

ORAL ARGUMENT NOT YET SCHEDULED

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NO. 20-1187

(Consolidated with Case Nos. 20-1225, 21-1104, 21-1147)

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**IN THE UNITED STATES COURT OF APPEALS  
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

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BEYOND NUCLEAR, INC.,

Petitioner,

v.

UNITED STATES NUCLEAR REGULATORY COMMISSION and UNITED  
STATES OF AMERICA,

Respondents,

and

FASKEN LAND AND MINERALS, LTD, et al.

Intervenors

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On Petition for Review of a Decision of the United States Nuclear Regulatory  
Commission

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**AMICUS BRIEF OF THE CITY OF FORT WORTH IN SUPPORT OF  
PETITIONERS**

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**RULE 29(a)(2) STATEMENT**

Pursuant to Circuit Rule 29(d), undersigned counsel for amicus curiae certifies that a separate brief is necessary because the City of Fort Worth (“City”) and Natural Resources Defense Council represent distinct interests with diverse knowledge bases. Whereas the City of Fort Worth is a local government concerned with the local impacts of transporting nuclear waste through its city and its effect on its citizenry, Natural Resources Defense Council is a nationwide environmental organization with expertise of the history of U.S. nuclear waste policy. The City is able to file this brief because all parties in the above-referenced case consent to their participation as amicus curiae in support of Petitioners.

**RULE 29(a)(4)(D) STATEMENT**

The City of Fort Worth is a home-rule municipality in the State of Texas. The City has an immediate interest in this litigation because it is concerned that spent nuclear fuel will be transported by rail through Fort Worth to be stored at Holtec’s facility in New Mexico. Fort Worth has a population of over 950,000, is the 12<sup>th</sup> largest city in the United States and has an extensive rail system.

The City is able to file this brief because all parties in the above-referenced case consent to their participation as amicus curiae in support of Petitioners.

**RULE 29(a)(4)(E) STATEMENT**

Pursuant to Fed R. App. P. 29(a)(4)(E), undersigned counsel for amicus curiae City of Fort Worth certifies that the author of this brief is a salaried assistant city attorney for the City of Fort Worth. Other than normal salary, no fee has been paid or will be paid for preparation of this brief. No party or party's counsel or any other person or entity contributed money that was intended to fund preparing or submitting the brief.

**GLOSSARY**

CISF        Consolidated Interim Storage Facility

EIS         Environmental Impact Statement

NEPA       National Environmental Policy Act

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## STATEMENT OF INTEREST

The City of Fort Worth (“City”) is a home-rule municipality in the State of Texas. The City has an immediate interest in this litigation because it is concerned that spent nuclear fuel will be transported by rail through Fort Worth to be stored at Holtec’s facility in New Mexico. Fort Worth has a population of over 950,000, is the 12<sup>th</sup> largest city in the United States and has an extensive rail system.

## ARGUMENT

### A. Fort Worth is Concerned

The U.S. Nuclear Regulatory Commission granted license approval for Holtecs’ controversial storage facility in New Mexico. The facility would store spent nuclear fuel and reactor-related Greater-Than-Class C radioactive waste from nuclear power plants across the U.S. It would have the capacity to store 173,600 metric tons of irradiated fuel in shallowly buried canisters.<sup>1</sup>

Construction of Holtec’s facilities would trigger thousands of shipments of spent nuclear fuel and reactor-related Greater-Than-Class C through 44 states through Texas to New Mexico. Transportation of this waste poses dangers to populations along transportation routes, as well as to transportation infrastructure itself. This is of great concern to Fort Worth as the toxic material would likely travel through Fort Worth.

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<sup>1</sup> <https://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr2237/index.html>

Spent nuclear fuel is a deadly radiotoxic material and each transport cask will contain considerably more radioactivity than was dispersed by the Hiroshima nuclear bomb.<sup>2</sup> Spent nuclear fuel “poses a dangerous, long-term health and environmental risk. It will remain dangerous ‘for time spans seemingly beyond human comprehension.’” *Nuclear Energy Inst., Inc. v. EPA*, 373 f.3d 1251, 1258 (D.C. Cir. 2004) (*per curiam*). Fort Worth is concerned for its citizenry of risk of exposure to spent nuclear fuel from being stuck in traffic proximate to rail loads, leakage from transport vehicles, downwind exposure from defective transport cars, and the possible radioactive contamination of water sources caused by accidents. Further, Cesium-137, an isotope in the spent nuclear fuel, could volatilize and escape with the smoke if there is a fire or surface radioactive contamination on a transport cask or vehicle. Radionuclides could be inhaled by emergency responders or the public which could result in damage to the heart or thyroid.<sup>3</sup>

**B. Fort Worth Citizenry Would be Affected by the Transport of Spent Nuclear Fuel**

Fort Worth is known for its unique combination of cowboys and culture. Famous for its stock show and rodeo and as the place “where the West begins”, it also is home to some of the finest art museums in the world: the Kimbell, Amon-Carter, and Modern. In 2020, Fort Worth had a population of 958,692 and is now

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<sup>2</sup> <https://www.nrc.gov/docs/ML2030/ML20308A728.pdf>

<sup>3</sup> *Id.*



the 12<sup>th</sup> largest city in the United States. Fort Worth is also one of the fastest growing cities in the country.<sup>4</sup> Fort Worth is a vibrant, thriving, modern city that embraces its history.

Pertinent to this appeal, Fort Worth is a national railroad hub. Fort Worth is the home to Tower 55, the crossing of double-track Union Pacific and single-track Burlington Northern Sante Fe Railways. Mainline freight operates on both lines, including unit and intermodal trains. Passenger trains include Trinity Rail Express, commuter trains from Dallas to Fort Worth's Intermodal Transportation Center, and the Texas & Pacific Passenger Terminal. Amtrak's *Texas Eagle* and *Heartland Flyer* also stop at the Fort Worth Intermodal Transportation Center. Burlington Northern Sante Fe and Union Pacific local switchers serve nearby customers. The approximate daily train frequency for Burlington Northern Sante Fe is 30 freights, 50 for Union Pacific, 30 trains on weekdays and 18 on Saturday for the Trinity Rail Express, and Amtrak runs 4 trains. Major interstate highways cross near Tower 55.<sup>5</sup>

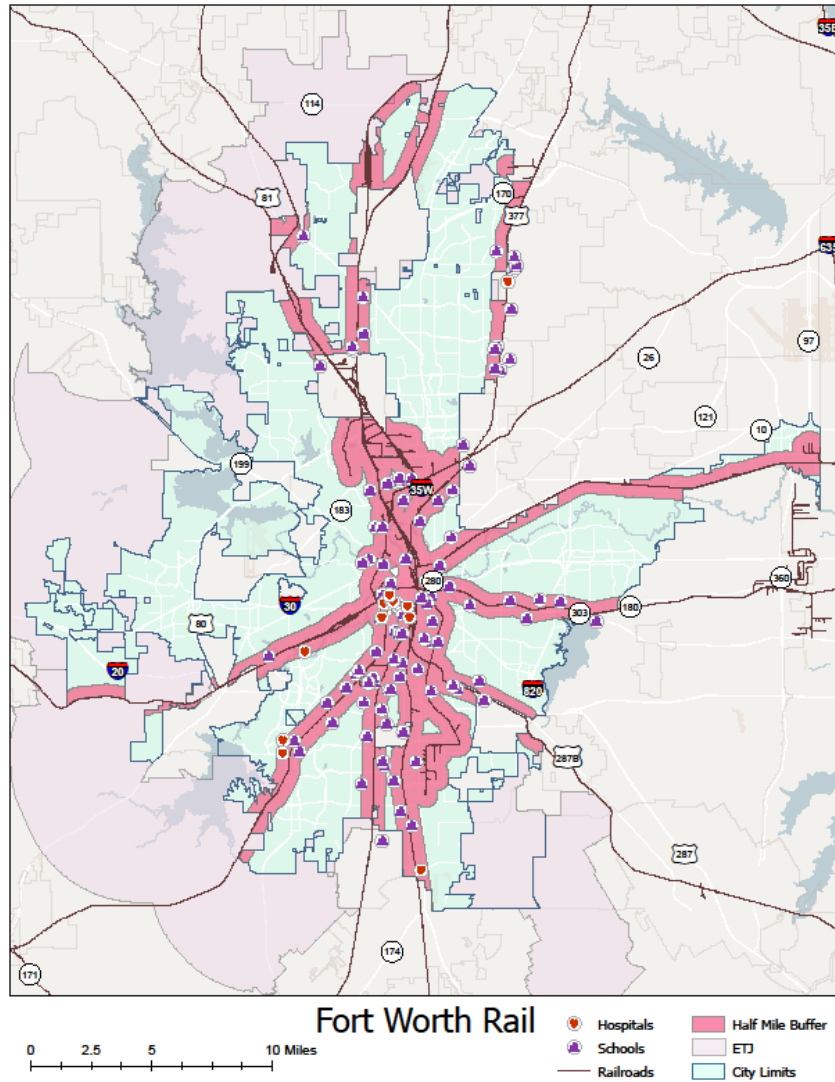
The map below shows the rail system in Fort Worth.<sup>6</sup>

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<sup>4</sup> <https://worldpopulationreview.com/us-cities/fort-worth-tx-population>

<sup>5</sup> <https://www.trains.com/trn/railroads/hotspots/fort-worth-texas-tower-55/>

<sup>6</sup> Map created by Natalie Watkins, Sr. IT Programmer/Analyst, City of Fort Worth



The shading on the map depicts a  $\frac{1}{2}$  mile area on both sides of the rail throughout the City. In the “Final Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada, Volume I” (February 2002), the U.S. Department of Energy pronounced that the “region of influence for public health and safety along existing transportation routes is 800 meters (0.5 mile) from the centerline of the transportation rights-of-way and from the boundary of rail yards

for incident-free (non-accident) conditions. The region of influence was extended to 80 kilometers (50 miles) to address potential human health and safety impacts from accident scenarios.” §§ 3.2.1, p. 3-119.

This ½ mile is a critical, vital part of Fort Worth; in some ways this is Fort Worth’s heart. Within this ½ mile one will find such important things as: portions of downtown including the Fort Worth Convention Center, Water Gardens, City Hall, Federal Courthouse, and the Bass Performance Hall. The ½ mile also encompasses the Botanic Garden, Trinity Park, and Colonial Country Club. Because this “region of influence” is heavily populated and active, the City is concerned about spent nuclear fuel transports and its effects. The map clearly shows many hospitals and schools within the ½ mile of rail. Of course, if there was a disaster, it would be catastrophic for Fort Worth.

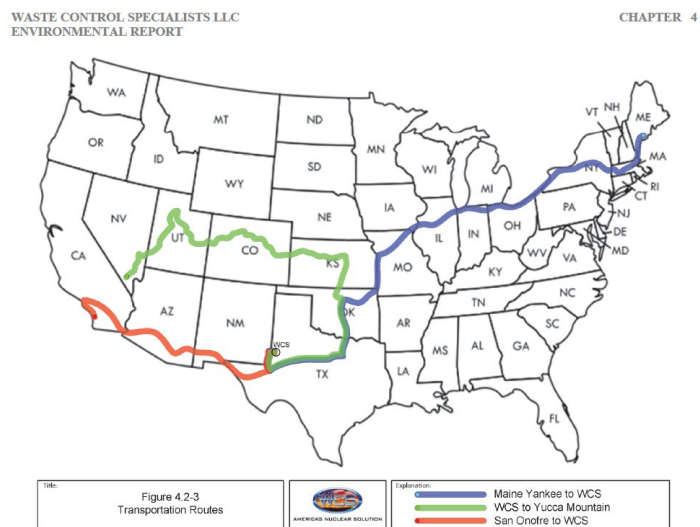
### **C. Holtec’s Lack of Transparency with Respect to Transportation Routes is Troubling**

Holtec proposes to transport dangerous nuclear waste via rail throughout the country. Under federal regulations, a proposed nuclear waste storage facility “must be evaluated with respect to the potential impact on the environment of the transportation of spent fuel, high-level radioactive waste, or reactor-related [Greater-Than-Class C] waste within the region.” 10 C.F.R. § 72.108. However, evaluation of the environmental impact of transportation of spent nuclear fuel to the New

Mexico facility would be impossible because transportation routes are not clearly defined.

Holtec's licensing application names 12 shutdown decommissioned nuclear reactor sites from which it expects nuclear waste will be shipped to the storage site in New Mexico.<sup>7</sup> However, Holtec's application is lacking in meaningful information in regard to the transportation route from these sites. Failing to identify routes denies communities such as Fort Worth meaningful notice that they will have trains carrying nuclear waste passing through and affecting the citizenry. What's more, it is likely that Fort Worth's downtown and other heavily populated areas will be affected.

Holtec only mapped three of the routes in their application as shown below:<sup>8</sup>



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<sup>7</sup> Environmental Report, Table 2.2-1, Page 34.

<sup>8</sup> Environmental Report, Figure 4.9.1, Page 225.

While Holtec lacks transparency with respect to transportation routes, it is clear from these maps that Fort Worth will be affected. The Fort Worth citizenry should have access to transport route information so that the public will know about the possible exposure to radioactive waste. The City should have the right to petition for routes that are less dense.

Further, Holtec explicitly expects to receive spent nuclear fuel from decommissioned sites.<sup>9</sup> Again, entire communities affected by the transport of waste from these sites are left in the dark. With respect to Fort Worth, because it is a railway hub, it will likely be affected by the transport from these additional sites which will result in additional exposure to its citizenry.

**D. Fort Worth is Concerned that there has not been an Adequate Calculation of the Risk of Accidents and Exposure Levels**

An agency conducting a National Environmental Policy Act process must examine both the probability of a given harm occurring and the consequences of that harm if it does occur. “Only if the harm in question is so “remote and speculative” as to reduce the effective probability of its occurrence to zero may the agency dispense with the consequences portion of the analysis.” *State of New York v. Nuclear Regulatory Comm’n*, 681 F.3d 471, 482 (D.C. Cir. 2012). Under the regulations, an agency must assess the “reasonably foreseeable significant adverse

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<sup>9</sup> Environmental Report, page 20.

effects” of its action, including “impacts that have catastrophic consequences, even if their probability of occurrence is low.” See 40 C.F.R. § 1502.21(d). There is a risk of radiologic harm from an accident caused by shipments of spent nuclear fuel being transported to the consolidated interim storage facility.

Fort Worth believes that at a minimum, the following should be studied: Spent Nuclear Fuel storage options (shouldn't the waste be stored near the facility until there is a permanent solution so that waste is moved only once?), common sense shipment restrictions, temperature of casks, the duration of casks, the necessity of emergency cooling equipment, the necessity of certain fire suppression equipment, and an analysis of population densities.

**E. Fort Worth is Troubled by the Specter of a Terrorist Attack Related to the Transport of Nuclear Waste**

Under the applicable regulations, an agency must assess significant adverse effects such as terrorist attacks. See 40 C.F.R. § 1502.21(d) (requiring an agency to assess “reasonably foreseeable significant adverse effects” including “impacts that have catastrophic consequences, even if their probability of occurrence is low”). In *San Luis Obispo Mothers for Peace*, the Ninth Circuit held that it was unreasonable for the Nuclear Regulatory Commission to categorically dismiss the possibility of terrorist attack as too remote and highly speculative to warrant consideration. *San Luis Obispo Mothers for Peace v. NRC*, 449 F.3d 1016, 1032 (9th Cir.2006).

Specifically, the Ninth Circuit found that NRC's historical actions to combat terrorist threats could not be reconciled with its position that terrorist attacks are too remote and speculative. *Id.* at 1030-31 & n.8 (finding inconsistencies with NRC's position that terrorist attacks are too remote and speculative and the agency's post 9/11 security procedures requiring security plans to protect against a "design basis threat" for radiological) (citing Nuclear Regulatory Commission: Oversight of Security at Commercial Nuclear Power Plants Needs to Be Strengthened, GAO-030752 (2003) at 6).

Fort Worth is vulnerable to terrorist attack without trains filled with spent nuclear fuel running through it. It is the home of Lockheed Martin, an American aerospace, arms, defense, information security, and technology corporation with worldwide interests. It is also home to Alliance Airport and Dallas-Fort Worth Airport, according to Wikipedia, the world's fourth busiest airport by passenger traffic. But Fort Worth would be much more vulnerable to attack with trains carrying spent nuclear fuel running through it. Indeed, the trains themselves are vulnerable to terrorist attack. A deliberate attempt to trigger a catastrophe could result in grave consequences, of course. The potential for disaster is too great and the cost is too high: Fort Worth asserts that it is simply unwise to transport spent nuclear fuel through its city limits on rail.

**F. Fort Worth is Concerned that Transportation of Spent Nuclear Fuel will Cost Local Taxpayers**

The Nuclear Regulatory Commission should consider the cost to local taxpayers before issuing a permit. The risks of wear and tear and geologic instability, adverse impacts on regional industries' use of the transportation infrastructure and inevitable need for infrastructure improvement costs, and substantial funding needed for training, equipment and providing first responder, fire and emergency services in the event of a radiological incident should all be taken into account. The administrative process, and the appeal from that process, should seek to protect cities like Fort Worth that are going to be affected most by an accident or incident. Under such foreseeable circumstances, Fort Worth and other cities should not be left to shoulder the costs of a disaster.

**CONCLUSION AND PRAYER**

The City is concerned that every aspect of transporting highly dangerous material should be considered carefully. An environmental impact statement must contain a reasonably thorough discussion of the significant probability of environmental consequences and must discuss the environmental impacts, including transportation impacts, of the proposed action—which requires Department of Energy to take a hard look at the potential environmental consequences of the proposed action. See *Northwest Ecosystem Alliance v. Rey*, 380 F. Supp. 2d 1175, 1185 (W.D. Wash. 2006); and *Idaho Conservation League v. Mumma*, 956 F.2d



1508, 1519 (9<sup>th</sup> Cir. 1992). 10 C.F.R. § 63.31 (c) provides that a construction authorization will not issue until the Nuclear Regulatory Commission weighs the environmental, economic, technical, and other benefits against environmental costs, and considers available alternatives contained in the Environmental Impact Statement.

In this regard, Fort Worth is concerned about the lack of designation of transportation routes, the risk of accidents during transport, costs to Fort Worth that have not been identified and are not funded. Fort Worth is also concerned with the risk of canister failure during transport, the risk of accident during transport, and the general uncertainty regarding canister performance and lifespan. In short, Fort Worth does not want nuclear waste transported through it.

The City of Fort Worth prays the Court rule for Petitioners.

Respectfully submitted,

/s/ Christopher B. Mosley

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### **CERTIFICATE OF COMPLIANCE**

Pursuant to Federal Rule of Appellate Procedure Rule 32(a)(7)(C), I certify that the attached Amicus Brief is proportionately spaced, has a typeface of Times New Roman, 14 points, and contains less than 6,500 words. This figure includes footnotes and citations, but excludes the Cover Page, Table of Contents, Table of Authorities, signature blocks, Certificate of Compliance, Certificate of Service, Addendum of Statutes, Rules, and Regulations, and Standing Addendum. I have relied on Microsoft Word's calculation feature for this calculation. The Brief contains 2,092 words.

/s/ Christopher B. Mosley  
CHRISTOPHER B. MOSLEY

### **CERTIFICATE OF SERVICE**

Pursuant to Fed. R. App. P. 25(d) and Cir. R. 25(a) I hereby certify that on the 8<sup>th</sup> day of September 2023, a true and correct copy of the foregoing instrument has been filed electronically using the Court's electronic case filing system, which will send a notification to the attorneys of record in this matter who are registered with the Court's CM/ECF system.

/s/ Christopher B. Mosley  
CHRISTOPHER B. MOSLEY