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RC6.1

September 19, 1980

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FROM: Sydney W. Porter, Jr.

SUBJECT: Effluent Releases from TMI Units I and II for the First and Second Quarters, 1980 and the Month of July, 1980

1) Enclosed is an Executive Summary of TMI Units I and II Liquid and Gaseous Releases for July, 1980. The January to March, 1980 and April to June, 1980 Summary Release data is included for comparison purposes.

2) Tables 1-5 provide additional data for liquid discharges to the Susquehanna River for 1980.

3) Also included in this report is an Explanation of the TMI Effluent and Dose Assessment Group Monthly Summary. This explanation of the report will be included each month.

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Sydney W. Porter, Jr., C.H.P.
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FROM: Sydney W. Porter, Jr., C.H.P.

SUBJECT: Explanation of the TMI Effluent Assessment Group Monthly Summary

a) General

Reference is made to the Executive Summary entitled "TMI Units I and II Liquid and Gaseous Releases". For purposes of comparison, all previous 1980 releases are included in this report. All data is given in monthly increments with quarterly averages or totals as applicable.

1) Liquid Releases

Line (a) gives all liquid releases except Tritium. Since Tritium cannot be effectively removed from liquids, it needs to be separated out so that is can be carefully watched. Tritium may very well be the critical radionuclide for liquid releases during the entire recovery process as well as during normal plant operations. Present Tech Specs for discharge of liquids, excluding Tritium and Noble Gases, is 10 Ci per reactor in any quarter year.

Line (b) separated the Iodine-131 released since it was the major radionuclide released during the early days of the accident and it will be found periodically in downstream drinking water supplies because of the periodic discharge from hospitals using Iodine-131. The 10CFR20 allowable Iodine-131 release rate is 3×10^{-7} µCi/cc and the EPA drinking water standard is 3×10^{-9} µCi/cc (as averaged over one year).

Line (c) utilizes units of µCi/cc for Tritium so that the release concentrations can be compared to the 10CFR20 limits of 3×10^{-3} µCi/cc. Note that the EPA drinking water standard is 2×10^{-5} µCi/cc (as averaged over one year).

2) Airborne Iodine releases are separated out because of the fact that radioiodines are potentially the largest hazard from a serious reactor accident. The units µCi/sec. are used so that the radioiodine releases can be compared to the Tech Spec quarterly release limits of 0.024 µCi/sec.

3) Noble Gas releases are listed in Ci/sec. averaged over the quarter so that they can be compared to 0.0072 Ci/sec. Tech Spec limits.

The tables appended to the Executive Summary give all the specific technical data which is summarized in the Executive Summary.

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