

Robert M. Henderson

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PROFESSIONAL SUMMARY

Reliable Chemical Operator with over 12 years of experience in explosives manufacturing, specializing in nitroglycerin gravity separation. Proven track record of maintaining zero-incident safety ratings while optimizing flow rates to increase batch purity by 15 percent. Expert in HAZOPER protocols and precision temperature control in high-risk environments.

WORK EXPERIENCE

Senior Nitroglycerin Separator Operator | Hercules Manufacturing Solutions | Bessemer, AL

May 2016 - Present

- Managed a high-output gravity separator unit producing 2,000 lbs of nitroglycerin daily with zero safety incidents over 7 years.
- Optimized the acid separation process by adjusting flow inhibitors, resulting in a 14% reduction in spent acid contamination.
- Led a team of 4 chemical technicians during peak production cycles to ensure adherence to Process Safety Management (PSM) standards.
- Implemented a new digital monitoring system that improved temperature tracking accuracy by 0.5 degrees Celsius.
- Authored revised Standard Operating Procedures (SOPs) for emergency separator drainage that were adopted plant-wide.

Chemical Equipment Operator | Dyno Nobel | Cheyenne, WY

Aug 2010 - Apr 2016

- Operated nitro-separator equipment for industrial explosives, maintaining strict temperature controls between 15-20 degrees Celsius.
- Identified a recurring leak in a lead-lined separator vessel, preventing a potential environmental release and saving \$40,000 in cleanup costs.
- Executed daily calibrations on flow meters and pressure gauges to ensure 100% accuracy in batch reporting.
- Spearheaded a safety committee initiative that reduced workplace slips and chemical exposures by 22% in the separator room.

Junior Chemical Technician | Orica Mining Services | Watkins, CO

Jun 2007 - Jul 2010

- Assisted senior operators in the maintenance of gravity separators and nitro-wash systems.
- Performed titration tests on spent acid samples to verify separation efficiency before disposal.
- Monitored cooling water flow rates to maintain thermal stability in the primary nitroglycerin nitrator and separator.
- Completed over 500 hours of supervised hazardous materials handling without a single reportable incident.

EDUCATION

Auburn University | Bachelor of Science | Chemical Engineering Technology

Aug 2003 - May 2007

Jefferson State Community College | Associate of Applied Science | Industrial Production Technology

Aug 2001 - May 2003

SKILLS

Gravity Separation, Chemical Flow Control, Fractional Distillation, Instrumentation Calibration, Explosive Materials Handling, HAZOPER, OSHA 1910.119 (PSM), Emergency Response Planning, Lockout/Tagout (LOTO), Waste Acid Neutralization

CERTIFICATIONS

HAZWOPER 40-Hour Certification | OSHA Training Institute (Jan 2023)
Certified Chemical Process Operator (CCPO) | American Institute of Chemical Engineers (Nov 2019)

LANGUAGES

English (Native)
Spanish (B1 Professional Working Proficiency)

ACTIVITIES

Volunteer Firefighter

Active responder specializing in hazardous material containment and industrial fire suppression.

Annual Explosives Safety Conference

Regular attendee and contributor to regional workshops on liquid explosive stability.