DOUGLAS B. TANGEMAN

Education

B.S. Biochemistry, University of Nebraska, December 2008
B.S. Chemical Engineering, University of Nebraska, May 2010

Specialty Certifications

OSHA and NFPA 472 Hazardous Materials Technician

Professional Affiliations

Nebraska Industrial Council on the Environment (NICE), Associate Member

Professional Experience

Mr. Tangeman is a chemical engineer with experience in the environmental practice. He manages air quality compliance projects including permitting, compliance evaluation, site investigation and monitoring, reporting, and quality assurance/quality control projects.

Mr. Tangeman is also experienced in hazardous materials incident response, and served for three years as a hazardous materials emergency responder on the Lincoln-Lancaster County (Nebraska) Health Department's Emergency Response Team (ERT). Responsibilities included site threat assessment and safety evaluation, implementing defensive and offensive operations strategies, air and water quality monitoring and sampling, decontamination, and site remediation activities. As part of the ERT, Mr. Tangeman participated in field exercises and live emergency responses with members of Lincoln (Nebraska) Fire and Rescue, the Lincoln Police Department, Lancaster County Sheriff's Office, Nebraska National Guard Civil Response Team (CRT), the Nebraska Department of Environmental Quality, the Federal Emergency Management Agency Urban Search and Rescue Team as well as site representatives and private contractors.

Example project experience includes:

Emergency Response

Petroleum Product Releases. Mr. Tangeman has participated in petroleum product release response activities which include implementing mitigation strategies, evaluation of soil impacts, confinement and vacuum truck removal from surface waters, contaminated soil removal and disposal, documentation and reporting activities, sampling and monitoring of plumes, and site restoration. The types of petroleum incidents ranged from motor vehicle accidents, diesel fuel releases at railyards, illegal dumping of petroleum products, mitigation and remediation of releases that reached storm sewers or surface waters, and monitoring of historical plumes at grain elevators and gasoline fueling stations.

Transformer Oil Releases. Mr. Tangeman has responded several transformer oil releases, both PCB and non-PCB containing, for Omaha Public Power District. Site activities included removal or decontaminating of impacted materials and surfaces, sampling of suspected PCB-contaminated materials, and restoration of the spill area.

Mercury Spill Remediation. Mr. Tangeman provided project oversight for a mercury release which occurred in a storage room and subsequently contaminated large portions of a commercial building after being improperly cleaned up by employees. Mr. Tangeman managed monitoring activities which established the initial and ongoing delineation of contaminated areas, and coordinated with contractors to establish area access restrictions and clean-up, and decontamination activities.

Clandestine Drug Lab Processing. As a member of the ERT, Mr. Tangeman coordinated with the Lincoln/Lancaster County Narcotics Task Force to safely process clandestine drug laboratories. Primary responsibilities included primarily site assessment, preparing entry plans, removing and over packing chemicals and materials used in the drug-making process, and transporting and safety storing removed materials for disposal.

Environmental

Air Quality Monitoring. Mr. Tangeman has completed numerous indoor and outdoor air quality assessments as an Environmental Engineer. Clients include the United States Postal Office, City of Lincoln, Nebraska, City of Lincoln Police Department, City of Waverly, Nebraska, Lancaster County, Nebraska, Lincoln Fire and Rescue, and private businesses and citizens. Assessment activities consist of visual inspection for mold, sampling suspected asbestos-containing materials, ambient air monitoring for particulates, carbon monoxide, radon, volatile organic compounds, ammonia, hydrogen sulfide, and noise. Additional duties include preparing work plans, preparing assessment reports, and conducting post-remediation inspections.

Air Quality Site Inspection and Evaluation. Mr. Tangeman served as an Environmental Engineer for the Lincoln-Lancaster County (Nebraska) Health Department's Air Quality Inspection Program for five years. Mr. Tangeman conducted numerous periodic inspections of facilities which are subject to federal, state, and local air quality regulations. Responsibilities included preparing inspection plans, conducting site visits, reviewing records, performing visual monitoring tests, and preparing inspection reports.

City of Lincoln Synthetic Marijuana Investigation. In response to a large spike in synthetic marijuana/K-2 related hospitalizations in Nebraska, Mr. Tangeman participated in an inter-governmental agency task force investigate to determine to root cause of the spike. As the chemical engineer assigned to the project, Mr. Tangeman reviewed gas chromatograph and mass spectrometer data from sampled packages of synthetic marijuana and evaluated the constituents for potential health effects, and similarity to chemical moieties found in other synthetic recreational drugs. Mr. Tangeman additionally reviewed the summary report of the investigation prepared by the Nebraska National Guard CRT, and presented the results of the evaluation to City of Lincoln Public Health Officials.

Household Hazardous Waste Collection. Mr. Tangeman has served as a volunteer technical expert at numerous Household Hazardous Waste Collection events hosted by the City of Lincoln's Environmental Health Solid Waste Program. At these events, most types of hazardous wastes are accepted from private citizens, and are subsequently sorted, over-packed, and shipped to hazardous waste disposal facilities. Mr. Tangeman participated in conducting and supervising hazardous material unloading from vehicles, advising volunteer and contractor staff on material compatibilities and Department of Transportation (DOT) hazard classifications, and reviewing container labeling and hazardous waste shipping manifests.