

Helen A. Grogan, Ph.D.
Cascade Scientific, Inc.

Education

Ph.D., Radioecology, Imperial College of Science and Technology, University of London, 1984
B.Sc. 2(1), Botany, University of London, 1980
Diploma of Imperial College, University of London, 1980
Associate of the Royal College of Science, University of London, 1980

Professional Experience

Risk Assessment Corporation

Technical Coordinator, Neeses, South Carolina (2002–present)

Presently works closely with Risk Assessment Corporation (www.racteam.com) assuming responsibilities for the technical aspects of projects.

Cascade Scientific, Inc.

President, Bend, Oregon (1999–present)

Senior consultant in all areas of environmental risk assessment with emphasis on public exposures to radionuclides and chemicals released to the environment. Work has been carried out for EPRI, US EPA, NCRP, NAS/NRC, Waste Control Specialists, Colorado Department of Public Health and Environment, Centers for Disease Control and Prevention, State of New Jersey Department of Environmental Protection, New Mexico Environment Department, Department of Justice, and State of Washington Office of Attorney General. Many projects have been performed in collaboration with Risk Assessment Corporation.

- Dose reconstruction of public exposures and risks from historical releases of radionuclides and chemicals from Rocky Flats in Colorado, the Savannah River Site in South Carolina and the Hanford Nuclear Facility in Washington
- Audits of Los Alamos National Laboratory for compliance with the Clean Air Act, and Oak Ridge National Laboratory Rad NESHAPs Program and Dose Assessment Methodologies Required for DOE Order 5400.5
- Review and Development of Soil Action Levels for Clean Up of Rocky Flats
- Exposure and Risks from the Cerro Grande Fire at Los Alamos
- Development of scientific methods and tools to guide long term recovery decisions with stakeholder involvement following a radiological emergency
- RACER - Development of web-based data management application that facilitates access to and use of environmental measurement data for a variety of applications, ranging from basic data evaluation to more complex analyses.

Independent Consultant

Scientific Consultant, Vero Beach, Florida (1992–1995)

Worked on dose reconstruction projects related to historical releases from the DOE weapons complex.

Intera Information Technologies

Scientific Consultant, Henley-on-Thames, United Kingdom (1989–1992)

Senior consultant for the Environmental Systems Assessment Group involved in a wide range of projects concerned with the assessment of radioactive and nonradioactive hazardous wastes. Provided technical assistance to Nagra to coordinate and execute the Kristallin I and Wellenberg '92 safety assessments for high-level waste and low-/intermediate-level waste disposal. Responsible for technical coordination of Intera contracts with Nagra. Key projects included the following:

- Technical secretariat to BIOMOVs (BIospheric MOdel Validation Study) – an international cooperative effort to test models designed to quantify the transfer and accumulation of radionuclides and other trace substances in the environment.
- Developed an outline methodology for the comparative assessment of environmental impacts from landfilled wastes generated by prescribed processes for Her Majesty's Inspectorate of Pollution, Department of the Environment.
- Conducted a project for the Commission of the European Communities (CEC) in collaboration with IMA (Spain) to compare the approaches used to justify land based disposal of toxic wastes and solid radioactive wastes, to identify where technical improvements to these approaches could be made, and to develop methods for their implementation.
- Conducted scenario analyses for the Nagra Kristallin I and Wellenberg projects and developed the supporting databases to provide a structured and consistent framework for identifying important phenomena (features, events, and processes) that need to be accounted for in repository performance assessment.
- Investigated the post-disposal implications of gas generated from a low-/intermediate-level waste repository for Nagra.

Eidg. Institut für Reaktorforschung (EIR) (now the Paul Scherrer Institute (PSI), (formerly Swiss Federal Institute for Reactor Research)

Geosphere and biosphere transport modeling program leader (1988–1989)

Guest Scientist, Würenlingen, Switzerland (1984–1987)

Member of the Repository Performance Assessment Group and responsible for the biosphere modeling aspects of the performance assessment of high-level waste and low-/intermediate-level waste repositories.

- Contributed to Projekt Gewähr 1985 (demonstration of radwaste disposal feasibility in Switzerland).
- Spent summer of 1987, working with Robert Gardner, Ph.D and F. Owen Hoffman at Oak Ridge National Laboratory to gain experience in probabilistic modelling techniques.
- Development of quantitative geomicrobiological models. Appointed technical coordinator of the new Nagra microbiology program, in April 1988, which was designed to quantitatively consider microbial effects in a radioactive waste repository for use in subsequent performance assessments. This effort involved coordinating research groups within Switzerland and other European countries.
- January 1988, appointed sub-program leader for the geosphere and biosphere transport modeling. This work encompassed performance assessment in general, including scenario evaluation and consequence analysis.

- Actively participated in BIOMOVs. As chairperson for test scenario B2 (Irrigation with Contaminated Groundwater), was responsible for producing and editing the technical report presenting the study results.

Committee Memberships

- Member, U.S. Delegation, 64th Session of United Nations Scientific Committee on the Effects of Atomic Radiation. Vienna, Austria. 29 May – 2 June, 2017.
- Member, U.S. Delegation, 63rd Session of United Nations Scientific Committee on the Effects of Atomic Radiation. Vienna, Austria. 27 June – 1 July, 2016.
- Member, U.S. Delegation, 62st Session of United Nations Scientific Committee on the Effects of Atomic Radiation. Vienna, Austria. 1–5 June, 2015.
- Member, U.S. Delegation, 61st Session of United Nations Scientific Committee on the Effects of Atomic Radiation. Vienna, Austria. 21–25 July, 2014.
- Member, National Council on Radiation Protection and Measurements Scientific Committee 3-1 “Guidance for Emergency Responder Dosimetry,” 2014–present.
- Chair, IAEA consultancy to develop guidance on management of large amounts of radioactive waste after an emergency situation, 2013–2015.
- Member, Institute of Medicine of the National Academies “Research Directions in Human Biological Effects of Low Level Ionizing Radiation,” 2013–2014.
- Advisor, National Council on Radiation Protection and Measurements Scientific Committee 5-1 “Decision Making for Late-Phase Recovery from Nuclear or Radiological Incidents,” 2011–2013.
- Member, National Council on Radiation Protection and Measurements Scientific Committee 1-19 “Health Protection Issues Associated with Use of Active Detection Technology Security Systems for Detection of Radioactive Threat Materials,” 2009–2011.
- Member, National Academy of Sciences Committee to Review the “Worker and Public Health Activities Program Administered by the Department of Energy and the Department of Health and Human Services,” 2005–2006.
- Member, Merit Panel, “Review of the Preliminary Performance Assessment for Waste Management Area C at the Hanford Site, Washington.” Convened by CH2M-Hill Hanford Group, Inc., with concurrence of the Department of Energy and the State of Washington Department of Ecology, 2004.
- Member, Radiation Advisory Committee, Science Advisory Board, U.S. Environmental Protection Agency, 2001–2007.
- Consultant, Environmental Models Subcommittee, Executive Committee, U.S. Environmental Protection Agency, 1999–2000.
- Member, Scientific Committee on Dose Reconstruction, National Council on Radiation Protection and Measurements, 1994–2000.

Professional Society Memberships

- American Association for the Advancement of Science
- Member, National Council on Radiation Protection and Measurements (NCRP), 2014–present
- Health Physics Society

Courses Taught and Offered

- Environmental Risk Assessment and Analysis, Training Course H-420. Source Term Evaluation; Terrestrial Transport and Pathway Analysis; Exposure Scenarios, Dose and Risk Coefficients; Screening Approach Case Studies; Validation and Confirmatory Analysis; Case Study – The Fernald Historical Dose Reconstruction Project. Training Course H-420 prepared and presented by Risk Assessment Corporation for the U.S. Nuclear Regulatory Commission at the NRC Professional Development Center, Three White Flint North, Maryland. May 8–12, 2017. 22 attendees.
- Environmental Risk Assessment and Analysis, Training Course H-420. Source Term Evaluation; Terrestrial Transport and Pathway Analysis; Exposure Scenarios, Dose and Risk Coefficients; Screening Approach Case Studies; Validation and Confirmatory Analysis; Case Study – The Fernald Historical Dose Reconstruction Project. Training Course H-420 prepared and presented by Risk Assessment Corporation for the U.S. Nuclear Regulatory Commission at the NRC Professional Development Center, Three White Flint North, Maryland. April 27–May 1, 2015. 9 attendees.
- Radiological Risk Assessment for Decision Making, Compliance, and Emergency Response. Exposure Scenarios; Model Validation and Testing. Crystal City Marriott, Arlington, Virginia. Risk Assessment Corporation. March 4–8, 2013, 42 attendees.
- Radiological Risk Assessment for Decision Making, Compliance, and Emergency Response. Scenarios of Exposure, Defining the Representative Individual; Model Validation and Testing. Crystal City Marriott, Arlington, Virginia. Risk Assessment Corporation. March 5–9, 2012, 37 attendees.
- Radiological Risk Assessment and Environmental Analysis Course. Uncertainty in Assessment Models and Validation; Case Studies: Pulling it all Together; RACER: A Process and Tools for an Integrated Approach to Risk Assessment. ITC School of Underground Waste Storage and Disposal. University of Bristol Risk Centre, Bristol, United Kingdom. June 22–26, 2009, 17 attendees.
- Environmental Risk Assessment Analysis Training Course H-401. Source Term Evaluation; Exposure, Dose and Risk Assessment; Practical Application of Models to Risk Assessment; Validation and Confirmatory Analysis; Continuing the Environmental Risk Assessment Process. Training Course H-401 prepared and presented by Risk Assessment Corporation for the U.S. Nuclear Regulatory Commission at the NRC's Professional Development Center, Bethesda, Maryland. January 26–30, 2009, 23 attendees.
- Risk Assessment for Radioactively Contaminated Sites: Los Alamos Case Study. Geologic Disposal of High-Level Waste. ITC School of Underground Waste Storage and Disposal. September 2–5, 2008. Las Vegas, Nevada, 25 attendees.
- Risk Assessment for Radioactively Contaminated Sites: Los Alamos Case Study. Geologic Disposal of High-Level Waste. ITC School of Underground Waste Storage and Disposal. June 25–28, 2007. Las Vegas, Nevada, 24 attendees.
- Conversion to Dose and Risk. Part of Three Short Courses for Regulators and Radiation Health Specialists: Emerging Topics in Radiation Protection and Risk Assessment. March 16–18, 2004. Kiawah Island, South Carolina, 25 attendees.
- Model Testing and Uncertainty. Part of Three Short Courses for Regulators and Radiation Health Specialists: Emerging Topics in Radiation Protection and Risk Assessment. March 16–18, 2004. Kiawah Island, South Carolina, 25 attendees.

- Testing Models Used for Risk Assessment. Part of a five-day course developed and presented by Risk Assessment Corporation. Calculating and Understanding Risks from Radionuclides Released to the Environment. November 15–19, 1999. Seattle, Washington, 40 attendees.
- Testing Models Used for Risk Assessment. Part of a five-day course developed and presented by Radiological Assessment Corporation. Calculating and Understanding Risks from Radionuclides Released to the Environment. April 28–May 2, 1997. Santa Fe, New Mexico, 150 attendees.

Text Book Publications

- National Council for Radiation Protection and Measurements. 2017. *Guidance for Emergency Response Dosimetry*. NCRP Report No. 179. National Council for Radiation Protection and Measurements, 7910 Woodmont Avenue, Suite 400, Bethesda, Maryland. Scientific Committee Members – S.V. Musolino and A. Salame-Alfie (Co-Chairs), J.L. Bader, D.J. Blumenthal, B.R. Buddermeier, **H.A. Grogan**, W.E. Irwin III, G. Klemic, G.R. Komp, R.W. McBurney, J. Prud'homme, R.K. Schlueck, J.S. Wieder. October 2.
- National Council for Radiation Protection and Measurements. 2014. *Decision Making for Late-Phase Recovery from Major Nuclear or Radiological Incidents*. NCRP Report No. 175. National Council for Radiation Protection and Measurements, 7910 Woodmont Avenue, Suite 400, Bethesda, Maryland. Scientific Committee Members: S.Y. Chen (Chair), D.J. Barnett, B.R. Buddemeier, V.T. Covelto, K.A. Kiel, J.A. Lipoti, D.M. Scroggs, A. Wallo. Advisors – D.J. Allard, J.D. Edwards, **H.A. Grogan**, A.F. Nisbet. Consultants – J.J. Cardarelli, II, J.A. MacKinney, M.A. Noska.
- Institute of Medicine and National Research Council of the National Academies. 2014. *Research on Health Effects of Low-Level Ionizing Radiation Exposure – Opportunities for the Armed Forces Radiobiology Research Institute*. Review Committee Members – Hricak, H. (Chair), D.J. Brenner, L.T. Dauer, G.X. Ding, F. Dominici, **H.A. Grogan**, D. Hoel, E.F. Maher, W.F. Morgan, G. Pion, D. Richardson, R. Wilkins. The National Academies Press, Washington, D.C.
- Till, J.E. and **H.A. Grogan** (editors). 2008. *Radiological Risk Assessment and Environmental Analysis*. New York: Oxford University Press.
- National Research Council of the National Academies. 2006. *Review of the Worker and Public Health Activities Program Administered by the Department of Energy and the Department of Health and Human Services*. Review Committee Members: Przybylowicz, E.P (Chair), E.H. Clark II, I. Feller, P. Fenner-Crisp, R.W. Field, S.M. Friedman, **H.A. Grogan**, J. Mandel, G. Paulson, R.K. Sokas, D.O. Stram, and T. Zheng. The National Academies Press, Washington, D.C.

Referred Publications and Text Book Chapters

- Aanenson, J.A., J.E. Till, **H.A. Grogan**. 2018. “Understanding and communicating radiation dose and risk from cone beam computed tomography in dentistry.” *The Journal of Prosthetic Dentistry*. In Press
- Till, J.E., H.L. Beck, **H.A. Grogan**, E.A. Caffrey. 2017. “A Review of Dosimetry Used in Epidemiological Studies Considered to Evaluate the Linear No-Threshold (LNT) Dose-response Model for Radiation Protection.” *International Journal of Radiation Biology*, <http://dx.doi.org/10.1080/09553002.2017.1337280>.

- Beck, H.L., J.E. Till, J.W. Aanenson, **H.A. Grogan**, J.W. Aanenson, H.J. Mohler, S.S. Mohler, P.G. Voillequé. 2017. "Red Bone Marrow and Male Breast Doses for a Cohort of Atomic Veterans." *Radiat Res.* 187, 221–228.
- Till, J.E., H.L. Beck, J.W. Aanenson, **H.A. Grogan**, H.J. Mohler, S.S. Mohler, P.G. Voillequé. 2014. "Military Participants at U.S. Atmospheric Nuclear Weapons Testing-Methodology for Estimating Dose and Uncertainty." *Radiat Res.* 181, 471–484.
- J.E. Till, **H.A. Grogan**, H.J. Mohler, J.R. Rocco, S.S. Mohler. 2012. "An Integrated Approach to Data Management, Risk Assessment, and Decision Making." *Health Physics*, 102 (4), April.
- Mohler, H.J., **H.A. Grogan**, J.R. Rocco, R.F. Kiefer, and J.E. Till. 2012. "RACER: Dynamic Use of Environmental Measurement Data for Decision Making and Communication." *Operational Radiation Safety*, Vol. 102, Suppl 1. February.
- McKinley, I.G., **H.A. Grogan**, and L.E. McKinley. 2011. "Fukushima: Overview of Relevant International Experience." *Journal of Nuclear Fuel Cycle and Environment* 18 (2): 89–100.
- National Council on Radiation Protection and Measurement (NCRP). 2011. *Radiological Health Protection Issues Associated With Use of Active Detection Technology Systems for Detection of Radioactive Threat Materials*. NCRP Commentary No. 22. NCRP, Bethesda, Maryland. September.
- Grogan, H.A.** 2008. "Model Validation." Chapter 14 in *Radiological Risk Assessment and Environmental Analysis*. New York: Oxford University Press, 589–612.
- Rood, A.S., P.G. Voillequé, S.K. Rope, **H.A. Grogan**, and J.E. Till. 2008. "Reconstruction of atmospheric concentrations and deposition of uranium and decay products released from the former uranium mill at Uravan, Colorado." *J. Env. Radioactivity*. 99:1258–1278.
- Mohler, H.J., K.R. Meyer, **H.A. Grogan**, J.W. Aanenson, and J.E. Till. 2004. "Application of NCRP Air Screening Factors for Evaluating both Routine and Episodic Radionuclide Releases to the Atmosphere." *Health Physics* 86 (2): 135–144.
- Till, J.E., A.S. Rood, P.G. Voillequé, P.D. McGavran, K.R. Meyer, **H.A. Grogan**, W.K. Sinclair, J.W. Aanenson, H.R. Meyer, H.J. Mohler, S.K. Rope, and M.J. Case. 2002. "Risks to the Public from Historical Releases of Radionuclides and Chemicals at the Rocky Flats Nuclear Weapons Plant." *Journal of Exposure Analysis and Environmental Epidemiology* 12: 355–372.
- Grogan, H.A.**, W.K. Sinclair, and P.G. Voillequé. 2001. "Risks of Fatal Cancer from Inhalation of Plutonium-239,240 by Humans: A Combined Four Method Approach with Uncertainty Evaluation." *Health Physics* 80 (5): 447–461.
- Rood, A.S., **H.A. Grogan** and J.E. Till. 2001. "A Model for a Comprehensive Assessment of Exposure and Lifetime Cancer Incidence Risk from Plutonium Released from the Rocky Flats Plant, 1953-1989." *Health Physics* 82 (2): 182–212.
- Little, R.H., **H.A. Grogan**, G.M. Smith, and C. Torres. 1993. "Land Disposal Practices in Europe and North America." *J. Inst. Water and Environmental Management* 7 (4): 354–363.
- McKinley, I.G. and **H.A. Grogan**. 1991. "Radionuclide Sorption Databases for Swiss Repository Safety Assessments." *Radiochimica Acta* 52/53: 415–420.
- McKinley, I.G. and **H.A. Grogan**. 1991. "Consideration of Microbiology in Modeling the Near-Field of a L/ILW Repository." *Experientia* 47: 573–577.
- West, J.M., **H.A. Grogan**, and I.G. McKinley. 1991. "The Role of Microbiology in the Geological Containment of Radioactive Wastes." In *Diversity of Environmental Biogeochemistry*. Developments in Geochemistry: 6. Edited by J. Berthelin. Elsevier Science Publishers B V. 205–215.

- Van Dorp, F., **H.A. Grogan**, and C. McCombie. 1989. "Disposal of Radioactive Waste." *International Journal of Radiation Applications and Instrumentation Part C. Radiat. Phys. Chem.* 34 (2): 337–347
- Grogan, H.A.** and F. van Dorp. 1988. "The Reliability of Environmental Transfer Models Applied to Waste Disposal." In *Reliability of Radioactive Transfer Models*. Edited by G. Deems. Elsevier Applied Science. EUR 11367. 276–284.
- Grogan, H.A.**, N.G. Mitchell, M.J. Minski, and J.N.B. Bell. 1988. "Pathways of Radionuclides from Soils to Wheat." In *Pollutant Transport and Fate in Ecosystems*. Edited by P.J. Coughtrey, M.H. Martin, and M.H. Unsworth. Oxford: Blackwell Scientific Publications. 353–370.
- Bell, J.N.B., M.J. Minski, and **H.A. Grogan**. 1988. "Plant Uptake of Radionuclides." *Soil Use and Management* 4 (3): 76–84.
- Nair, S., **H.A. Grogan**, M.J. Minski, and J.N.B. Bell. 1983. "Models for the Prediction of Doses from the Ingestion of Terrestrial Foods." In *Ecological Aspects of Radionuclide Releases*. Edited by P.J. Coughtrey, J.N.B. Bell, and T.M. Roberts. Oxford: Blackwell Scientific. 141–159.

Conference Proceedings

- Anderson, T., K. Jones, J. Simmonds, L. Hubbard, **H. Grogan**, E. Waller. 2016. A Tool for Implementing the UNSCEAR Methodology for Estimating Human Exposures from Radioactive Discharges. 14th International Congress of the International Radiation Protection Association. Cape Town, South Africa. 9–14 May.
- Grogan, H.A.** and J.E. Till. 2012. Rebuilding Trust in the Science of Radiation Protection. 13th International Congress of the International Radiation Protection Association. Glasgow, Scotland. 13–18 May.
- Till, J.E. and **H.A. Grogan**. 2009. It's the Dose! – Strategies for Environmental Dose Reconstruction and Risk Assessment. Environmental Dose Reconstruction and Risk Assessment for Litigation and Planning Purposes. Phoenix, Arizona.
- Rood, A.S., B. Jacobs, P. Shanahan, H.J. Mohler, J.W. Aanenson, J.R. Rocco, L. Hay Wilson, **H.A. Grogan**, and J.E. Till. 2009. "Overview of Environmental Transport Models Contained in the Risk Analysis, Communication, Evaluation, and Reduction (RACER) Software Tools at Los Alamos National Laboratory." In *Proc. Waste Management for the Nuclear Renaissance*, Waste Management 2009. www.wmsym.org. March 1–5, Phoenix, Arizona.
- J.E. Till and **H.A. Grogan**. 2006. "Applied Modeling and Computations in Nuclear Science: the Foundation for Risk Assessment and Decision Making." In *Applied Modeling and Computations in Nuclear Science*. ACS Symposium Series 945. Edited by T.M. Semkow, S. Pommé, S.M. Jerome, and D.J. Strome. American Chemical Society, Washington, D.C.
- H.A. Grogan**, J.W. Aanenson, P.D. McGavran, K.R. Meyer, S.S. Mohler, H. J. Mohler, J.R. Rocco, A.S. Rood, J.E. Till, and L.H. Wilson. 2006. "Applied Modeling of the Cerro Grande Fire at Los Alamos: An Independent Analysis of Exposure, Health Risk, and Communication with the Public." In *Applied Modeling and Computations in Nuclear Science*. ACS Symposium Series 945. Edited by T.M. Semkow, S. Pommé, S.M. Jerome, and D.J. Strome. American Chemical Society, Washington, D.C.
- Mohler, H.J., J.W. Aanenson, **H.A. Grogan**, and J.E. Till. 2005. "Creating Spatially-Linked Data and Risk Evaluation Tools to Support Community Participation and Decision Making for a

- Contaminated Site.” *Proceedings of EnviroInfo 2005*. 19th International Conference Informatics for Environmental Protection. September, 7–9. Networking Environmental Information. Brno, Czech Republic.
- Grogan, H.A.**, J.E. Till, K.R. Meyer, and H.J. Mohler. 2004. “Involving Stakeholders and Tailoring Environmental Databases for Shared Analysis of a Contaminated Site.” *Proceedings of the 18th International Conference Informatics for Environmental Protection, Sh@ring*. CERN, Geneva, Switzerland, October 21–23.
- Sumerling, T.J., **H.A. Grogan**, P. Zuidema, and F. van Dorp. 1993. “Scenario Development for Safety Demonstration for Deep Geological Disposal in Switzerland.” *Proceedings of the 4th Annual International Conference on High-Level Radioactive Waste Management*. Las Vegas, Nevada, April 26–30, 1993. American Society of Civil Engineers and the American Nuclear Society.
- Smith, G.M. and **H.A. Grogan**. 1992. “Taking Account of the Biosphere in HLW Assessment.” *Proceedings of the Third International Conference on High Level Radioactive Waste Management*. Las Vegas, Nevada, April 12–16, 1992. American Society of Civil Engineers and the American Nuclear Society.
- Grogan, H.A.** and K.J. Worgan. 1991. “Testing Near-Field Models for Deep Disposal.” In *Proceedings of the Technical Workshop on Near-Field Performance Assessment for High-Level Waste*. Madrid, Spain, October 15–17, 1990. Edited by P. Sellin, M. Apted, and J. Gago. SKB Technical Report 91–59. Swedish Nuclear Fuel and Waste Management Co. Available from Box 5864, S-10248, Stockholm, Sweden.
- Zuidema, P., F. van Dorp, **H.A. Grogan**, and M. Hugi. 1991. “Radioactive Waste Disposal In Switzerland: The Impact of Safety Criteria on Repository Design and Hydrogeological Requirements.” In *Proceedings Water Resources in Mountainous Regions*. Edited by A. Parmaux. *Memories of the 22nd Congress of IAH*, Vol. XXII Part, GEOLEP–EPFL. CH-1015 Lausanne.
- Grogan, H.A.** 1991. “BIOMOVS Contribution to Long Term Radioactive Waste Assessment.” *Proceedings of the Symposium on the Validity of Environmental Transfer Models*. Stockholm, Sweden, October 1990. Swedish Radiation Protection Institute.
- Schenker-Wicki, A., F. van Dorp, and **H.A. Grogan**. 1988. “The Use of Multi-Criteria Analysis (MCA) for Evaluating Feasible Countermeasures After an Accidental Release of Radioactivity.” IV Symposium Internationale de Radioécologie Impact des Accidents d’Origine Nucléaire sur l’Environnement, March 14–19, Cadarache, France.
- Grogan, H.A.** and F. van Dorp. 1986. “Modelling the Behaviour of Radionuclides in the Biosphere for the Safety Assessment of a High-Level Waste Repository, First Estimates of Uncertainties.” In *CEC Seminar on The Cycling of Long-lived Radionuclides in the Biosphere: Observations and Models*. Madrid, Spain, 1986.
- Grogan, H.A.** and F. van Dorp. 1986. “The Importance of Models for Predicting the Behaviour and Impact of Radionuclides Released to the Environment.” Paper presented at the Symposium Radioaktivitätsmessungen in der Schweiz nach Tschernobyl und ihre wissenschaftliche Interpretation, October 20–24, Bern, Switzerland.
- McKinley, I.G., **H.A. Grogan**, and J.M. West. 1985. “Quantitative Modelling of the Effects of Microorganisms on Radionuclide Transport from a HLW Repository.” *Proceedings of the NEA Workshop on the Effects of Natural Organic Compounds and of Microorganisms on Radionuclide Transport*. 50–66.

West, J.M., I.G. McKinley, **H.A. Grogan**, and S.C. Arne. 1985. "Laboratory and Modeling Studies of Microbial Activity in the Near Field of a HLW Repository." *Proceedings of the Stockholm MRS Meeting, Scientific Basis for Radioactive Waste Management, IX.*, Edited by L.O. Werne. 533–538.

Published Technical Reports

(excludes technical notes, internal reports and commercial reports)

- EPRI. 2016. *Batch and Continuous Releases to the Atmosphere from Nuclear Power Plants: Comparison of Environmental Concentrations and Doses*. 3002008166. Electric Power Research Institute, Palo Alto CA. November.
- EPRI. 2014. *EPRI Recommendations for the National Academies' Pilot Study of Cancer Risks in Populations Around Nuclear Facilities: Feasibility Study*. 3002003163. Electric Power Research Institute, Palo Alto CA. November.
- EPRI. 2011. *Technical Considerations for the Nuclear Regulatory Commission/ National Academy of Sciences Proposed Study: Cancer in Populations Living Near Nuclear Facilities*. 1024677. Electric Power Research Institute, Palo Alto CA. November.
- New Mexico Community Foundation. 2011. Contributing Authors: H.J. Mohler, J.E. Till, **H.A. Grogan**, S. Wolters, E. Archuleta, P. Medvick, S. Price, D. Cuthbertson, and R. Rivera. *Audit Report: Evaluation of the Completeness and Accuracy of the Environmental Monitoring Data Provided by Los Alamos National Laboratory and the New Mexico Environment Department Oversight Bureau to the RACER Database*. Report Prepared by Risk Assessment Corporation for New Mexico Community Foundation. February.
- Risk Assessment Corporation (RAC). 2009. Contributing Authors: J.W. Aanenson, **H.A. Grogan**, B. Jacobs, G.G. Killough, K.R. Meyer, H.J. Mohler, S. Mohler, J.R. Rocco, A.S. Rood, P. Shanahan, E.A. Stetar, L. Hay Wilson, and J.E. Till. *Risk Analysis, Communication, Evaluation, and Reduction at LANL. Ranking Tool Methodology*. RAC Report No. 35-RACER LANL-2008-FINAL. Risk Assessment Corporation. Neeses, South Carolina. April.
- Aanenson, J.W., D. Gonzales, **H.A. Grogan**, S.S. Mohler, J.R. Rocco, E.A. Stetar, L. Hay Wilson, and J E. Till. 2007. *Risk Analysis, Communication, Evaluation, and Reduction at LANL. Stakeholder Involvement Summary*. RAC Report No. 21-RACER LANL-2007-FINAL. Risk Assessment Corporation. Neeses, South Carolina. September.
- Wilson, L.H, J.R. Rocco, S. Mohler, E.A. Stetar, **H.A. Grogan**, H.J. Mohler, J. Wilson, B. Jacobs, P. G. Voillequé, and J E. Till. 2007. *Risk Analysis, Communication, Evaluation, and Reduction at LANL. Decision Support Tool Methodology*. RAC Report No. 18-RACER LANL-2007-FINAL. Risk Assessment Corporation. Neeses, South Carolina. July.
- Stetar, E.A, L.H. Wilson, J.R. Rocco, S. Mohler, **H.A. Grogan**, and J E. Till. 2007. *Risk Analysis, Communication, Evaluation, and Reduction at LANL. Focus Group Data Evaluation*. RAC Report No. 19-RACER LANL-2007-FINAL. Risk Assessment Corporation. Neeses, South Carolina. July.
- Kosson, D., **H. Grogan**, K. Higley, R. Maddalena, and C. Whipple. 2004. *Merit Panel Review of the C-Tank Farm Closure Performance Assessment*. Final Report. Submitted to CH2M-Hill Hanford Group, Inc. April 20.
- Aanenson, J.W., J. Goldberg, **H.A. Grogan**, L.H. Wilson, G.G. Killough, K.R. Meyer, H.J. Mohler, S. Mohler, J.R. Rocco, A.S. Rood, P. Shanahan, W.K. Sinclair, C. Slack, E.A. Stetar, J. Wilson, and J E. Till. 2004. *Risk Analysis, Communication, Evaluation, and Reduction at*

- LANL-Contemporary Risk Assessment: Demonstration of an Integrated Methodology*. RAC Report No. 11-RACER LANL-2004-FINAL. Risk Assessment Corporation. Neeses, South Carolina. December.
- Mohler, H.J., K.R. Meyer, J.W. Aanenson, and **H.A. Grogan**. 2002. *Analysis of Exposure and Risks to the Public from Radionuclides and Chemicals Released by the Cerro Grande Fire at Los Alamos. Task 3: Calculating and Communicating Risks: Observations and Recommendations*. RAC Report No.15-NMED-2001-FINAL(Rev.1). Prepared by Risk Assessment Corporation, Neeses, South Carolina, for New Mexico Environment Department, Santa Fe. June 12.
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