794-9

EBASCO SERVICES
INCORPORATED

ENGINEERS - CONSTRUCTORS - BUSINESS CONSULTANTS

TWO RECTOR STREET
NEW YORK 6, N.Y.

CABLE ADDRESS: "EBASCOE"

June 9, 1959

Mr. Harold L. Price, Director
Division of Licensing and Regulations
U. S. Atomic Energy Commission
Washington 25, D. C.

Dear Mr. Price:

10 CFR - CHAPTER 1 - POWER AND TEST REACTORS
NOTICE OF PROPOSED RULE MAKING

We offer the following comments with reference to the Notice of Proposed Rule Making on the above subject published in the Federal Register of May 23, 1959.

We believe that the publication of a well defined set of criteria as applied by the AEC in the approval of a site for a proposed facility would be of considerable value to a prospective licensee. However, the proposed rules are too vague and indefinite to give the prospective licensee any positive guidance. There is a real question whether issuance of such rules would serve any useful purpose.

In two instances the proposed rules cite apparently arbitrary quasi-quantitative distances which conceivably could be applied as firm restrictions even though we do not believe that such strict interpretation is intended. In the first instance, even though the wording is qualified, a definite implication is conveyed that a minimum exclusion radius of one-quarter mile is required regardless of the circumstances. In the second instance, the rules state that it is usually desirable that large reactors should be located at a distance of 10 to 20 miles from large cities. Neither a large reactor nor a large city is defined. Moreover, the combination of all pertinent factors may permit a shorter distance or dictate a greater distance.

If rules are issued, they should indicate that the factors considered would include the type of access control exercised by the licensee in the area of the reactor and the population density and distribution in surrounding areas. Specific distances should not be mentioned unless they can be used as absolute limits. If rules incorporating misleading specifications were issued and AEC subsequently approved a shorter distance after careful analysis of all factors indicated that approval was warranted, such rules could form the basis for litigation or intervention by third parties. A valid principle which must be conveyed is that approval will be based on sound judgement considering all pertinent factors. The proposed rules tend to limit the free exercise of judgement.

P/50 Comments

Cys to PDR Rm & OGC
A/90 6/11 Rm 7701

We have even more serious objection to the implication in the latter part of section a that a site might be approved in the early phases of a project which could later be found unacceptable. It should be made clear that no approval will be granted and no construction permit issued unless there is every reason to believe that the proposed facility can be made to operate safely at the proposed site. This does not mean that AEC should not require additional safeguards or modifications prior to operating approval to correct unforeseen hazards. Occasionally, too, novel features of a proposed facility may require experimental demonstration of its safety characteristics. In such a case, the applicant should be granted a specifically qualified approval which clearly puts him on notice that he is responsible for proof of safety prior to final operating approval. He thus would have a choice of deferring construction or proceeding at his own calculated risk.

Virtually all the ideas covered in the proposed rules are mentioned in the present 10 CFR Sec. 50.34. A possible exception is population density and distribution which are not mentioned specifically but usually are considered in hazards summaries. On the other hand, Sec. 50.34 mentions several important criteria not covered in the proposed rules, e.g. location of sources of potable or industrial water supply and the use to which the surrounding land is put, ie. industrial, commercial, agricultural, residential (except for a rather narrow reference to "air fields, arterial highways and factories").

The proposed rules emphasize only the characteristics of the site and environs. They virtually ignore the other two aspects which determine suitability, namely, the characteristics of the facility itself, including the state of knowledge and past experience, and the safeguard features which are incorporated in the facility. It is probably true that, with sufficient knowledge of the potential hazard, any facility can be designed with appropriate safeguards to permit operation anywhere with acceptable risk. As a rule, the prospective licensee selects a site for economic reasons and balances the cost of safeguard provisions against the added cost and inconvenience of a more isolated site. The AEC must similarly evaluate all factors to determine whether the overall hazard is acceptable. Because of the complex interplay of the many factors concerned, it is probably not practical to expect definitive standards. Some guide to the important factors considered by AEC and, if possible, the probable relative weights to be applied would be welcomed by industry. However, it is questionable whether, at this time, such a guide should have the force of formal regulations. In any event, we do not feel that the proposed rules should be issued unless definitive standards can be cited.

We would be glad to discuss this matter further if you so desire.

Very truly yours,

Leonard F. C. Reichle

Leonard F. C. Reichle
Nuclear Engineering Director

LF CR:ee