Environmental Law - Atomic Energy Act

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Kerr-McGee Chemical Corporation had maintained a production and storage site for radioactive compounds in the city of West Chicago, Illinois. After 1973, Kerr-McGee ceased all production but continued to store thorium ore\(^1\) at this forty-three acre site. Since 1975, Kerr-McGee has worked on a plan to decommission the site.\(^2\) In June, 1980, West Chicago brought suit, alleging common law nuisance and violations of state law and city ordinances concerning dangerous conditions at the factory location.\(^3\) The city cited buildings with collapsed roofs, fallen walls, and floors with holes in them. The city also complained of open refuse pits and several off-site dumping areas for hazardous fill materials. This case was tried with a similar complaint alleging violations of various state statutes\(^4\) filed by the state of Illinois against Kerr-McGee.\(^5\)

The appellate court held in *Illinois v. Kerr-McGee* that a complaint brought by the state pleading only state causes of action does not raise a federal question justifying removal of the case to federal court.\(^6\) In *City of West Chicago v. Kerr-McGee Chemical Corporation*,\(^7\) the court held the federal Atomic Energy Act does not preempt state authority to regulate the non-radiation hazards associated with nuclear materials.

The Atomic Energy Act created in the federal government the exclusive power to regulate atomic energy and radioactive materials.\(^8\) The broad purposes of the 1946 Act included protecting technical data and averting nonpeaceful use of fissionable materials.\(^9\) In pursuance of these goals,

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1. Thorium is a metallic element used in magnesium alloys. Thorium isotope 232, like uranium, is a toxic alpha emitter and a source of nuclear energy.
3. *Id.* at 574.
6. *Id.* at 578.
7. 677 F.2d 571.
the Atomic Energy Commission contracted with manufacturers of nuclear materials and carefully supervised the production and use of fissionable material under a strict licensing scheme. This scheme emphasized prosecutions whenever fissionable materials were diverted "in a manner inconsistent with the national welfare." Congress, concerned with international control of atomic weapons, regarded centralized regulation of nuclear materials essential for assuring the public health and safety.

The Atomic Energy Act of 1954 began the encouragement of private development of atomic energy. The act authorized private patentable inventions, provided for information declassification, and permitted Atomic Energy Commission (hereinafter AEC) funding for private activities involving research and source materials. This private development was dependent upon compliance with an AEC licensing scheme similar to that under the 1946 Act.

The current Atomic Energy Act as amended in 1959 clarifies the roles of state and federal authority over atomic energy regulation. Section 2021(b) of the 1959 Act allowed states to enter into agreements with the AEC whereby the states assume regulatory authority "for the protection of the public health and safety from radiation hazards." Illinois has not entered into an agreement with the Nuclear Regulatory Commission (hereinafter NRC) for assumption of such authority. Therefore, the NRC still retains whatever licensing power is inherent in the Atomic Energy Act in Illinois. However, 42 U.S.C. § 2021 (k) states that "nothing in this section shall be construed to affect the authority of any State or local agency to regulate activities for purposes other than the protection against radiation hazards." Citing this language, the appellate court in West Chicago concluded that states retain their authority to regulate non-radiation hazards.

West Chicago alleged common law and statutory municipal rights to define, prevent, and abate nuisances, demolish or repair dangerous and unsafe buildings, and enforce compliance with municipal ordinances in

20. 677 F.2d at 580-81.
22. § 11-31-1.
the interest of public health and safety. Kerr-McGee argued the city's complaint was in conflict with the NRC's authority to regulate radiation hazards. The appellate court stated that only an actual conflict between the city's suit and the Commission would permit the Commission to prevail and that none of the alleged violations directly involved radiation hazards.

While recognizing the clear preemption of state regulation of radiation hazards by the Atomic Energy Act, the appellate court also referred to the purpose of the 1959 Act. The court stated that, on remand, lower court considerations as to whether local or federal authority should prevail should include not only the nature of the materials but also whether, at the time of the dumping, the 1959 regulatory scheme was in effect. Prior to 1959, the AEC had complete responsibility for the regulation of byproduct materials, source materials, and special nuclear materials of insufficient quantity to form a critical mass. The 1959 amendment permits states to regulate non-radiation hazard situations. Therefore, the lower court will determine whether the AEC had complete authority over all byproduct dumping occurring prior to 1959 and whether the states had authority over non-radiation hazard dumping that occurred after 1959.

The *West Chicago* decision is in line with recent statutory enactments and federal court decisions recognizing the failure of federal preemption in specific areas of state concern. Congress has approved application of state tort laws in nuclear instances insufficient to qualify as "extraordinary nuclear occurrences." Federal courts have recognized state authority to

23. § 11-31-2.
24. *West Chicago*, 677 F.2d at 582.
25. Essentially, the objectives of this proposed bill are to provide procedures and criteria whereby the Commission may 'turn over' to individual states, as they become ready, certain defined areas of regulatory jurisdiction.

This subsection [k] is intended to make it clear that the bill does not impair the State authority to regulate activities of the AEC licensees for the manifold health, safety, and economic purposes other than radiation protection.

*Id.*, at 2882.
'Special nuclear material' means: (i) plutonium, uranium 233, uranium enriched in the isotope 233 or in the isotope 235, and any other material which the Commission, pursuant to the provisions of section 51 of the act, determines to be special nuclear material, but does not include source material; or (ii) any material artificially enriched by any of the foregoing but does not include source material.

The term 'extraordinary nuclear occurrence' means any event causing a discharge or dispersal of source, special nuclear, or byproduct material from its intended place of confinement in amounts onsite, or causing radiation levels offsite, which the Com-
regulate site proposals for nuclear power plants and have allowed application of state tort law principles in offsite damage incidents. However, as the courts and legislatures have begun to fill in the framework of control of radioactive versus non-radioactive materials, questions still remain regarding specific delineation of radiation hazards.

The court in *West Chicago* declined to define the term "radiation hazard" and thereby postponed deciding a matter necessary for determining whether state or federal authority applies to dumping areas. Classification of nuclear waste material as high-, intermediate-, or low-level is almost always an arbitrary distinction. However, a determination as to whether material does or does not emit radiation is straightforward. Once monitors have established the presence of radiation, a standard constituting a "hazardous" level is necessary. No NRC regulation distinguishes between hazardous and non-hazardous radiation situations. Federal standards do specify that a "radiation area" means an area wherein licensed material is "at such levels that a major portion of the body could receive in any one hour a dose in excess of 5 millirem, or in any 5 consecutive days a dose in excess of 100 millirems" of radiation. Federal regulations also define sites that are deemed "high radiation" areas. However, aside from these standards, the answer as to the amount of radiation sufficient to constitute a "hazard" remains undetermined.

Radioactivity measurements of specific materials established by the NRC are premised on concentrations above natural background levels. Therefore, without a thorough monitoring of any background radiation enhancement, the mere presence of a particular amount of radioactive material may or may not prove hazardous. Furthermore, an individual's susceptibility to radiation is dependent upon prior exposures to radioactivity. One who has spent time in a radiation intensive environment faces a greater hazard of cellular damage from accumulated doses that one who has kept himself relatively radiation free. In effect, without a thorough

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mission determines to be substantial, and which the Commission determines has resulted or will probably result in substantial damages to persons offsite or property offsite.


31. "We think it unwise to formulate in abstract terms the distinction between radiation hazards and non-radiation hazards." 677 F.2d at 581.


33. 'High radiation area' means any area accessible to personnel in which there exists radiation originating in whole or in part within licensed material at such levels that a major portion of the body could receive in any one hour a dose in excess of 100 millirem.

*Id.*, § 20.20(b)(3).

34. *Id.* at Appendix B.

35. Interview with Al Topp, Chief of the Radiation Protection Bureau, New Mexico Environmental Improvement Division, Santa Fe, New Mexico (April 20, 1983).
study of the many variables involved, a final definition of "radiation hazard" will prove to be either elusive or arbitrary. The lower court determination in West Chicago will be noteworthy if in fact the court addresses this question with sufficient particularity.

Because non-radiation hazards remain under state control, this authority may include local influence over the selection of sites for production or dumping of nuclear materials, facility design, operation, maintenance, and funding, personnel selection, and environmental monitoring. The matter then remains as to how far a locality may extend its authority. Conceivably, a state or municipality may develop such a rigid design or monitoring scheme that compliance with the plan would greatly diminish the economic feasibility of actually constructing such a site. In light of recent adverse public reaction to the further construction of nuclear facilities, a non-radiation regulatory scheme may provide anti-nuclear concerns with a further opportunity to frustrate construction or operation of nuclear facilities.

CONCLUSION

The West Chicago decision clearly stands for the authority of state or local agencies to regulate non-radiation hazards associated with atomic energy. However, the case still leaves unanswered the question of distinguishing between radiation and non-radiation dangers. The appellate court gave no indication whether a legislative or judicial determination will settle the matter. The amendments to the Atomic Energy Act of 1946 indicate a change of policy from the centralized control of the Atomic Energy Commission to more private development and state involvement. Such development suggests a joint federal and state effort might best define instances when each of the respective authorities would be proper. Until courts or legislatures clearly define radiation hazards, states may stand on their authority to regulate non-radiation hazards to establish virtually impossible building, monitoring, or management requirements to discourage further nuclear development.

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