, Operations, (2) (3)
P. Walsh, Facility Evaluator (2), (4)
B. Williamson, Facility Evalvator (2), (4)

2. Nuclear Regulatory Commission (NRC)

P. Bonnett, Operations Engineer (1), (2)
G. Buckley, Examiner (PNL) (2)
L. Larson, Examiner (PNL) (2)
R. Laura, Resident Inspector (2)
S. Pullani, Senior Operations Engineer (1), (2)
J. Williams, Senior Operations Engineer (1), (2)

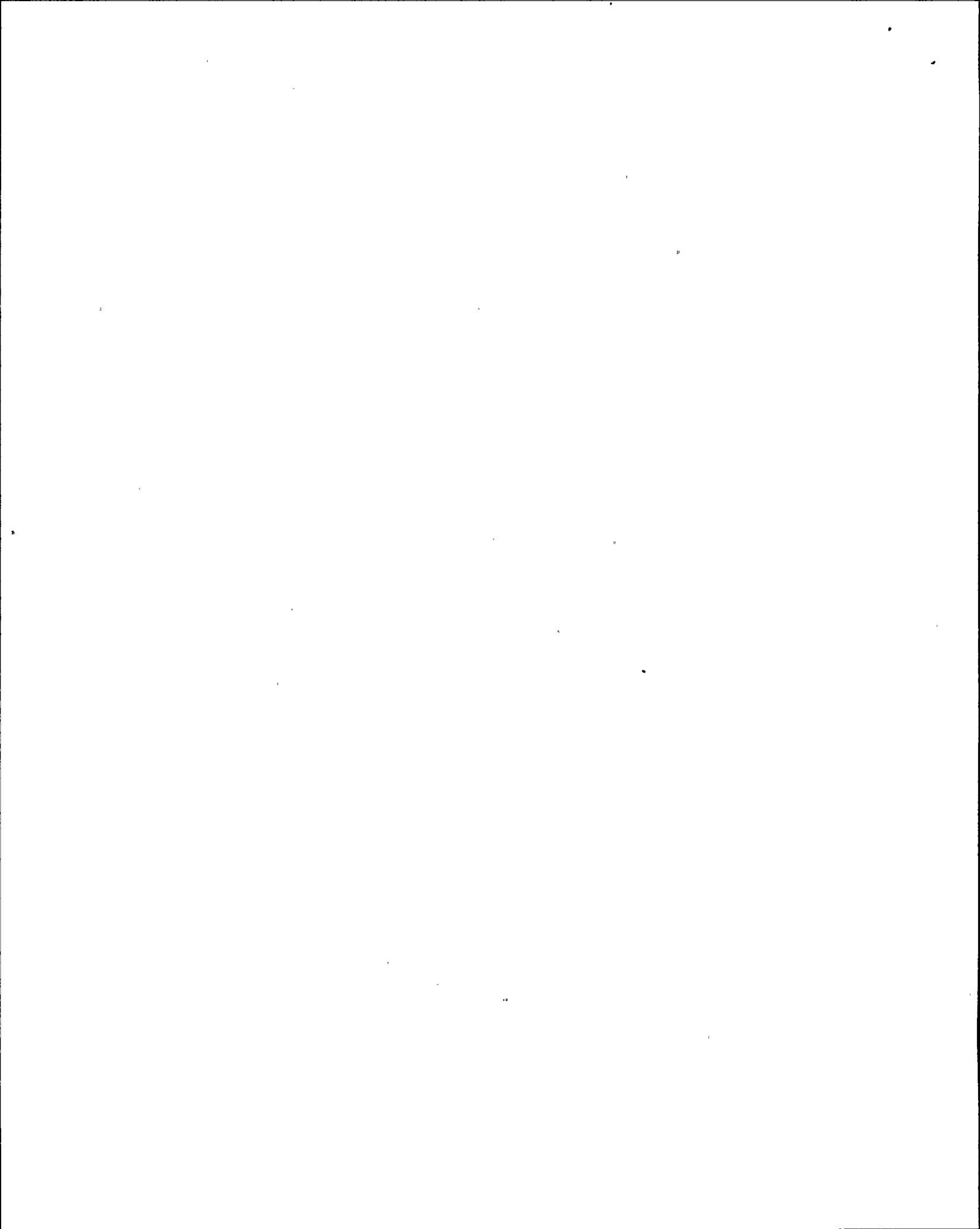
Notes

(1) Attended Entrance Meeting, April 9, 1990
(2) Attended Exit Meeting, May 4, 1990
(3) Member, Combined Facility/NRC Examination Team
(4) Facility Evaluator



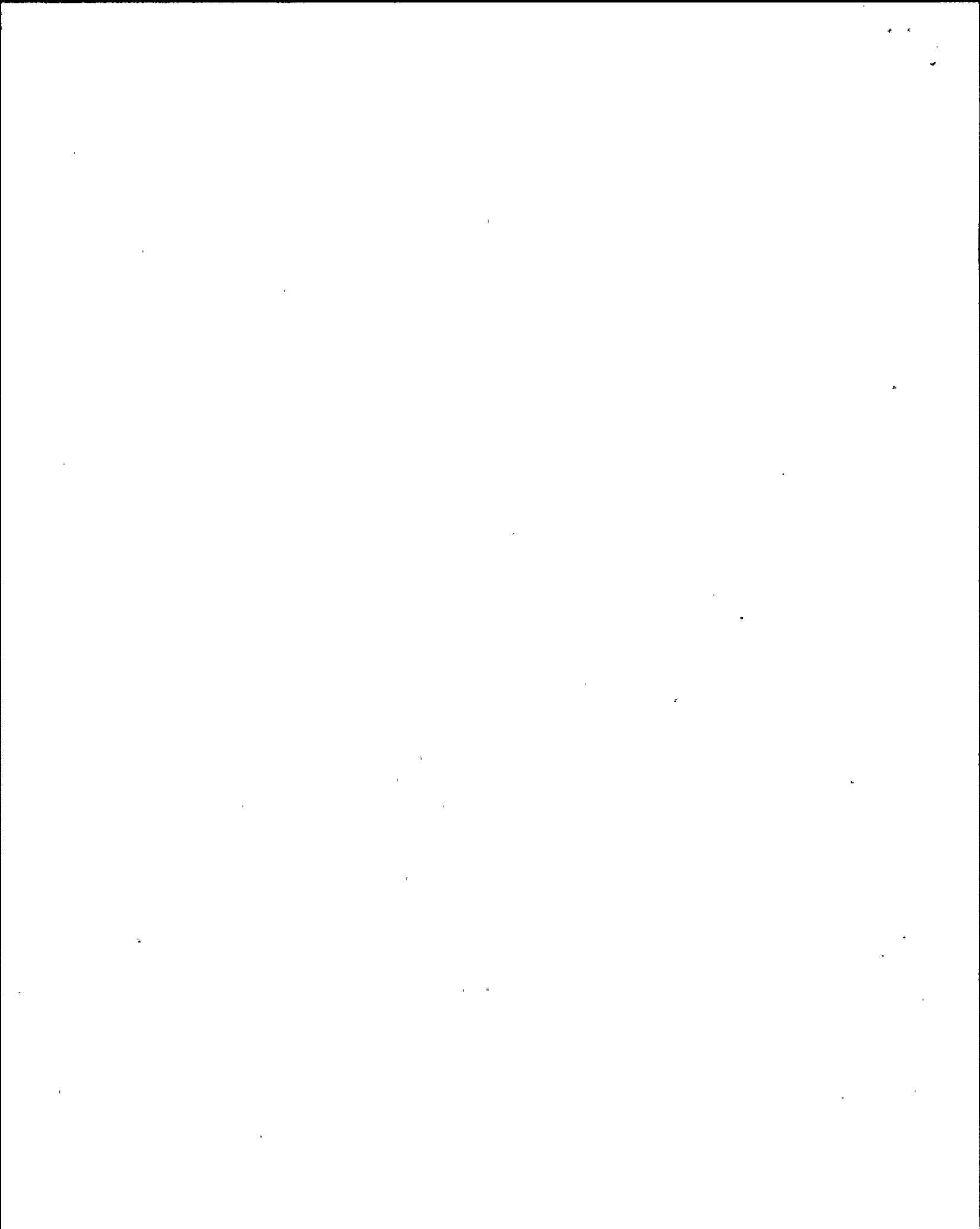
Attachment 2

Requalification Examination Test Items



EXAM ITEM MATRIX

NAME	SIM EXAM	JPM EXAM	WRITTEN EXAM
CANDIDATE 1	2	2	SRO 2
CANDIDATE 2	2	2	SRO 2
CANDIDATE 3	2	2	RO 2
CANDIDATE 4	2	2	RO 2
CANDIDATE 5	2	2	RO 2
CANDIDATE 6	1	1	SRO 1
CANDIDATE 7	1	1	SRO 1
CANDIDATE 8	1	1	RO 1
CANDIDATE 9	1	1	RO 1
CANDIDATE 10	1	1	RO 1
CANDIDATE 11	3	3	SRO 3
CANDIDATE 12	3	3	SRO 3
CANDIDATE 13	3	3	RO 3
CANDIDATE 14	3	3	RO 3
CANDIDATE 15	3	3	RO 3



SIMULATOR SCENARIOS

SIMULATOR EXAM #1

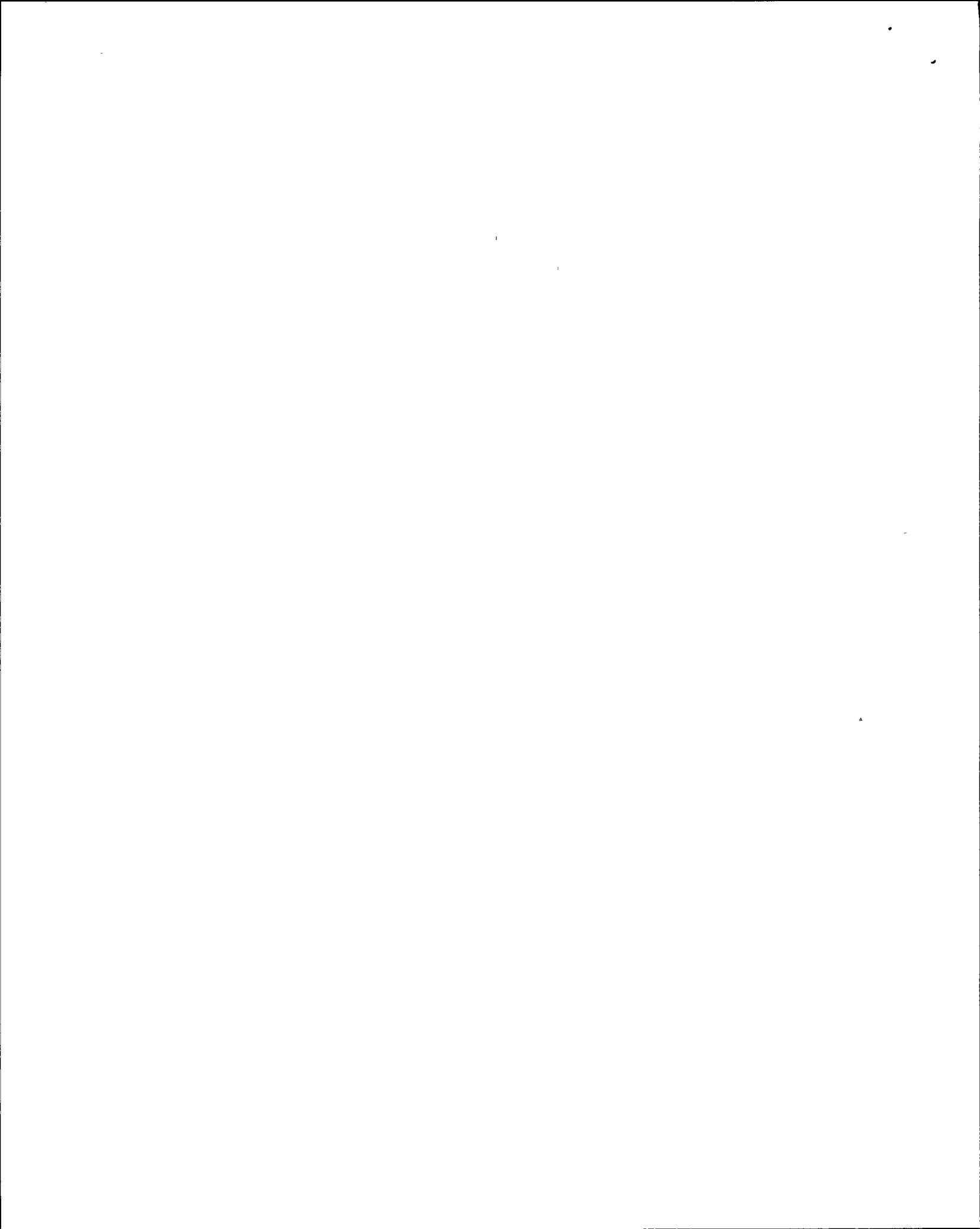
SCENARIO 02-REQ-009-1DY-2-14
SCENARIO 02-REQ-009-1DY-2-15

SIMULATOR EXAM #2

SCENARIO 02-REQ-009-1DY-2-14
SCENARIO 02-REQ-009-1DY-2-15

SIMULATOR EXAM #3

SCENARIO 02-REQ-009-1DY-2-14
SCENARIO 02-REQ-009-1DY-2-15



JPM'S

JPM EXAM #1

COMMON

02-REQ-SJE-264-2-44
02-REQ-SJE-200-2-55
02-REQ-SJE-200-2-10
02-REQ-PJE-262-2-66
02-REQ-PJE-296-2-74

UNCOMMON

02-REQ-SJE-259-2-46
02-REQ-SJE-203-2-48
02-REQ-SJE-206-2-58
02-REQ-PJE-200-2-63
02-REQ-PJE-264-2-65

JPM EXAM #2

COMMON

02-REQ-SJE-264-2-44
02-REQ-SJE-200-2-55
02-REQ-SJE-200-2-10
02-REQ-PJE-262-2-66
02-REQ-PJE-296-2-74

UNCOMMON

02-REQ-SJE-261-2-38
02-REQ-SJE-201-2-40
02-REQ-SJE-200-2-53
02-REQ-PJE-296-2-83
02-REQ-PJE-200-2-69

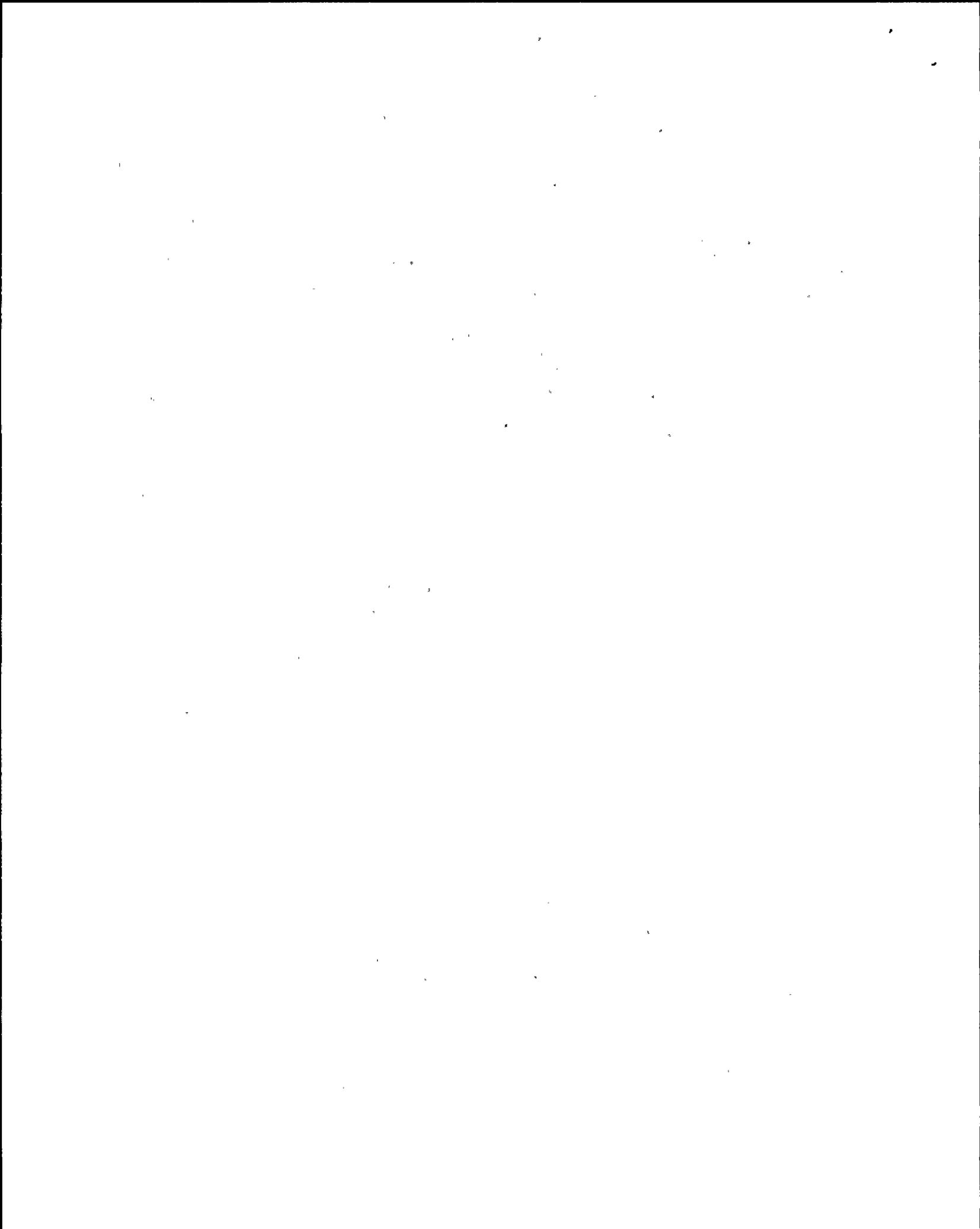
JPM EXAM #3

COMMON

02-REQ-SJE-264-2-44
02-REQ-SJE-200-2-55
02-REQ-SJE-200-2-10
02-REQ-PJE-262-2-66
02-REQ-PJE-296-2-74

UNCOMMON

02-REQ-SJE-205-2-8
02-REQ-SJE-253-2-24
02-REQ-SJE-200-2-50
02-REQ-PJE-296-2-86
02-REQ-PJE-200-2-71



WRITTEN EXAM RO-1

A1 - 02-REQ-009-1ST-2-29

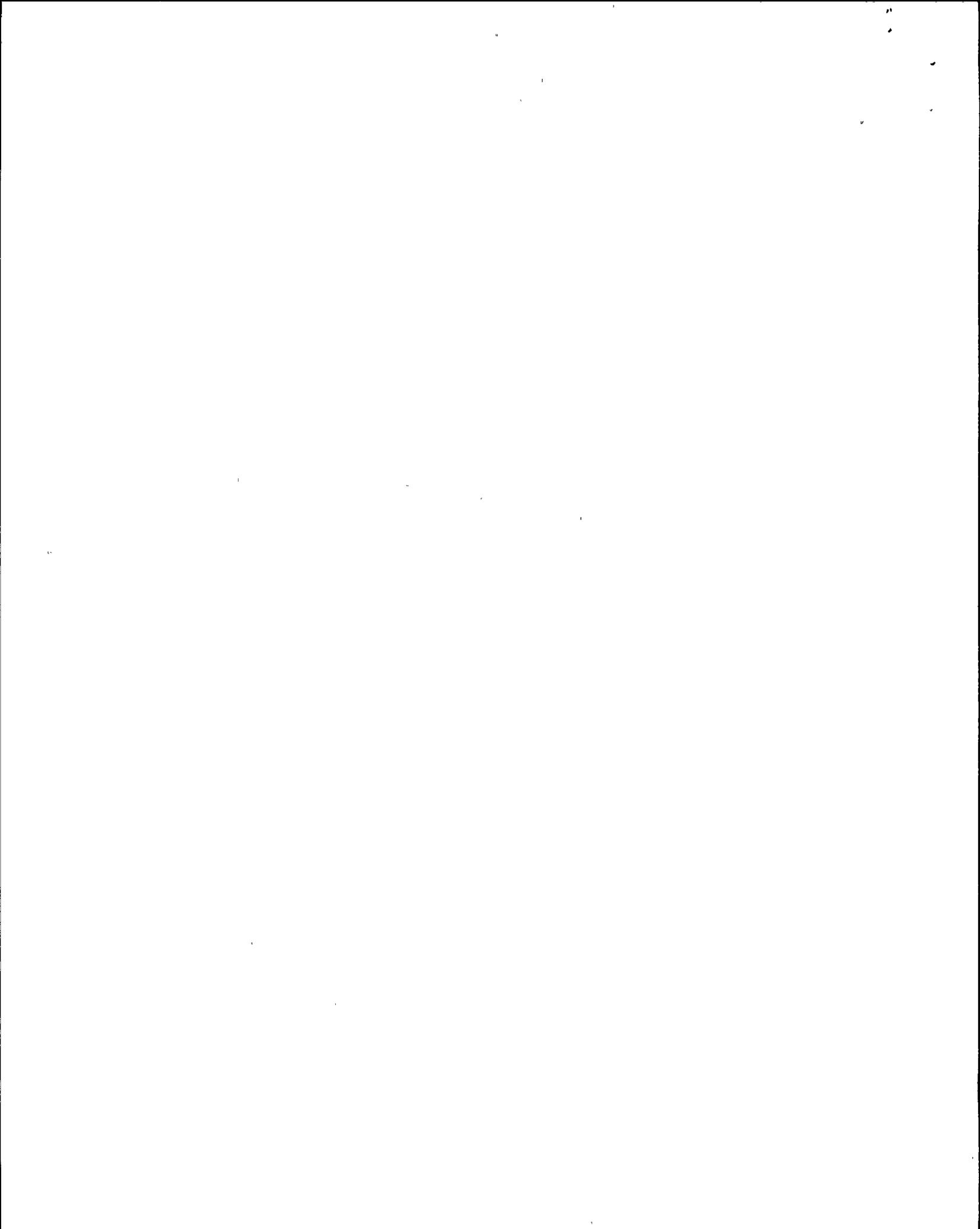
B

S04
S05
S06
S07
S08
S10
S11
S12
S13

2000110501-B01
2000200501-B02
2000270501-B03
2000400501-B01
2009230501-B01
2010100101-B01
2019230101-B01
2020060101-B01
2020060101-B02
2040010101-B01
2049110101-B01
2059330101-B01
2119090401-B01
2150230101-B03
2189030401-B01
2239220101-B01
2490020101-B01
2539060401-B05
2569090401-B01
2619010101-B01
2889230101-B02

A2 - 02-REQ-009-1ST-2-36

S03
S04
S05
S06
S07
S08
S09
S10
S11
S12



WRITTEN EXAM RO-2

A1 - 02-REQ-009-1ST-2-22

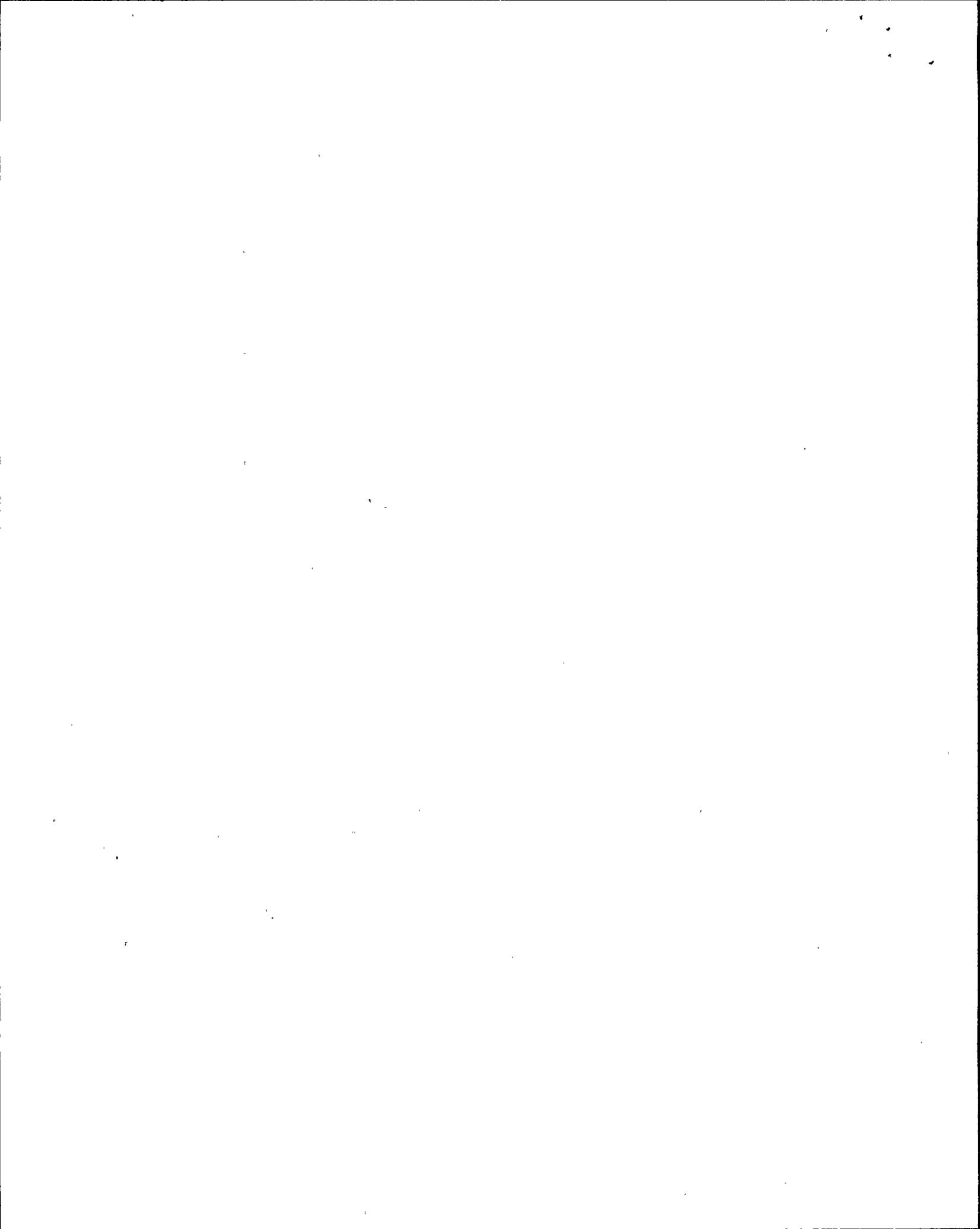
S04
S05
S06
S07
S08
S09
S10

B

2000130501-B01
2000310501-B01
2000690501-B01
2009230501-B01
2010080101-B01
2010130101-B01
2029180101-B01
2029360101-B01
2059300101-B01
2090040101-B01
2119010401-B01
2119170101-B01
2150230101-B01
2230220101-B02
2439070101-B03
2490020101-B02
2539060401-B03
2740050101-B01
2769100401-B02
2889390101-B01
2949040401-B01
2969010101-B01

B1 - 02-REQ-0090-1ST-2-40

S03
S04
S05
S06
S07
S08
S09
S10



WRITTEN EXAM RO-3

A1 - 02-REQ-009-1ST-2-30

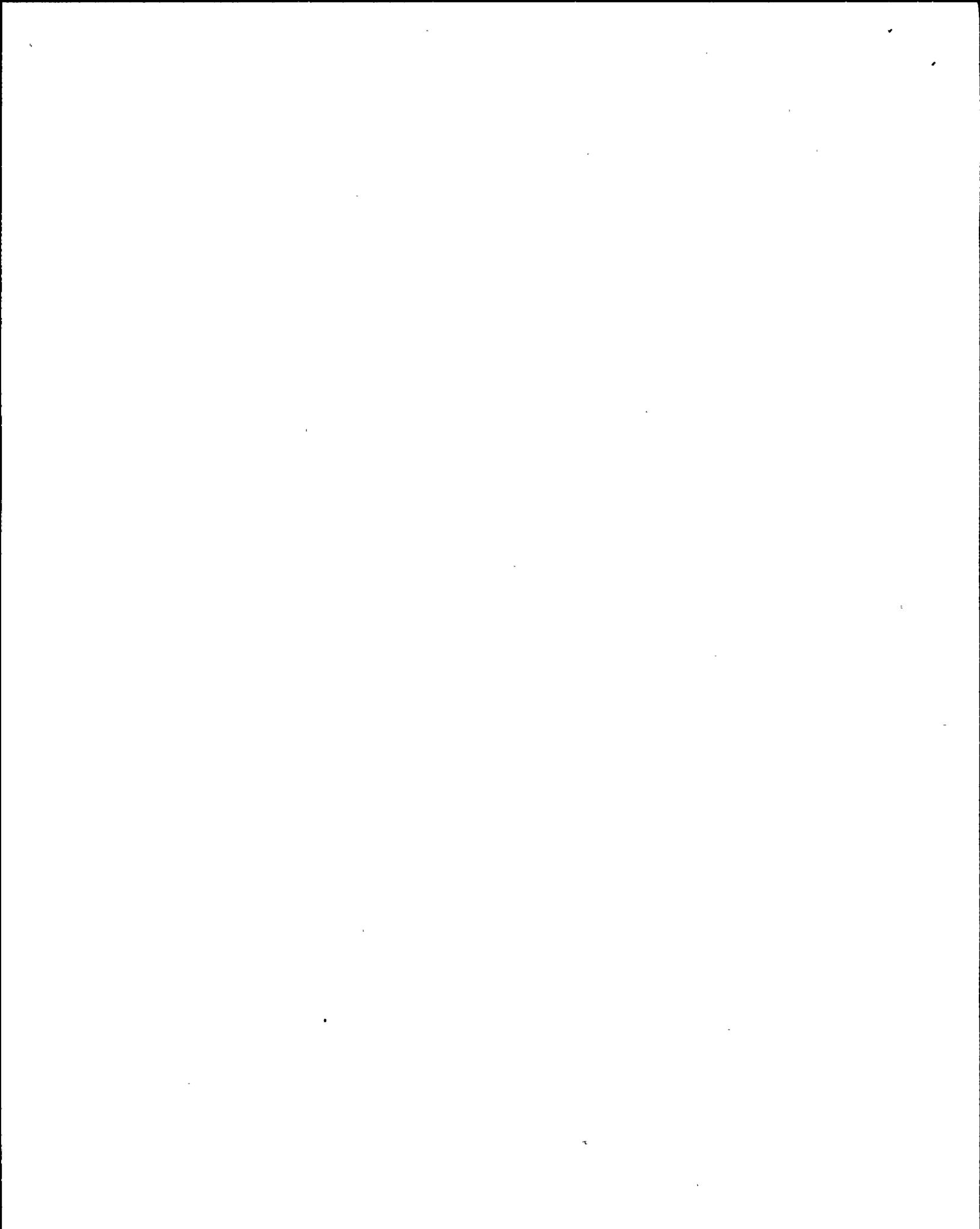
B

S02
S03
S04
S05
S06
S07
S08
S09
S10
S11

2000020501-B01
2000160501-B01
2000310501-B01
2000400501-B01
2000690501-B02
2009230501-B01
2020060101-B03
2059330101-B01
2059380101-B01
2089130401-B01
2110040101-B03
2119090401-B01
2150220101-B01
2189120601-B01
2230020101-B01
2399150401-B01
2549010401-B01
2760040101-B01
2850070101-B01
2889040101-B03
2949010101-B01

A2 - 02-REQ-009-1ST-2-35

S03
S04
S05
S06
S07
S08
S09
S10
S11
S12



WRITTEN EXAM SRO-1

A1 - 02-REQ-009-1ST-2-29

B

S02

2000200501-B02

S03

2000270501-B02

S04

2009230501-B01

S06

2010100101-B01

S07

2019230101-B01

S08

2020060101-B01

S10

2020060101-B02

S11

2040010101-B01

S13

2049110101-B01

2119090401-B01

A2 - 02-REQ-009-1ST-2-36

2150230101-B03

S01

2189030401-B01

S02

2539060401-B05

S03

2569090401-B01

S04

2889230101-B02

S06

3410180303-B03

S07

3410180303-B09

S08

3440390303-B02

S09

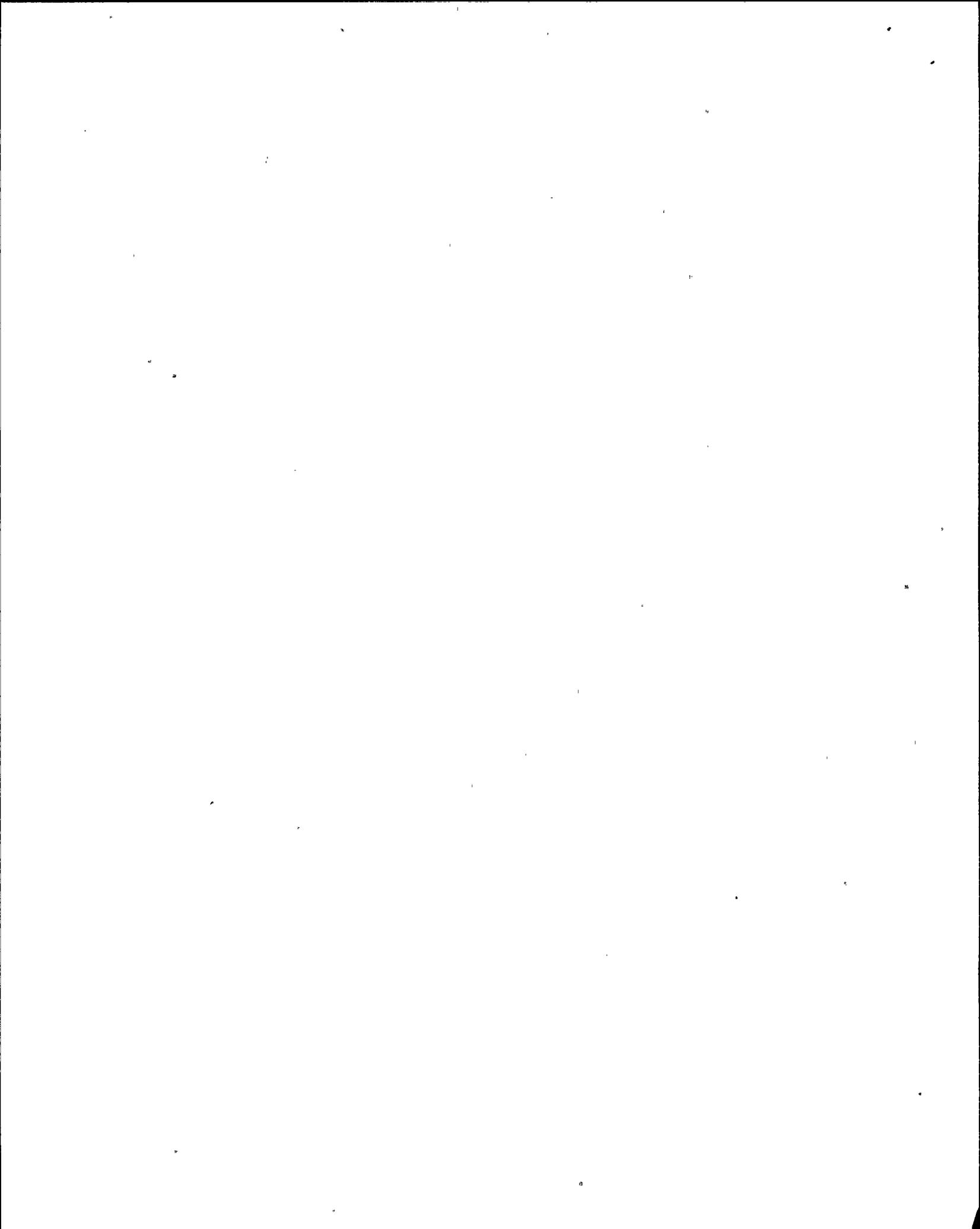
3449400603-B01

S11

3449560603-B02

S12

3450420503-B03



WRITTEN EXAM SRO-2

A1 - 02-REQ-009-1ST-2-22

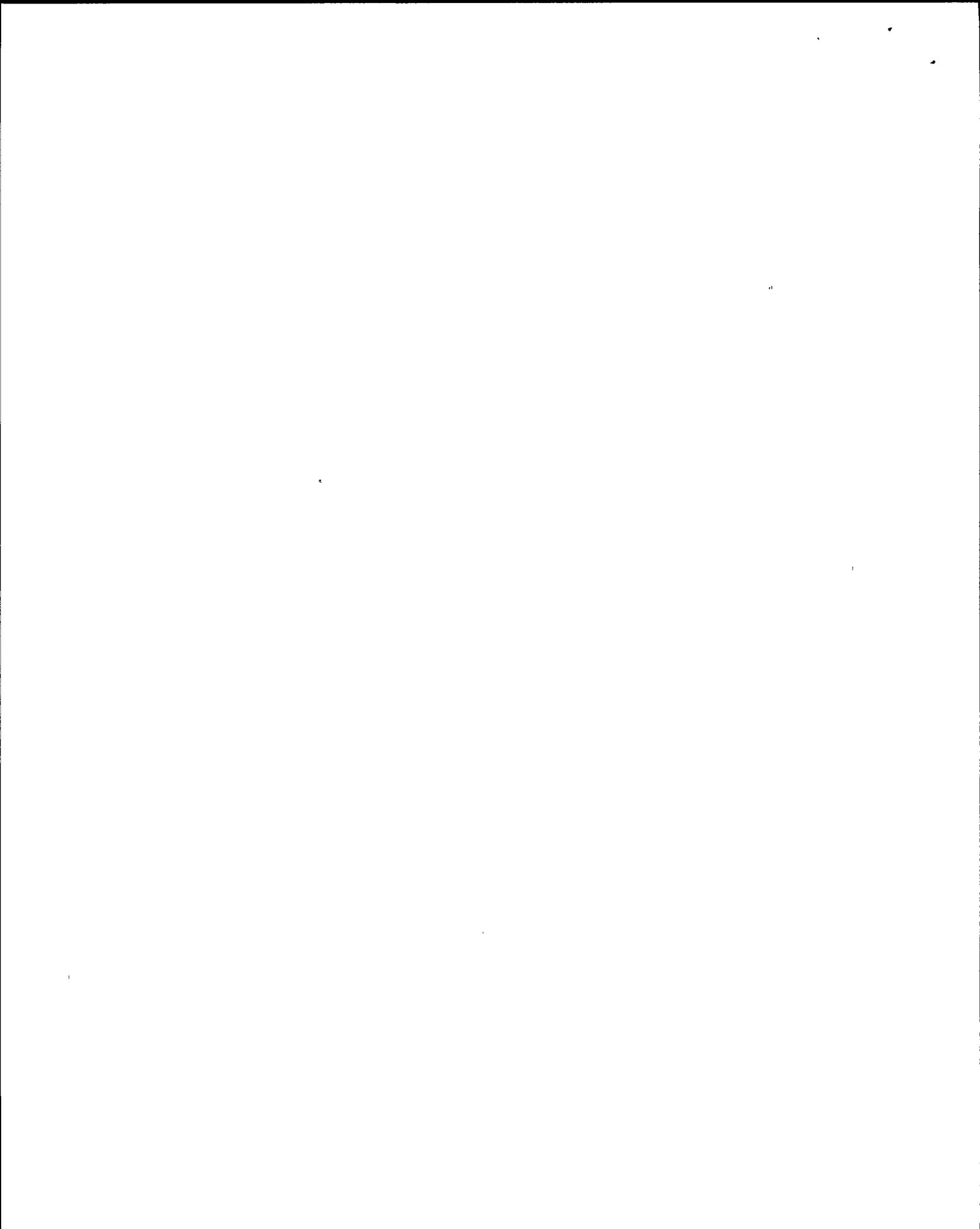
B

S01
S03
S05
S07
S08
S09
S10

2000400501-B01
2009230501-B01
2010080101-B01
2029180101-B01
2029360101-B01
2059330101-B01
2090040101-B01
2119010401-B01
2119170101-B01
2150230101-B01
2230220101-B02
2439070101-B03
2539060401-B03
2740050101-B01
2769100401-B02
2889390101-B01
2949040401-B01
2969010101-B01
3410330303-B01
3440150303-B01
3440170303-B01
3440310303-B04

A2 - 02-REQ-009-1ST-2-40

S01
S02
S03
S05
S06
S07
S08
S10



WRITTEN EXAM RO-3

A1 - 02-REQ-009-1ST-2-30

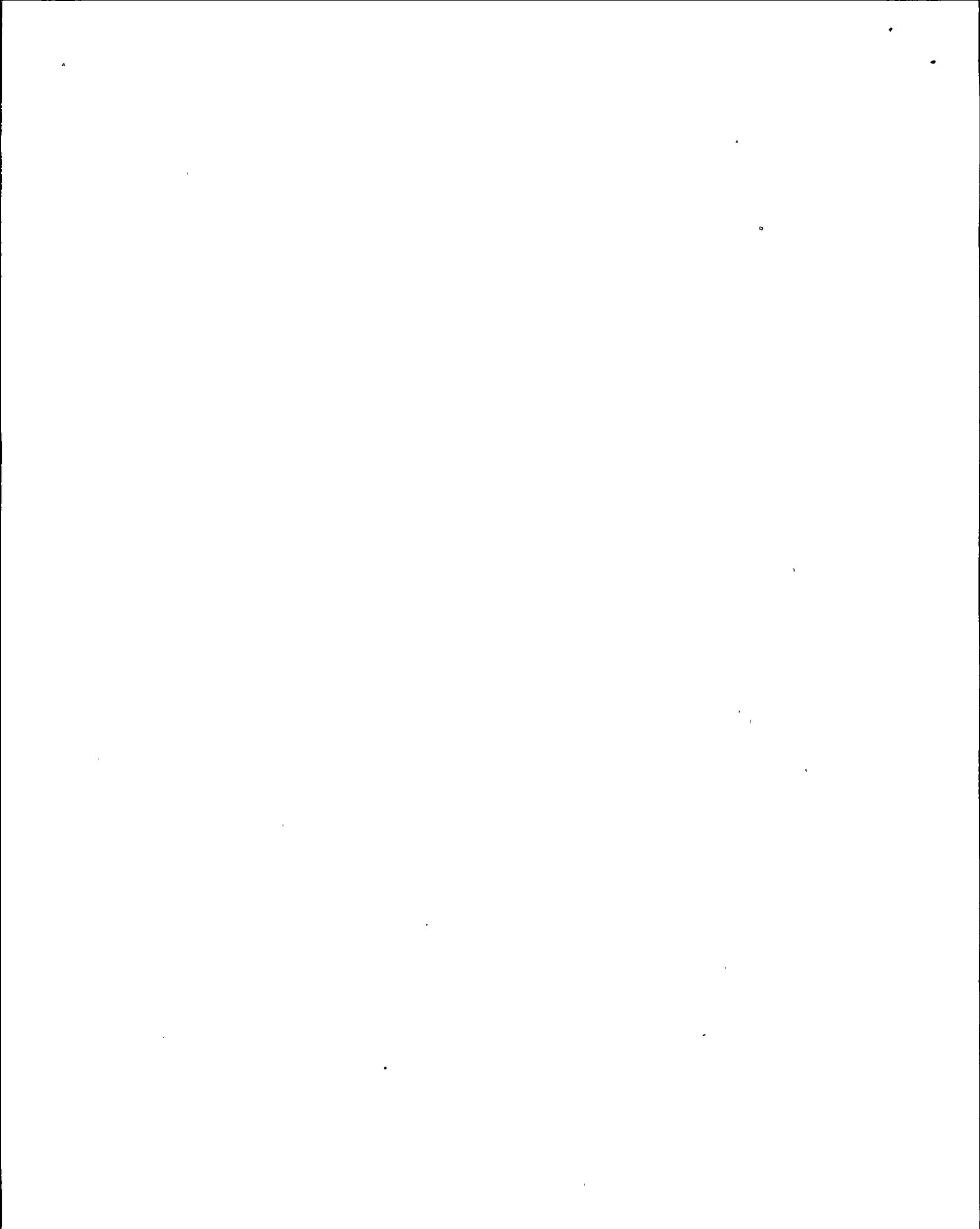
S01
S02
S03
S04
S05
S06
S07
S08
S09
S11

A2 - 02-REQ-009-1ST-2-35

S01
S02
S03
S04
S05
S06
S08
S09
S10
S12

B

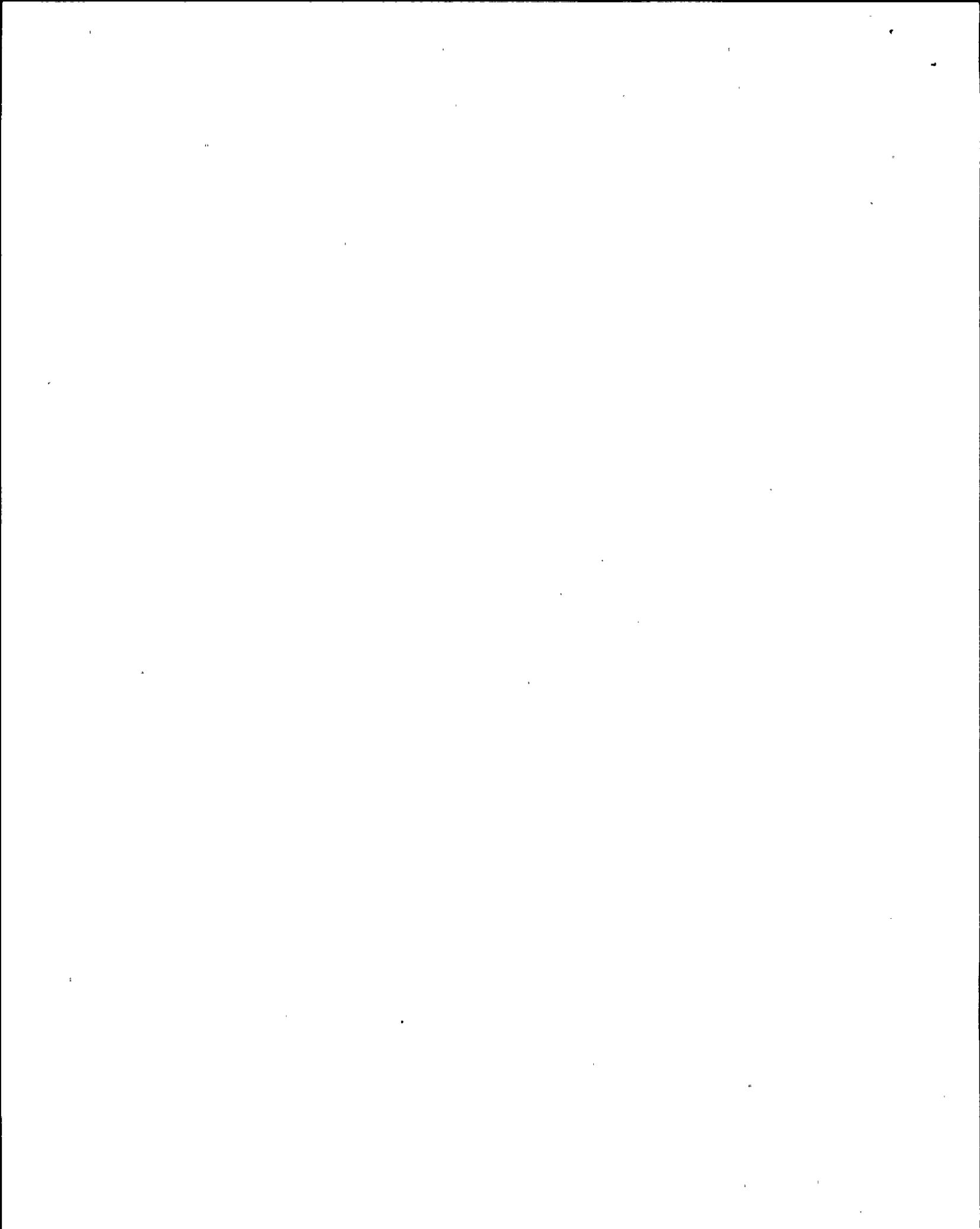
2000020501-B01
2000160501-B01
2000310501-B02
2000400501-B01
2010170101-B01
2019100401-B01
2020060101-B03
2059330101-B01
2089130401-B01
2150220101-B01
2230020101-B01
2399150401-B01
2549010401-B01
2760040101-B01
2889040101-B03
3410180303-B04
3410180303-B10
3449390603-B02
3449410603-B01
3449530603-B01
3450420503-B01



Attachment 3

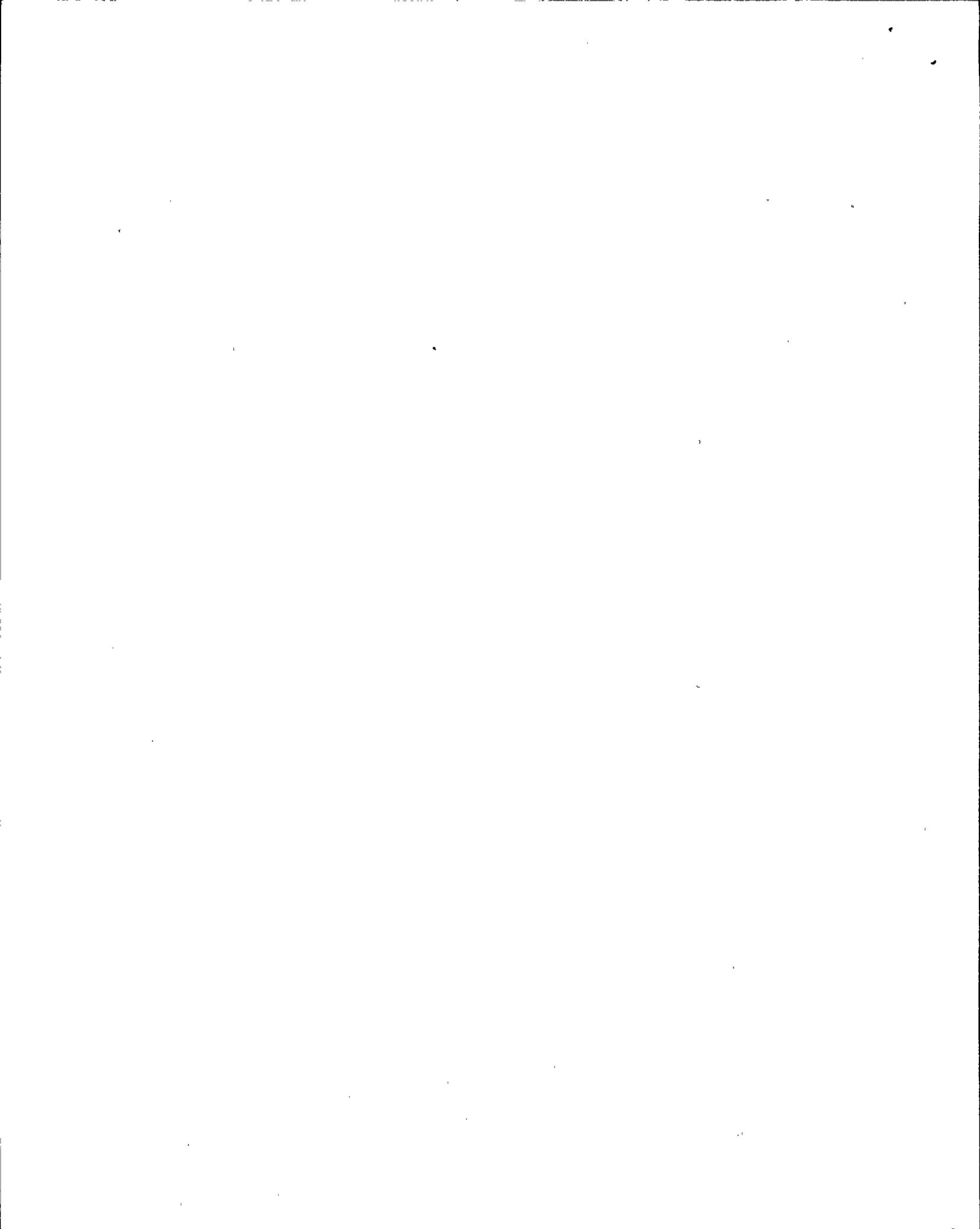
Documents Reviewed

<u>Number</u>	<u>Title</u>	<u>Revision</u>
NTP-11	Licensed Operator Requalification Training	8
OPS/2070	Licensed Operator Requalification Training Biennial Schedule 90/91	2 NA
NMP-63431	Memo. from A. Rivers to J. Willis; March 21, 1990; Subject: NMP-2 Requalification Training Cycle Status Report through Cycle 2, 90/91	NA
OPS/2067	Licensed Operator Requalification Training Cycle C02 90/91 Schedule (Feb. 5, 1990- March 9, 1990)	NA
02-REQ-001-221-2-01	Containment Entry and Exit (Lesson Plan)	0
02-REQ-0009-TRA-2-01	Loss of Electrical Power/Loss of SSW (Simulator Lesson Plan)	Dec. 89
NA	Selected training records	NA



Attachment 4

Licensee Results



NINE MILE POINT NUCLEAR STATION /P.O. BOX 32 LYCOMING, NEW YORK 13093 /TELEPHONE (315) 343-2110

May 18, 1990

Mr. Timothy Martin
Regional Administrator
ATTN: Mr. Robert M. Gallo
Branch Chief
United States Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, PA 19406

Dear Mr. Martin:

Attached are the facility grades for the NRC evaluated Operator Requalification Examinations administered at Niagara Mohawk Power Corporation, Nine Mile Point Unit 2 during the week of April 30, 1990. A summary of our results as compared to the program evaluation criteria of NUREG 1021 ES-601 and a self evaluation of our Licensed Operator Requalification Program are also included. Please feel free to contact me if any further information is desired. Thank you for your cooperation and the cooperation of your staff.

Sincerely,

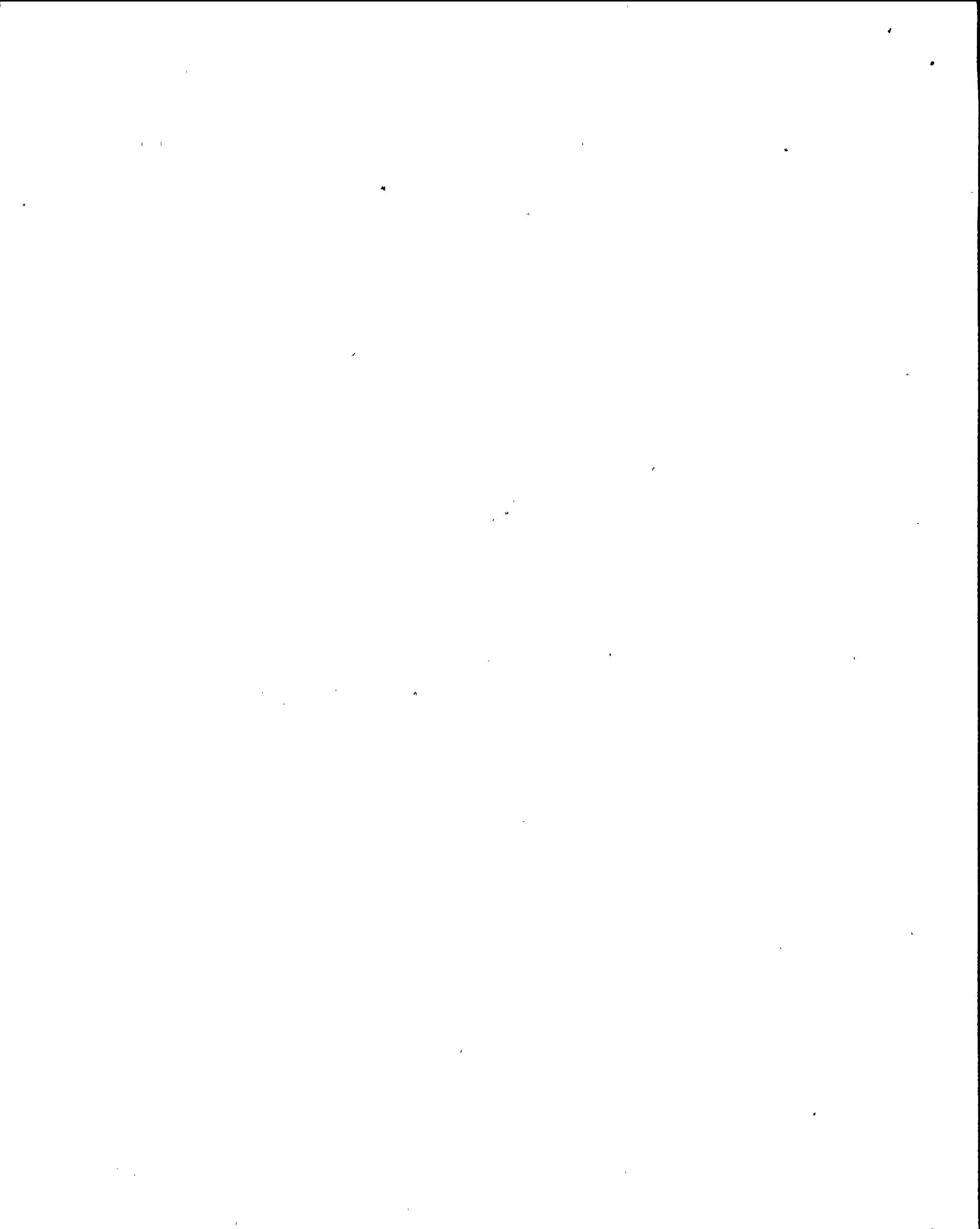


J. L. Willis
General Superintendent-Nuclear Generation

JLW/JGP/kab

Attachments

cc: S. Pullani (USNRC)



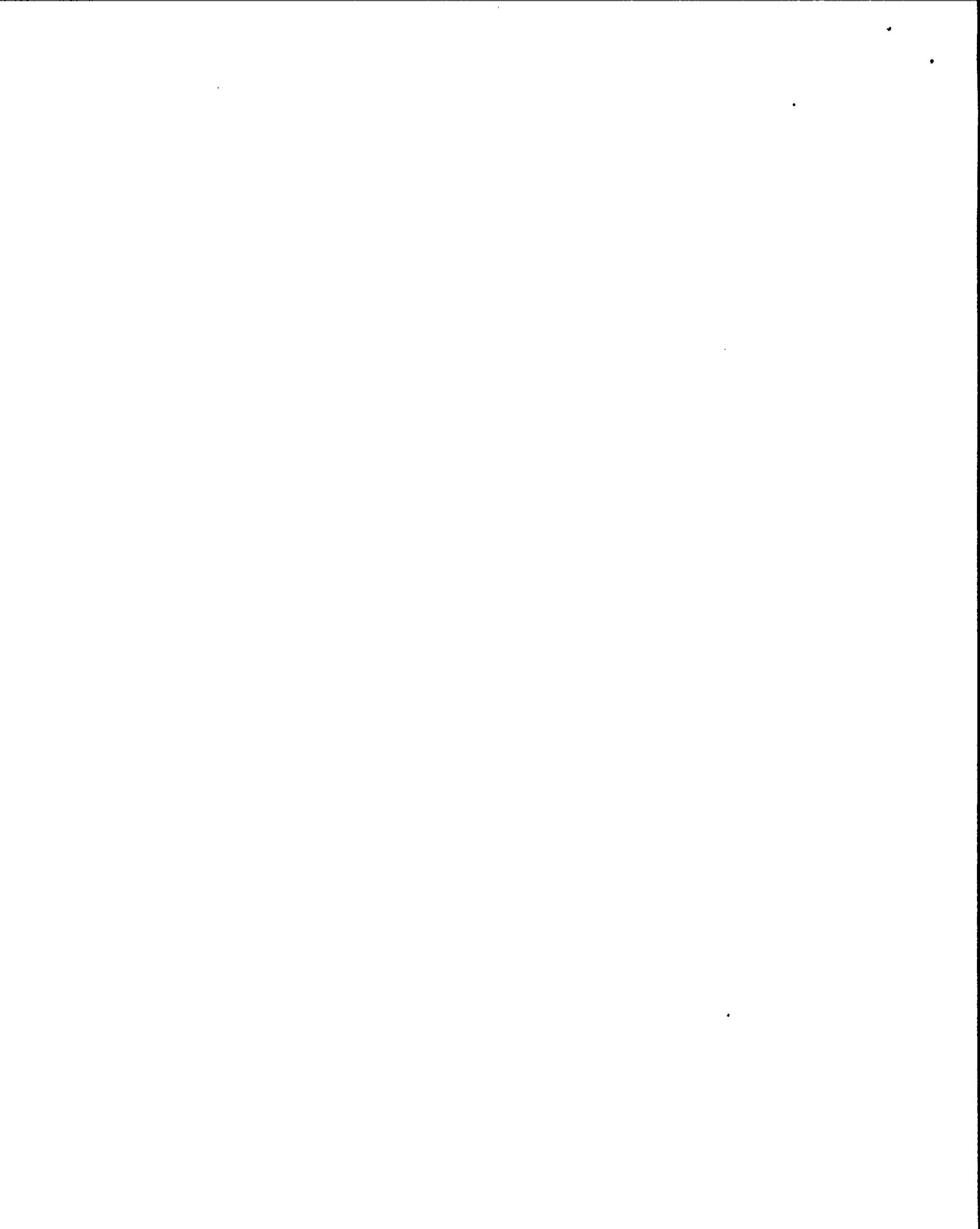
LICENSED OPERATOR REQUAL PROGRAM

SELF-EVALUATION

Executive Summary

During the week of April 30, 1990, NRC administered Requal Exams were given at Nine Mile Point Unit 2. Fifteen individuals comprising three control room teams were examined. Results are as follows:

- * All three control room teams were satisfactory.
- * Six of six SROs passed the simulator exam.
- * Nine of nine ROs passed the simulator exam.
- * All fifteen operators passed the walkthrough exam.
- * All fifteen operators passed the written exam.
- * All Program Evaluation Criteria that can be evaluated by the facility were satisfied.
- * More emphasis is needed on communications during normal operations.
- * The exam bank needs to be improved in several areas.
- * The program has shown significant improvement since the 1989 exam failure.



1.0 EXAM RESULTS

1.1 Individual Exam Results

Note: Fifteen operators took the exam. Only fourteen are counted for the program evaluation since one operator was a "retake" candidate.

	RO Pass/Fail	SRO Pass/Fail	TOTAL Pass/Fail
WRITTEN	8/0	6/0	14/0
SIMULATOR	8/0	6/0	14/0
WALKTHROUGH	8/0	6/0	14/0
OVERALL	8/0	6/0	14/0

A more detailed summary by candidate is attached. Attachment 1 gives the grades for each section of the exam by candidate. Attachment 2 is a matrix showing all exam items given to each candidate.

1.2 Generic Strengths and Weaknesses

Strengths

Use of Operating Procedures

SSS control of the shift

Recognition of off normal events prior to alarm

Alarm response was timely with good action

Overall operator task performance

Weaknesses

Communications during normal operations could be improved.

SSS did not always inform the control room shift of equipment which had been declared inoperable

Operators did not always ensure that the SSS acknowledged reports

SSS had to ask for a parameter and then the parameter trend during emergency events

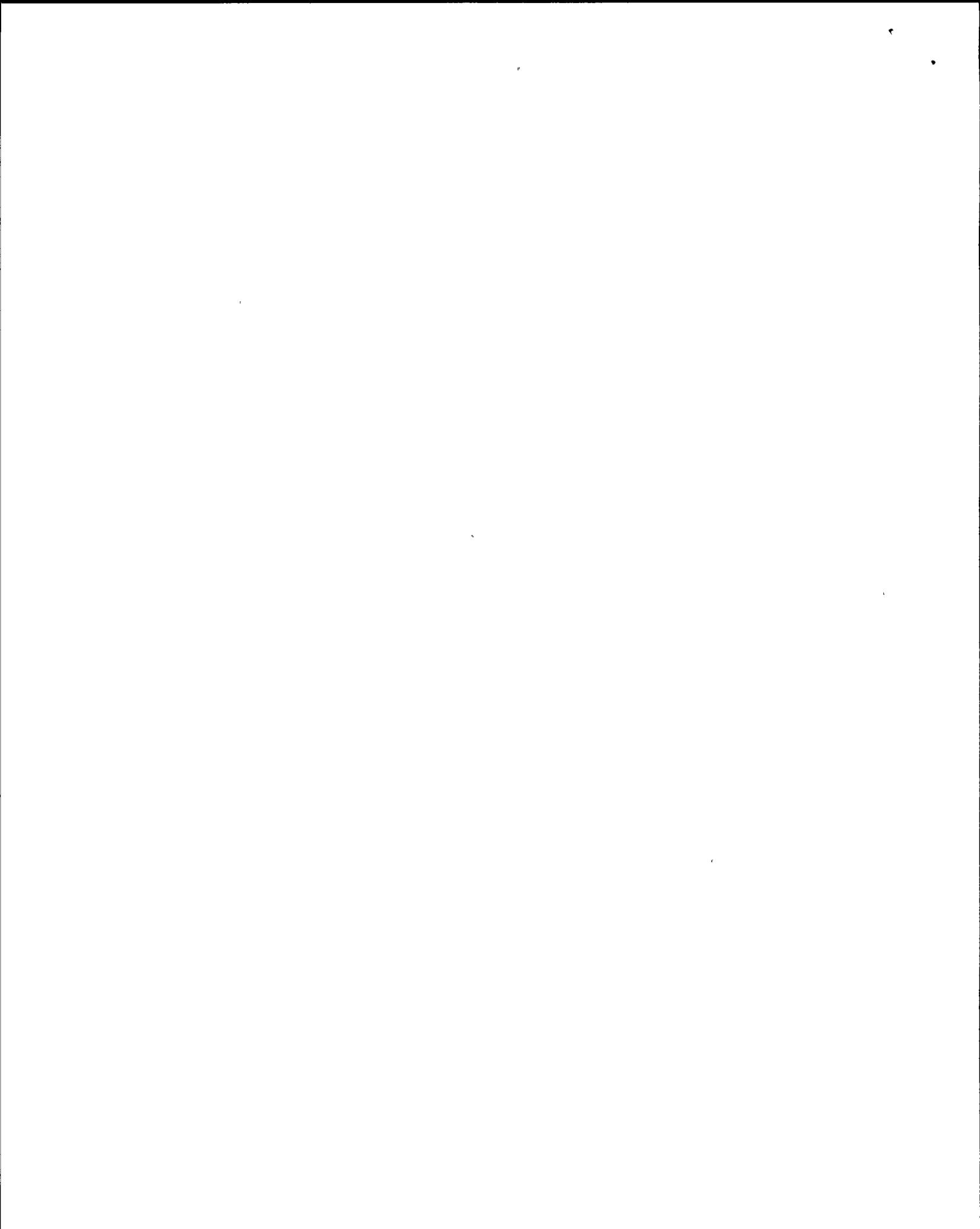
Roles are not always clearly demonstrated during emergencies

2.0 Program Evaluation

The Nine Mile Point Unit 2 Requal Program meets the criteria of ES-601 Rev. 5 as follows:

-2 May 1990

NRCU2/408



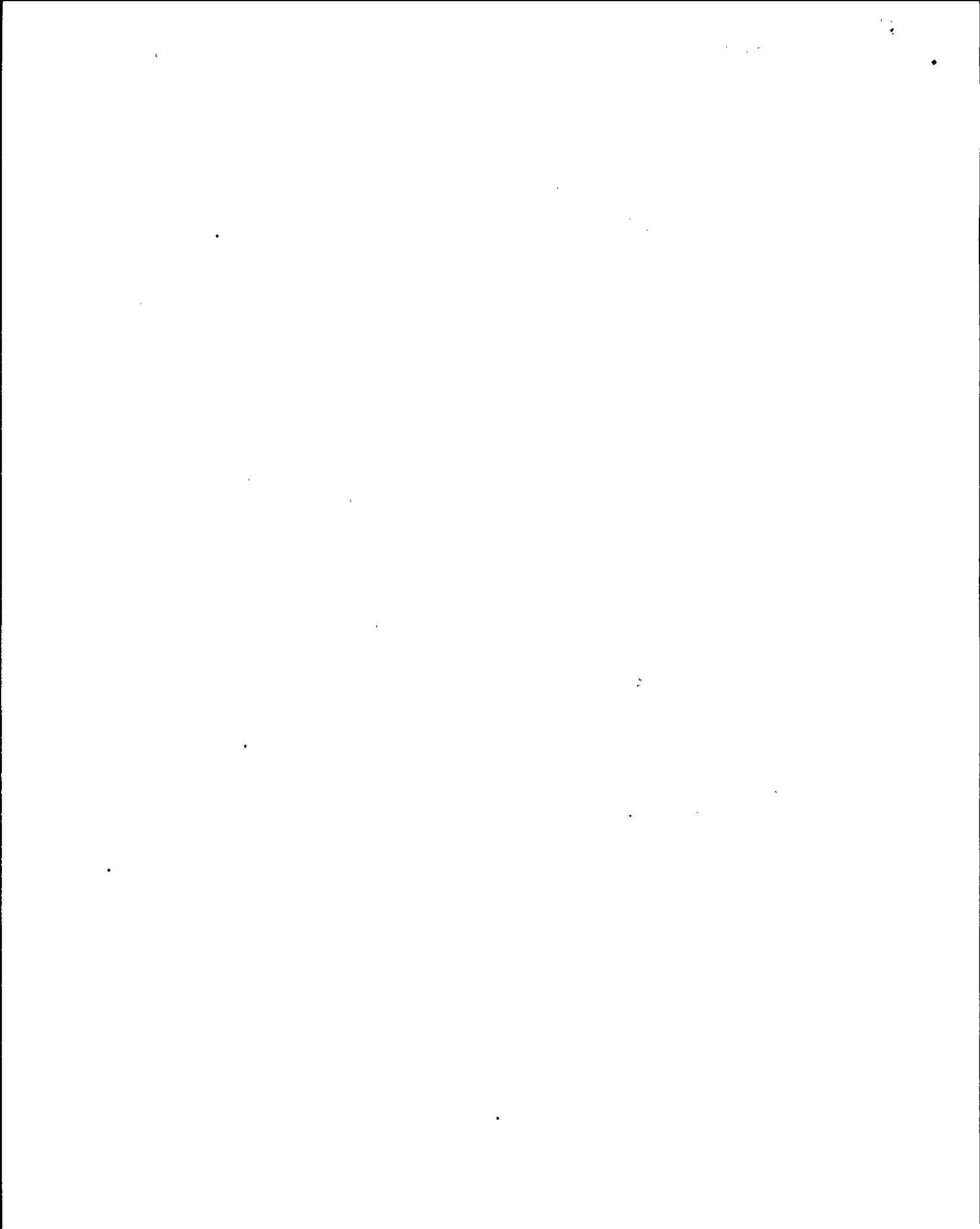
- 2.1 100% of the operators passed the exam. This exceeds the 75% requirement of C.3.b.(1)(b).
- 2.2 The program meets the requirements of 10-CFR-55.59 (c)(2),(3) and (4). C.3.b. (1)(d)
- 2.3 One common JPM was failed by two of the fourteen operators. No other common JPM was failed by more than one operator. This satisfies the criteria of C.3.b(2)(a).
- 2.4 No common JPM question was missed by more than one operator. This satisfies the criteria of C.3.b(2)(b).
- 2.5 SROs and ROs were rotated into all the licensed positions they would be expected to fulfill at Nine Mile Point Unit 2. This satisfies the criteria C.3.b.(2)(c).
- 2.6 Operators were trained for in plant JPMs satisfying the criteria of C.3.b.(2)(d).
- 2.7 100% of the operators answered at least 80% of their common JPM questions correctly satisfying the criteria of C.3.b.(2)(e).
- 2.8 All control room crews were satisfactory, satisfying the requirements of D.1.c.(2)(c)4.
- 2.9 All operators passed the walkthrough exam satisfying the requirement of D.2.c.(2)(b)(2).
- 2.10 All operators passed the written exam, satisfying the requirements of D.3.c.(2)(b).

3.0 Lessons Learned

3.1 Exam Preparation

The following items became apparent during the exam process. They will be corrected in preparing for our next exam.

- * The formality of exam preparation needs to improve. Documentation of the steps in the process needs to be developed and retained.
- * Exam questions prepared from industry events need to reference the event.
- * Job Performance Measures need questions written to a higher cognitive level.
- * Job Performance Measures need questions unique to the SRO candidate.
- * Job Performance Measures could have more than two questions to allow evaluators more flexibility.

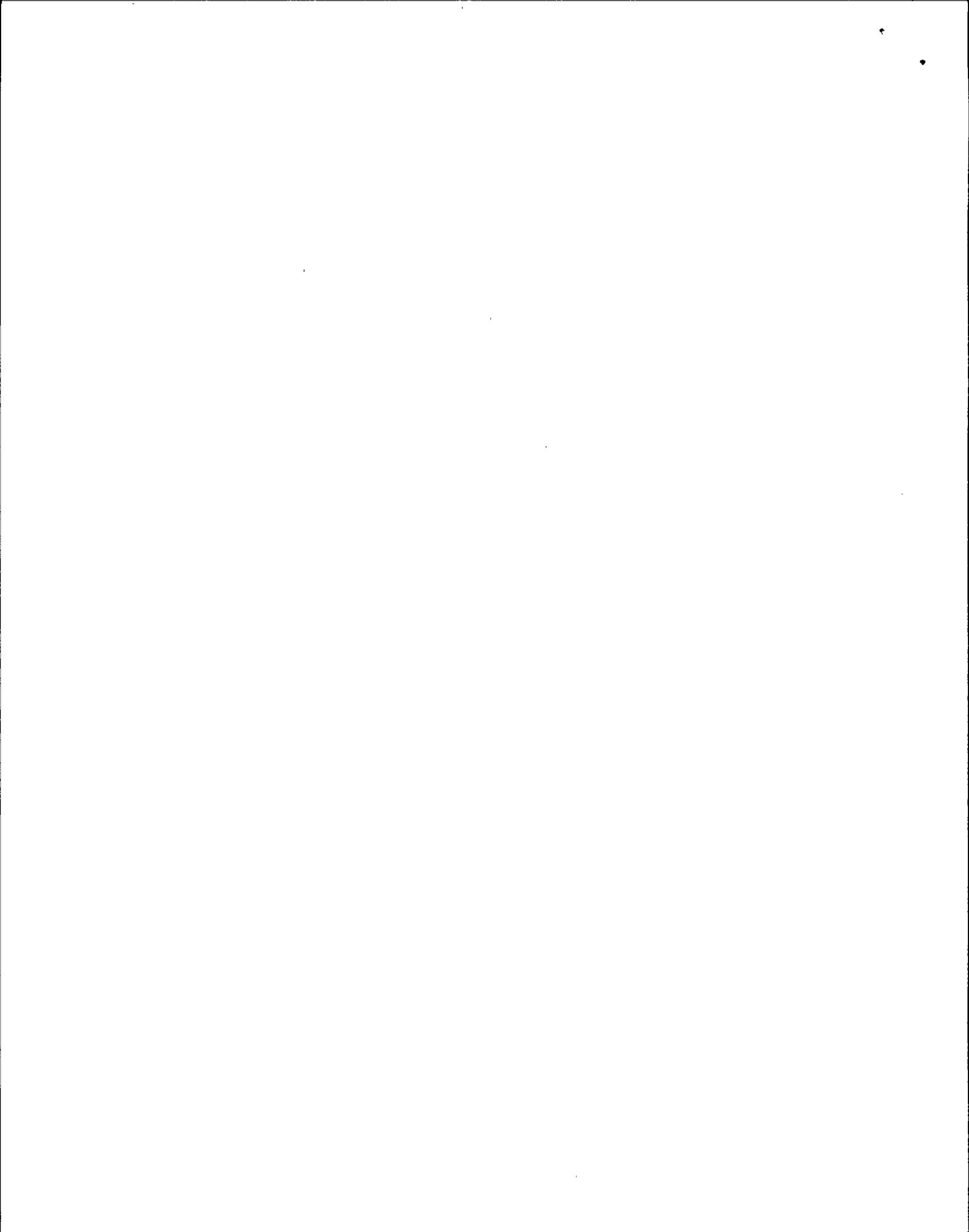


- * More Limits and Control questions on EOPs need to be developed to match the sample plan.
- * An exam bank review for double jeopardy and direct lookup questions needs to be done.

3.2 Plant Operations

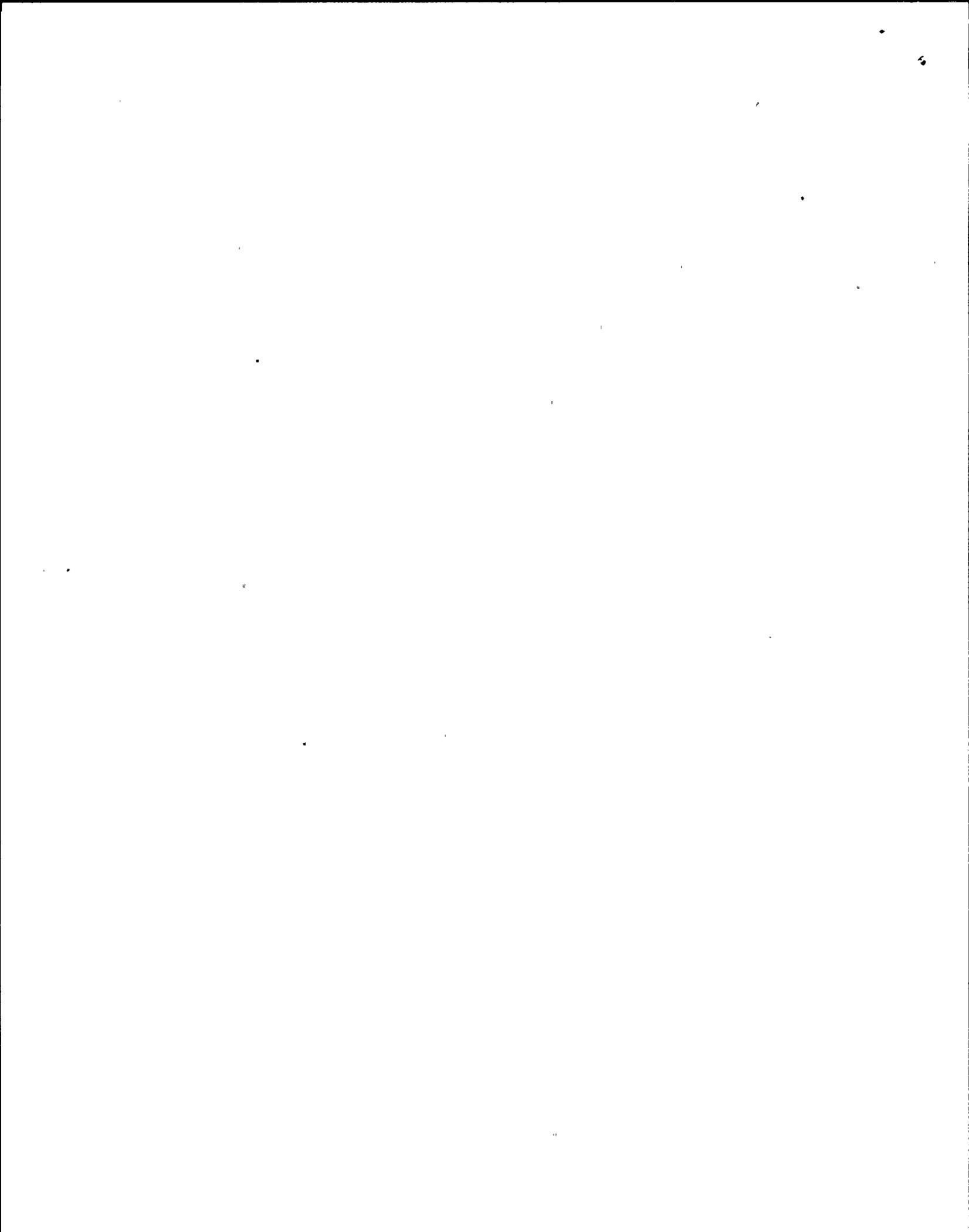
- * Normal plant operation communications will continue to be stressed in training.
- * Operator roles during emergency situations will continue to be stressed in training.
- * Reporting parameters and the trends will continue to be stressed in training.

Note: Operating Department Instructions and recently revised Nuclear Training Instructions provide the necessary guidance to address the areas for improvement noted above and will continue to be emphasized during training.



POWER PLANT REQUALIFICATION RESULTS SUMMARY SHEET

Name	Written Score	JPMs %	Quest. %	Simul. P/F	Results Written/Operating
Candidate 1	100	100	100	P	P / P
Candidate 2	94.9	100	100	P	P / P
Candidate 3	86.7	90	100	P	P / P
Candidate 4	92.0	100	95	P	P / P
Candidate 5	92.8	80	100	P	P / P
Candidate 6	86.4	100	90	P	P / P
Candidate 7	90.1	90	90	P	P / P

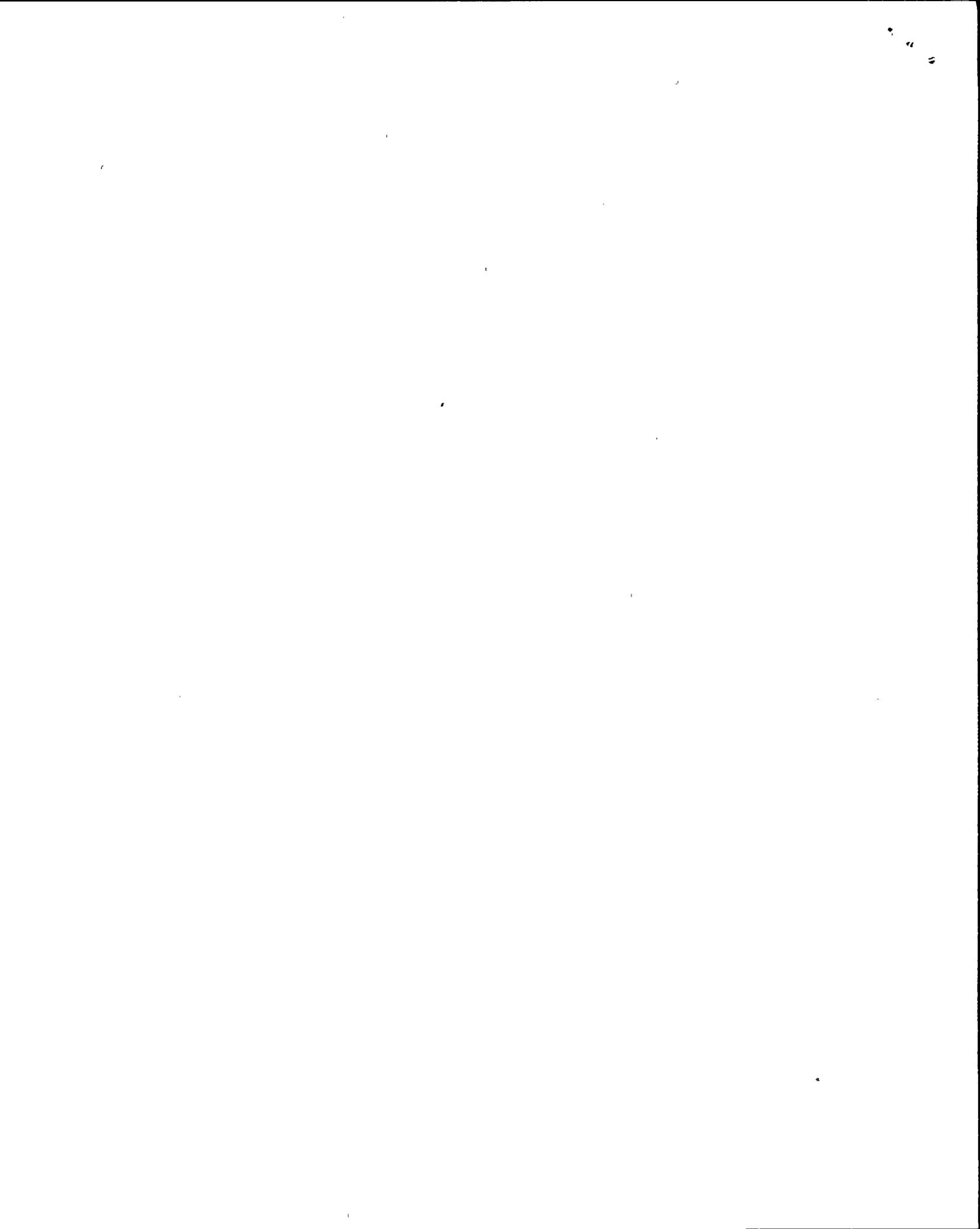


POWER PLANT, REQUALIFICATION RESULTS SUMMARY SHEET

Name	Written Score	JPMs %	Quest. %	Simul. P/F	Results Written/Operating
Candidate 8	94.5	100	95	P	P / P
Candidate 9	94.5	90	85	P	P / P
Candidate 10	100	100	100	P	P / P
Candidate 11	100	90	90	P	P / P
Candidate 12	100	100	100	P	P / P
Candidate 13	100	100	100	P	P / P
Candidate 14	100	100	100	P	P / P
Candidate 15	100	100	100	P	P / P

Attachment 5

Licensee's Letter to NRC, dated February 21, 1990



NINE MILE POINT NUCLEAR STATION/P.O. BOX 32, LYCOMING, N.Y. 13093/TELEPHONE (315) 343-2110

February 21 , 1990

Mr. William T. Russell
Regional Administrator
475 Allendale Road
King of Prussia, PA 19406

RE: Nine Mile Point Nuclear Station Unit 1 and Unit 2
Docket Nos. 50-220/50-410

Dear Sir:

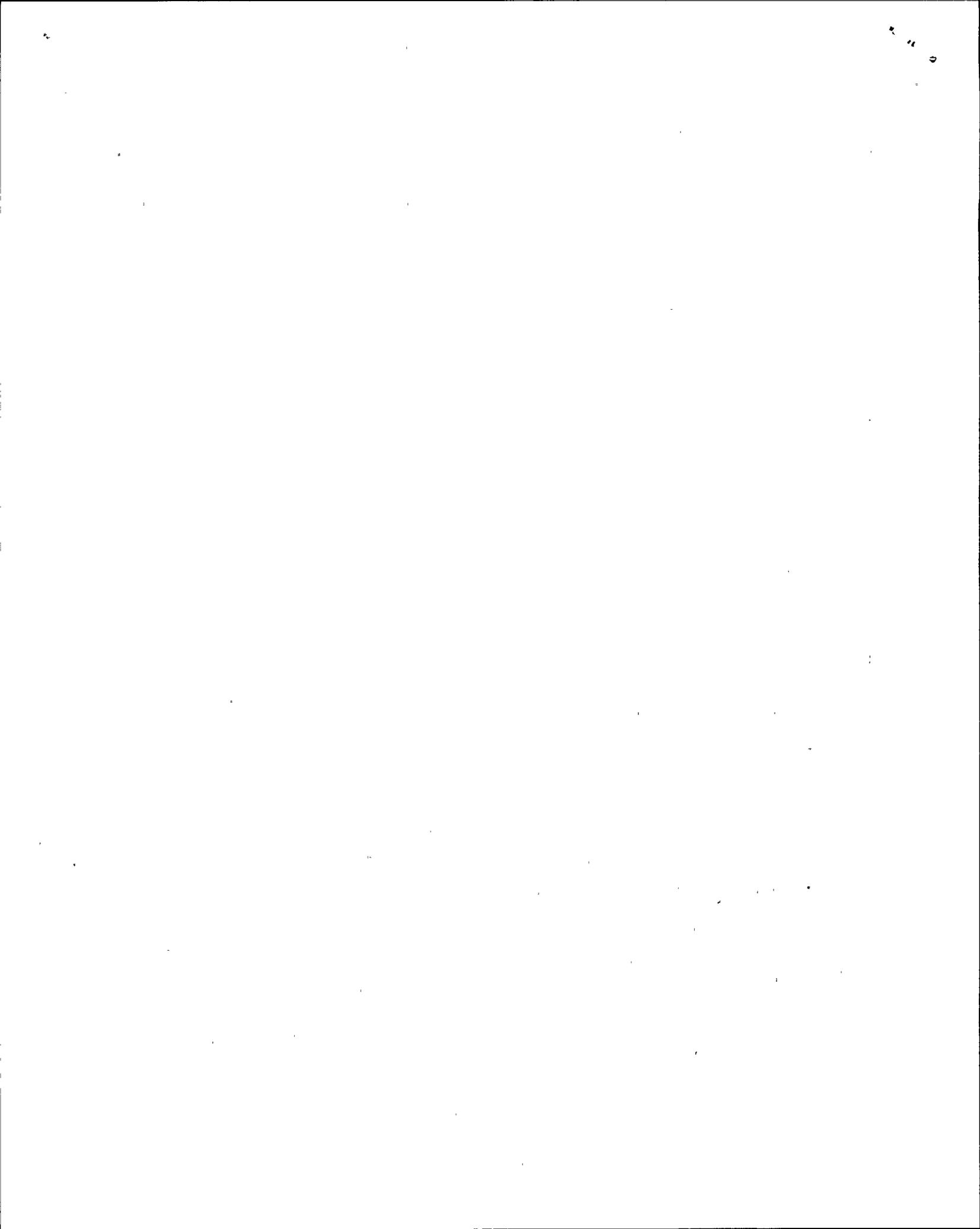
The Niagara Mohawk Power Corporation is submitting this letter as a follow-up to a recent conversation with Region I concerning a deficiency in the medical examinations received by Nine Mile Point Nuclear Station Licensed Operators. As a result of a recent review of our procedures, it was determined that required laboratory tests have not been routinely performed.

History

As a matter of background, in order to meet the requirements of Part 55, NMPC for Nine Mile Point Unit 2, committed in the FSAR, Table 1.8-1 to follow Regulatory Guide 1.134, Rev. 1 (March 1979) and ANSI N546-1976. No such commitment was made for Unit 1, although it is, of course, our practice to follow the same procedures. In April 1987, the Nuclear Regulatory Commission published Regulatory Guide 1.134, Rev. 2, "Medical Evaluation of Licensed Personnel for Nuclear Power Plants" endorsing the American National Standard ANSI/ANSI-3.4-1983, "Medical Certification and Monitoring of Personnel Requiring Operator Licenses for Nuclear Power Plants" as an acceptable method for determining medical qualification of applicants for initial or renewal of operator or senior operator licenses. Niagara Mohawk used the new ANSI standards as guidance for medical examinations for licensed operators.

Physical examinations are performed by a doctor under contract to NMPC. After the effective date of the new rule on operator licensing, NMPC continued to use NRC Form 396 (7-81) for documenting medical history by the candidate and physical data recorded by the examining physician. Completed Forms 396 (7-81) were used as objective evidence of completion of physical examinations and as the basis to certify the candidates medical status on the NRC Form 396 (10-86, 10-88 and 10-89) submitted to the NRC as part of the licensing or renewal application.

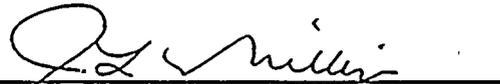
Because of the recent implementation of the Fitness for Duty rule, NMPC retained the services of a physician at our Nine Mile Point Nuclear Station. This physician was asked to determine whether or not he could perform licensing physicals here. During his evaluation of the requirements the physician reviewed ANSI/ANS 3.4-1983. Discussions between this physician and license holders led to the finding that the laboratory work had not been performed in the past. Discussions with the previous physician confirmed this fact.



Page 2
Mr. William T. Russell
February 21, 1990

NMPC ACTION

As discussed with the NRC, in order to reconfirm the individual certification of licensed operators, NMPC is reexamining all license holders in accordance with ANSI/ANS 3.4-1983. The examinations are expected to be completed by February 23, 1990, with results of the laboratory tests received and reviewed by March 1, 1990. At the conclusion, NMPC will submit, by letter, certification that the guidance contained in ANSI/ANS 3.4-1983 was followed and a determination as to whether each license holder's physical condition and general health is such that it would not cause operational errors endangering public health and safety.

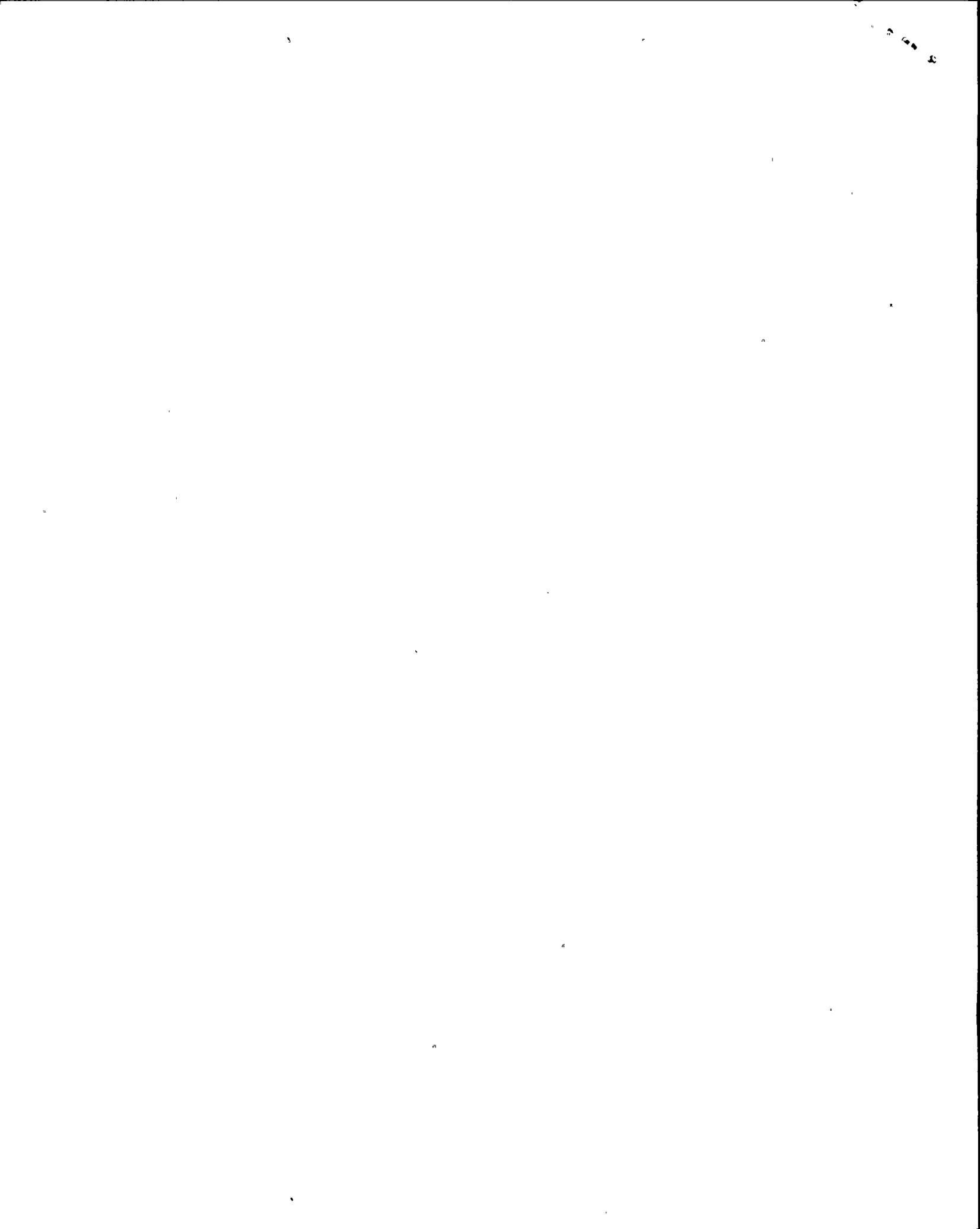


J. L. Willis
General Superintendent-Nuclear Generation

JLW/lmc
(1315V)

Attachment 6

Licensee's Letter to NRC, dated March 12, 1990



March 12, 1990

Mr. William Russell
Regional Administrator
ATTN: Mr. Robert M. Gallo
Branch Chief
United States Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, PA 19406

RE: Nine Mile Point Nuclear Station Unit 1 and Unit 2 Docket
#50-220/50-410

Dear Mr. Russell:

Niagara Mohawk Power Corporation hereby reports completion of the Operator physical examinations described in our letter of February 21, 1990. A copy of this letter is included for your reference.

A medical examination was conducted for each Licensed Operator at Nine Mile Point Nuclear Station Unit 1 and Unit 2 in accordance with the guidance contained in ANSI/ANS 3.4-1983.

Based on the results of the examinations, the physician has determined that the physical condition and general health of the licensed operators at Nine Mile Point Units 1 and 2 are not such that they might cause operational errors endangering public health and safety except as noted below.

Four license holders require amendments to their "Certification of Medical Examination by Facility Licensee (NRC Form 396)" due to changes in medical history. Notification in accordance with 10CFR55.25 for these individuals is being sent to you under separate cover.

Sincerely,



J. L. Willis
General Superintendent
Nuclear Generation

JLW/lac

Attachment

