

**IN THE UNITED STATES DISTRICT COURT  
FOR THE SOUTHERN DISTRICT OF INDIANA**

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**THE SIERRA CLUB; THE CHEMICAL WEAPONS  
WORKING GROUP; CITIZENS AGAINST  
INCINERATION AT NEWPORT (CAIN);  
COMMUNITY IN-POWER DEVELOPMENT  
ASSOCIATION (CIDA); SARA MORGAN;  
LEONARD AKERS; HILTON KELLEY;  
MOYA GREEN; AND ANISHA SWALLOW,**

**Plaintiffs,**

**v.**

**DR. ROBERT M. GATES, SECRETARY OF  
DEFENSE; PETE GEREN, SECRETARY OF THE  
ARMY; UNITED STATES DEPARTMENT OF  
DEFENSE; UNITED STATES DEPARTMENT OF  
THE ARMY; VEOLIA ENVIRONMENTAL  
SERVICES, INC.,**

**Defendants.**

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**Case No.:**  
**2:07-cv-0101 LJM-WGH**

**DECLARATION OF FRED MILLAR**

I, Fred Millar, do hereby declare as follows:

1. The following is based on my personal knowledge
2. I am a specialist and policy consultant in the areas of homeland security,

hazardous materials transportation, and chemical accident prevention.

3. I have worked on and researched nuclear and chemical safety regulation and prevention of chemical hazards since 1979.

4. I have testified in both houses of the Congress, advised members of the United States Senate and Senate staff regarding proposed chemical accident prevention laws and have drafted or participated in revising sections of the 1990 Clear Air Act Amendments, including provisions mandating studies of catastrophic potentials of U.S. hydrogen fluoride facilities and an EPA program of annual full-scale field testing at the Liquefied Gaseous Fuels Spill Test Facility of dense vapor cloud chemicals widely used in the industry.

5. I also initiated and supported certain provisions of the Clean Air Act Amendments of 1990 relating to chemical accident prevention, under which thousands of chemical facilities have produced comprehensive Risk Management Plans including worst-case release scenarios. I most recently advised members of the U.S. House and Senate staff on their respective proposed legislation for the re-routing of ultrahazardous cargoes, which legislation was voted on in both House and Senate.

6. I was for 5 years (from 1989 to 1994) the Toxics Director at a non-profit environmental organization, Friends of the Earth.

7. Before that time, I served for 9 years (from 1979 to 1988) as the Director of the Nuclear and Hazardous Materials Transportation Project at the Environmental Policy Institute.

8. From 1994-2002 and in subsequent periods I served as an independent consultant on nuclear waste and chemical accident prevention policies. My clients included Public Technology Inc., Oil Chemical and Atomic Workers International Union, United Steelworkers of

America, International Chemical Workers Union, Operating Engineers International Union, Friends of the Earth/England and Wales, National Environmental Law Center, Environmental Working Group, Labor Ministry of Brazil, and Greenpeace International. On rail safety and security issues, I served as a consultant to RMS, a consultant group to the insurance industry, and to the International Brotherhood of Teamsters/Brotherhood of Locomotive Engineers and Trainmen.

9. I have published a number of articles on nuclear and chemical transportation safety and, since 9/11, on terrorism and ultra-hazardous cargoes. A copy of my CV is attached as Exhibit "A."

10. For 12 years I served on the District of Columbia Local Emergency Planning Committee and made presentations to the local Washington Area Sewage Authority urging a facility switch from chlorine gas to a safer, non-catastrophic chemical.

11. In 2005 I authored the Washington DC law mandating the re-routing of through shipments of ultra-hazardous cargoes by rail and truck. I have testified on the risks of terrorist attacks involving hazardous chemical transportation before the city councils of DC, Baltimore and Chicago. The DC re-routing law was closely imitated in truck and rail hazardous materials re-routing bills introduced in ten other High Threat Urban Areas in the US, and in three major chemical state legislatures (NY, TN and TX). I submitted an affidavit in support of the DC law in the court case that followed enactment of that law.

12. Since 9/11, I have made invited presentations on transportation safety and security risks to the Transportation Security Administration/U.S. Department of Homeland Security, the U.S. Coast Guard's national Chemical Transportation Advisory Committee, the Clark County

NV Nuclear Waste Citizens Advisory Committee , Fairfax, VA and Montgomery County, MD Local Emergency Planning Committees and the Metropolitan Washington Council of Governments Emergency Response Planners Committee.

13. I have reviewed several of the available documents related to VX, its treatment options and issues related to the Army's planned and on-going interstate transportation of approximately 2,000,000 gallons of chemical warfare agent VX caustic hydrolysate (CVXH).

**The Substantial Danger of a Toxic Release from  
Ultra-hazardous Material Shipments**

14. My concerns about the Army's shipments of CVXH to Port Arthur, TX from Newport, IN stem not from the caustic nature of the cargo, but from the reportedly undetermined potential of residual or newly-formed VX, a chemical warfare nerve agent, and of EA2192 byproduct, being present during transportation and consequent risk of release either by accident or by terrorist attack.

15. The Army's July, 2002 Final EA estimates only truck injuries, fatalities and crashes expected from the shipment of CVXH from the Newport IN facility to two hypothetical destinations off site. These estimates do not consider any potential release of VX or EA2192 as a result of possible crash, fire, or of a possible terrorist attack, including hijacking, during or prior to transport. Further, they do not consider the specific shipment patterns and conditions to be expected in a major shipment campaign to Port Arthur, TX. Likewise, the potential for a terrorist organization to acquire a load of the CVXH and to take steps to reform the VX using commercially available chemicals is not addressed in the EA.

16. The release and dispersion from a truck containing material including a residual quantity of VX , as with any of a number of other ultra-hazardous materials in transportation, whether by accident or terrorism, depending on the amounts released and the conditions of dispersion, could potentially cause many deaths and injuries and cause terror and economic implications, especially if such a release occurred in a densely-populated urban area or in an area of hard-to-evacuate populations housing sensitive populations.

17. Chemical risk equals the consequences (of a potential release) times the probability of that release, that is  $R = C \times P$ . An analysis of the safety and security of shipments with and without various mitigation measures would have to take into account not only the respective measures' effects on the probability that each type of hazardous materials release (by accident or by terrorism) would occur, but also the harmful consequences that would likely result from each kind of release if one were to occur.

18. I have not seen from any agency a careful study of the likelihood and consequences of such serious toxic chemical releases involving the CVXH shipments to Port Arthur. US DHHS/CDC earlier reviewed favorably the previous Army and DuPont plans for shipments, which in crucial fact were assumed to include no VX, from Indiana to New Jersey. DuPont as part of that process did some route analyses, chose a preferred safest route, and involved some public participation and comments. I have not heard of any such process regarding the Port Arthur shipments.

19. Toxic chemical releases in general, including those in transportation, are of concern to many US citizens and officials and are the focus of much prevention and mitigation activity by government agencies, by industry voluntary action, and by citizens. The tragic

accident that occurred in Bhopal, India in 1984 is perhaps the main iconic event that many Americans know and worry about of a worst case toxic industrial gas release (from a fixed facility): an estimated 3,000 to 6000 people were killed and 100,000 were injured in one night.

20. The U.S. public is increasingly aware of a significant overall recklessness in the ongoing routing by chemical shippers and carriers of ultrahazardous industrial gas chemical cargoes through major US cities, as evidenced by new routing legislation in 11 cities and 3 states, and widespread media coverage of the problem.

21. Current federal regulations allow this recklessness to proceed, and in fact the federal government has consistently joined shippers and carriers in opposing cities' and states' efforts to regulate for accident and terrorism prevention regarding ultrahazardous cargoes.

22. From the tragic history of serious toxic and explosive chemical facility releases in the U.S., according to recent reports from the U.S. Chemical Safety and Hazards Investigations Board, as well as from similar history in chemical transportation disasters, one can conclude that both that basic emergency response capabilities to deal with toxic releases are sorely lacking in U.S. communities and that the safety culture of major chemical shippers and carriers is radically defective. Recently the chairman of the Board has publicly compared the woeful readiness of U.S. communities to that of the Indian city of Bhopal.

23. I have not seen any agency's evaluation of the emergency response capabilities of the communities traversed by the Army's CVXH shipments to Port Arthur.

#### **Post-9/11 Concerns about the Potentials for a Terrorist Attack Using Ultrahazardous Cargoes as Terror Weapons**

24. After the 9/11 terrorism attacks, many efforts have been initiated by shippers,

carriers and governments at all levels to improve security in ultra-hazardous materials transportation because of concerns that terrorists may want to use such cargoes as weapons. Recently, in fact, in Iraq terrorists have begun using chlorine gas truck bombs as terror weapons. Chlorine gas has a history of deadly use as a chemical war weapon, and consequently is widely feared. Any cargo containing residual amounts of VX, which was developed as a weapon of war, carries a similar stigma and consequent power as a terror weapon if a release in transportation (especially in an urban area) is credibly communicated to the public. This is true even putting aside the potential for the terrorists to take steps to increase the concentration of VX in the CVXH.

25. Since the 9/11 attacks, the FBI has issued warnings that terrorists have expressed an interest in attacking shipments of ultrahazardous materials. The FBI has stated: “operatives may try a variety of other attack strategies, such as destroying key rail bridges and section of track to cause derailments or targeting hazardous materials containers.”

26. Massive campaigns of certain ultra-hazardous shipments have often been matters of great public anxiety on safety and security grounds such as nuclear waste shipments proposed for the DOE-built Yucca Mountain repository in Nevada , and foreign (not very) radioactive UF6 shipments banned from U. S. ports and reportedly bumped to Canadian ports.

27. The Army previously decided, largely because of public concerns about transportation of military nerve gas rockets to a central incinerator in Tooele UT, to destroy these weapons instead at their eight existing storage sites and spent millions to help the local communities beef up their emergency preparedness (CSEPP -- Chemical Stockpile Emergency Preparedness Program). As part of that nerve gas rocket consideration in the mid-1980's,

however, as a bow to public concerns, Oak Ridge National Laboratories had developed rail and truck routing plans (never implemented) to Utah that would avoid large cities.

28. The State of Nevada has commissioned studies documenting public anxieties (“dread”) and potential “stigma” impacts on property values along the to-be-established nuclear waste routes. Proposed VX and related shipments have elicited similar public concerns, leading to oversight efforts by several federal agencies. The proposed shipment of the CVXH to Dayton, Ohio was abandoned in large part due to public opposition as was the subsequent planned shipment of the CVXH to New Jersey.

29. Even a partially-successful terrorist attack on a shipment containing any amount of a dreaded chemical weapons agent could result in a significant reaction by emergency response authorities, the public and the media and thus provide terrorists with some of their desired impacts. By analogy, even one slowly leaking chlorine rail tank car that was near burning propane tank cars derailed in Mississauga, Ontario in 1979 caused authorities worried about a larger release to order the precautionary evacuation of 250,000 residents for a week, the largest evacuation in North American history.

30. I have seen no study by any agency of the vulnerability of the proposed Port Arthur shipments to terrorist attacks, whether by scenarios involving direct attack or hijacking of a vehicle and driving it to a more vulnerable location, or the likely impacts of such an attack.

31. One of the few examples since 9/11 of public officials’ weighing of the costs and benefits of counter-terrorism considerations I have seen is the federal Department of Transportation cost–benefit document, in the rulemaking Docket HM-232, of whether the benefits of averting a single Oklahoma City-scale terrorist attack justifies the multimillion dollar

costs to the transportation industry of the proposed Security Plan regulations. In that analysis, the benefit of the proposed anti-terrorism measures was found by the Department of Transportation to justify the costs, and the regulations (very inadequate as these were) were promulgated. I have seen no similar weighing of the major alternatives involved in shipping the CVXH cargoes to Port Arthur.

32. To my knowledge no container (truck or railcar) for ultrahazardous materials in the U.S. has ever been designed and manufactured to be resistant to terrorism. Even the casks used for high-level nuclear waste (spent fuel) have been shown to be penetrable by shoulder-held weapons. I have seen no study regarding crashworthiness or terrorism resistance of the containers used in the Port Arthur shipments.

33. An accidental release of hazardous material (e.g., from a leak) is likely to be less devastating in its effect than a release engineered by terrorists, which would likely be planned to be as unmanageable, and as devastating in its effect as possible. Terrorists, for example, could cause more damage to a truck container than would likely be caused by an accident-related leak, by using a shoulder-fired missile or similar weapon to rupture the tank, thus instantaneously releasing all of its contents. One cannot even rule out coordinated terrorist attempts to mount several attacks simultaneously, as happened in the recent mass transit bomb attacks in Spain (192 dead) and London (50 dead) in order to rupture multiple tanks simultaneously, causing a release of significantly more ultra-hazardous material. Terrorists are also more likely to choose for attacks, including possible hijack attacks, targets which can threaten densely-populated areas in order to maximize the consequences and the terror effects of a release.

34. I have seen no report or other document issued by any federal agency that analyzes

and sets forth a decision regarding the choice of routing of the ultra-hazardous Port Arthur cargoes. Nor have I seen any report or study such as an EIS that analyzes the alternative of not transporting the CVXH but treating it on site as the Army originally planned, and comparing the risks from this alternative in regard to a terrorist attack to the trucking alternative(s).

35. The lack of public transparency regarding the initiation and the ongoing operations of these shipments contradicts the principle of the public's right-to-know of potential disaster risks, rights enshrined in two major U.S. federal laws since the Bhopal toxic gas disaster in 1984, in addition to the pre-existing National Environmental Policy Act (NEPA) with its Environmental Impact Statement (EIS) requirement, in order to provide important public and media leverage for risk reduction.

#### **Inadequacy of Current Transportation Regulations for Preventing Accidents and Terrorism with Ultra-hazardous Cargoes**

36. Federal regulation of the powerful chemical shipping industry and the rail and truck carrier industry is woefully inadequate and allows the public, often unawares, to be put at enormous risk of death and injury. The most recent fatal toxic gas transportation accidental releases in the U.S. have recently occurred in Graniteville, SC (chlorine railcar, 9 dead) and just outside of San Antonio, TX (chlorine rail car, 3 dead). The New York Times reporter Walt Bogdanich recently won the Pulitzer Prize for his 2005 series showing the inadequacy of rail safety regulations and the dismal state of federal safety regulation and oversight.

37. Regarding truck safety, a federal study some years ago decisively showed that the major gasoline tank truck on U.S. highways cannot contain its cargo as federal rules require, but instead, in the gentlest of overturn experiments, spews gasoline out from all the many openings

along its top, in what the study calls “a spray pattern looking for an ignition source.” For example, a gasoline tanker truck recently released all its cargo from an overturn accident on a freeway ramp in Oakland and the resulting fire destroyed the vital Interstate freeway above it.

38. These ongoing vulnerabilities exist despite the fact that federal regulations focus mainly on cargo tank integrity, and mostly ignore other safety and security concerns in routing, storage in-transit, and emergency response, for example. The post-Graniteville letter from 50 mayors to the U.S. Department of Homeland Security shows that cities and states have a difficult time even finding out what hazardous cargoes go through their jurisdictions.

39. Regarding potential terrorism, whatever physical security measures the federal government or industry representatives have taken, such measures cannot effectively and always prevent access by determined terrorists to routes over which the VX containing CVXH and other ultrahazardous shipments are transported. One hint on this is provided by the ubiquitous graffiti that has been drawn on trains, trucks, and private and public infrastructure along such routes.

40. Nor do such physical security measures prevent determined individuals from putting themselves in areas near vehicles which are all clearly placarded as containing ultrahazardous materials, from which vantage points a terrorist could easily cause a catastrophic release by firing at such a vehicle with a shoulder-fired missile or rocket propelled grenade or using any number of IEDs or other weapons (widely used in Iraq) that are designed both to explode and to be incendiary.

41. Although the shippers and carriers and government agencies emphasize ensuring compliance with existing federal hazardous materials regulations, these existing regulations are based almost entirely only on the very inadequate data on the historical experience of accidental

spills. The regulations cannot adequately deal even with these risks. These regulations are not based on the potential for deliberate and catastrophic terrorist releases in urban or other High Threat areas.

42. Congress and the regulators post- 9/11 have systematically tacked the new federal transportation anti-terrorism regulations onto the existing transportation safety regulations. The new ones are so clearly inadequate that the federal government explicitly states that more security regulations on ultra-hazardous chemical transportation are likely to be added and has proposed two new major ones as recently as December 21, 2006. “Compliance with federal regulations” provides only the thinnest of reeds to lean upon in any shipment campaign that aims to protect the public from serious toxic releases whether caused by terrorism or by accident.

43. Given the inadequacy of existing regulations and the serious risks posed by the Army's plan to transport 2,000,000 gallons of the CVXH from Indiana to Texas, it would be reasonable and prudent for the Army to prepare a thorough EIS to assess the risks from the planned CVXH transport as well as the alternatives. The alternatives assessed should include the alternative of treatment of the CVXH on-site at the Newport, Indiana Depot using Supercritical Water Oxidation technology, as the Army had originally decided to do following a public NEPA process with public involvement and public support. On-site treatment of the CVXH may well pose the smallest risk among all the alternatives, particularly in regard to the risk from a terrorist attack.

I, Fred Millar, pursuant to 28 U.S.C. § 1746, do hereby declare under penalty of perjury that the foregoing is true and correct

*Fred Millar*

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**Fred Millar**

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Seasoned public interest and environmental safety advocate, technical and policy analyst and lobbyist, trade union strategic researcher and educator, based in Washington, D.C., with skills, technical expertise and national, local and international contacts in a wide range of issues and strategies. Recognized international analyst in nuclear waste storage and transportation and industrial chemical use, transportation and accident prevention, emergency planning and homeland security. Consultant to the major U.S. chemical and oil worker unions, environmental groups, and governmental bodies including the District of Columbia Council. Accomplishments have covered a wide range:

Analyzed safety problems and advocated national and grassroots action strategies on chemical hazard assessment, emergency planning, accident prevention, and public access to information. Educated citizens, workers and public officials in scores of petrochemical communities on generic industrial safety issues and on existing risk documents such as worst-case accident scenarios. Advocated many specific safety improvement activities by companies and governments.

Conceived, initiated and with allies advocated successfully for new legislation enacting a major new federal regulatory program on prevention of chemical accidents: The Clean Air Act Amendments of 1990 impact an estimated 20,000 U.S. chemical and oil facilities and provide an estimated \$3 billion of worker safety training and new risk documents for workers, government officials and the public.

Raised nationally and in major target cities after 9/11 the issue of urban transportation of ultrahazardous cargoes that provide attractive targets for terrorists. Wrote and lobbied for national legislation and local ordinances, testified in city council hearings, brought in supporting materials from experts, assisted with court cases, made community presentations, wrote a national overview piece, wrote op eds and was frequently cited in the media.

**2003-present Director, Target Cities Re-Routing Project, Friends of the Earth, Washington, D.C.**

Initiated foundation-funded project to reduce safety and terrorism risks in transportation of ultrahazardous industrial chemical cargoes through High Threat Target Cities, with beginning

focus in the Nation's Capital. Analyzed issues and regulations and advocated successfully for enactment of local DC Council Bill 15-525 banning the most dangerous cargoes; did technical, legal and regulatory analysis for fact sheets, Council testimony and Powerpoint slides; led alliance of union locals, tourist industry, emergency room physicians, environmentalists and public health associations in promoting the bill; did outreach and community presentations to LEPCs, Council of Governments, George Washington University occupational health forum, and media shows. Met with major stakeholders such as chemical shippers, city agencies, and railroads. Analyzed the issues and initiated introduction of re-routing ordinances in other target cities, including Cleveland, Baltimore, Boston and Chicago.

**2003-2005 Consultant, International Brotherhood of Teamsters Rail Conference, Washington, D.C.**

Analyzed rail safety, transportation security, and Liquefied Natural Gas facility security issues for the Research and Strategic Initiatives departments.

**2000-2002 Consultant, Bio-Terrorism Technology, Public Technology Inc., Washington, D.C.**

Analyzed availability of emerging technologies from federal laboratories for detection and decontamination of biological agents for use by local officials in a terrorism context. Analyzed technical and testing data, provided summaries, wrote comparisons of the technologies and recommendations for an ongoing system of third-party assessment and user needs surveys that could help local officials wisely spend public funds on new capabilities.

**2000-2001 Research Director, Roofers International Union, Washington, D.C.**

In the service of an organizing campaign with residential construction workers in the Southwest U.S., did strategic corporate analysis on major homebuilder corporations. Wrote homebuilder corporate profiles and White Paper on worker justice issues. Advocated strategies on sprawl, retirees and healthcare, and networked with union retiree groups, Interfaith Councils, AFL-CIO and other allies. Did web analysis and advocacy for the campaign website, campaign leaflets, etc.

**1999-2000 Director of Environmental and Public Safety Policy, Center for Y2K and Society, Washington, D.C.**

Analyzed and publicized the potentially catastrophic systemic safety risks that Y2K posed to major national infrastructures such as petrochemical, water supply and food industries, to at-risk communities and to democratic decision-making. Wrote technical and policy analyses and policy and action-oriented recommendations content for Center's website. Advocated safety improvements in national and local forums and in weekly conference calls with allies.

**1995-1997 D.C. Coordinator, Nuclear Waste Citizens Coalition, Washington, D.C.**

Coordinated the work of a coalition of national and regional groups, from both commercial nuclear power plant communities and nuclear weapons site communities. Analyzed issues of centralized interim storage and transportation of irradiated fuel. Did technical research and organized and led Congressional advocacy, convened meetings of member groups, and wrote weekly fact sheets, analyses and recommendation on the issue.

**1994-2002 Consultant, nuclear waste and chemical accident prevention policies**

Clients included Public Technology Inc., Oil Chemical and Atomic Workers International Union, United Steelworkers of America, International Chemical Workers Union, Operating Engineers International Union, Friends of the Earth/England and Wales, National Environmental Law Center, Environmental Working Group, Labor Ministry of Brazil, Greenpeace International. Provided analysis for curriculum and delivered content at chemical accident prevention training programs, advocated for safety improvements at conferences on chemical accident prevention policy and programs, advocated for worker and citizen action implementing the new US chemical accident prevention laws.

**1989-1994 Director of the Toxics Project, Friends of the Earth, Washington, D.C.**

Responsible for analysis, policy development, lobbying and advocacy in chemical accident prevention, risk assessment, air toxics emissions, right-to-know issues, hazardous materials transportation and multinational corporate accountability.

- Built ad hoc partnerships of activists, workers, state and local officials and media contacts in chemical communities and provided technical and strategy analysis and recommendations. Founded and initially steered the Working Group on Community Right-To-Know, comprised of national and local environmental groups and labor unions. Wrote and published foundation-funded “The Community Plume” publication with analyses and fact sheets, to recommend strong roles for federally-mandated Local Emergency Planning Committees.
- As a safety analyst and policy expert, addressed international conferences on chemical accident prevention. Served as environmental advocate with the U.S. government delegations and developed recommendations for safety improvement in conferences with industry and government participants in London, Manchester, Stockholm, Berlin, Boston, Milan, Goa and Ahmedabad (India), and Tokyo.
- Worked with the environmental and labor coalition that in 1991-94 lobbied OSHA and EPA, advocating regulations to implement the Clean Air Act Amendments of 1990. Provided analysis and recommendations for testimony in Congressional hearings and wrote technical comments on proposed regulations.

As an OSHA grant-funded consultant to the three major U.S. petrochemical labor unions, trained groups of workers in several cities on chemical accident risks and accident prevention. Advocated in Congress for two major unions for new worker safety training funds.

*International advocacy:* gave invited presentations on chemical accident prevention and community right-to-know policy and legislation to government and industry officials, universities and citizens groups in Brazil, Canada, Lithuania, Latvia, Bulgaria, Mexico, India, Vietnam, Thailand, Germany, Argentina, and Australia.

**1979-1988 Director of the Nuclear and Hazardous Materials Transportation Project at the Environmental Policy Institute, Washington, D.C.**

Spearheaded environmentalist efforts, educated the public and advocated for safety improvement by the government and corporations on issues of nuclear and hazardous materials storage and transportation.

Worked with Capitol Hill, several regulatory agencies, national trade associations, national media, environmental NGOs, labor unions, petrochemical industry, investor groups, and funders to develop recommendations in testimony before several House and Senate committees.

**1977-1979 Research consultant, Ohio Public Interest Campaign.**

Working under a federal grant, researched and wrote final evaluation of a four-year project on plant closings in Ohio.

**1972-1978 Assistant Professor of Sociology, George Mason University, Fairfax, Virginia.**

Taught political sociology, social problems, sociology of war and peace, social theory.

**PUBLICATIONS**

\* “New Strategies to Protect America: Putting Rail Security on the Right Track”, a paper in the Critical Infrastructure Security Series, published by the Center for American Progress, 2005.

\* “The Terrorism Prevention and Safety in Hazardous Materials Transportation Act of 2004”, DC Bill 15-525, enacted in February 2005. Upheld in Federal District Court, it has been the model for similar re-routing bills in Baltimore, Cleveland, Boston and Chicago.

\* “Hell Might Come on Wheels,” op-ed piece in “Close To Home” section, Washington Post, February 16, 2003, on the terrorism and hazardous materials transportation issue.

- \* Articles with recommendations for school boards on terrorism and hazardous materials issues, "School Board Journal", 2003.
- \* "Don't Harm the Most Vulnerable", a White Paper on Residential Construction in the Southwest, Roofers Local 135, Phoenix AZ, July 2000
- \* "Y2K and the Environment: The Challenge for Local Officials", published by Public Technology Incorporated, 1999.
- \* "Winning the Right-To-Know", in The Environmental Forum, December, 1992
- \* "The Community Plume", a foundation-funded publication that Friends of the Earth sent to 4100 Local Emergency Planning Committees in the U.S., 1988-91.
- \* Op-Ed piece, New York Times Business Section, "Braking the Slide in Chemical Safety", May 1986
- \* "Regulations on the Routing of Irradiated Fuel," a chapter in The Urban Transport of Irradiated Fuel (Macmillan Press, 1984)
- \* "Hazardous Materials Transportation", a series of three articles for International Fire Chief magazine, 1981.

## **EDUCATION**

B.A. in Philosophy from Notre Dame University (1966)

M.A. and Ph.D. in Sociology from Case Western Reserve University (1975).