

CASE NO. 14292
OCD EXHIBIT No. 5



Brad A. Jones
Environmental Engineer
Environmental Bureau, Oil Conservation Division
New Mexico Energy, Minerals and Natural Resources Department

Professional Experience

July 2006 - present: Environmental Engineer: Environmental Bureau, Oil Conservation Division, New Mexico Energy, Minerals and Natural Resources Department, Santa Fe, New Mexico

July 2002 - July 2006: Environmental Specialist: Solid Waste Bureau, Environmental Protection Division, New Mexico Environment Department; Santa Fe, New Mexico

Dec. 2001 - July 2002: Environmental Specialist I: Division of Environmental Health, Hillsborough County Health Department, Florida Department of Health; Tampa, Florida

April 2001 - Sept. 2001 Environmental Scientist: Redemption Environmental, Inc.; Tampa, Florida

July 2000 - Mar. 2001 Environmental Health Specialist II: Solid/Chemical Waste Program, Environmental Health, Island County Health Department; Coupeville, Washington

Aug. 1998 - April 2000 Environmental Specialist I: Division of Environmental Health, Okaloosa County Health Department, Florida Department of Health; Fort Walton Beach, Florida

Detailed Professional Experience

Environmental Engineer: *New Mexico Energy, Minerals and Natural Resources Department - Oil Conservation Division - Environmental Bureau. Santa Fe, New Mexico. July 2006- present*

- Primary duties involve the review of permit applications, permit modifications, and closure plans for activities and operations promulgated under the Oil and Gas Act and the Pits, Closed-loop systems, Below-grade tanks, and Sumps Rule (19.15.17 NMAC) to ensure compliance.
- Provide training and outreach on the topic regarding the implementation and application of the "Pit Rule" to the general public, consultants and industry representative's responsible for such operations.
- Primary duties involve the review of permit applications, modifications, and renewals for permits, and closure and post-closure plans for landfarms and landfills to ensure compliance with the Oil and Gas Act and the Surface Waste Management Rule (19.15.36 NMAC).
- Provide regulatory oversight and technical assistance in the installation monitoring wells or soil boring activities for preliminary site investigations of proposed modifications to existing surface waste management facilities or new proposed surface waste management facilities.
- Review financial assurance proposals based upon approved modifications to permitted surface waste management facilities.
- Review quarterly treatment zone sampling analytical results to ensure landfarm facility operators achieve the regulatory remediation standards for petroleum contaminated soils.
- Review ground water and hydrostatic test discharge permit applications, modifications, and renewals for permits to ensure compliance with the Oil and Gas Act and the Water Quality Control Commission regulations (20.6.2 NMAC). Review the laboratory analytical results of potential discharge water to ensure proper disposal.
- Provide public notice for ground water and hydrostatic test discharge permits and educate applicants of the 2006 Water Quality Control Commission regulations (20.6.2 NMAC) revised public notice requirements.
- Provide outreach on the topic of surface waste management of oil field waste to consultants and industry representative's responsible surface waste management facilities and operations.
- Assist in the development of new regulations and policies, represent the Division rule making stakeholder meetings and taskforce committees, and testify at hearings on the behalf of the Division as an expert witness.

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- Review and approve or deny requests to accept RCRA exempt or non-exempt non-hazardous waste by landfarm operators.
- Review requests for authorization to move produced water.
- Review new technologies and processes for the treatment of produced water.
- Maintain an electronic filing system for approval of C-133's (Authorization To Move Produced Water), C-138's (Requests To Accept RCRA Exempt or Non-Exempt Non-Hazardous Waste), C-120's (Monthly Water Disposal Reports), C-117's (Monthly Sediment Oil Disposal Statements), and C-118's (Treating Plant Operator's Monthly Reports).

Environmental Specialist: *New Mexico Environment Department – Solid Waste Bureau – Permit Section.*
Santa Fe, New Mexico. July 2002 – July 2006

- Primary duties involve the review of permit applications, modifications, and renewals for permits, and closure and post-closure plans for landfills to ensure compliance with the Solid Waste Act and the New Mexico Solid Waste Management Regulations.
- Review Hydrologic Evaluation of Landfill Performance (HELP) Model demonstrations of proposed liners and covers for landfills to ensure design specifications fulfill the required efficiency criteria.
- Prepare written testimony and appear at public hearings as an expert witness for the New Mexico Environment Department.
- Coordinate hearing schedules, hearing sites, public notices, and prepare required documents including the hearing record and administrative hearing record index.
- Review groundwater monitoring system plans, analytical results of landfill groundwater sampling events, requests for alternative parameter lists, requests for an alternative sampling frequency, demonstrations of "no groundwater monitoring" for small arid exempt landfills, and landfill site investigation boring and groundwater monitoring well installation plans. Verify the establishment of individual constituent background levels, assessment monitoring levels, and corrective action levels. Ensure monitoring parameters are not in exceedance and request the implementation of assessment monitoring, if necessary. Review demonstrations of a source other than the landfill and demonstrations requesting the return to detection monitoring. Review statistical analysis demonstrations of groundwater results. Provide regulatory oversight and technical assistance in monitoring well installations.
- Review Alternative Treatment Technologies for Medical Waste, which involves interpreting testing protocols, efficacy demonstrations, and the method of operation and disposal. Recommend approval or denial of the product and/or process with conditions. Research and recommend new draft regulatory language for the approval of alternative medical waste treatment technologies.
- Provide outreach on the topic of infectious waste to medical and healthcare professionals responsible for infectious control programs. Assist in the development of new draft regulations for infectious waste.
- Verify the implementation and completion of approved Closure Plans at inactive Solid Waste Facilities.
- Review Health and Safety Plans for the removal and disposal of solid waste.

Environmental Specialist I: *Florida Department of Health – Hillsborough County Health Department,*
Tampa, Florida. December 2001 – July 2002

- Primary duties involve technical field evaluations of proposed individual on-site sewage treatment and disposal systems to determine permit issuance and follow-up inspections to verify proper installation.
- Conduct site inspections and soil evaluations for new installations and repairs. Observations and evaluations include proper system design, setback distances, water table clearance, soil identification based on the Munsel color chart and the use of a laser transit to determine the proper elevation of the drainfield for installation. Consult with builders and developers on system location in relation to water supply and other infrastructures.

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- Review on-site sewage treatment and disposal system permit applications to recommend issuance or denial of permits according to site inspections. Ensure proper permits are issued and State codes and statutes are satisfied. Withhold approval of installations, which do not meet all the requirements.
- Investigate complaints involving improper wastewater disposal. Document possible causes and remedies, issue appropriate notices to correct violations and/or obtain proper permits, and conduct follow-up inspections to ensure compliance.
- Inspect existing septic systems and system abandonments. Conduct final inspections of completed new installations and repairs of onsite sewage treatment and disposal systems to ensure compliance of Florida statutes and codes.

Environmental Scientist: *Redemption Environmental, Inc.*, Tampa, Florida. April 2001 – September 2001

- Primary responsibilities include conducting site and contamination assessment investigations of suspected sites listed under the Florida Department of Environmental Protection's Petroleum Cleanup Program.
- Collect groundwater and soil samples for laboratory analysis, survey monitoring well locations and top of well casings, and collect water table data. Calculate well volumes, well volumes purged, flow rates of pumps, and groundwater flow directions from measurements collected in the field.
- Operate submersible, centrifugal, and peristaltic pumps to purge monitoring wells and collect groundwater samples. Obtain variable measurements such as temperature, pH, conductivity, and dissolved oxygen through the use of various field instruments.
- Identify and determine soil lithology and classification during soil boring or monitoring well installation activities. Screen soil samples with an organic vapor analyzer equipped with a flame ionization detector to determine the range from which samples should be collected for laboratory analysis.
- Oversee the work of subcontractors, such as the installation of monitoring wells, soil boring activities, the excavation of contaminated soils, or the implementation of remedial action plans.
- Review, interpret, and compile laboratory results and field investigation data into reports, tables, and figures. Generate soil boring logs, well sampling logs, and monitoring well diagrams. Develop site plans, area survey maps, groundwater elevation contour maps, soil boring and monitoring well location maps, soil quality impact maps, groundwater quality impact maps, and isoconcentration maps. Generate health and safety plans for each phase of the project.
- Request well surveys from regional water management districts. Research current property ownership and request off-site access. Invoice completed field and office activities. Generate proposals for the next scope of work for on-going assessments projects and request bids from subcontractors.

Environmental Health Specialist II: *Island County Health Department*, Coupeville, Washington.
July 2000 – March 2001

- Primary scope of work includes investigating and inspecting suspected sites listed under the Washington State Model Toxics Control Act. Investigations include the assessment of soil and groundwater for possible contaminants through sampling and analysis, determining and ranking the level of contamination, reporting the findings to the Washington State Department of Ecology, and listing the title of the property as contaminated, when needed. Approve work plans of private contractors. Review results to ensure that appropriate cleanup, disposal, and/or remediation of contaminated media meet the requirements for approval and release.
- Conduct field investigations with local law enforcement of Methamphetamine drug labs. Determine if the property and structures are to be deemed "unfit for use". Review and approve private contractor's sample and analysis plans, work plans for cleanup, and assess the cleanup to determine if it meets the requirements for final approval and release.

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- Review solid waste facility plans of operation, facility design, implement corrective and/or enforcement actions, inspect and permit issuance of demolition and inert landfills, transfer stations, surface impoundments, composting facilities and projects, moderate risk waste facilities, petroleum contaminated soils remediation sites, and other problem waste landfills. Provide the collection and sampling procedures for each site. Conduct quarterly inspections of transfer stations, drop boxes, wood waste landfill, inert and demolition landfills, composting sites, and recycling centers.
- Monitor closed landfills for methane gas migration, maintain database of methane results, review data for trends, health hazards, and determine the appropriate action. Provide oversight for the adjustment of the methane extraction system in order to maintain a consistent flare.
- Provide regulatory oversight and technical assistance in the installation monitoring wells. Assist in the collection of quarterly groundwater samples at active and inactive landfill sites.
- Conduct investigations relating to violations and other activities related to complaint response, illegal landfills, promiscuous dumping, and other solid waste violations. Initiate legal actions or other appropriate actions to obtain compliance.
- Respond to outdoor air quality problems and coordinate with the appropriate air quality agencies to determine the proper Health Department action. Assist in the enforcement of local burn ban restrictions.
- Investigate and coordinate possible vector borne disease cases, determine quarantine requirements, ensure compliance, and coordinate animal testing as needed.
- Respond to a variety of request for technical information regarding chemical and physical hazards including material handling and disposal, spill response, noise, outdoor air quality, unintentional injuries, and asbestos. Perform environmental monitoring and testing and provide recommendations, corrective actions, or enforcement.

Environmental Specialist I: *Florida Department of Health - Okaloosa County Health Department, Fort Walton Beach, Florida. August 1998 – April 2000*

- Primary duties include evaluating environmental health conditions through inspections, surveys, and investigations of food program establishments, daycare facilities, public and private schools, foster homes, mobile home parks, swimming pools and spas, tanning facilities, onsite sewage treatment and disposal systems, water supplies, recreation sites and other areas of environmental concerns for compliance with laws, regulations, and standards.
- Additional responsibilities include investigating food and waterborne disease outbreaks, determine the possible sources of exposure, recommend preventative measures, and collect samples for lab analysis when possible. Investigate possible rabies exposures, quarantine animals, collect specimens for lab analysis, and inform victims of their exposure status. Provide pollution sampling of the designated bathing and beach areas, inspect for environmental contamination (i.e., solid waste, sewage spills, etc.), and coordinate with other environmental agencies to insure proper corrective measures are performed when violations are observed.
- Perform inspections of private and public water supplies and interpret bacteriological results of water samples. Monitor potable wells quarterly through sampling. Recommend correctional procedures in the event water quality is unsatisfactory. Primary in State Underground Petroleum Environmental Response (SUPER) Act activities which includes collecting groundwater samples for chemical analysis, performing file and record upkeep, and providing follow-up testing and well monitoring to insure compliance in problem areas.
- Investigate sanitary nuisance complaints and determine their environmental impact. Establish time frames for corrections and follow-up investigations. Determine the existence and cause of violations. Coordinate with other environmental agencies to insure proper and adequate corrective measures are taken. Recommend corrective actions, solutions, and alternatives for compliance with environmental health laws. Perform field tests, private and public premise inspections, and collect data in the provision

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of evidence for court. Enforce compliance through warnings, letters, citations, stop sales, and permit suspensions and revocations.

- Perform site evaluations of proposed individual onsite sewage treatment and disposal systems by assessing the soil type, water table elevation, setback attainments, and other conditions for determination of permeability for sewage effluent. Make specifications for individual sewage disposal systems based on estimated sewage flows and provide inspections of completed sewage systems to assure environmental protection.
- Review plans and proposals for permits. Interpret blueprints, construction plans and specifications. Issue permits; prepare reports of findings, and report oral testimony on case facts. Consult with local, state, and federal officials in promoting environmental policies, as well as promote public awareness and acceptance of environmental laws, regulations, and standards through workshops, press releases, telephonic and television interviews.

Expert Witness for Public Hearings

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| Dec. 2008 | OCC Case No. 14255 | Adoption of an amendment to 19.15.39 NMAC adding new sections to be codified at 19.15.13.9 and 19.15.39.10 NMAC addressing special provisions for Santa Fe County and the Galisteo Basin; Santa Fe, Sandoval, and San Miguel Counties |
| Nov. 2007 | OCC Case No. 14015 | Repeal of Rule 50 concerning pits and below grade tanks and adoption of a new rule governing pits, below grade tanks, closed loop systems and other alternative to the foregoing, and amending other rules to make conforming changes - 19.15.17 NMAC |
| May 2006 | EIB 05-07 (R) | Replacement to 20.9.1 NMAC, Solid Waste Management Regulations |
| April 2005 | SWB 05-06 (P) | In the Matter of the Application of the City of Tucumcari for a Solid Waste Management Facility Permit for the Tucumcari Landfill |
| Dec. 2002 | SWB 02-09 (M) | In the Matter of the Application of the County of McKinley for a Modification to the Smith Lake (Thoreau) Landfill Permit |

Technical Knowledge and Abilities

- Possess knowledge of methods and techniques of field sampling, testing, data gathering, basic research and field investigations, reinforced with a background in characteristics and health effects of pollutants, principles, practices, and methods of environmental science, pollution prevention, and pollution control.
- Focused educational background in Solid and Hazardous Waste Management, Microbiology of Water and Wastewater, Air Quality, Environmental Toxicology, Environmental Epidemiology, Pathogenic Bacteriology, Microbiology of Food Sanitation, Environmental and Public Law, and Industrial Hygiene.

Presentations

- July 23, 2008 *"The "Pit Rule" - Management of Drilling and Oil Field Waste in New Mexico"*, OCD training seminar for operators, consultants, and the general public, Lea County Convention Center - Hobbs, New Mexico

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June 25 & 27, 2008 *"The "Pit Rule" - Management of Drilling and Oil Field Waste in New Mexico"*,
OCD training seminars for operators, consultants, and the general public, Penasco Valley
Telecommunications - Artesia and Farmington Civic Center - Farmington, New Mexico

May 9, 2007 *"Surface Waste Management of Oil Field Waste in New Mexico"*, 2007 Permian Basin
Environmental Regulatory Seminar, Midland College Petroleum Professional Development Center -
Midland College, Midland, Texas

Mar. 24, 2005 *"Infectious Waste Regulations and Definitions – New Mexico Solid Waste Management
Regulations 20 NMAC 9.1"*, Association for professionals in Infection Control and Epidemiology, Inc.
(APIC) – New Mexico Chapter Monthly Educational Meeting, Albuquerque, New Mexico

Jan. 5, 2005 *"Infectious Waste Regulations and Definitions – New Mexico Solid Waste Management
Regulations 20 NMAC 9.1"*, Pollution Prevention (P2) for New Mexico Health Care Professionals
Conference, Las Cruces, New Mexico

Professional Affiliations

2002 - 2006 Member of the Solid Waste Association of North America (SWANA)

2002 – 2006 Member of the New Mexico Geological Society

Education Present - 1998:

HAZWOPER "Refresher and Hydrogen Sulfide Training" presented by Lee Shin of the New Mexico
Department of Homeland Security and Emergency Management, 8 hours, February 11, 2009: Santa Fe, New
Mexico

"Hydrogen Sulfide Safety Awareness Training" presented by Carol F. Walker, 8 hours, March 10, 2008;
Farmington, New Mexico

"Basic First Aid and Hydrogen Sulfide Safety Training" presented by Assurance, Fire, Safety, and Training; 8
hours; December 6, 2006; Artesia, New Mexico.

"Concepts of Slope Stability Analysis for MSW Landfill Design" presented by Larry Coons of Gordon
Environmental, Inc.; 3 hours; April 12, 2006; Santa Fe, New Mexico

"The Medical Waste Institute's Annual Medical Waste Conference" presented by NSWMA WASTEC; 12
hours; April 6-7, 2006; Las Vegas, Nevada

"Hazardous Waste Operations and Emergency Response Refresher" presented by Acme Environmental Inc.;
8 hours; March 16, 2006; Albuquerque, New Mexico

"Fundamentals of Drilling" presented by WDC Exploration & Wells; 1 hour; September 14, 2005; Santa Fe,
New Mexico

"Fundamentals of Sonic Drilling" presented by WDC Exploration & Wells; 1 hour; September 14, 2005;
Santa Fe, New Mexico

"Regulatory Entanglements – Disposal of Chemotherapeutic Wastes Teleconference" presented by Hospitals
for a Health Environment, EPA Region 2, and Pharm@cology; 1 hour; March 11, 2005; Santa Fe, New
Mexico

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“Alternate Method Of Determining Background Levels For Naturally-Occurring Constituents In Groundwater” presented by Jonathon Myers of Shaw Environmental, Inc.; 2 hours; February 24, 2005; Santa Fe, New Mexico

“Chemistry For Environmental Professional – Applied (165.21) Training Course” presented by the Environmental Response Training Program (US EPA); 16 hours; September 30-October 1, 2004; Santa Fe, New Mexico

“Chemistry For Environmental Professional – Fundamentals (165.21) Training Course” presented by the Environmental Response Training Program (US EPA); 16 hours; September 28-29, 2004; Santa Fe, New Mexico

“Static and Seismic Slope Stability for Waste Containment Facilities” presented by the University of Wisconsin-Madison; 24 hours; August 3-5, 2004; Los Angeles, California

“McCoy’s 2004 RCRA Seminar” presented by McCoy and Associates; 24 hours; June 15-17, 2004; Santa Fe, New Mexico

“Hazardous Waste Operations and Emergency Response Refresher” presented by Acme Environmental Inc.; 8 hours; May 25, 2004; Santa Fe, New Mexico

“Region 6 Solid Waste Technical Round Table” presented by the US EPA – Region 6; 16 hours; May 20-21, 2004; Dallas, Texas

“New Mexico Geological Society (NMGS) 2004 Annual Spring Meeting” presented by NMGS; 6 hours; April 16, 2004; Socorro, New Mexico

“Household Hazardous Waste Management and Disposal Course” presented by the RINCHEM Training and Consulting Center; 8 hours; April 13, 2004; Santa Fe, New Mexico

“Designing, Building, and Regulating Evapotranspiration (ET) Landfill Covers” presented by the US EPA Alternative Cover Assessment Program and Remediation Technologies Development Form; 16 hours; March 9-10, 2004; Denver, Colorado

“Compost Facility Operator Certification Course” presented by the New Mexico Recycling Coalition and the New Mexico Solid Waste Bureau; 24 hours; October 28-30, 2003; Albuquerque, New Mexico

“Alternative Landfill Cover Short Course” presented by University of New Mexico and SF Dwyer Engineering; 6 hours; September 4, 2003; Santa Fe, New Mexico

“Low-Flow Ground Water Sampling Training” presented by Severn Trent Services, Inc.; 4 hours; July 28, 2003; Santa Fe, New Mexico

“The Medical Waste Institute’s Annual Medical Waste Conference” presented by NSWMA WASTEC; 16 hours; June 3-5, 2003; New Orleans, Louisiana

“New Mexico Geological Society (NMGS) 2003 Annual Spring Meeting” presented by NMGS; 6 hours; April 11, 2003; Socorro, New Mexico

“Hazardous Waste Operations and Emergency Response Refresher” presented by Acme Environmental Inc.; 8 hours; November 12, 2002; Santa Fe, New Mexico

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“New Mexico Geological Society (NMGS) 53rd Annual Field Conference – Geology of the White Sands” presented by NMGS; 32 hours; October 2-5, 2002; Alamogordo, New Mexico

“Landfill Operator Certification Course” presented by the New Mexico Environment Department (Solid Waste Bureau) and the SWANA Roadrunner Chapter; 40 hours; September 9-13, 2002; Farmington, New Mexico

“Hazardous Waste Operations/Drug Lab Supervisor OSHA 1910.120(e)(4) Course” presented by Marine & Environmental Testing, Inc.; 8 hours; November 22, 2000; Lakewood, Washington

“Drug Lab Decontamination – Worker Course” presented by Marine & Environmental Testing, Inc.; 16 hours; November 20-21, 2000; Lakewood, Washington

“8 Hour Refresher Training In Hazardous Waste Operations And Emergency Response” presented by Prezant Associates; 8 hours; August 23, 2000; Seattle, Washington

“Surface Water Body Boundary Identification Course” presented the State of Florida Department of Health, Division of Environmental Health, Bureau of Water and Onsite Sewage Programs; 6 hours; February 24, 2000; Crestview, Florida

“Medical Strategies for Weapons of Mass Destruction” presented by the National Terrorism Preparedness Institute; 24 hours; February 16-18, 2000; Fort Walton Beach, Florida

“Medical Management of Chemical Casualties Course – Medical Response to Chemical Warfare and Terrorism Satellite Broadcast” presented by the US Army Medical Command; 12 hours; April 20-22, 1999; Fort Walton Beach, Florida

“Hazardous Materials/Hazardous Waste Management Seminar” presented by the Local Emergency Planning Committee District One; 8 hours; January 26, 1999; Fort Walton Beach, Florida

“Hazardous Materials Level One Awareness Training Course – 8 Hour Refresher” presented by the Local Emergency Planning Committee District One; 8 hours; January 22, 1999; Fort Walton Beach, Florida

“Health and Safety Training for Hazardous Waste Operations and Emergency Response” presented by SEA Group, Inc.; 40 hours; December 4-8, 1997; Athens, Georgia

1987-1998 B.S. in Environmental Health Science, University of Georgia, Athens, Georgia