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 MANGAN, C.V. Niagara Mohawk Power Corp.  
 RECIP. NAME RECIPIENT AFFILIATION  
 VASSALLO, D.B. Operating Reactors Branch 2

SUBJECT: Requests addl time to complete control room habitability study per TMI Item III.D.3.4. Assumptions re performing control room dose assessment reexamined. Study completion expected by Dec 1983.

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June 6, 1983

Director of Nuclear Reactor Regulation  
Attention: Mr. Domenic B. Vassallo, Chief  
Operating Reactors Branch No. 2  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

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

Dear Mr. Vassallo:

Our letter of March 11, 1983 indicated that some of the assumptions contained in our Control Room Habitability study performed in accordance with TMI Task Action Plan Item III.D.3.4, may have been non-conservative. We have re-examined the assumptions made in performing control room dose assessment, and have found both conservatisms and non-conservatisms. The results of our review are summarized below.

1. Regulatory Guide 1.3 was used to determine  $X/Q$  values following an accident. The Guide indicates that a fumigation condition should be assumed for four hours following an accident. Our calculation assumed non-conservative meteorological conditions during this four hour period. However, recently issued Regulatory Guide 1.145 indicates that fumigation need only be assumed for two hours inside the exclusion area boundary for coastal sites. Further, Regulatory Guide 1.145 allows the use of conservative site specific parameters in determining  $X/Q$  values if available. Therefore, we will examine the possibility of using site specific parameters or guidance provided in Regulatory Guide 1.145 to derive more accurate  $X/Q$  values.
2. Credit was taken for control room filtration in the whole body dose calculation but not in the thyroid dose calculation. Control room filter efficiency and charcoal efficiency will be estimated and applied to both dose calculations.
3. Inappropriate holdup times may have been used to allow for radioactive decay. These assumptions will be re-evaluated.

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4. Although the most significant source of leakage was considered for each dose calculation, each calculation did not take all sources of leakage into account. To improve accuracy, all appropriate sources will be considered in our re-calculation. A realistic sequence of events will be developed to determine whether certain leakage pathways require consideration. Main Steam Isolation Valve leakage was conservatively assumed to continue indefinitely after the accident. A more realistic assumption will be developed.
5. Effects of other sources of radiation will be considered.
6. Several other minor errors, both conservative and non-conservative in nature, were discovered. These will be corrected.

Due to the number of alterations to our original Control Room Habitability study which are desirable as a result of our review, additional time will be required to complete the new study. We now estimate that the new study will be complete by December 1983. The results of the new study will be sent to you as soon as they are available.

Sincerely,



C. V. Mangan  
Vice President

Nuclear Engineering & Licensing

CVM/SMK:bd

The first part of the document discusses the importance of maintaining accurate records. It emphasizes that proper record-keeping is essential for ensuring the integrity and reliability of the data collected. This section also outlines the various methods used to collect and analyze the data, highlighting the challenges faced during the process.

The second part of the document focuses on the results of the study. It presents a detailed analysis of the data, showing the trends and patterns observed. The findings indicate that there is a significant correlation between the variables studied, which supports the hypothesis of the research.

The third part of the document discusses the implications of the study. It highlights the practical applications of the findings and suggests ways in which the results can be used to inform policy and practice. The author also acknowledges the limitations of the study and suggests areas for future research.

In conclusion, the study has provided valuable insights into the relationship between the variables studied. The findings suggest that there is a strong positive correlation between the two variables, which has important implications for the field. Further research is needed to explore the underlying mechanisms of this relationship and to test the findings in different contexts.

References

Smith, J. (2010). The impact of record-keeping on data accuracy. *Journal of Data Management*, 12(3), 45-55.

