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# TOWN OF GARDINER

GARDINER, NEW YORK 12525

OFFICE of EXECUTIVE LEGAL DIRECTOR  
UNITED STATES NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555

May 11, 1979

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AMENDMENT TO PETITION FOR LEAVE TO INTERVENE IN New Haven 1 AND 2, AND  
ALTERNATES. Dockets STN 50-596, STN 50-597 ORIGINALLY FILED March 13, 1979.

This amendment to our original petition is being filed to indicate the more detailed nature of our interest in the proceedings according to NRC rules and to add new considerations, based on events occurring after submission of our petition.

In defense of our 'untimely' petition (one day late), we repeat that choice of Gardiner as an alternate site was kept secret from us by New York Electric and Gas (NYEG) and by NRC staff until after the possibility of timely filing was past. The record will show that the Gardiner TOWN BOARD, at a Public Meeting, on March 13, 1979, voted to petition NRC for intervenor status. We could hardly have acted in a more timely manner. NRC staff in their answer to "Columbia/Ulster" petitions to intervene, 4/2/79, and their supplement to this answer 5/2/79 (delivered to us 5/8/79) repeatedly mention the 'untimeliness' of our petition. A similar argument is used by applicant. Again, we couldn't have acted in a more timely fashion to protect the interests of Gardiner citizens. We reject NRC staff 'grant' of several days grace. It is suggested that publication of notice of Hearing on Feb. 9, 1979 by NRC was untimely in that governments and other interested parties at alternate sites were not informed prior to NRC published Notice of Hearing.

As NRC staff point out, "consideration of alternatives (Gardiner assumes 'sites' as well as 'processes' here) is the linchpin of a NEPA analysis. Monroe County Conservation Society, Inc. vs. Volpe 472 F. 2d 693, 657-98(2d Cir. 1972)." It is evident that proceedings should not start (here by publication) until government and others who might be directly affected by said proceedings are notified of their status - here, Gardiner as alternate site for two nuclear power plants.

The Town of Gardiner, New York sees its interests threatened by:

1. operation of nuclear fission reactors at New Haven;
2. operation of nuclear fission reactors at the alternate site, Stuyvesant;
3. construction and operation of either nuclear fission reactors or fossil fuel thermal electric generating plants in Gardiner, the second alternate site;
4. operation of nuclear fission plants in other possible alternate sites in New York, Pennsylvania, New Jersey, Connecticut, Massachusetts, Vermont, or New Hampshire.
5. electric power distribution facilities required by the 2500 Mw(e) facility;
6. off-peak energy storage facilities.

The interests of the citizens of Gardiner are not represented by anyone else in the proceeding and these interests cannot be defended unless

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the government of Gardiner is party to the proceedings.

The Gardiner Town Board and involved branches of Town Government, the Planning Board and the Environmental Conservation Commission are thoroughly familiar with Gardiner including the alternate site selected by NYEC and all with described routes for cooling water and power distribution. We are familiar with the general nature of nuclear power generation and some of the problems involved in this process. The Town Board and advisory bodies have professional expertise in radiobiology and Chemistry, geology, and engineering and much experience in assessing and maintaining environmental qualities. We could assist in development of an accurate record in the New Haven 1 and 2 and alternates proceeding. The Town of Gardiner would address the impact of the proposed projects on the environment, and on the health and welfare of fellow citizens.

Under previous precedent cited by NRC staff (TVA Watts Bar Units 1 and 2, ALAB-413, 5 NRC 141'8, 1421 n-4, 1977), agencies within a 50 mile radius of a planned nuclear facility have 'standing'. NRC staff disputes our claim to standing based on the approx. 150 mile distance from New Haven to Gardiner (but only approx. 45 miles from Stuyvesant and zero miles from the second alternate site). We suggest that recent events at Three Mile Island No. 2 (TMI) require a change in the established 50 mile test of standing. Our reason for making this suggestion is the finding of the New York Dep't. of Health that  $^{133}\text{Xe}$  was identified in the Albany, New York atmosphere (New York Times, May 3, 1979, p. B12) some 4 weeks after release during the early hours of the TMI incident. Albany is over 200 miles from TMI indicating that an incident of similar magnitude at New Haven or anywhere in this region could significantly increase the radiation to which citizens of Gardiner are exposed. Considerable evidence has been obtained that low doses of radiation may have a greater proportional biological effect than higher doses so that even small increments in total dose over background even for relatively short periods may harm the health of present and future generations as far away as 200 miles or further. The report of  $^{133}\text{Xe}$ , which is a fission product not normally found in the atmosphere, suggests the exposure of Gardinerites (150 miles from TMI) to even more radiation from  $^{133}\text{Xe}$  than Albanians though only a few percent higher than normal background. Other fission products which became concentrated in particular tissues (e.g.  $^{90}\text{Sr}$ ,  $^{137}\text{Cs}$ ,  $^{131}\text{I}$ ,  $^{125}\text{I}$ , etc.) were not measured by the New York Health Dep't though they were probably all released from the TMI core and some ( $^{131}\text{I}$ ) were vented and may have been dispersed as widely as the  $^{133}\text{Xe}$ . Thus, the reduced, small, increase in dose in Albany was a minimum, the actual dose likely being higher. Also, higher doses were probably received closer to the time of the TMI incident and closer to TMI.

We outline these things to indicate our concern with New Haven, with Stuyvesant, and, of course, with Gardiner itself. All of these sites - especially Gardiner - are closer to Gardiner than TMI. Exposure to nuclear radiation carried through the atmosphere, in our surface or ground water supplies, or in our food supply would be detrimental to our health and welfare. Since such radiation from a nuclear reactor has been measured over 200 miles from said reactor, we suggest modification of the watts Bar ruling. From these considerations, Gardiner should have standing re New Haven, Stuyvesant (true under watts Bar) and Gardiner (true in any case).

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The interests, health, and safety of the citizens of Gardiner would be affected by operation of nuclear or other thermal generating plants at any of the sites under consideration. In these amendments to our petition we have attempted to explain the causes of our concern briefly. On the basis of these considerations we respectfully request designation as Intervenor in STN 50-596 and STN 50-597 (New Haven 1 and 2) by right, not discretion of NRC, and without limitation as to issues of intervention.

Sincerely yours,

*William Keeping*

WILLIAM KEEPING  
SUPERVISOR

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CONTENTIONS - TOWN OF GARDINER, NEW YORK RE STN 50-596, STN 50-597

In a previous communication, April 12, 1973, the Town of Gardiner indicated its principal contentions in STN 50-596 and STN 50-597 as being in regard to potential adverse effect of the proposed facilities if built in Gardiner, an alternate site. In addition, the effect of ancillary facilities such as high voltage transmission lines and pumped hydro-storage plant(s) would also be expected to have a negative effect on Gardiner if published plans are followed.

In this communication we amplify our previous contentions and extend our list consonant with our amended petition to intervene.

1. The Gardiner alternate site is inappropriate for any type of thermal electric generating plant.

Amongst other reasons, this is because it

- a. is closer than 5 miles to a state park;
- b. is closer than 15 miles to a major jetport and is in the flightpath of that jetport;
- c. contains protected wetlands;
- d. has the Catskill aqueduct, supplying about 50 % of the fresh water for 10 million people, on its eastern border;
- e. is in a narrow valley where temperature inversions occur daily preventing dispersal of released pollutants;
- f. is geographically located such that the water droplet plume (also see e.) would significantly affect agricultural production in areas to the east of the plant in the Towns of Gardiner, Plattekill, Lloyd, and Marlborough, and possibly in Dutchess County as well - these are among the principal apple and wine producing areas of New York State;
- g. would have to use a significant part of its electric (not thermal) energy production in pumping cooling water ten miles from the Hudson river horizontally and 350 feet uphill;

2. A malfunction at a nuclear plant within about 400 miles of Gardiner would have a deleterious effect on the physical environment of Gardiner and the health of its residents, and normal operation of such nuclear plant would also have a deleterious effect but to a lesser extent. This is because:

- a. any ionizing radiation has the potential for causing cell change, including tumorigenesis, and of causing mutations

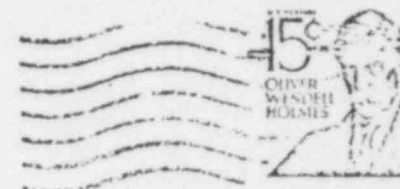
in germ cells thereby affecting the next generation;

- b. nuclear plants routinely release gaseous fission products thereby increasing the probability of radiation-caused disease and mutation in the directly affected population and of spreading widely in water and foods indirectly affecting a much greater population and becoming dispersed in the environment of Gardiner and other places even distant from the plant affecting the abilities of these environments to support life;
- c. an 'incident' (e.g. Enrico Fermi, Browns Ferry, Three Mile Island, and many others) would release much more radioisotope fission products affecting populations and environments (see 2-b) at great distances (see discussion in amendment to petition to intervene) from the site of the 'incident';
- d. a severe malfunction, such as a meltdown, would release the entire radioisotope and heavy atom inventory of the reactor to the environment and would be expected to directly affect environments at great distances from site and indirectly at still greater distances not only with nuclear radiation but also the associated chemotoxic effects of substances such as  $^{239}\text{Pu}$  which would also be released;  
all of the principal and alternate sites for nuclear plants which are being examined in this hearing would have deleterious effects on Gardiner the most severe being, a Gardiner site, second the Stuyvesant site, and third the New Haven site inasmuch as the danger is inversely related to distance.

- 3. Since no accepted disposal method for fission products exists and reprocessing of spent fuel is not presently planned, increasing inventories of these materials must be stored at plant sites including New Haven or Stuyvesant or Gardiner where they could escape from control.
- 4. Transport of nuclear fuel and exhausted fuel rods containing fission products and plutonium would adversely affect Gardiner because principal north-south rail and highway systems pass through or are adjacent to Gardiner and would be expected to be used in operation of New Haven or Stuyvesant and, certainly - Gardiner where an accident could - despite safe design - cause release of fissile materials and fission products to our local environment.
- 5. Since radioactivity cannot be stopped, the production of radioisotopes in nuclear reactors has the potential for ultimately destroying human life not only in Gardiner but throughout the United States and in other countries if substantial accumulations are ever released either accidentally or through someone's purposeful action.
- 6. Gardiner has been proposed as the site for a pumped storage hydro plant and appears to be on a proposed route for 765 KV lines both of which facilities would need large base load facilities such as that proposed but which would seriously affect the environment in Gardiner not only because of non-productive use of land (e.g. about 1500 acres for proposed pumped storage plant and a 350 ft. right of way for 765 KV lines) but also because of increased

microwave radiation, arcing, and interference with communications from the 765 KV and a clear flooding danger from the pumped storage plant. The need for these ancillary facilities affecting Gardiner would be reduced if not eliminated if the proposed project at New Haven or alternate sites was abandoned.

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GARDINER, NY 12525



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