

## **MOHSEN ROUDSARI**

HVAC, Automotive & Nuclear Diagnostics Expert | Technical & Regulatory Expert Witness  
Aiken, South Carolina | 843-693-1670  
mohsenroudsari@gmail.com | DOE Q Clearance

Available for expert case review, regulatory analysis, deposition, and trial testimony

### **Executive & Expert Profile**

Senior diagnostics, nuclear operations, and environmental compliance expert with enterprise-level experience across DOE nuclear facilities, radiological and hazardous waste programs, transportation governance, and high-hazard operations. Recognized Subject Matter Expert (SME) in DOE and NRC radiological waste disposal, certification, and transportation. Combines executive leadership with forensic-level diagnostic capability to determine root cause, regulatory compliance, and technical causation in complex mechanical, environmental, HVAC, automotive, and nuclear systems.

### **Core Expert Competencies**

- Root Cause Failure Analysis (RCFA)
- Forensic diagnostics & causation analysis
- DOE, NRC, EPA & RCRA regulatory interpretation
- Radiological, hazardous, mixed & TRU waste disposal
- HVAC refrigeration diagnostics (EPA 608)
- OEM-level automotive diagnostics
- Nuclear transportation & packaging compliance
- Audit-resilient technical documentation
- Expert reports, affidavits & testimony

### **Regulatory Subject Matter Expertise – DOE & NRC**

- Recognized DOE and NRC radiological waste disposal Subject Matter Expert (SME).
- Expert interpretation of federal regulations governing waste characterization, certification, packaging, and transport.
- Root-cause investigation of regulatory non-compliance, misclassification, and procedural failures.
- Preparation and defense of documentation supporting waste acceptance and disposal decisions.
- Direct interface with DOE, NRC, EPA, and state regulators during audits, CEIs, readiness reviews, and enforcement actions.

## Professional Experience

### Savannah River Nuclear Solutions (SRNS)

Senior Waste Certification Specialist / Generator Certification Official (GCO) & Transportation Coordinator (TC) | 2021 – Present

- Provide enterprise governance and technical leadership for nuclear waste certification, characterization, transportation, and regulatory compliance.
- Serve as senior SME supporting mission-critical operations including FCA startup and completion, TRM disposition, and Accelerated Basin De-Inventory.
- Conduct forensic-level diagnostics to determine root cause of non-conformances, system failures, and regulatory deviations.
- Advise executive leadership, facility managers, and regulators on risk mitigation and compliance strategy.
- Prepare audit-defensible documentation supporting DOE, NRC, EPA, and RCRA requirements.

### Savannah River Nuclear Solutions (SRNS)

Radiological Control Inspector – H-Canyon Facility | 2019 – 2021

- Performed continuous diagnostic assessment of radiological conditions in high-hazard nuclear operations.
- Verified compliance with radiological protection standards and work control requirements.
- Identified causal factors for deviations and validated corrective actions.

### Automotive Diagnostics Experience

Lead Automotive Mechanic / Diagnostic Specialist | Independent & Commercial Automotive Shops | 10 Years

- Served as lead mechanic responsible for advanced automotive diagnostics, complex repair determination, and quality assurance.
- Performed root cause diagnostics on engine, drivetrain, electrical, HVAC, and control systems using OEM-level diagnostic methodologies.
- Diagnosed intermittent, multi-system faults involving mechanical, electrical, and software-controlled components.
- Differentiated manufacturing defects, improper repairs, wear-related failures, and misuse through systematic fault isolation.
- Utilized scan tools, electrical testing, and data interpretation to validate failure causation prior to repair.
- Reviewed and corrected misdiagnosed vehicles, reducing repeat failures and unnecessary part replacement.
- Provided technical guidance and oversight to junior mechanics on diagnostic methodology and repair validation.

- Interfaced directly with customers, insurers, and service managers to explain diagnostic findings and repair rationale.
- Ensured repairs met OEM standards, safety requirements, and regulatory compliance.
- Experience directly applicable to expert review of automotive defect, misdiagnosis, and liability claims.

### **Education**

Bachelor's Degree Equivalency – DOE Order 426.2A Approved

Aiken Technical College – Radiation Protection Technology Coursework

Charleston County School of the Arts – High School Diploma

### **Certifications & Clearances**

- DOE Q Clearance (Top Secret)
- Generator Certification Official (GCO)
- Transportation Coordinator (TC)
- Advanced RCRA Training
- DOT Radioactive Material Shipper Certification
- Radiological Worker II
- H-Area Person-In-Charge (PIC)
- Solid Waste Management Committee Representative
- EPA Universal 608 Refrigeration Certification
- KIA Motors Master Elite Plus Technician Certification

### **Expert Witness Disclosure Statement**

All opinions rendered are based on objective technical analysis, documented evidence, applicable regulations and standards, and professional experience, independent of the retaining party.