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Institute for Urban Studies

William L. C. Houston, Director

February 16, 1961

Mr. Carroll A. Tooms
Office of Plans
United States Atomic Energy Commission
Washington 25, D. C.

Dear Call:

It is delightful to hear from you and to receive your thoughtful letter and the enclosures. I hope that we can get together again some day.

I have briefly skimmed the Report on Community Impact of Peaceful Implications of Atomic Energy and the enclosed Reactor Site Criteria. They move me to two principal observations.

Local governments, by their nature and the character of their jurisdiction, must necessarily be somewhat ill equipped to handle the problems of regulation and planning for peaceful application of atomic energy. While central cities may get assistance and encouragement by leaders to train personnel for the problem of isotope use, it will be a rare suburban government that can swell itself of the specialized talents needed, and isotope users, given the distribution of industry today, are likely to be widely scattered in metropolitan areas. Large reactor locations will inevitably be at the outer edges of urban areas or in rural areas where specialized personnel either in planning or regulation are non-existent. Further, as you undoubtedly recognize, reactors placed in one local jurisdiction may have implications for surrounding jurisdictions which have no responsibility or control over the site areas. Under these circumstances, and in the absence of metropolitan governments in the foreseeable future, it is unrealistic and, in my opinion, irresponsible to expect effective local regulation or knowledgeable guidance. Given our traditional deference to local government, even in areas where local government's incompetence is universally acknowledged, this poses some fairly serious problems. I do not believe that an unincorporated township governed by the most parochial minded layman, and lacking a professional staff of any sort, should be allowed to make decisions with respect to the location or non-location of reactors affecting the economic base of a metropolitan area. Under these circumstances, I think we must invent means for training qualified personnel to state and metropolitan planning agencies

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where needed to assist in local decision making. Perhaps the pattern of TVA support of local activities is a useful example. Perhaps we will have to invent new devices to generate incentives for the establishment of metropolitan planning and decision making in order to provide a local focal point for federal-metropolitan cooperation.

Quite similarly, problems arise in connection with reactor location and land use controls. The proposed criteria require nearly a square mile of land around large size reactors. Must this land be owned in fee simple by the reactor operator? If not, how is the use of the land to be controlled so as to prevent subsequent development? Should not the regulations prescribe the type of ownership or control required in the exclusion zone? If ownership is required, can any agency other than a government agency acquire such a large tract of land within the environs of any metropolitan area in the eastern half of the United States? Are the costs of local acquisition likely to be so high as to economically prohibit the location of such facilities in such areas? Are transmission losses low enough so that it is economically feasible to go further out and accept the higher costs of transmission? Still further, if a reactor is located in what is now a low population zone and at the requisite minimum distance from a population zone as defined in the criteria, what assurance is there, or what assurance should be required, that the low population zone does not subsequently become a high population zone? Given the fact that urban population will double in the next 33 to 40 years (the investment life of a facility) and given a .16 to .25 ratio for future urban density to past urban density, it is obvious that the geographical spread of urban areas will be of the order of at least four times that of existing cities. Under these circumstances, the distance of the facilities from population centers should be some function of a radius/area ratio which would produce the minimum required distance at the end of the period of investment rather than at the beginning. If this is not done, then controls over population density and urban growth in the intervening years are indicated. We have, at present, no measures for assuring such control over an extended period of time in metropolitan areas where scaling is administered by scores of local governments. Perhaps we could solve this problem by increasing the distances by a factor of 25 times some annual rate of linear extension. The gravity model boys could probably devise such a formula.

I hope that this is helpful.

Cordially,
/s/ William L. C. Wheaton
William L. C. Wheaton

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