



# Professional Profile

## Chris Johnson

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### FIELDS OF EXPERTISE

- Air Quality Modeling
- Air and Water Quality Monitoring
- Toxic Air Pollutant impact Assessments
- Environmental Data Analysis
- Environmental Impact Assessments & NEPA Evaluations
- NPDES Permitting and Storm Water Planning
- Emergency Response Air Pathway Analysis
- OSHA Worker Safety Planning & Monitoring
- Radionuclide Modeling and Dose Assessment
- Stream Channel Alteration Planning and Permitting

### EXPERIENCE SUMMARY

Over 20 years experience as an environmental scientist, designing, directing, and preparing environmental impact assessment programs and analyses.

As air quality scientist and modeler for TORF Environmental Management, analyze chemical and physical data describing air emissions and estimate concentrations of air contaminants using air dispersion modeling technology. The results are used to determine compliance with air quality rules and regulations, obtain air emissions permits, and support planning efforts.

Principal of CJ Environmental. Developed environmental impact assessments, modeling, monitoring, public land planning, ecology and recreation management plans for public and private sector clients.

Air Quality Meteorologist, State of Idaho, Air Quality Bureau. Planned, developed, and directed operation of regulatory air quality impact assessment programs. Directed air quality permit modeling program, developed regional modeling program, designed and directed operation of statewide meteorological monitoring system, led numerous field monitoring studies, wood stove curtailment programs in metropolitan areas, and smoke management programs for the forestry industry. Directed task force developing stream-lined multimedia permitting of UST and LUST petroleum contaminated sites, and established a regulatory radionuclide monitoring program. Provided first line emergency response support for air pathway risks.

### Experience Summary Cont.

Senior Scientist, SASC Technologies. Led a team of research scientists for a consulting company developing meteorological and air quality models and analysis techniques. Designed satellite and field monitoring systems and automated uptake of monitoring data.

Senior Air Quality Engineer, Massachusetts Air Quality Regulatory Program. Operated regulatory air quality modeling and impact assessment programs, directed preparation of statewide air pollutant emission inventories, provided real time forecasts of air pollutant levels and designed studies to determine the relationship between emissions of air pollutants, meteorological conditions and air quality levels and yield trial analyses.

### CREDENTIALS

- Technical Chair, Western States Air Resources (WESTAR) Technical Conference on Air Quality Related Values
- USEPA/American Meteorological Society Certified Air Quality Dispersion Modeler
- Graduate Study in Atmospheric Sciences at the State University of New York (SUNY) at Albany, NY
- Graduate research at the SUNY Atmospheric Sciences Research Center
- B.S. Math and Earth Sciences, SUNY College, Oneonta, NY 1977

**KEY PROJECTS****Permitting and Compliance**

- Evaluated ambient air chemical monitoring, meteorology and other data and applied dispersion models to estimate the rates of ammonia and hydrogen sulfide emissions at a large dairy in south-central Idaho.
- Modeled air dispersion of chemical emissions in support of pre-construction permitting at NxEdge, a specialty coatings facility in Boise, Idaho.
- Modeled air dispersion of chemical emissions in support of pre-construction Air Quality Permit for new emergency generators at ZiLOG, a semiconductor manufacturing facility in Nampa, Idaho.
- Performed air dispersion modeling and a TAP emission impact assessment supporting exemption from air quality permit requirements for Lodge Logs' Boise, Idaho log pole processing facility.
- Performed air dispersion modeling supporting exemption from air quality permit requirements for coffee roasting facility in Nampa, Idaho.
- Performed air dispersion modeling and TAP emission impact and risk assessment analysis supporting an Air Quality Operating Permit for AMI Semiconductor in Pocatello, Idaho.
- Performed air dispersion modeling and an emission impact assessment supporting an Air Quality Operating Permit modification enabling Western Construction's mobile asphalt manufacturing plant to use recycled oil throughout Idaho.
- Modeled air dispersion of chemical emissions for new and modified production facilities at Fiberglass Systems in Boise and Kuna, Idaho.
- Prepared analyses and reports of air quality, health risk and siting portions of an environmental assessment for a proposed natural gas fired electrical power facility and supporting equipment near Mexicali, Mexico. Project included presenting impact and risk analyses at a public Congressional Forum.

**Cleanup and Restoration**

- Planned and performed ambient air quality monitoring, worker exposure air pathway monitoring, and particulate speciation to support risk assessment at CERCLA remediation of mine tailings spill

near Atlanta, Idaho.

- Developed applied analytical techniques and calculated regional air emissions from transportation, residential and industrial heating, and industrial sources of air pollution. Performed modeling for a regional urban airshed pollutant dispersion study.
- Established, directed and operated regional wood stove curtailment programs.
- Provided real-time air pathway risk analysis for Idaho emergency response teams. Examples include fires at chemical storage sites in Melba, Rexburg, and near the Boise airport, as well as releases of unknown chemicals or pollutants at the Idaho National Engineering Laboratory and a Magic Valley landfill.
- Participated in Environmental Impact Statement planning for the remediation of INEL waste pits and reviewed Department of Energy Environmental Impact Assessment.
- Participated in planning the INEL facility-wide air emission inventory and air pathway impact assessment; led regulatory review of the Department of Energy Draft Environmental Impact Assessment.

**Stormwater and Surface Water Plans**

- Prepared NEPA analyses of Water Quality Impacts for numerous transportation in Idaho, Washington and surrounding states. Analyses included permit applicability, estimating runoff quantities, and Best Management Practices (BMPs) recommended during construction and subsequent operational phase in preventing adverse water quality impacts
- Prepared NPDES Permit application and directed implementation of the Stormwater Pollution Prevention Plan (SWPPP) at an Idaho lumber mill.
- Developed Stream Channel Alteration permit applications for private and industrial site modifications. Directed construction consistent with Permit requirements and the Best Management Practices proposed and required.