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MAPLETON INTERVENORS
Route 10
Midland, Michigan 48640

December 14, 1981

Mr. William J. Dircks
Executive Director For Operations
Nuclear Regulatory Commission
Washington, DC 20522

SUBJECT: Unresolved Safety Issues and EMP

Dear Mr. Dircks:

NUREG-0510, "Identification of Unresolved Safety Issues Relating To Nuclear Power Plants - A Report To Congress", dated January, 1979. An unresolved safety issue is a matter affecting a number of nuclear plants and poses important questions concerning the adequacy of existing safety requirements for which a final resolution has not yet been developed. And that involves conditions not likely to be acceptable over the lifetime of the plants it affects.

In view of the above statement, it is reasonable to request why the potential effects of the electro magnetic pulse (EMP) on nuclear power plants is not to be considered an unresolved safety issue. In your letter dated the 24th of November, 1981 in response to my mailgram dated the 1st of October, 1981, you candidly admit that a single EMP could affect most of the nuclear plants in the continental United States. And yet you disregard, apparently, the public health and safety by citing NRC (10CFR50.13) which states that license applicants are not required to provide design features for specific purposes. NUREG-0513 prepared in 1976 comes as a surprise since the study points out the affects of EMP on nuclear power plants. However, NRC indicates that the regulations do not require design provision or revision of any existing licenses.

Since the public health and safety is involved and since their methods of "hardening" a plant, especially during construction, it is impossible to conceive a Federal Agency failing in its health and safety responsibilities.

You state NRC regulations do not require protection against nuclear weapons, on the other hand NUREG-0513 goes to great length to point out that concrete and steel plate are excellent as shielding, but admits that at least 30-40 DB of attenuation are avialable from reinforced concrete. This may be correct except that the EMP travels over all circuitry regardless of the steel or reinforced concrete. The NRC admits that the greater part of the circuitry is

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outside of the steel and concrete containment building.

Under these circumstances, I question whether the public is properly protected by an agency that appears to be more intent on promoting nuclear energy and nuclear power plants than providing for the public health and safety.

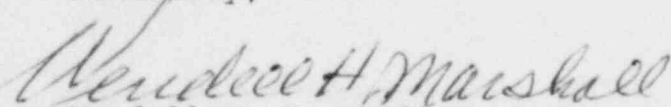
According to the articles in Science Magazine, dated the 29th of May 1981, 5th of June 1981, 12th of June 1981, and in IEEE Spectrum for June 1981, EMPs have affected the strategic planning of the Pentagon because of the necessity to "harden" the command and control communications networks and circuits. Evidently, based on this information, the vulnerability of the nuclear reactors within the continental United States is real since EMP will disable communications, cause wide spread paralysis of electrical and electronic equipment, severely damage electronic control and instrumentation circuitry and all nuclear plants, starting circuitry for the emergency diesel power generator, including the nuclear plants' solid state control elements in the station battery circuits.

The affects of EMP on any plant, especially Midland Nuclear should be evaluated in detail in terms of the location and type of shielding construction for the various related elements of the plant. In other words, the construction of the plant should be halted until it has been determined how to "harden". Then the "hardening" process could proceed in conjunction with construction.

In view of the above, the NRC should take immediate action to stop construction of the plant until revision of existing regulations to include "hardening" of nuclear plants is complete. The design provisions for protection against EMP are required for the protection of the public health and safety.

I, therefore, again request termination of construction until the EMP problem is resolved on the public health and safety issue, and not on present NRC EMP regulations that indicate if the subject is ignored will disappear. This EMP is a serious problem and cannot be passed over so lightly as indicated in your letter to me (the 24th of November, 1981). Please advise.

Sincerely,


Wendell H. Marshall

cc: Representative Don Albosta
Senator Carl Levin
Steve J. Gadler, P.E.