

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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OFFICE OF SECRETARY
DOCKETING & SERVICE
BRANCH

In the Matter of)
)
THE CLEVELAND ELECTRIC) Docket No. 50-440
ILLUMINATING COMPANY) 50-441
)
(Perry Nuclear Power Plant,)
Units 1 and 2))

AFFIDAVIT OF DENNIS S. MILETI
ON CONTENTION GG

County of Denver)
) ss.
State of Colorado)

DENNIS S. MILETI, being duly sworn, deposes and says:

1. I am presently an Associate Professor in the Department of Sociology and Director of the Hazards Assessment Laboratory at Colorado State University, specializing in those areas of study dealing with complex organizations, hazards, policy and methods (with a particular emphasis on public emergency response). A current statement of my professional qualifications and experience is attached hereto. My business address is Department of Sociology, Colorado State University, Fort Collins, Colorado 80523. I have personal knowledge of the matters stated herein and believe them to be true and correct. I make this affidavit in response to Contention GG --

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specifically with respect to the means by which people who do not use radio or TV (such as the Amish) would be notified of the nature of an emergency and appropriate protective action.

2. Public response to emergency information and warnings of impending disasters has been a topic of investigation by social scientists for almost three decades. Many studies have been performed on the subject in a variety of emergencies stemming from geological, climatological, and technological phenomena, and have been documented in a vast body of emergency literature. This research record provides evidence about a wide range of emergency warning/public response phenomena, including public notification and communication between members of the public in an area at risk.

3. A clear conclusion of this research is that people generally seek out additional information upon receipt of an initial warning, before acting on that warning. The end result is that, historically, many people in emergencies have first received emergency information from other members of the public. There are two reasons why this is the case. First, emergency warning/public response is an evolving process; and, second, people generally do not respond to emergency warnings as individuals -- rather, emergency response is largely a group activity. These two fundamental generalizations were established early on in disaster and emergency research conducted in the 1950's and 1960's; they were substantiated in subsequent

research, and they have been consistently confirmed in contemporary research investigations.

4. The initial response of most people to a warning of an impending emergency is to seek out more information, and/or engage in additional communication with others. This need to engage in a confirmation process is perhaps one of the best documented phenomena in warning/response research. For most people, hearing a warning (such as a siren) does not automatically and instantaneously lead to protective action. Rather, hearing a warning is typically followed by formulating an understanding of that warning; understanding is followed by believing; believing is followed by personalizing the warning; personalizing is followed by making a decision about what to do; and the decision is followed by actual protective action response behavior. Thus, this step-by-step sequence (which can be completed quickly) involves engaging in a process of confirming the warning information that is first received.

5. Confirmation of warning information can and does occur in a variety of ways; for example, people may turn to different radio or TV stations to hear the warning several times, check with friends and neighbors to ask if they heard the same message, and talk the situation over with others. One consequence of the behaviors in which people engage as they seek confirmation of warning information is that they actually can and do become part of the warning dissemination effort,

albeit informally, through social networking. In other words, in the event of an emergency at the Perry plant, the seeking of confirmation would lead people to contact others who might or might not as yet have learned of the emergency. Similarly, people hearing sirens can naturally be expected to take steps to determine the reason for the use of the sirens, by turning to radio and TV and/or checking with friends and neighbors.^{1/}

6. People rarely, if ever, respond to emergency warnings of an impending disaster as social isolates, and most people in most emergencies do not respond as individuals. People generally respond to emergency warnings in groups. Accordingly, because emergency response is largely group behavior, emergencies transform the order of a community into one in which people act towards one another in ways which are more altruistic and caring than the patterns of interpersonal interaction which form routine, day-to-day community life. Some exemplary consequences of this are that, in an emergency, neighbors, friends and family -- and even total strangers -- check on one another and offer assistance if it is needed. One obvious result of this tendency of people in emergencies to form groups and to offer aid and assistance to one another is that it causes people to be in communication with other members of the public who

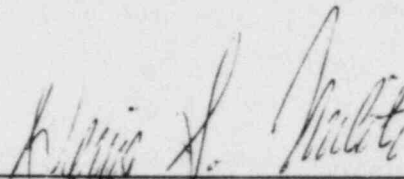
^{1/} Based on past experience in emergencies, this type of activity can be expected to occur even in the absence of pre-emergency information instructing the public to take such action when the sirens are sounded.

might not as yet have learned of the emergency. Thus, for example, people who have received notification of an emergency at Perry generally can be expected to notify those whom they have reason to believe may not have been informed of the nature of the emergency. Members of the public would be particularly likely to provide such notification to any discrete segments of the population known not to have access to emergency information on radio or TV (e.g., the Amish).

7. Finally, the high level of activity which would be associated with an emergency at Perry would have a strong "ripple effect," generally alerting members of the public to seek additional information about the events taking place, even if they had not been directly warned by the official alert and notification system or another member of the public. In other words, the activities of other residents who have already received notification (turning on the lights in their homes, perhaps preparing to evacuate, or even the stream of traffic driving out of the 10-mile EPZ) would alert most members of the public who may not yet have been warned, and cause them to seek additional information about what is going on (for example, by talking to neighbors).

8. In summary, emergency public warnings elicit communications between members of the public who are the target of official emergency warnings. People rarely translate warnings into personal protective actions without first seeking and

engaging in confirmatory communication; rather, people draw into groups, and consult with and warn others. These phenomena are natural, predictable responses to emergency warnings, and can be relied upon in emergency planning as a component of public notification in the event of an actual emergency. In addition, the generally high level of activity associated with an emergency alerts members of the general public, even if they are not directly warned by either the official warning systems, or by another member of the public. I am confident that these general principles of emergency warning/public response -- well established through decades of research and investigation -- would be applicable in the event of an emergency at the Perry plant.



Dennis S. Mileti

Sworn to and subscribed before me this 30th day of January, 1985.



Notary Public

My Commission expires: Commission Expires Aug. 31, 1987
Notary Public, CO 80220

ACADEMIC VITA OF DENNIS S. MILETI
August, 1984

PERSONAL

Office:

Department of Sociology
Colorado State University
Fort Collins, Colorado 80523

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Aylesworth Hall
Colorado State University
Fort Collins, Colorado 80523

EDUCATION

University of Colorado, Boulder: PhD, Sociology, 1974
California State University, Los Angeles: MA, Sociology, 1971
University of California, Los Angeles: BA, Sociology, 1968

SPECIALIZATIONS

Complex Organizations, Applied (Hazards and Policy), Methods

APPOINTMENTS

1984-date	Director, Hazards Assessment Laboratory, Colorado State University
1984-date	Committee on Natural Disasters, National Research Council of the National Academy of Sciences
1981-year	Policy Analyst, Seismic Safety Commission, State of California, Sacramento (on leave from university)
1978-date	Associate Professor, Department of Sociology, Colorado State University, Fort Collins
1975-year	Visiting Assistant Professor, University of Southern California, Graduate School of Public Administration, Intensive Seminar Program
1978-1979	Invited Instructor, American Association for the Advancement of Science, Chautauqa Short Course Program
1974-1978	Assistant Professor, Department of Sociology, Colorado State University, Fort Collins
1971-1972	Instructor, Department of Sociology, Univer- sity of Colorado, Boulder

AWARDS

1983-1984	Alumni Honor Faculty Award, Colorado State University Alumni Association for excellence in teaching, research and service
1981-year	Cited in Outstanding Young Men of America
1978-1977	Cited for excellence in teaching, research and service by the Dean, College of Arts, Humanities and Social Sciences

MEMBERSHIPS

American Sociological Association, International Sociologi-
cal Association, Pacific Sociological Association, Midwest
Sociological Society, American Association for the Advance-
ment of Science, Earthquake Engineering Research Institute,
Western Social Science Association, National Coordinating
Council on Emergency Management

RESEARCH GRANTS AND CONTRACTS

1984-date Associate Investigator, "State-of-the-Art Assessment: Evacuation," subcontract from Oak Ridge National Laboratories for the Federal Emergency Management Agency.

1984-date Associate Investigator, "International Study of Disaster Impact on Domestic Assets," subcontract from the University of Georgia for the National Science Foundation.

1983-1984 Principal Investigator, "Research and Applications for Emergency Preparedness," contract for Long Island Lighting Company.

1983-1984 Principal Investigator, "Intended and Forgotten Audiences for Emergency Warnings," quick-response grant from the Natural Hazards Research Applications and Information Center.

1982-1983 Associate Investigator, "Organizational Interface for Nuclear Reactor Emergency Preparedness," subcontract from Oak Ridge National Laboratories for the Nuclear Regulatory Commission.

1981-year Principal Investigator, "Nuclear Hazard Warnings and Emergency Evacuation Preparedness," contract for Pacific Gas and Electric Company.

1980-1983 Principal Investigator, "Local Land Use Policy Decisions," Colorado State University Experiment Station.

1979-1982 Principal Investigator, "Behavioral Aspects of the Three Mile Island Incident and Restart," contract for General Public Utilities via Shaw, Pittman, Potts and Trowbridge.

1977-1980 Principal Investigator, "Migration Impacts of Non-metropolitan Areas in the West," Colorado State University Experiment Station.

1977-1979 Principal Investigator, "Adoption and Organizational Implementation of Policy for Land Use Regulations," grant from the National Science Foundation.

1975-1977 Coprincipal Investigator, "Socioeconomic, Organizational and Political Consequences of Earthquake Prediction," grant from the National Science Foundation.

1972-1974 Research Sociologist, "Assessment of Research on Natural Hazards," grant from the National Science Foundation.

COMMITTEE MEMBERSHIPS

1983-date Front Range Consortium on Natural Hazards Studies, Colorado State University, University of Colorado, University of Denver.

1983-date International Sociological Association, Research Committee on Disasters.

1982-1983 Pacific Sociological Association, Nominations

1982-date	Committee for the Standing Committees for 1983. Earthquake Engineering Research Institute, Chair, Committee on Social Science Research, Berkeley.
1981-1983	U.S. Department of the Interior, Geological Survey, Advisory Panel on the Earthquake Studies Program.
1981-1982	Pacific Sociological Association, Program Committee for the 1982 Annual Meetings in San Diego.
1981-1982	Governor's Emergency Task Force on Earthquakes, Threat and Reconstruction Committees, State of California, Sacramento.
1980-1981	Governor's Science and Technology Advisory Council, Committee on the Relocation of Uranium Mill Tailings, State of Colorado.
1979-year	American Association for the Advancement of Science, Committee on Intergovernmental Research and Development on Fire Safety and Disaster Preparedness, Washington, D.C.
1976-1978	National Academy of Sciences, National Research Council, Commission on Sociotechni- cal Systems, Committee on Socioeconomic Effects of Earthquake Prediction, Washington, D.C.

PUBLICATIONS

Books and Monographs (refereed)

Mileti, Dennis S.

The Order of Chaos in Disasters (in progress).

Mileti, Dennis S., John Schneider and D. Stanley Eitzen

Graduate Research Methods in the Social Sciences (in progress).

Gillespie, David F., and Dennis S. Mileti

1979 Technostructures and Interorganizational Relations.

Lexington, Massachusetts: Lexington Books.

Gillespie, David F., Dennis S. Mileti and Ronald Perry

1976 Organizational Response to Changing Community Systems

Kent, Ohio: Kent State University Press.

Chapters (invited and refereed)

Mileti, Dennis S.

1986 "Research methods and disaster research." In Russell R. Dynes and Carlo Pelanda (Eds.). Sociology of Disasters: Contributions of Sociology to Disaster Research. Italy: Franco Angeli (forthcoming).

Mileti, Dennis S., and John H. Sorensen

1985 "Why people take precautions against natural hazards." In Neil Weinstein (Ed.). Encouraging Self-Protection Behavior (forthcoming).

Sorensen, John H. and Dennis S. Mileti

1985 "Protective actions for natural hazards: a review of programs to stimulate public adoption." In Neil Weinstein (Ed.). Encouraging Self-Protection Behavior (forthcoming).

Hutton, Janice, John Sorensen and Dennis S. Mileti

1981 "Earthquake prediction and public reaction." Pp. 129-166 in T. Rikitake (Ed.). Current Research in Earthquake Prediction. Boston: Reidel Publishing Company, Tokyo: Center for Academic Publications.

Mileti, Dennis S.

1981 "Planning initiatives for seismic hazard mitigation." Pp. 44-53 in J. Isenberg (Ed.). Social and Economic Impact of Earthquakes on Utility Lifelines. New York: American Society of Civil Engineers.

Monographs and Chapters (quasi-refereed)

Mileti, Dennis S., and Joanne Nigg

1984 "Social science earthquake investigations." In Roger Scholl (Ed.). Lessons Learned from Recent Earthquakes. Berkeley: Earthquake Engineering Research Institute (forthcoming).

Review Panel of the National Earthquake Hazards Reduction Plan

1984 National Earthquake Hazards Reduction Program: Five Year Program Plan. Washington, D.C.: Federal Emergency Management Agency (forthcoming).

- Mileti, Dennis S.
 1982 "A bibliography for graduate research methods." Pp. 249-255 in Russel Schutt, Alan Orenstein and Theodore C. Wagenaar (Eds.). Research Methods Courses: Syllabi, Assignments and Projects. Washington, D.C.: American Sociological Association.
- Mileti, Dennis S., Janice Hutton and John Sorensen
 1981 Earthquake Prediction Response and Options for Public Policy. Boulder: Institute of Behavioral Science, Monograph 28.
- Santopolo, Frank, and Dennis S. Mileti
 1980 Impacts of Population Growth in Agricultural Colorado Committees. Fort Collins: Colorado State University Experiment Station Bulletin.
- Committee on Fire Safety and Disaster Preparedness
 1979 Fire Safety and Disaster Preparedness. Washington, D.C.: American Association for the Advancement of Science.
- Committee on Socioeconomic Effects of Earthquake Prediction
 1978 A Program of Studies on the Socioeconomic Effects of Earthquake Prediction. Washington, D.C.: National Academy of Sciences-National Research Council.
- Mileti, Dennis, S., Thomas E. Drabek and J. Eugene Haas
 1975 Human Systems in Extreme Environments: A Sociological Perspective. Boulder: Institute of Behavioral Science, Monograph 21.
- Mileti, Dennis S.
 1975 Natural Hazard Warning Systems in the United States. Boulder: Institute of Behavioral Science, Monograph 12. Portions reprinted in Joseph Perry and Meredith Pugh, Collective Behavior: Response to Stress, 1978.
- Erickson, Neil, John Sorensen and Dennis S. Mileti
 1975 Landslide Hazards in the United States: A Research Assessment. Boulder: Institute of Behavioral Science.
- Mileti, Dennis S.
 1975 Disaster Relief and Rehabilitation in the United States. Boulder: Institute of Behavioral Science.
- Ayre, Robert, Dennis S. Mileti and Patricia Trainer
 1975 Earthquake and Tsunami Hazards in the United States: A Research Assessment. Boulder: Institute of Behavioral Science.

Journal Articles: Discipline Focus (refereed)

- Mileti, Dennis S.
 1984 "The human equation in earthquake prediction and warning," Policy Studies Review (accepted and forthcoming).
- Mileti, Dennis S., Donald Hartsough, Patti Madson and Rick Hufnagel
 1984 "The Three Mile Island incident: a study of behavioral indicators of human stress." Mass Emergencies and Disasters (accepted and forthcoming).

- Mileti, Dennis S.
1983 "Societal comparisons of organizational response to earthquake prediction: Japan vs the United States." Mass Emergencies and Disasters 1(3):399-414.
- Mileti, Dennis S.
1982 "Structure and process in the implementation of public policy," Political Science Review 21(1):1-34.
- Mileti, Dennis S.
1982 "A review of research on public policy adoption," Public Administration Review (accepted and forthcoming).
- Mileti, Dennis S., Doug Timmer and David F. Gillespie
1982 "Intra and interorganizational determinants of decentralization," Pacific Sociological Review 25(2):163-183.
- Mileti, Dennis S., David F. Gillespie and Stan Eitzen
1981 "The multidimensionality of organizational size," Sociology and Social Research 65(4):400-414.
- Gillespie, David F., and Dennis S. Mileti
1981 "Heterogeneous samples in organizational research," Sociological Methods and Research 9(3):327-388.
- Mileti, Dennis S.
1980 "Human adjustment to the risk of environmental extremes," Sociology and Social Research 64(3):327-347.
- Gillespie, David F., and Dennis S. Mileti
1980 "Determinants of planning in organizations," Administrative Science Review 10(3):21-32.
- Mileti, Dennis S., and David F. Gillespie
1980 "Organizational and technological interdependencies," Journal of Contemporary Sociology 17(3-4):132-158.
- Gillespie, David F., Ronald Perry and Dennis S. Mileti
1980 "Stress and transformation," Journal of Social Research 21(2):139-147.
- Mileti, Dennis S., David F. Gillespie and Stan Eitzen
1979 "Structure and decision making in corporate organizations," Sociology and Social Research 63(4):723-744.
- Gillespie, David F., and Dennis S. Mileti
1979 "Action and contingency postulates in organization-environment relations," Human Relations 32(3):261-271.
- Mileti, Dennis S., David F. Gillespie and Elizabeth Morrissey
1978 "Technology and organizations: methodological deficiencies and lacunae," Technology and Culture 19(1):83-92.
- Gillespie, David F., and Dennis S. Mileti
1978 "Organizational technology and environment adaptation-manipulation," Scottish Journal of Sociology 2(2):205-219.
- Mileti, Dennis S., David F. Gillespie and J. Eugene Haas
1977 "Size and structure in complex organizations," Social Forces 56(1):208-217.
- Gillespie, David F., and Dennis S. Mileti
1977 "Technology and the study of organizations: an overview and appraisal," Academy of Management Review 2(1):6-19.

Reprinted in Readings on How Managers Manage. Englewood Cliffs, New Jersey: Prentice Hall, 1982.

- Mileti, Dennis S., and David F. Gillespie
1976 "An integrated formalization of organization-environment interdependencies," Human Relations 29(1):80-100.
- Gillespie, David F., and Dennis S. Mileti
1976 "Organizational adaptations to changing cultural contingencies," Sociological Inquiry 46(2):135-141.
- Gillespie, David F., Roy Lotz, Dennis S. Mileti and Ronald Perry
1976 "Historical and paradigmatic differences in the use of the goal concept," International Review of History and Political Science 8(30):1-14.
- Gillespie, David F., and Dennis S. Mileti
1976 "A refined model of differentiation in organizations," Sociology and Social Research 60(3):263-278.
- Perry, Ronald, David F. Gillespie, Roy Lotz and Dennis S. Mileti
1976 "Attitudinal variables as estimates of behavior," European Journal of Social Psychology 6(1):74-90.
- Mileti, Dennis S., and Elwood M. Beck
1975 "Explaining evacuation symbolically: communication in crisis," Communication Research 2(1):24-49.
- Gillespie, David F., Ronald Perry, Dennis S. Mileti and Roy Lotz
1975 "Organizational tensions and decentralization: the interactive effect on member commitment," International Journal of Group Tensions 5(2):26-37.
- Perry, Ronald, David F. Gillespie and Dennis S. Mileti
1974 "Collective stress and community transformation," Human Relations 27(8):767-788.
- Mileti, Dennis S.
1974 "Change ratios in age-specific percent contriductions to fertility: a new method with applications to the United States," Pacific Sociological Review 17(1):3-26. First Prize, student paper competition, Pacific Sociological Association, 1974.
- Mileti, Dennis S., and David F. Gillespie
1974 "An integrative approach to the study of organizational technology, structure and behavior," Current Sociology 23(1):189-200.
- Gillespie, David F., and Dennis S. Mileti
1974 "System stress and the persistence of emergent organizations," Sociological Inquiry 44(2):111-119.
- Mileti, Dennis S., and Larry Barnett
1972 "Nine demographic factors and their relationship toward abortion legalization," Social Biology 19(2):43-50.

Journal Articles: Applied Focus (refereed)

- Mileti, Dennis S.
1984 "Role conflict in emergency workers," Emergency Management Review (accepted and forthcoming).
- Mileti, Dennis S.
1984 "Earthquakes and human behavior," Spectra (accepted and forthcoming).

- Mileti, Dennis S.
 1983 "Public perceptions of seismic hazards and critical facilities," Bulletin of the Seismological Society of America 72(6):13-18.
- Mileti, Dennis S., and Patricia Harvey
 1978 "Correcting for the human factor in tornado warnings," Disaster Preparedness 2(February):5-9.
- Haas, J. Eugene, and Dennis S. Mileti
 1977 "Socioeconomic and political consequences of earthquake prediction," Journal of the Physical Earth 25(4):283-293.
- Haas, J. Eugene, and Dennis S. Mileti
 1977 "Earthquake prediction and its consequences," California Geology 30(7):147-157, 1977. Revised and reprinted in San Francisco 20(4):60-68, 1978.
- Haas, J. Eugene, and Dennis S. Mileti
 1976 "Earthquake prediction and other adjustments to earthquakes," Bulletin of the New Zealand Society for Earthquake Engineering 9(4):183-194.

Journal Rejoinders: Discipline Focus (refereed)

- Gillespie, David F., and Dennis S. Mileti
 1982 "Differentiation in organizations: a comment on Miller and Conaty," Social Forces 60(4):1172-1175.
- Mileti, Dennis S., Ronald Perry and David F. Gillespie
 1975 "The analytical use of case study materials in the study of organizations: a rejoinder to Griffin and Griffin," Sociological Inquiry 45(4):72-50.

Book Reviews (invited and refereed)

- Mileti, Dennis S.
 1984 "A review of Social and Economic Aspects of Earthquakes by Barclay G. Jones and Miha Tomazevic (Eds.). Ithaca: Program in Urban and Regional Studies, 1983." Mass Emergencies and Disasters (forthcoming).
- Mileti, Dennis S.
 1982 "A review of Unequal Care: Interorganizational Relations in Health Care by M. Milner, Jr. New York: Columbia University Press, 1980." Social Forces 60(3):943-944.
- Mileti, Dennis S.
 1982 "A review of Whistle Blowing: Loyalty and Dissent in the Corporation by Alan Westin (Ed.). New York: McGraw-Hill, 1981." Sociology: A Review of New Books 7(2).
- Mileti, Dennis S.
 1980 "A review of Aftermath: Communities After Natural Disasters by H. Paul Friesema et al. Beverly Hills: Sage Publications, 1979 and After the Clean-up: Long Range Effects of Natural Disasters by James Wright and Peter Rossi et al. Beverly Hills: Sage Publications, 1979." Journal of the American Planning Association

(October):484-485.

Mileti, Dennis S.

- 1976 "A review of A Sociology of Organizations by J. Eldridge and A. Crombie. New York: International Publications, 1975." Contemporary Sociology 5(6):784.

Technical Reports (not refereed)

Mileti, Dennis S.,

- 1983 Human Response Scenarios: Law Enforcement Applications and Media Implications. Sacramento: California Division of Mines and Geology.

Mileti, Dennis S.

- 1982 Organizational Behavior and Interorganizational Relations: Implications for Nuclear Power Plant Emergencies and Preparedness. Oak Ridge, Tennessee: Oak Ridge National Laboratories.

Mileti, Dennis S., Donald M. Hartsough and Patti Madson

- 1982 The Three Mile Island Incident: A Study of Behavioral Indicators of Human Stress. Washington, D.C.: Shaw, Pittman, Potts and Trowbridge.

Mileti, Dennis S., and Arthur Svenson

- 1981 Earthquake Prediction-Warning Response For Emergency Organizations to the Prediction Terminology. Van Nuys: Southern California Earthquake Preparedness Project.

Hutton, Janice, and Dennis S. Mileti

- 1979 Analysis of Adoption and Implementation of Community Land Use Regulations for Floodplains. San Francisco: Woodward-Clyde.

Haas, J. Eugene, and Dennis S. Mileti

- 1976 Socioeconomic Impact of Earthquake Prediction on Government, Business and Community. Boulder: Institute of Behavioral Science.

Mileti, Dennis, S., and David F. Gillespie

- 1976 Interorganizational Relations and Community Service Delivery Systems. Boulder: Center for Action Research.

Publications in Proceedings (not refereed)

Mileti, Dennis S.

- 1980 "Human response to earthquake prediction." Pp. 36-56 in Walter Hays (Ed.). Proceedings of the Conferences on Earthquake Prediction Information. Menlo Park: U.S. Geological Survey. Paper presented at the January, 1980 Conference on Earthquake Prediction Information, Los Angeles.

Mileti, Dennis S., and Janice Hutton

- 1978 "Social aspects of earthquakes." Pp. 179-192 in Proceedings of the Second International Conference on Microzonation. San Francisco: National Science Foundation. Paper presented at the November, 1978 Conference on the State of the Art in Microzonation for Earthquake Hazards Reduction, San Francisco.

Mileti, Dennis S.

- 1978 "Socioeconomic effects of earthquake prediction on state policy." Pp. in Proceedings of the National Conference on Earthquake Related Hazards. Lexington, Kentucky: Council of State Governments. Speech presented at the November, 1977 Conference on State Policy for Earthquake Prediction Technology, Boulder.

Other Published Comments (invited and refereed)

Mileti, Dennis S.

- 1984 "The character of traffic in an emergency," Bulletin 6(1):5.

Mileti, Dennis S.

- 1983 "Disasterous warnings," Omni (March):24,44,152.

Mileti, Dennis S.

- 1982 "Hazards reduction work: the next era," National Hazards Observer 6(4):1-2. Reprinted in Earthquake Information Bulletin 14(2):60, 1982.

Mileti, Dennis S.

- 1982 "Sociological aspects of earthquake prediction," Earthquake Information Bulletin 11(3):102-105.

Haas, J. Eugene, and Dennis S. Mileti

- 1977 "Earthquake prediction response," Time (January 24):83.

Haas, J. Eugene, Thomas Drabek and Dennis S. Mileti

- 1976 "Individual and organizational response to threat," Mass Emergencies 1(4):247.

Mileti, Dennis S.

- 1976 "Social scientists and applied research," The American Sociologist 11(4):220-221.

Mileti, Dennis S.

- 1974 "Response to research and national needs," Footnotes 2(October):6.

PROFESSIONAL PAPERS AND PRESENTATIONS

Conference Papers

- Mileti, Dennis S., Rick Hufnagel and David Gillespie
1984 "Regulation of the firm: toward a theory of consequences," paper presented to the Complex Organizations Session of the American Sociological Association, San Antonio: August.
- Mileti, Dennis S.
1984 "Social and political obstacles to the use of nonstructural flood loss mitigation measures," paper presented to the American Society of Civil Engineers, San Francisco: October.
- Mileti, Dennis S.
1984 "Why people take precautions against natural hazards," paper presented to the Conference on Encouraging Self-Protection Behavior, Rutgers University: July.
- Mileti, Dennis S.
1984 "Sociology in litigation: applications of disaster research," paper presented to the Sociology of Disasters Session of the Pacific Sociological Association, Seattle: April.
- Mileti, Dennis S.
1983 "Social impact and use of earthquake prediction-warnings," paper presented to the US-Japan Seminar on Practical Approaches to Earthquake Prediction and Warning, Tokyo: November.
- Frey, R. Scott, Thomas Dietz, Dennis S. Mileti, and Debra Cornelius
1983 "Structural determinants of community adoption of the National Flood Insurance Program," paper presented to the Rural Sociological Society, Lexington: July.
- Mileti, Dennis S., Donald M. Hartsough, Patti Madson and Rick Hufnagel
1983 "The Three Mile Island incident: a study of unobtrusive indicators of human stress," paper presented to the Disasters and Hazards Research Session of the Midwest Sociological Society, Kansas City: April.
- Hufnagel, Rick, and Dennis S. Mileti
1983 "Organizational and environmental catastrophe: factors affecting organizational response to a predicted earthquake," paper presented to the Disasters and Hazards Research Session of the Western Social Science Association, Albuquerque: April.
- Mileti, Dennis S.
1982 "Earthquake prediction response: cultural comparisons between Japan and the United States," paper presented to the Disaster Research Session of the International Sociological Association, Mexico City: August.
- Mileti, Dennis S.
1982 "Influencing corporate decisions on the use of microzonation information," paper presented to the Third International Conference on Microzonation, Seattle: June.

- Mileti, Dennis S.
 1982 "Earthquake prediction and warnings: the human equation," paper presented to the Conference on Hazards Research, Policy Development, and Implementation Incentives: Focus on Urban Earthquakes, Policy Research Center at the University of Redlands, Redlands: June.
- Mileti, Dennis S.
 1982 "Public perception of seismic hazards," paper presented to the Seismological Society of America, Anaheim: April.
- Williams, Gary, Frank Santopolo and Dennis S. Mileti
 1980 "Perception of growth impacts in energy impacted communities," paper presented to the Rural Sociological Society, Ithaca: August.
- Mileti, Dennis S.
 1980 "Planning initiatives for seismic hazard mitigation," paper presented to the Conference on Social and Economic Impacts of Earthquakes on Critical Lifelines of the American Society of Civil Engineers, San Francisco: May.
- Timmer, Doug, and Dennis S. Mileti
 1980 "Interorganizational and structural determinants of decision making," paper presented to the Session on Complex Organizations of the Midwest Sociological Society, Milwaukee.
- Williams, Gary, Dennis S. Mileti
 1980 "Community growth and impacts," paper presented to the Western Social Science Association, Albuquerque: April.
- Mileti, Dennis S.
 1980 "Human response to earthquake prediction," paper presented to the Status of Knowledge Session of the Conference on Earthquake Prediction Information, Los Angeles: January.
- Williams, Gary, and Dennis S. Mileti
 1979 "Perceptions of growth impacts in non-metropolitan Colorado," paper presented to the Impacts Session of the Conference on Regional Migration Trends, St. Louis: October.
- Mileti, Dennis S., and Gary Williams
 1979 "Resident perceptions in growth impacted western agricultural communities," paper presented to the Rural Sociological Society, Vermont: August.
- Gillespie, David F., Dennis S. Mileti and Stan Eitzen
 1979 "The epiphenomenality of organizational size," paper presented to the Session on Complex Organizations of the Midwest Sociological Society, Milwaukee: April.
- Mileti, Dennis S., Janice R. Hutton and John Sorensen
 1979 "Social factors and response to earthquake prediction," paper presented to the International Symposium on Earthquake Prediction, UNESCO, Paris: April.
- Hutton, Janice R., Dennis S. Mileti, and John Sorensen
 1979 "Factors affecting earthquake warning system effectiveness," paper presented to the International Symposium on Earthquake Prediction, UNESCO, Paris: April.
- Sorensen, John, Janice R. Hutton and Dennis S. Mileti

- 1979 "Institutional management of risk information following earthquake predictions," paper presented to the International Symposium on Earthquake Prediction, UNESCO, Paris: April.
- Mileti, Dennis S., and Janice Hutton
 1978 "Social aspects of earthquakes," paper presented to the State of the Art Session of the Second International Conference on Microzonation, San Francisco: November.
- Mileti, Dennis S., and David F. Gillespie
 1978 "Organizational size, complexity and decision making," paper presented to the Organizations Session of the American Sociological Association, San Francisco: September.
- Gillespie, David F., and Dennis S. Mileti
 1978 "Corporate size as work," paper presented to the Organization of Work Session of the American Sociological Association, San Francisco: September.
- Mileti, Dennis S., and David F. Gillespie
 1978 "Action postulates in organization-environment relations," paper presented to the Organizations-Environment Session of the Midwest Sociological Society, Omaha: April.
- Gillespie, David F., and Dennis S. Mileti
 1978 "Size and organizational differentiation," paper presented to the Formal and Complex Organizations Session of the Pacific Sociological Association, Spokane: April.
- Mileti, Dennis S., and Patricia Harvey
 1977 "Correcting for the human factor in tornado warnings," paper presented to the Conference on Severe Local Storms of the American Meteorological Society, Omaha: October.
- Mileti, Dennis S., and David F. Gillespie
 1977 "Organization and environment adaptation-manipulation," paper presented to the Organizational Relations Session of the American Sociological Association, Chicago: September.
- Hutton, Janice R., and Dennis S. Mileti
 1977 "The uses and abuses of scenarios in policy research," paper presented to the Social Policy Session of the American Sociological Association, Chicago: September.
- Gillespie, David F., and Dennis S. Mileti
 1977 "Organizational growth and managerial efficiency," paper presented to the Social Organization/Formal/Complex Session of the Pacific Sociological Association, Sacramento: April.
- Mileti, Dennis S., and David F. Gillespie
 1977 "Organizational manipulation and adaptation to complex environments," paper presented to the Complex Organizations Session of the Midwest Sociological Society, Minneapolis: April.
- Gillespie, David F., Dennis S. Mileti and J. Eugene Haas
 1976 "Size and structure in complex organizations," paper presented to the Organizational Change Session of the American Sociological Association, New York City:

- August.
- Mileti, Dennis S.
 1976 "Learning theory and disaster warning response," paper presented to the Issues in Environmental Analysis Session to the American Sociological Association, New York City: August.
- Haas, J. Eugene, and Dennis S. Mileti
 1976 "Consequences of earthquake prediction on other adjustments to earthquakes," paper presented to the Australian Academy of Science, Canberra: May.
- Mileti, Dennis S., and J. Eugene Haas
 1976 "A methodology for future collective events," paper presented to the Collective Behavior Session of the Midwest Sociological Society, St. Louis: April.
- Gillespie, David F., and Dennis S. Mileti
 1976 "Operations technology and organizational structure," paper presented to the Formal Organizations Session of the Midwest Sociological Society, St. Louis: April.
- Haas, J. Eugene, and Dennis S. Mileti
 1976 "Assessing the consequences of earthquake prediction," paper presented to the Social Risk Session of the American Association for the Advancement of Science, Boston: February.
- Mileti, Dennis S., and David F. Gillespie
 1975 "Technological uncertainty in organization-environment relations," paper presented to the Formal Organizations Session of the American Sociological Association, San Francisco: August.
- Mileti, Dennis S., and David F. Gillespie
 1975 "A resolution of inconsistencies between size, complexity and the administrative component in organizations," paper presented to the Formal Organizations Session of the Midwest Sociological Society, Chicago: April.
- Mileti, Dennis S., and David F. Gillespie
 1975 "Technology and the study of organizations," paper presented to the Formal Organizations Session of the Pacific Sociological Association, Victoria: April.
- Mileti, Dennis S., and David F. Gillespie
 1975 "An interaction model for organization-environment relations," paper presented to the Interorganizational Relations Session of the Midwest Sociological Society, Omaha: April.
- Mileti, Dennis S., and David F. Gillespie
 1974 "A formalization of organization-environment dependencies," paper presented to the Formal Organizations Session of the Pacific Sociological Association, San Jose: March.
- Farhar, Barbara, and Dennis S. Mileti
 1974 "Value and role issues for the involved social scientist," paper presented to the Applied Session of the Pacific Sociological Association, San Jose: March.
- Mileti, Dennis S.
 1973 "Drowning: a communications disease," paper presented to the Mass Communications and Public Opinion Session of

the American Sociological Association, New York City:
August.

Mileti, Dennis S., and Sigmund Krane

1973 "Response to impending system stress," paper presented to the What Do We Know Session on Human Behavior in Disaster of the American Sociological Association, New York City: August.

Mileti, Dennis S.

1973 "A paradigm and sociology of knowledge for theories of natural law," paper presented to the Theory Session of the Midwest Sociological Society, Milwaukee: April.

Mileti, Dennis S.

1972 "Response to hazards warnings," paper presented to the Organizational and Community Response to Disaster Seminar at the Disaster Research Center of the Ohio State University, Columbus: July.

Speeches and Guest Lectures

"Warnings: applying research in the private sector," Plenary Session on Hazards Research and Management: Assessments of a Maturing Field, Natural Hazards Research Applications Workshop, Boulder: July, 1984.

"Human response to emergencies," Emergency Preparedness Executive Seminar for County Commissioners of the Commonwealth of Pennsylvania, GPU Nuclear Corporation, Harrisburg: March, 1984.

"The uses of earthquake prediction-warnings," Colloquium on Earthquake Prediction Research in the US, Earthquake Research Institute, University of Tokyo: November, 1983.

"Human response in disasters," American Red Cross, Mile High Chapter, Boulder Region, Boulder: July, 1983.

"Integrated emergency management: challenges and opportunities," Plenary Session of the Natural Hazards Research Applications Workshop, Boulder: July, 1983.

"Public response to flood disasters," Conference on the Need for Teamwork in Managing Flood Hazards, Association of State Floodplain Manager, Sacramento: April, 1983.

"Natural hazards, disasters and public policy," Environmental Management Institute, University of Southern California, Los Angeles: April, 1982.

"Myths of disaster response," Earthquake Planning Conference for Business and Industry, Los Angeles: May, 1982.

"Communicating lessons learned from social science research on earthquakes," Workshop of Identifying and Disseminating Lessons Learned from Recent Earthquakes," Earthquake Engineering Research Institute, Los Altos: December, 1982.

"Social causes of earthquake prediction-warning response: implications for the design of California's warning system and information dissemination," Southern California Earthquake Preparedness Project, Van Nuys: October, 1981.

"Assessment of research on natural hazards: what have we learned and what problems demand further attention," Natural Hazards Research Applications Workshop, Boulder: July, 1981.

"Disaster reconstruction: patterns to guide planning," Governor's Task Force for Earthquake Emergency Preparedness, Committee on Long Range Reconstruction, Sacramento, July, 1981.

"Socio-cultural dimensions of earthquake risk," Governor's Emergency Task Force on Earthquakes, General Assembly, Sacramento: May, 1981.

"Interorganizational relations and service delivery systems," Health Sciences Center, University of Colorado, Denver: October, 1980.

"Social response to earthquake prediction: local policy issues," Southern California Emergency Services Association, Montebello: February, 1980.

"Human response to weather-borne hazards warnings," Department of Atmospheric Sciences, Colorado State University: October, 1979.

"Natural hazards, disasters and social research," Department of Sociology, University of Denver: December, 1980, 1979.

"Measuring implementation of public policy for floodplain land use controls," Natural Hazards Research Applications Workshop, Boulder: August, 1978.

"Socioeconomic effects of earthquake prediction and state policy," Conference on State Policy for Earthquake Prediction Technology, Boulder: November, 1977.

"Population, resources and policy for social change," College of Natural Resources, Colorado State University: September, 1977; February, 1978; February, 1980.

"The behavior of government and corporate organizations in an earthquake prediction," American Society for Public Administration, Colorado Chapter, Denver: April, 1976.

"The social and economic aspects of scientifically credible earthquake predictions," California State Seminar on Emergency Preparedness and Earthquake Prediction, Palm Springs: June, 1976.

"Preparing to make use of earthquake predictions," Emergency Preparedness Commission for the County and Cities of Los Angeles, Montebello: February, 1976.

"The social organization of hazard warning systems," Engineering Foundation Conference on Decision Making for Natural Hazards, Pacific Grove: March, 1976.

"Briefing on the likely social and economic impacts of earthquake prediction," Governor's Conference Room, Sacramento: May, 1975; Mayor's Conference Room, Los Angeles: October, 1975.

"Social, economic and legal aspects of earthquake prediction," General Assembly of the International Union of Geodesy and Geophysics, Grenoble: September, 1975.

"Earthquake prediction and its implications for emergency preparedness," Center for Community Studies, Tokyo: September, 1975.

"Social impacts of earthquake prediction: implications for policy," California Water and Power Earthquake Engineering Forum, San Francisco: April, 1975.

OTHER PROFESSIONAL SERVICE

Organizer and Presider

Session on Applied Sociology, Pacific Sociological Association, Seattle: April, 1984; Session on Theoretical Assessments, Western Social Science Association, San Diego: April, 1984; Session on Methodological Approaches in the Study of Health Care Delivery Systems, Western Social Science Association, San Diego: April, 1984; Session on Earthquake Hazard Reduction: Is the National Earthquake Hazard Reduction Program Meeting its Congressional Mandate, Seventh Annual Workshop on Natural Hazards Research Applications, Boulder: July, 1982; Session on Disasters and Cataclysms: Can Sociology Help, Pacific Sociological Association, San Diego: April, 1982; Session on Collective Behavior, American Sociological Association, New York: August, 1980; Session on Complex Organizations, Pacific Sociological Association, San Francisco: April, 1980; Session on Complex Organizations, Western Social Science Association, Tempe, 1976.

Discussant

Session on Theoretical Assessments, Western Social Science Association, San Diego: April, 1984; Session on Societal Response to Hazards, American Sociological Association, San Antonio: August, 1984; Session on Public Response to Earth Science Information, Natural Hazards Research Applications Workshop, Boulder: July, 1980; Session on Warning Systems, National Conference on Natural Hazards, Boulder: June, 1976; Session on Warning Systems, National Conference on Natural Hazards, Boulder: July, 1975; Session on Disaster Relief and Warning Systems, National Conference on Natural Hazards, Estes Park: June, 1973.

Participant

Panel on Disaster Research Its Funding and Future, American Sociological Association, San Antonio: August, 1984; Review Panel, Corresponding Member, Task Group on Social and Economic Aspects of Earthquakes, National Academy of Sciences, National Research Council, Commission on Sociotechnical Systems, Washington, D.C.: 1982; Workshop on Disseminating Lessons Learned from Recent Earthquakes, Earthquake Engineering Research Institute, Los Altos: December, 1982; Tennessee Valley Authority Flood Plain Evaluation Panel, Boulder: November, 1982; Earthquake Prediction Warning Task Force Workshop, Southern California Earthquake Preparedness Project, Asilomar: December, 1981; Symposium on Earthquake Prediction, Preparedness and Human Response, San Fernando: June, 1976; Seminar on Disaster Research, Colorado State University, Fort Collins: February, 1975; Symposium on Complex Organizations: Research and Applications, Western Social Science Association, El Paso: April, 1974.

Editorships

Corresponding editor on Hazards and Disaster, Environmental Sociology, Newsletter of the Section on Environmental Sociology of the American Sociological Association, 1981-date; Guest editor, special issue on Environmental Stress, Threat and Social System Response, Mass Emergencies 1(4):247-346, 1976.

Testimony

Nuclear Regulatory Commission in the matter of emergency planning at the Shoreham nuclear reactor, Suffolk: December, 1983 through June, 1984; Nuclear Regulatory Commission in the matter of emergency planning at the Wolf Creek generating station, Burlington, Kansas: January, 1984; Nuclear Regulatory Commission in the matter of pre-emergency public education and information for emergency planning at the Waterford Three nuclear reactor, New Orleans: February, 1983; Suffolk County Legislature, State of New York, in the matter of emergency planning at the Shoreham nuclear reactor, Suffolk: January, 1983; Nuclear Regulatory Commission in the matter of emergency planning at the Diablo Canyon nuclear reactor, San Luis Obispo: January, 1982; Senate Subcommittee on Science, Technology and Space in the matter of the National Earthquake Hazards Reduction Act, Washington, D.C.: April, 1980; Nuclear Regulatory Commission in the matter of the impact of floating nuclear plants on tourist behavior, Bethesda: May, 1977 and July, 1978.

Legislative and Program Reviews

Earthquake Hazards Reduction Program, U.S. Congressional Panel, Federal Emergency Management Agency, 1983-82; Earthquake Hazards Reduction Program of the U.S. Geological Survey, 1982; Final Regulations for Floodplain Management and Protection of Wetlands, Federal Emergency Management Agency, Federal Register 176(45):59520-59538, 1980; Applied Research Program Evaluation, National Science Foundation, 1979-78.

Proposal Reviews

Societal Response Program of Civil and Environmental Engineering, National Science Foundation, 1984-81; Division of Policy Research and Analysis, National Science Foundation, 1983; Sociology Program, National Science Foundation, 1982-81; Design Research Program, National Science Foundation, 1982; Division of Problem Focused Research, National Science Foundation, 1980; Division of International Programs, National Science Foundation, 1978; Division of Advanced Environmental Research and Technology, National Science Foundation, 1978-76.

Article Reviews

Human Relations, 1984-83, 1978-77; Sociological Perspectives (Pacific Sociological Review), 1984; Deviant Behavior, 1983; Risk Analysis, 1983; The Environmental Professional, 1983-82; Sociology and Social Research, 1982-81, 1979-78, 1976; Social Forces, 1980; The Environmental Professional, 1982; The Social

Science Journal, 1981-77; Bulletin of the Seismological Society of America, 1982; Sociological Focus, 1980; Mass Emergencies, 1978, 1976-75; Policy Analysis, 1978; The Sociological Quarterly, 1975; Current Research in Earthquake Prediction, 1984.

Other Reviews

L. Lave and D. Epple, "Future Scenarios," Chapter 21 in R. W. Kates (Ed.). Climate Impact Assessment: Studies of the Interaction of Climate and Society. Geneva, for the International Council of Scientific Union's Scientific Committee on Problems of the Environment, 1982; Study on Earthquake Hazards Information Dissemination: Charleston, South Carolina. Reston for the U. S. Geological Survey, 1982.

Department and University Service

Department Executive Committee, 1984-82, 1980-77; Department ad hoc Committee on Research Space, 1983; Department Five-Year Review Committee, 1982; Department Comprehensive Examination Committee, 1984-75; Department Evaluation of Independent Study Courses, 1978; University Committee on Ethnic Studies, 1976-74; University Committee on Latin American Studies, 1975-74.

TEACHING

Courses Taught (undergraduate)

Introduction to Sociology
Complex Organizations
Demographic Processes and Social Change
Historical Sociological Theory
Research Methods
Sociology of Hazards and Disasters

Courses Taught (graduate)

Advanced Quantitative Analysis
Multiple Regression and Path Analysis
Research Methods I
Research Methods II
Demography and Population
Complex Organizations

Graduate Theses and Dissertations

Chair, Ph.D. Dissertation Committee, 5
Member, Ph.D. Committees, 12
Chair, M.A. Thesis Committees, 3
Member, M.A. Committees, 12

Student Evaluations

Ranked as excellent by most students in most courses; evaluation summaries are available upon request.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)
)
THE CLEVELAND ELECTRIC)
ILLUMINATING COMPANY)
)
(Perry Nuclear Power Plant,)
Units 1 and 2))

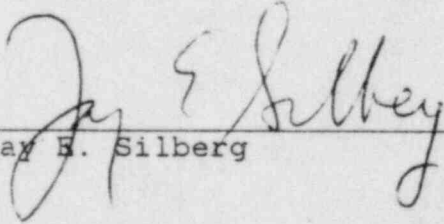
Docket Nos. 50-440
50-441

OFFICE OF SECRETARY
DOCKETING & SERVICE

85 FEB -5 A9:53

CERTIFICATE OF SERVICE

I hereby certify that copies of "Applicants' Motion For Summary Disposition of Contention GG," "Applicants' Statement of Material Facts As To Which There Is No Genuine Issue To Be Heard on Contention GG," "Affidavit of Janet E. Dugan on Contention GG," and "Affidavit of Dennis S. Mileti on Contention GG," were served this 1st day of February, 1985, by deposit in the U.S. mail, first class, postage prepaid, upon the parties listed on the attached Service List, except for those parties identified by asterisk who were served by express mail.


Jay E. Silberg

Dated: February 1, 1985

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)
)
THE CLEVELAND ELECTRIC) Docket Nos. 50-440
ILLUMINATING COMPANY, ET AL.) 50-441
)
(Perry Nuclear Power Plant,)
Units 1 and 2))

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Washington, D.C. 20555

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