

DEC 27 1962

Russell E. Teague, M. D.
Commissioner of Health
Commonwealth of Kentucky
275 East Main Street
Frankfort, Kentucky

Dear Mr. Teague:

Thank you for your very informative letter of December 7, 1962, concerning Nuclear Engineering Company's waste disposal license. We were interested to learn of the licensee's operating techniques and procedures and your procedures in evaluating this application.

On the subject of backfilling of trenches, which you discussed in your letter, and which was also discussed in my letter to Mr. Neel of November 26, 1962, the Division of Licensing and Regulation desires to convey some additional comments which may be of interest to you, as follows:

Packages stored in open trenches as well as above ground will deteriorate. The time required for package failure depends on the nature of the package and climatic conditions. Other factors such as prevalence of rodents must also be considered. Accordingly, a time limit for open storage of radioactive waste packages should be specified.

Typical land burial operations follow a practice of dumping packages into trenches. Little care is exercised to prevent packages from rupturing. This practice is permissible since the safety of land burial is not contingent upon packages maintaining their integrity after they are buried, provided that trenches containing ruptured packages are back filled immediately to prevent dispersion of the radioactive waste to the environment.

Should open storage in trenches be permitted for specified time intervals, the licensee should have a satisfactory procedure for lowering or placing packages in the trenches in a manner which will preclude their rupture. If, through accident, a package does rupture, immediate back filling should be required.

Russell E. Teague, M. D.

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We appreciate your invitation to visit the Nuclear Engineering facility subsequent to commencement of burial operations.

If we can be of any assistance to you in any matters concerning your regulatory program, please contact us.

Sincerely yours,

Forrest Western, Director
Division of Radiation Protection
Standards

cc's sent to concurrence

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REASONS WHY THE STATE GOVERNMENTS SHOULD ASSUME CONTROL OF
RADIOACTIVE WASTE DISPOSAL UNDER THE AEC STATE AGREEMENT

1. Considerable improvement in public relations can be anticipated under state control of radioactive disposal. The state government of necessity has close political relations with the city., county and local community. The likelihood of agreement upon location of radioactive waste disposal sites, commercial radioactive waste disposal firms, etc. is much better and less local friction would be generated.

2.---The location of waste disposal sites within the states offers economic advantages to radioactive material users in view of the fact that transportation costs would be minimized. Additional savings may be made in elimination of the incineration method of disposal, as bulky waste can be hauled short distances and effective incinerators are costly. There is an economic advantage to the AEC in that AEC contractors could use local state disposal facilities/

3. The number of disposal sites now existing in a given state could be reduced. That is, it would not be necessary for individual users to use backyard burial, incineration, or disposal to sewers, if other more economical, or more safer methods and locations for disposal are provided. It would be possible for radioactive waste disposal to be concentrated at one location.

4. It is advantageous for the state to assume control of radioactive waste disposal because this activity is compatible with their normal functions. The states at present have programs involving the control, operation and approval of sewage treatment plants, underground water supplies, stream pollution, air pollution, industrial waste disposal, sanitary land fills, etc. For them, radioactive waste disposal would be simply another factor that can be controlled in their general program.

5. In determining the location of future disposal sites, the states, because of their knowledge about local territory, geography, topography, geology, hydrology, etc. are in an ideal position to select the proper location. Additionally, knowing local meteorological conditions and daily water usage, they are in a position for determining the exceptions to limits on incinerations or sewerage disposal.

6. The state already has personnel trained in evaluation of environmental health hazards, and will have personnel trained in radiation before an agreement is effected. Any hazards attendant to radioactive waste disposal should be readily controlled by this combination of experience and training.

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