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QUERYTECH ASSOCIATES, INC.
9040 EXECUTIVE PARK DRIVE, SUITE 217
KNOXVILLE, TN 37923
Phone (615) 690 2728

November 17, 1989

U. S. Nuclear Regulatory Commission
Advisory Committee on Reactor Safeguards
Mailstop P-315
Washington, D. C. 20555

Attention: Mr. Herman Alderman

Dear Herman,

Enclosed is a copy of my comments on the Nine Mile Point Unit 1 restart meeting of November 14, 1989. Since I do not have most of the NRC documents developed during the staff review of Nine Mile Point Unit 1 some of the suggestions may have been covered by earlier material. If there is a need for any further assistance, please call me.

Sincerely,

M. Bender
M. Bender

Copy to Professor Wm. Kerr

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COMMENTARY ON NINE MILE POINT UNIT 1 RESTART

PREPARED BY M. BENDER, QUERYTECH ASSOCIATES, INC.

November 16, 1989

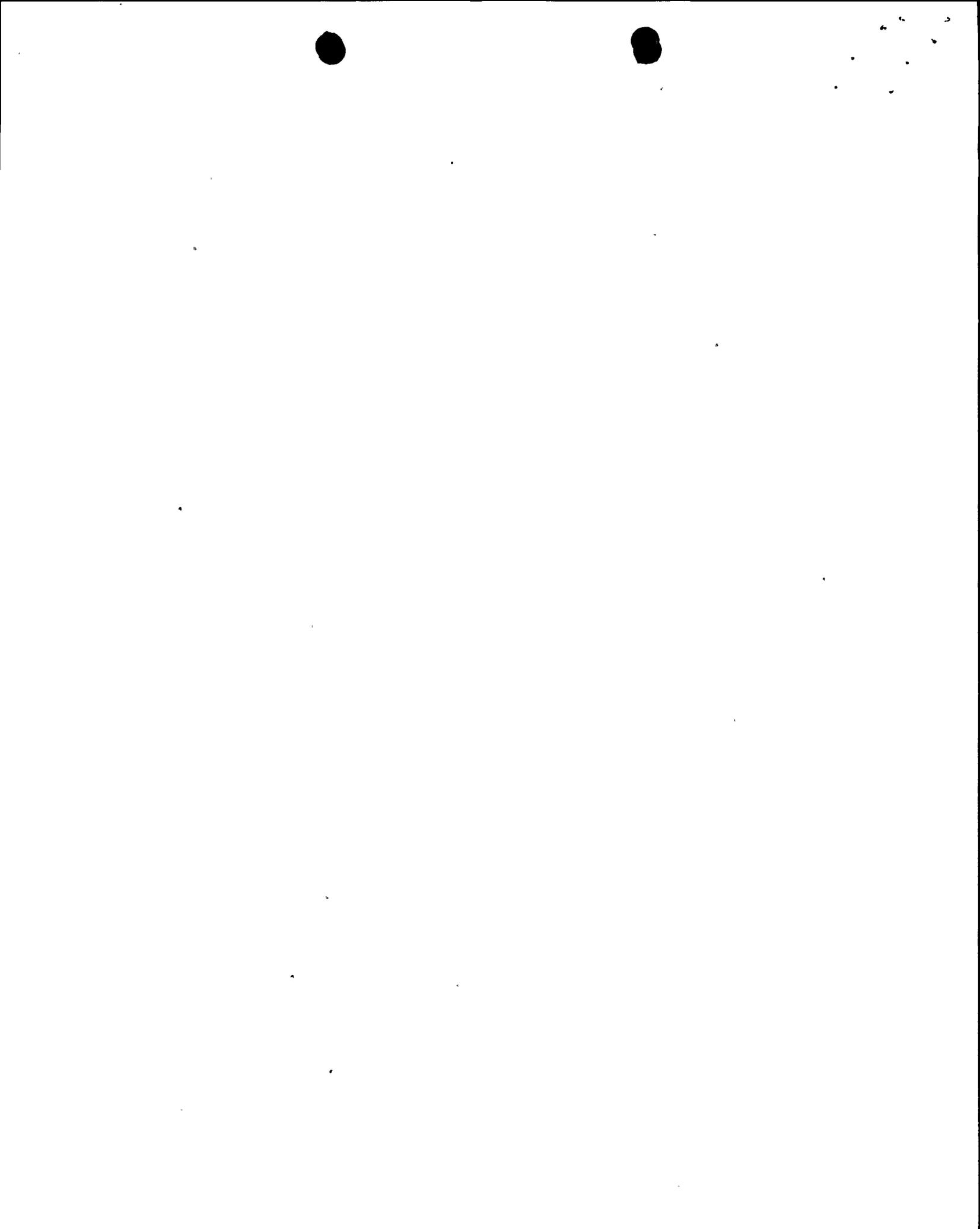
GENERAL OBSERVATIONS

The discussions at the November 14 meeting on the Nine Mile Point Unit 1 Restart primarily highlighted management issues. The Niagara Mohawk presentations largely emphasized new organizational arrangements for operating Nine Mile Point Units 1. The new management alignment puts more emphasis on organizational responsibility through intensive review and self assessment. These management enhancements should improve the Nine Mile Point success prospects.

The Nine Mile Point Unit 1 presentation seemed to downplay technical aspects of organizations activities in favor of more attention to management style. Although management technique is important to the success of any activity, the Nine Mile Point Unit 1 posture was dangerously close to encouraging less attention to technical matters as secondary to management techniques. This is clearly an undesirable action since most of the concerns with Nine Mile Point Unit 1 stem from failure to pay enough attention to technical details.

ROOT CAUSE ANALYSIS

Root cause analysis is currently the pet appraisal technique for determining the reasons for deficiencies in licensee performance. The "root causes" are not directed to specific weaknesses in functional activities but rather to foibles commonly found in deficient management organizations e.g. poor communications, poor attitude fostered by the cultural environment, lack of teamwork, poor planning. In the general sense that a well managed and properly organized operation will display



fewer problems of this type, root cause analysis aimed at such behavioral matters may be helpful. Although there is nothing wrong with this type of evaluation, it does not really pinpoint the corrective actions needed to prevent recurrence of observed problems. It would not be helpful in attacking technological issues beyond the ken of the organization.

For example, stress corrosion cracking is a chronic problem in BWR primary systems. The corrective action has to deal with corrosion mechanisms active in the operational environment. Finding the "root cause of this type of problem" does not come within the scope of "root cause analysis" as applied to Nine Mile Point Unit 1. Neither would incomplete documentation or erroneous computations be corrected by eliminating these "root causes".

TECHNICAL ISSUES

The presentations at the Nine Mile Point Unit 1 meeting were so shallow that it was impossible to glean any substance about the problems resolved during the lengthy shutdown. Among the matters that deserve review are:

stress corrosion and related repair or replacement of degraded primary coolant system boundary equipment (piping, valves, pumps)

vibration sources of the type that initially led to the shutdown of Nine Mile Point Unit 1

corrective actions associated with containment deficiencies including the current concern about torus thinning

modifications in the reactivity controls including scram system modifications and liquid poison injection provisions

a historical review of operational problems found in Nine Mile



Point Unit 1 since its startup to be sure that all significant safety problems have been addressed

It would be worthwhile to compare the status of Nine Mile Point Unit 1 to that of Millstone 1 which was examined by an Integrated Plant Safety Assessment (See NUREG 0824) prepared in the 1982/1983 era.

MANAGEMENT ISSUES

Of the matters covered in the discussion of new management initiatives only two deserve special comment:

1. The "restart review panel" is unusually experienced in its applied understanding of operational problems. It has the right kind of personnel balance for an overview function and should give effective guidance to the Nine Mile Point Unit 1 operational staff.
2. The engineering organization is taking on more direct responsibility for engineering work associated with Nine Mile Point Unit 1 operational needs. While skill capabilities have to be carefully monitored this should result in more responsible control of the technical problems requiring resolution. Most nuclear utilities are too dependent on outside service organizations and are not sufficiently skilled to monitor the effectiveness of the services provided.

Other licensees should be encouraged to follow this precedent.

Other matters such as improved teamwork and more focused "problem solving" are "givens" in any successful management setup. Any new organization will promise more attention to these management skills, but only long term results provide any measure of their adequacy.



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NINE MILE POINT UNIT 1 RESTART

BENDER, 11/16/89

The present trend in nuclear power industrial organizations is to include an extensive auditing and checking function that sometimes interferes with organizational effectiveness. Usually the audit personnel are not sufficiently well versed in technology to determine quality deficiencies, but they can provide a "tickler" service that will avoid some inadvertent oversights.

