2017

Congressional Districts Potentially Affected by Shipments to Yucca Mountain, Nevada



Fred Dilger PhD. Black Mountain Research 5/22/2017

Background

On June 16, 2008, the U.S. Department of Energy (DOE) released the *Final Supplemental 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* (FSEIS). In the FSEIS, DOE identified "representative routes" from 72 commercial and 4 DOE sites in 34 states to Yucca Mountain, based on U.S. Department of Transportation highway regulations and current railroad practices. For the proposed action, i.e., the disposal of 70,000 metric tons, DOE calculated there would be about 2,800 rail shipments (9,500 casks) and about 2,700 highway shipments of spent nuclear fuel and high-level radioactive waste. DOE included 44 state maps (and the District of Columbia) showing these "representative routes," and tables estimating the number of rail and highway shipments through each state in Appendix G of the FSEIS. The FSEIS transportation analysis "is based on routes that could be used and that DOE believes are representative of those that will be used." [p. G-5] Because the FSEIS analysis "is based primarily upon the existing Interstate Highway System and the existing national rail network, the analysis presents a representative estimate of what the actual transportation impacts would probably be." [p. G-60]

In 2008, DOE submitted the FSEIS to the U.S. Nuclear Regulatory Commission (NRC) in support of its application for a license to construct the Yucca Mountain repository. DOE terminated the Yucca Mountain project in 2010, and NRC suspended the licensing proceeding in 2011. In August 2013, the U.S. Court of Appeals for the District of Columbia Circuit ordered NRC to resume the licensing proceeding. NRC issued an order directing its staff to restart the non-adjudicatory portion of the proceeding in November 2013. Resumption of the full legally-mandated proceeding could possibly occur in 2017 or 2018. In that event, DOE's identification of "representative routes" to Yucca Mountain and the resulting evaluation of transportation impacts, required under the National Environmental Policy Act (NEPA), would be an important part of the proceeding.

The NRC Atomic and Safety Licensing Boards admitted 46 transportation or transportation-related contentions, some of which directly challenge DOE's identification of "representative routes" and "regions of influence"¹ in the FSEIS. The NRC administrative law judges wrote: "... there can be no serious dispute that the NRC's NEPA responsibilities do not end at the boundaries of the proposed repository, but rather extend to the transportation of nuclear waste to the repository. The two are closely interdependent. Without the repository, waste would not be transported to Yucca Mountain. Without transportation of waste to it, construction of the repository would be irrational. Under NEPA, both must be considered."² The admitted contentions challenge DOE's evaluation of transportation impacts resulting from routine operations, severe accidents, and radiological sabotage.

This report updates a 2014 publication on Congressional districts potentially affected by shipments to Yucca Mountain. In order to assess the potential impacts on Congressional districts, the author of this report converted the "representative routes" into a format used by the Maptitude Geographic Information System software developed by Caliper Corporation. The 115th Congressional district data was obtained from the Census Department. The routes were overlaid onto the Congressional districts and those districts that are traversed by FSEIS "representative routes" were selected. Those districts that are traversed by the FSEIS rail and/or highway routes are identified in this report. This report was prepared for the State of Nevada Agency for Nuclear Projects.

Fred C. Dilger Ph.D. May 22, 2017 <u>blackmountainresearch@gmail.com</u>

¹ The FSEIS identifies the region of influence for radiological impacts of incident-free transportation as 0.5 miles on either side of the route centerline and, for radiological impacts of transportation accidents and sabotage, 50 miles on either side of the route centerline. [p. 3.95]

²NRC, Atomic Safety and Licensing Boards, Memorandum and Order Identifying Participants and Admitted Contentions, Docket N0. 63-001-HLW (May 11, 2009).



Figure 1. 115th Congressional Districts Affected by Rail and Truck Shipments to Yucca Mt

State	Rail Casks	Truck Casks	Total Casks
Alabama	1,514	857	2,371
Arizona	456	2,650	3,106
Arkansas	227	0	227
California	755	857	1,612
Colorado	6,739	0	6,739
Connecticut	216	344	560
District of Columbia	255	0	255
Florida	138	857	995
Georgia	1,672	0	1,672
Idaho	2,001	4	2,005
Illinois	6,069	1,752	7,821
Indiana	4,887	1,425	6,312
lowa	3,066	1,789	4,855
Kansas	3,574	0	3,574
Kentucky	2,663	0	2,663
Louisiana	233	857	1,090
Maine	60	0	60
Maryland	255	0	255
Massachusetts	415	344	759
Michigan	132	768	900
Minnesota	153	37	190
Mississippi	170	857	1,027
Missouri	3,574	0	3,574
Nebraska	6,739	1,789	8,528
Nevada ³	9,495	2,650	12,145
New Hampshire	110	0	110
New Jersey	276	0	276
New Mexico	257	857	1,114
New York	827	657	1,484
North Carolina	502	0	502
Ohio	2,314	657	2,971

Shipments of Spent Nuclear Fuel and High-Level Radioactive Waste

³ The Nevada cask-shipment totals are the total numbers nationally for the proposed action, i.e., the shipment of 70,000 metric tons to Yucca Mountain. The column entries, derived from 45 separate FSEIS tables, cannot be summed.

Oklahoma	227	857	1,084
Oregon	1,307	3	1,310
Pennsylvania	2,036	657	2,693
South Carolina	1,365	0	1,365
South Dakota	44	0	44
Tennessee	2,663	0	2,663
Texas	357	857	1,214
Utah	8,740	1,793	10,533
Vermont	199	0	199
Virginia	390	0	390
Washington	1,274	3	1,277
West Virginia	255	0	255
Wisconsin	152	37	189
Wyoming	6,354	1,789	8,143

Source: FSEIS (2008), Appendix G, Pages G-60 to G-150

Appendix A: List of Affected Congressional Districts

Affected 115th	Congressional Districts	
State AL	District	Name
	1st	Byrne, Bradley
	2d	Roby, Martha
	4th	Aderholt, Robert B.
	5th	Brooks, Mo
	6th	Palmer, Gary J.
AR	7th	Sewell, Terri A.
	1st	Crawford, Eric A. "Rick"
	3d	Womack, Steve
	4th	Westerman, Bruce
AZ	1st	O'Halleran, Tom
	2d	McSally, Martha
	3d	Grijalva, Raúl M.
	4th	Gosar, Paul A.
	5th	Biggs, Andy
	7th	Gallego, Ruben
	8th	Franks, Trent
СА	9th	Sinema, Kyrsten
	1st	LaMalfa, Doug
	2d	Huffman, Jared
	3d	Garamendi, John
	6th	Matsui, Doris O.
	7th	Bera, Ami
	8th	Cook, Paul
	9th	McNerney, Jerry

State	District	Name
	10th	Denham, Jeff
	16th	Costa, Jim
	21st	Valadao, David G.
	22nd	Nunes, Devin
	23rd	McCarthy, Kevin
	24th	Carbajal, Salud O.
	25th	Knight, Stephen
	26th	Brownley, Julia
	27th	Chu, Judy
	28th	Schiff, Adam B.
	29th	Cárdenas, Tony
	30th	Sherman, Brad
	31st	Aguilar, Pete
	32d	Napolitano, Grace F.
	34th	[Becerra, Xavier]
	35th	Torres, Norma J.
	36th	Ruiz, Raul
	39th	Royce, Edward R.
	41st	Takano, Mark
	42d	Calvert, Ken
	45th	Walters, Mimi
	46th	Correa, J. Luis
	48th	Rohrabacher, Dana
	49th	Issa, Darrell E.
	51st	Vargas, Juan
СО		
	1st	DeGette, Diana
	2d	Polis, Jared

State	District 3rd	Name Tipton, Scott R.
	4th	Buck, Ken
	6th	Coffman, Mike
СТ	7th	Perlmutter, Ed
	1st	Larson, John B.
	2d	Courtney, Joe
	3d	DeLauro, Rosa L.
	5th	Esty, Elizabeth H.
DC	Delegate	Norton, Eleanor Holmes
FL	1-1	Costa Matt
	1st	Gaetz, Matt
	2d	Dunn, Neal P.
	3d	Yoho, Ted S.
	4th	Rutherford, John H.
	5th	Lawson, Al, Jr.
	6th	DeSantis, Ron
	8th	Posey, Bill
	11th	Webster, Daniel
	12th	Bilirakis, Gus M.
	14th	Castor, Kathy
	15th	Ross, Dennis A.
	16th	Buchanan, Vern
	17th	Rooney, Thomas J.
	18th	Mast, Brian J.
	19th	Rooney, Francis
	20th	Hastings, Alcee L.
	22d	Deutch, Theodore E.

State	District	Name
	23d	Wasserman Schultz, Debbie
	24th	Wilson, Frederica S.
	25th	Diaz-Balart, Mario
	26th	Curbelo, Carlos
	27th	Ros-Lehtinen, Ileana
GA		
	1st	Carter, Earl L. "Buddy"
	2d	Bishop, Sanford D., Jr.
	3d	Ferguson, A. Drew, IV
	4th	Johnson, Henry C. "Hank", Jr.
	5th	Lewis, John
	6th	[Price, Tom]
	7th	Woodall, Rob
	8th	Scott, Austin
	9th	Collins, Doug
	10th	Hice, Jody B.
	11th	Loudermilk, Barry
	12th	Allen, Rick W.
	13th	Scott, David
	14th	Graves, Tom
IA		
	1st	Blum, Rod
	2nd	Loebsack, David
	3d	Young, David
	4th	King, Steve
ID	1st	Labrador, Raúl R.
	2d	Simpson, Mike
IL		

State	District 1st	Name Rush, Bobby L.
	2d	Kelly, Robin L.
	3d	Lipinski, Daniel
	4th	Gutiérrez, Luis V.
	5th	Quigley, Mike
	6th	Roskam, Peter J.
	7th	Davis, Danny K.
	8th	Krishnamoorthi, Raja
	9th	Schakowsky, Janice D.
	10th	Schneider, Bradley Scott
	11th	Foster, Bill
	12th	Bost, Mike
	13th	Davis, Rodney
	14th	Hultgren, Randy
	15th	Shimkus, John
	16th	Kinzinger, Adam
	17th	Bustos, Cheri
	18th	LaHood, Darin
IN		
	1st	Visclosky, Peter J.
	2d	Walorski, Jackie
	3d	Banks, Jim
	8th	Bucshon, Larry
	9th	Hollingsworth, Trey
KS	1	Marshall Degar M
	1st	Marshall, Roger W.
	2d	Jenkins, Lynn
	3d	Yoder, Kevin

State	District 1st	Name Comer, James
	2d	Guthrie, Brett
	3d	Yarmuth, John A.
	4th	Massie, Thomas
	5th	Rogers, Harold
	6th	Barr, Andy
LA		
	1st	Scalise, Steve
	2d	Richmond, Cedric L.
	3d	Higgins, Clay
	4th	Johnson, Mike
	5th	Abraham, Ralph Lee
	6th	Graves, Garret
MA		
	1st	Neal, Richard E.
	2d	McGovern, James P.
	3d	Tsongas, Niki
	4th	Kennedy, Joseph P., III
	6th	Moulton, Seth
	8th	Lynch, Stephen F.
	9th	Keating, William R.
MD		
	4th	Brown, Anthony G.
	5th	Hoyer, Steny H.
	6th	Delaney, John K.
	8th	Raskin, Jamie
ME		
	1st	Pingree, Chellie
MI		
	1st	Bergman, Jack

State	District	Name
	3d	Amash, Justin
	4th	Moolenaar, John R.
	5th	Kildee, Daniel T.
	6th	Upton, Fred
	7th	Walberg, Tim
	8th	Bishop, Mike
	9th	Levin, Sander M.
	12th	Dingell, Debbie
	13th	Conyers, John, Jr.
	14th	Lawrence, Brenda L.
MN		
	1st	Walz, Timothy J.
	2d	Lewis, Jason
	3d	Paulsen, Erik
	4th	McCollum, Betty
	5th	Ellison, Keith
	6th	Emmer, Tom
	7th	Peterson, Collin C.
МО		
	1st	Clay, Wm. Lacy
	2d	Wagner, Ann
	3d	Luetkemeyer, Blaine
	4th	Hartzler, Vicky
	5th	Cleaver, Emanuel
	6th	Graves, Sam
	7th	Long, Billy
	8th	Smith, Jason
MS		
	1st	Kelly, Trent

State	District	Name
	2d	Thompson, Bennie G.
	3d	Harper, Gregg
	4th	Palazzo, Steven M.
NC		
	2d	Holding, George
	6th	Walker, Mark
	7th	Rouzer, David
	8th	Hudson, Richard
	9th	Pittenger, Robert
	10th	McHenry, Patrick T.
	11th	Meadows, Mark
	12th	Adams, Alma S.
	13th	Budd, Ted
NE		
	1st	Fortenberry, Jeff
	2d	Bacon, Don
	3d	Smith, Adrian
NH	1+	Shap Dartar Carol
	1st	Shea-Porter, Carol
	2d	Kuster, Ann M.
NJ	1st	Norcross, Donald
	2d	LoBiondo, Frank A.
	3d	MacArthur, Thomas
	4th	Smith, Christopher H.
	5th	Gottheimer, Josh
	6th	Pallone, Frank, Jr.
	7th	Lance, Leonard
	8th	Sires, Albio

State	District 10th	Name Payne, Donald M., Jr.
NM	12th	Watson Coleman, Bonnie
	1st	Lujan Grisham, Michelle
	2d	Pearce, Stevan
	3d	Luján, Ben Ray
NV		
	1st	Titus, Dina
	3d	Rosen, Jacky
	4th	Kihuen, Ruben J.
NY	1744	
	17th	Lowey, Nita M.
	18th	Maloney, Sean Patrick
	19th	Faso, John J.
	20th	Tonko, Paul
	22d	Tenney, Claudia
	23d	Reed, Tom
	24th	Katko, John
	25th	Slaughter, Louise McIntosh
	26th	Higgins, Brian
	27th	Collins, Chris
ОН		
	2d	Wenstrup, Brad R.
	3d	Beatty, Joyce
	4th	Jordan, Jim
	5th	Latta, Robert E.
	6th	Johnson, Bill
	7th	Gibbs, Bob
	9th	Kaptur, Marcy

State	District	Name
	11th	Fudge, Marcia L.
	12th	Tiberi, Patrick J.
	13th	Ryan, Tim
	14th	Joyce, David P.
	15th	Stivers, Steve
	16th	Renacci, James B.
ОК		
	1st	Bridenstine, Jim
	2d	Mullin, Markwayne
	3d	Lucas, Frank D.
	4th	Cole, Tom
	5th	Russell, Steve
OR		
	1st	Bonamici, Suzanne
	2d	Walden, Greg
	3d	Blumenauer, Earl
PA		
	1st	Brady, Robert A.
	2d	Evans, Dwight
	3d	Kelly, Mike
	4th	Perry, Scott
	5th	Thompson, Glenn
	6th	Costello, Ryan A.
	7th	Meehan, Patrick
	9th	Shuster, Bill
	10th	Marino, Tom
	11th	Barletta, Lou
	12th	Rothfus, Keith J.
	13th	Boyle, Brendan F.

State	District 14th	Name Doyle, Michael F.
	15th	Dent, Charles W.
	16th	Smucker, Lloyd
	17th	Cartwright, Matt
	18th	Murphy, Tim
SC		
	2d	Wilson, Joe
	3d	Duncan, Jeff
	4th	Gowdy, Trey
	5th	[Mulvaney, Mick]
	6th	Clyburn, James E.
	7th	Rice, Tom
SD		
	At Large	Noem, Kristi L.
TN		
	1st	Roe, David P.
	2nd	Duncan, Jimmy
	3d	Fleischmann, Charles J. "Chuck"
	4th	DesJarlais, Scott
	5th	Cooper, Jim
	6th	Black, Diane
	7th	Blackburn, Marsha
	8th	Kustoff, David
	9th	Cohen, Steve
ТХ		
	1st	Gohmert, Louie
	2d	Poe, Ted
	4th	Ratcliffe, John
	5th	Hensarling, Jeb

State	District 7th	Name Culberson, John Abney
	9th	Green, Al
	10th	McCaul, Michael T.
	11th	Conaway, K. Michael
	12th	Granger, Kay
	13th	Thornberry, Mac
	14th	Weber, Randy K., Sr.
	15th	Gonzalez, Vicente
	16th	O'Rourke, Beto
	18th	Jackson Lee, Sheila
	19th	Arrington, Jodey C.
	20th	Castro, Joaquin
	22d	Olson, Pete
	23d	Hurd, Will
	24th	Marchant, Kenny
	25th	Williams, Roger
	26th	Burgess, Michael C.
	27th	Farenthold, Blake
	28th	Cuellar, Henry
	29th	Green, Gene
	32d	Sessions, Pete
	33d	Veasey, Marc A.
	34th	Vela, Filemon
	35th	Doggett, Lloyd
	36th	Babin, Brian
UT		
	1st	Bishop, Rob
	2d	Stewart, Chris

State	District 3d	Name Chaffetz, Jason
VA	4th	Love, Mia B.
	1st	Wittman, Robert J.
	3d	Scott, Robert C. "Bobby"
	4th	McEachin, A. Donald
	5th	Garrett, Thomas A., Jr.
	6th	Goodlatte, Bob
	7th	Brat, Dave
	8th	Beyer, Donald S., Jr.
	9th	Griffith, H. Morgan
	11th	Connolly, Gerald E.
VT		
	At Large	Welch, Peter
WA	4th	Newhouse, Dan
WI	401	Newhouse, Dan
VVI	1st	Ryan, Paul D.
	3d	Kind, Ron
	5th	Sensenbrenner, F. James, Jr.
	6th	Grothman, Glenn
	8th	Gallagher, Mike
WV		
	1st	McKinley, David B.
	2d	Mooney, Alexander X.
	3d	Jenkins, Evan H.
WY		
320	At Large	Cheney, Liz

329