

Fred Dilger

8/6/2020

Senator Richard H. Bryan
Chairman
The Nevada Commission on Nuclear Projects
1761 College Parkway suite 118
Carson City, NV 89706-7954

Dear Senator Bryan:

It is with pleasure that I submit the enclosed resume for your review. I have been in the forefront of Nevada's efforts to halt the Yucca Mountain Project for more than 20 years. I have extensive experience and training in the field of nuclear waste policy. I am prepared to lead the fight to finally kill the Yucca Mountain Project.

I have an extensive background in nuclear waste policy. My PhD dissertation analyzed the problems of transporting spent nuclear fuel. I have managed nuclear waste project teams. I excel at anticipating issues and developing creative approaches to solving problems and furthering Nevada's interests.

Highlights of my experience include the following:

- Negotiated an agreement with three counties and the Department of Energy for the safe routing of low-level radioactive waste around Las Vegas.
- Developed and expressed Nevada's position on the hazards of Yucca Mountain and the transportation of spent nuclear fuel through Nevada to Federal, State and local audiences.
- Provided expert review and comment on all major transportation documents related to Yucca Mountain prepared by DOE, NRC, DOT, and other Federal agencies
- Developed a geographic information system (GIS) for evaluating and communicating transportation risks and groundwater impacts of the Yucca Mountain Project
- Managed research teams with a wide variety of different skills and objectives. These included risk assessment of transportation to Yucca Mountain; reputational impacts on the Las Vegas tourism economy; and repository long-term impacts on groundwater and Native American resources.
- Maintained a reputation for excellent negotiation and presentation skills. I cultivated a solid history of productivity and creativity.
- Developed an extensive network of contacts within Federal, Tribal, State and Local governments, as well in industry, that enable me to anticipate, understand and react to changes in the issue.

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For more than two decades, my work has demonstrated an enduring commitment to protecting Nevada from the Yucca Mountain Project. My skills and knowledge for this position have been finely honed. I am confident my strengths will readily translate to this new position. Thank you for the opportunity to apply for this position. I look forward to discussing what I can bring to the role of Executive Director. I have attached my DD 214 to my submission to verify my military service.

Sincerely,

A handwritten signature in black ink that reads "Fred C. Dilger". The signature is written in a cursive style with a large initial "F" and "D".

Fred C. Dilger PhD.

Fred C. Dilger III



EDUCATION

- Ph.D. Arizona State University, Tempe Arizona. Environmental Design and Planning (Planning concentration). Dissertation title: "The New Nuclear Imperative: A Hazards Planning Process for the Urban Transportation of Spent Nuclear Fuel." Chair Mary Kihl. August 2004.
- M.A. University of Nevada, Las Vegas, Nevada. Ethics and Policy Studies: Concentrations included quantitative risk analysis and policy design. 1997.
- M.A. University College London, London England. Geography: Concentrations included transportation planning and risk assessment. 1997.
- B.A. Pennsylvania State University, State College Pennsylvania. Major in Economics. 1981.

PROFESSIONAL EXPERIENCE

Planning Administrator, Nevada Agency for Nuclear Projects. Carson City, Nevada. January 2019 to present.

- Manage contracts related to transporting and social impact assessment of spent nuclear fuel
- Provide policy advice on spent nuclear fuel management to the Executive Director and the Nevada Commission on Nuclear Projects
- Vice-Chair of the High-Level Radioactive Waste Committee of the Western Interstate Energy (WIEB) Board
- Manage the grant program for the Waste Isolation Pilot Plant Shipments
- Provide policy advice on matters related to the Nevada National Security Site (NNSS) to the Executive Director and the Nevada Commission on Nuclear Projects

Key Accomplishments

- Continued management of WIPP grant program
- Provided advice on resumption of nuclear weapons testing at NNSS
- Participated in the development of the WEIB policy papers on spent nuclear fuel transportation

Principal, Black Mountain Research. Henderson, Nevada. June 2004 to Dec 2018.

- Transportation Contractor for the State of Nevada Nuclear Waste Projects Office

- Prepare Impact Assessments for state and local governments related to nuclear waste transportation
- Evaluate occupational health impacts of radiological transportation
- Review and revise emergency management documents
- Use GIS-based systems to perform quantitative risk analysis.
- Perform GIS-based transportation systems analysis.
- Prepare quantitative risk assessments related to transporting spent nuclear fuel.
- Provide expert witness testimony for the Timbisha Shoshone Tribe and the States of California and Nevada.

Key Accomplishments

- Provided expert review and comment on all major transportation documents related to Yucca Mountain prepared by DOE, NRC, and other Federal agencies
- Prepared research reports and white papers for the State of Nevada on impacts of the proposed Yucca Mountain repository and the DOE's proposed transportation system
- Prepared Quantitative Risk Assessment for Inyo County, CA.
- Provided expert testimony for the State of California.
- Developed components of the Inyo County Emergency Management Plan

Member, Nevada High Speed Rail Authority Appointed by Governor Sandoval July 13, 2015 term expires June 30, 2022

Principal Planner, Clark County Comprehensive Planning. Las Vegas, Nevada. 1993-1994 and April 1998 to June 2004.

- Prepared reports and analysis about the impact of transporting spent nuclear fuel.
- Conducted oversight of proposed high-level radioactive waste transportation.
- Provide review and input on emergency management plans and systems.
- Performed extensive writing and media interactions.
- Provided policy advice on transportation implications of transporting high-level radioactive waste through the community.
- Effectively provided policy advice on transportation planning issues relevant to the rapidly developing community.

Key Accomplishments

- Negotiated agreement with three counties and the Department of Energy for the safe routing of low level radioactive waste.
- Developed GIS based analysis system for understanding transportation related impacts of the Yucca Mountain Project
- Provided outreach and information to public and private organizations regarding the implications of transporting spent nuclear fuel through Clark County

Graduate Research Assistantships, Planning. Arizona State University. (Fall 2000-Spring 2003)

- Prepared research report for faculty mentors.
- Engaged in professional conference presentations and scholarship development

Executive Consultant. Plangraphics, Muscat Sultanate of Oman 1994-1995.

- Prepared digital geodatabase design to support digital mapping for the Sultanate
- GIS instructor for National Survey Authority management and analyst staff

Key Accomplishments

- Managed project staff; delivered custom mapping application
- Provided GIS training to agency staff

Transportation Analyst. Nevada State Department of Transportation 1991-1993 and 1996-1998.

- Prepare benefit/cost analysis of statewide transportation Improvement Plan projects
- Prepare GIS maps of Statewide transportation planning projects
- Analyze regional transportation planning reports and studies
- Managed University interns for multiple planning projects-trained interns in GIS.

Key Accomplishments

- Performed comprehensive cost-benefit analysis of state transportation projects.
- Developed GIS maps for use in public meetings.
- Managed summer intern program.

Military Service US Army

US Army Reserve. Individual Ready Reserve. End rank, Major. June 1989-April 1999.

US Army. End rank, Captain. Honorable Discharge. May 1981-May 1989.

PROFESSIONAL CERTIFICATIONS/ASSOCIATIONS

American Institute of Certified Planners (AICP)

Geographic Information Certification Institute (GISP)

Member, Nevada High-Speed Rail Authority

ARTICLES IN PEER REVIEWED ACADEMIC JOURNALS

“Using Social Scientific Methodological Approaches to reducing Risk: How the Risk Reduction Approach Works with Oil and Gas Industries.” International Journal of Social Inquiry. January 2008. (with James D. Ballard).

“Scenario Development in Oil and Gas Management: Envisioning the Future by Means of Analytical Techniques.” *Strategic Insights*, VII. 15 pages Available on-line at <http://www.ccc.nps.navy.mil/si/2008/Feb/ballardFeb08.pdf> (with James D. Ballard). 2008.

“The Next Species of Trouble: Spent Nuclear Transportation in the United States 2010-2048.” American Behavioral Scientist. Winter 2002. (with Robert Halstead).

CONFERENCE PROCEEDINGS (PEER REVIEWED)

Government Failure and U.S. Nuclear Waste Policy (Paper Presented at National Social Science Association Spring Technology Conference, March 23-24 2018. Las Vegas, NV, USA. With David Ballard.)

Adapting Community Impact Assessment for Nuclear Waste Transportation (Paper presented at WM2017 Conference, March 5-9, 2017 Phoenix, Arizona, USA. With Robert Halstead and David Ballard).

The Transportation Factor in Site Evaluations for Spent Nuclear Fuel Storage and Disposal Facilities Paper presented at WM2015 Conference, March 15 – 19, 2015, Phoenix, Arizona, USA. With Robert Halstead and David Ballard).

A Whole Wilderness of Warning: Assessing Economic Consequences of Nuclear Releases WM2015 Conference, WM2014 Conference, March 15 – 19, 2015, Phoenix, Arizona, USA, With Robert Halstead and David Ballard).

Toil and Trouble: Recommendations for the Preparation of the DOE National Transportation Plan (Paper presented at WM2014 Conference, March 2-6, 2014, Phoenix, Arizona USA With Robert Halstead and David Ballard).

Walk the line: the development of route selection standards for spent nuclear fuel and high-level radioactive waste in the United States (Paper presented at WM 2013 Conference, February 24-February 28, 2013 Phoenix, Arizona, USA. With Robert Halstead and David Ballard).

Stakeholder Transportation Scorecard: Reviewing Nevada's Recommendations for Enhancing the Safety and Security of Nuclear Waste Shipments (Paper presented at WM 2013 Conference, February 24-February 28, 2013 Phoenix, Arizona, USA. With Robert Halstead and David Ballard).

Full-Scale Cask Testing and Public Acceptance of Spent Nuclear Fuel Shipments (Paper presented at WM 2012 Conference, February 26-March 1, 2012, Phoenix, Arizona, USA. With Robert Halstead and David Ballard).

Physical Protection of Spent Fuel Shipments: Resolution of Stakeholder Concerns Through Rulemaking (Paper presented at WM 2012 Conference, February 26-March 1, 2012, Phoenix, Arizona, USA. With Robert Halstead and David Ballard).

Yucca Mountain Transportation Planning: Lessons Learned, 1994-2009 (Paper presented at Waste Management 2011, Phoenix, Arizona, with Robert J. Halstead).

Repository Transportation Planning, Risk Management, and Public Acceptance: Lessons Learned (Paper presented at American Nuclear Society Conference 2011, with Robert J. Halstead).

State of Nevada Perspective on the U.S. DOE Yucca Mountain Transportation Program (Paper presented at Waste Management 2008, Phoenix, Arizona, with Robert J. Halstead & J.D. Ballard).

Assessing the Vulnerability of Yucca Mountain Shipments: A Threat Matrix for Human-Initiated Events (Paper presented at Waste Management 2008, Phoenix, Arizona, with J.D. Ballard and R. J. Halstead).

Yucca Mountain Transportation Security Issues: Overview and Update. James D. Ballard, PhD. Robert J. Halstead. Fred Dilger, PhD. Waste Management 2007. Tucson, AZ.

Rocky Road: Yucca Mountain Transportation Uncertainties. Robert J. Halstead Fred Dilger, PhD James D. Ballard, PhD Henry Collins, PE, Waste Management 2007. Tucson, AZ.

Hot Time in the City: Which Shipment Mode for High Level Nuclear Waste Affects Urban Areas Most? Fred Dilger PhD (with Robert J. Halstead) Waste Management 2006. Tucson, AZ.

Any Way to Run a Railroad: Implications of Dedicated Trains Fred Dilger PhD (with Robert J. Halstead) Waste Management 2006. Tucson, AZ.

Great Expectations: An examination of 180c Funding allocation formulae Robert J. Halstead Fred Dilger PhD (Waste Management 2005. Tucson, AZ.

Measures of Community Impact for the Transportation of Hazardous Materials: The Case of Indian Tribes Fred Dilger (with Robert J. Halstead James D. Ballard, PhD) Waste Management 2005. Tucson, AZ.

Integrating Hazards Assessment and Risk Assessment. Fred Dilger PhD (with Robert J. Halstead) Waste Management 2005. Tucson, AZ.

Beyond the Mountains: Nuclear Waste Transportation and the Rediscovery of Nevada. Waste Management 2004. (with Robert J. Halstead).

Many Roads to Travel: Alternative Approaches to Route Selection for Yucca Mountain Shipments. Waste Management 2003 (with Robert J. Halstead).

Implications of the Baltimore Rail Tunnel Fire for Full-Scale Testing of Shipping Casks. Waste Management 2003 (with Robert J. Halstead).

Rail Access to Yucca Mountain: Critical Issues. Waste Management 2003 (with Robert J. Halstead).

State of Nevada Studies of Potential Terrorism and Sabotage against Spent Fuel Shipments. Waste Management 2001. (with Robert J. Halstead and James D. Ballard).

Nuclear Waste Transportation Terrorism and Sabotage: Critical Issues. PATRAM 2001. (with Robert J. Halstead and James D. Ballard).

GIS in Regional Transportation Planning. Proceedings of the International Society of Civil and Electrical Engineers. July 1993. (With P. Lima).

A Geographic Information/Transportation Modeling System. Proceedings of the Institute of Transportation Engineers. July 1993. (With P. Lima and R. Souleyrette).

RECENT GOVERNMENT AGENCY REPORTS

"Terrorist Attacks on Nuclear Power Plants and Nuclear Material Transports." Various coauthors for expert report for NATO project grant SST.CLG.978964. June 2004. (Contributor)

"Integrating Hazards Assessment and Environmental Impact Assessment in a GIS Framework" Nevada Agency for Nuclear Projects. August 2004. (Principal author)

"Impacts of Transporting Spent Nuclear Fuel and High-Level Radioactive Waste through Clark County, Nevada." Clark County, Nevada June 2001. (Contributor)

"Risk Assessment for the Transportation of Spent Nuclear Fuel through Inyo County, California." A report for the Inyo County Board of Supervisors. April 2006. (Principal Author)

EXPERT TESTIMONY

National Environmental Policy Act Compliance. State of California. November 2008–June 2009.

Risks Associated with the Transportation of Spent Nuclear Fuel. Minnesota Legislative Committee on Roads and Highways. July 2006.

Truck and Rail Shipments of High Level Radioactive Waste through Nevada. Nevada Legislative Committee on Roads and Highways. June 2000.

Implications of Alternative Rail Alignments on the Yucca Mountain Project. Nevada Legislative Committee on High Level Radioactive Waste. October 1999.

Nuclear Regulatory Commission, Package Performance Study. Spring 1999.

Risks Associated with the Transportation of Spent Nuclear Fuel. Minnesota Legislative Committee on Roads and Highways. July 2006.

Truck and Rail Shipments of High Level Radioactive Waste through Nevada. Nevada Legislative Committee on Roads and Highways. June 2000.

Implications of Alternative Rail Alignments on the Yucca Mountain Project. Nevada Legislative Committee on High Level Radioactive Waste. October 1999.

Nuclear Regulatory Commission, Package Performance Study. Spring 1999.

SELECTED MEDIA CONTACTS

History Channel Special "Glowtrain" aired in 2007.

The Las Vegas Sun, 1998–2004.

The Las Vegas Review Journal 1997-2004.

Washington Post, 2000.

SELECTED STATE/LOCAL AND COMMUNITY PRESENTATIONS

Mitigating Routine High-Level Waste Transportation. Presentation to the Western Planning Experience Las Vegas. August 8th, 2003

"Route Selection for High-Level Radioactive Waste Shipments to Yucca Mountain." HAZMAT EXPLO 2003. Las Vegas. December 2003.

High Level Waste Transportation and Tribal Issues. Native American Forum on Nuclear Issues Las Vegas. August 26, 27, 28, 2003.

"Highway Alternatives for Shipping High-Level Radioactive Waste Shipments to Yucca Mountain." HAZMAT EXPLO 2002. Las Vegas. December 2002

Fred Dilger References

**Robert J. Halstead Executive Director Retired
Nevada Agency for Nuclear Projects**



**Joe Strolin Planning Administrator Retired
Nevada Agency for Nuclear Projects**



**Tammy Ottmer
Nuclear Materials Transportation Oversight
Colorado State Patrol**



**James David Ballard Professor
California State University,
Northridge**

