PELATED CORRESPONDENCE

November 2, 1984

UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION

#### BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of

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CAROLINA POWER & LIGHT COMPANY and NORTH CAROLINA EASTERN MUNICIPAL POWER AGENCY

Docket No. 50-400 OL

(Shearon Harris Nuclear Power Plant)

## AFFIDAVIT OF DENNIS S. MILETI ON EDDLEMAN 57-C-3

County of Denver State of Colorado

) ss.

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

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 Eddleman Contention 57-C-3.

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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 learned of emergencies 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

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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 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 Harris plant, the seeking of confirmation would lead people to contact others who might or might not as yet have learned of the emergency.

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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 might not as yet have learned of the emergency. Thus, for example, people who have been awakened in the night and received notification of an emergency at Harris generally can be expected to notify neighbors whose houses are still dark and where no one appears to be stirring.

7. Finally, the high level of activity which would be associated with an emergency at Harris 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 either the fixed sirens, the mobile alerting system, or another member of the

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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 EPZ) would awaken (if necessary) and 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 turning on the TV or radio, or 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 Harris plant.

Dennis S. Mileti

Sworn to and subscribed before me this \_\_\_\_ day of November, 1984.

Notary Public

My Commission expires:

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## ACADEMIC VITA OF DENNIS S. MILETI August, 1984

# PERSONAL

Office:

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Hazards Assessment Laboratory 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

X ALLALAMALIA	
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, Chautauga 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
1981-year 1978-1977	University Alumni Association for excellence in teaching, research and service Cited in Outstanding Young Men of America Cited for excellence in teaching, research and service by the Dean, College of Arts, Humanities and Social Sciences

#### MEMBERSHIPS

American Sociological Association, International Sociological Association, Pacific Sociological Association, Midwest Sociological Society, American Association for the Advancement 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 Organiza:
  - 977-1979 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
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1983-date	Front Pange Consortium on Natural Hazards
	Studies, Colorado State University, Univer- sity of Colorado, University of Denver.
1983-date	International Sociological Association,
1982-1983	Research Committee on Disasters. Pacific Sociological Association, Nominations

	Committee for the Standing Committees for 1983.
1982-date	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, Sacremento.
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 <u>Technostructures</u> and <u>Interorganizational</u> <u>Relations</u>. Lexington, Massachusetts: Lexington Books.

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

1976 Organizational Response to Changing Community Systems Rent, 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.). <u>Sociology of</u> <u>Disasters: Contributions of Sociology to Disaster</u> <u>Research.</u> Italy: Franco Angeli (forthcoming).

Mileti, Dennis S., and John H. Sorensen

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

Hutton, Janice, John Sorensen and Dennis S. Mileti

1981 "Earthquake prediction and public reaction." Pp. 129-166 in T. Rikitake (Ed.). <u>Current Research in</u> <u>Earthquake Prediction</u>. 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.). <u>Social and Economic</u> <u>apact of Earthquakes on Utility Lifelines</u>. New York: werican Society of Civil Engineers.

and Chapters (quasi-refereed)

., and Joanne Nigg

al science earthquake investigations." In Roger

oll (Ed.). Lessons Learned from Recent Earthquakes.

Burkeley: Earthquake Engineering Research Institute (forthcoming).

anel of the National Earthquake Hazards Reduction Plan 4 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.). <u>Research Methods Courses: Syllabi,</u> <u>Assignments and Projects</u>. Washington, D.C.: American Sociological Association.

Mileti, Dennis S., Janice Hutton and John Sorensen

1981 <u>Earthquake Prediction Response and Options for Public</u> <u>Policy</u>. Boulder: Institute of Behavioral Science, Monograph 28. 8 1995 S

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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 <u>A Program of Studies on the Socioeconomic Effects of</u> <u>Earthquake Prediction</u>. Washington, D.C.: National Academy of Sciences-National Research Council.

Milevi, Dennis, S., Thomas E. Drabek and J. Eugene Haas

1975 <u>Human Systems in Extreme Environments: A Sociological</u> <u>Perspective</u>. Boulder: Institute of Behavioral Science, Monograph 21.

Mileti, Dennis S.

1975 <u>Natural Hazard Warning Systems in the United States</u>. Boulder: Institute of Behavioral Science, Monograph 12. Portions reprinted in Joseph Perry and Meredith Pugh, <u>Collective Behavior: Response to Stress</u>, 1978.

Erickson, Neil, John Sorensen and Dennis S. Mileti

1975 <u>Landslide Hazards in the United States: A Research</u> <u>Assessment</u>. Boulder: Institute of Behavioral Science. Mileti, Dennis S.

1975 <u>Disaster Relief and Rehabilitation in the United</u> <u>States.</u> Boulder: Institute of Behavioral Science.

Ayre, Robert, Dennis S. Mileti and Patricia Trainer

1975 <u>Earthquake and Tsunami Hazards in the United States: A</u> <u>Research Assessment</u>, Boulder: Institute of Behavioral Science.

Journal Articles: Discipline Focus (referred)

Mileti, Dennis S.

1984 "The human equation in earthquake prediction and warning," <u>Policy Studies Review</u> (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." <u>Mass Emergencies</u> and <u>Disasters</u> (accepted and forthcoming). Mileti, Dennis S.

1983 "Societal comparisons of organizational response to earthquake prediction: Japan vs the United States." <u>Mass Emergencies and Disasters</u> 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," <u>Public Administration Review</u> (accepted and forthcoming).

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

1982 "Intra and interorganizational determinants of decentralization," <u>Pacific Sociological Review</u> 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," <u>Sociology and Social Research</u> 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

1930 "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 corprate organizations," <u>Sociology</u> and <u>Social</u> <u>Research</u> 63(4):723-744.

Gillespie, David F., and Dennis S. Mileti

1979 "Action and contingency postulates in organizationenvironment relations," Human Relations 32(3):261-271.

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

1978 "Technology and organizations: methodological deficiencies and lucunae," <u>Technology and Culture</u> 19(1):83-92.

Gillespie, David F., and Dennis S. Mileti

1978 "Organizational technology and environment adaptationmanipulation," <u>Scottish Journal of Sociology</u> 2(2):205-219.

Mileti, Dennis S., David F. Gillespie and J. Eugene Haas

1977 "Size and structure in complex organizations," <u>Social</u> Forces 56(1):208-217.

Gillespie, David F., and Dennis S. Mileti

1977 "Technology and the study of organizations: an overview and appraisal," <u>Academy of Management Review</u> 2(1):6-19. Reprinted in <u>Readings on How Managers Manage</u>. Englewood Cliffs, New Jersey: Prentice Hall, 1982.

Mileti, Dennis S., and David F. Gillespie

1976"An integrated formalization of organizationenvironment interdependencies," <u>Human Relations</u> 29(1):80-100.

Gillespie, David F., and Dennis S. Mileti

1976 "Organizational adaptations to changing cultural contingencies," <u>Sociological Inquiry</u> 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," <u>International Review of History and</u> <u>Political Science</u> 8(30):1-14.

Gillespie, David F., and Lennis 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," <u>Communication Research</u> 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," <u>International</u>

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," <u>Pacific Sociological Review</u> 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," <u>Current Sociology</u> 23(1):189-200.

Gillespie, David F., and Dennis S. Mileti

1974 "System stress and the persistence of emergent organizations," <u>Sociological Inquiry</u> 44(2):111-119.

Mileti, Dennis S., and Larry Barnett

1972 "Nine demographic factors and their relationship toward abortion legalization," <u>Social Biology</u> 19(2):43-50.

Journal Articles: Applied Focus (refereed)

Mileti, Dennis S.

1984 "Role conflict in emergency workers," <u>Emergency</u> <u>Management Review</u> (accepted and forthcoming).

Mileti, Dennis S.

1984 "Earthquakes and human behavior," <u>Spectra</u> (accepted and forthcoming).

Mileti, Dennis S.

1983 "Public perceptions of seismic hazards and critical facilities," <u>Bulletin of the Seismological Society of America</u> 72(6)13-18.

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Mileti, Dennis S., and Patricia Harvey

1978 "Correcting for the human factor in tornedo warnings," Disaster Preparedness 2(February): 5-9.

Haas, J. Eugene, and Dennis S. Mileti

1977 "Socioeconomic and political consequences of earthquake prediction," <u>Journal of the Physical Earth</u> 25(4):283-293.

Haas, J. Eugene, and Dennis S. Mileti

1977 "Earthquake prediction and its "onsequences," <u>California Geology</u> 30(7):147-157. 7. Revised and reprinted in <u>San Francisco</u> 20(4).60 c., 978.

Haas, J. Eugene, and Dennis S. Mileti

1976 "Earthquake prediction and other adjustments to earthquakes," <u>Bulletin of the New Zealand Society for</u> <u>Earthquake Engineering</u> 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," <u>Sociological Inquiry</u> 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." <u>Mass</u> <u>Emergencies and Disasters</u> (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." <u>Social Forces</u> 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." <u>Contemporary Sociology</u> 5(6):784.

Technical Reports (not refereed)

Mileti, Dennis S,.

1983 <u>Human Response Scenarios: Law Enforcement Applications</u> and <u>Media Implications</u>. Sacramento: California Division of Mines and Geology.

Fileti, Dennis S.

1982 <u>Organizational Behavior and Interorganizational</u> <u>Relations: Implications for Nuclear Power Plant</u> <u>Emergencies and Preparedness</u>. Oak Ridge, Tennessee: Oak Ridge National Laboritories.

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.

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Eutton, 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 <u>Socioeconomic Impact of Earthquake Prediction on</u> <u>Government, Business and Community</u>. 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.). <u>Proceedings of the Conferences on</u> <u>Earthquake Prediction Information</u>. 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 <u>Froceedings of the Second International Conference on</u> <u>Microzonation</u>. 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 <u>Proceedings of the National</u> <u>Conference on Earthquake Related Hazards</u>. 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," <u>Bulletin</u> 6(1):5.

Mileti, Dennis S.

1983 "Disasterous warnings," <u>Omni</u> (March):24,44,152. Mileti, Dennis S.

1982 "Hazards reduction work: the next era," <u>National</u> <u>Hazards Observer</u> 6(4):1-2. Reprinted in <u>Earthquake</u> <u>Information Bulletin</u> 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," <u>Time</u> (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 bazards," 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 predictionwarnings," 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, Alburgugue: 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 initiative: 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, Albuqurque: 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 percpetions 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 epihenominality of organizational size," paper presented to the Session on Complex Organizations of the Midwest Sociological Society, Milwaukjee: 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.

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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 Orga-nization 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 "Drowing: 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, Lennis 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," Colloqium 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. 8

"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 Earchquake 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, Sacremento, 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, Granoble: 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.

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#### 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 Erthquake Hazard Reduction: Is che 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 Respon. , 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, <u>Environmental</u> <u>Sociology</u>, 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, <u>Mass Emergencies</u> 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, Suffold: January, 1983; Nuclear Regulatory Commission in the matter of emergency planning at the Diablo Canyon nuclear reactor, San Luis Obisbo: 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. Congerssional 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, 1982; 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, 1980; Division of 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.). <u>Climate Impact Assessment: Studies of the</u> <u>Interaction of Climate and Society</u>. Geneva, for the International Council of Scientific Union's Scientific Committee on Problems of the Environment, 1982; <u>Study on Earthquake Hazards Information</u> <u>Dissemination: Charleston, South Carolina</u>. 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

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

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