



EDi No. 164



21. National Institute for Occupational Safety & Health Dose Reconstruction

22. Year Completed Professional Service:	Year Completed (if applicable) Construction:	Oak Ridge, Tennessee
2009	n/a	Contract Role: <input checked="" type="checkbox"/> Prime Contractor <input type="checkbox"/> Subcontractor
CAGE Code: ID1U3	DUNS Number: 61.680.5073	

23 a. Project Owner/Customer:	23 b. Point of Contact Name:	23 c. POC Contact Info.:
National Institute for Occupational Safety and Health (NIOSH) Oak Ridge Associated Universities 210 Badger Road • P.O. Box 117 Oak Ridge, Tennessee 37830	Jonathan Byrne	513.758.1618 (p)

Key Personnel:			
Mike Marable, Project Manager	Oak Ridge Regional Office	mmarable@edi-nm.com	865.482.7789
Stan Waligora, Sr., SCP	Albuquerque Corporate Office	swaligora@edi-nm.com	505.341.3578

24. (Include scope, size, and cost) Brief Description of Project and Relevance to this Contract:	
Awarded Price: \$431,329.12	Final/Projected Cost: \$2,388,715.92
Award Date: 05.25.2003	Contract No.: 1107420
Period of Performance: 05.25.2003–04.30.2009	Final or Projected Schedule: 04.30.2009
Contract Type: <input checked="" type="checkbox"/> Fixed Unit Rate by Task Order <input type="checkbox"/> Cost Reimbursement <input type="checkbox"/> Time and Materials <input type="checkbox"/> Cost Plus Fixed Fee <input type="checkbox"/> Cost Plus Award Fee <input type="checkbox"/> Performance Based	
Type of Work Performed: Technical Services	
% of Work Self Performed: 80%	% of Work by Subcontractor(s): 20x%

Contracting Officer (if applicable):	Contracting Agency & Address:	Contracting Officer Contact Info.:
Lise M. Neiler Contracting Specialist	Oak Ridge Associated Universities P.O. Box 117 Oak Ridge, TN 37831-0117	865.576.3051 (p) 865.577.9385 (f) NeilerL@orau.gov

Background

The National Institute for Occupational Safety and Health (NIOSH) Office of Compensation Analysis and Support (OCAS) is responsible for conducting occupational radiation dose reconstructions for certain workers with cancer who file claims for compensation under the Energy Employees Occupational Illness Compensation Program Act (EEOICPA). In accordance with the methods published in 42 CFR 82, dose reconstructions are performed for covered employees with cancer.

The basic principle of dose reconstruction is to characterize the occupational radiation environment to which workers were exposed using available worker and/or workplace monitoring information. In cases where radiation exposures in the workplace environment cannot be fully characterized based on available data, default values based on reasonable scientific assumptions are used as substitutes.

The results of worker dose reconstructions are used by the Department of Labor to determine the probability that a worker's cancer was "at least as likely as not" due to his or her occupational exposure to ionizing radiation during employment at a covered facility. Criteria and guidelines for making this determination are established by the EEOICPA and the U.S. Department of Health and Human Services under 42 CFR 81.



National Institute for Occupational Safety & Health Dose Reconstruction (concluded)

Scope of Work

EDi was subcontracted to provide health physicists to assist in two primary functions: one group responsible for site research and the other for dose reconstruction. Sixty-eight candidate sites were identified and several thousand claims based on radiation and/or beryllium exposure have been processed.

Site research required extensive record researches from numerous facilities, records centers, and similar information sources. The product set of Technical Basis Documents (TBDs), for each of the 68 sites, used by the dose reconstructors. The TBDs include interpretation of radiation doses due to occupational medical exposure, occupational environmental exposure, occupational internal dose, and occupational external dose. This research includes the nature and extent of the radiation doses based upon the examination type and frequency, the equipment used and the calibration and examination procedures.

Dose reconstruction utilizes historical dosimetry records information, provided by the responsible organization, along with the guidance's provided by the TBDs. Basic data, such as bioassay concentrations, are applied to current models with assistance from the Site Research TBDs. The cancer site organ doses are applied to probability of causation models.

25. Firms/Subcontractors involved with this Project:

	(1) Firm Name	(2) City and State	(3) Role
a.	Millard Technical Consultants Jere Millard 505.867.0122 (p)	5 Cholla Lane Placitas, NM 87043	Training Subcontractor
b.	Jeffrey Vollmer, CHP	New Mexico	Technical Document Preparation & Consultation