



Accredited Africa Training Institute for Capacity Development

Unit FO409, Hatfield Plaza · 1122 Burnett St, Hatfield 0028 · Pretoria, Gauteng · South Africa

Tel: +27 12 004 8389 · Mobile: +27 65 077 6310

Email: apply@aaticd.co.za · Website: www.aaticd.co.za

COURSE BROCHURE

Nickel Briquette Impurity Removal Through Reduction Process Training

Manufacturing, Engineering and Technology / Fabrication and Extraction

Unit Standard 110164 · NQF Level 2 · 4 Credits · 1 Day

COURSE OVERVIEW

This course equips learners with the knowledge and skills to safely and effectively remove impurities from nickel briquettes through a reduction process. Participants will understand the underlying chemical principles, operate relevant equipment, and apply quality control measures to produce high-purity nickel.

Category	Manufacturing, Engineering and Technology
Subfield	Fabrication and Extraction
Unit Standard	110164
Accreditation	SAQA Accredited · NQF Level 2 · 4 Credits
Duration	1 day
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Apply reduction process principles to remove impurities from nickel briquettes.
- Operate reduction furnaces and associated equipment according to standard operating procedures.
- Monitor process parameters and adjust conditions to optimize impurity removal efficiency.
- Analyze product quality using appropriate sampling and testing methods.
- Implement safety protocols and hazard control measures during reduction operations.
- Evaluate process performance and recommend improvements to reduce waste and enhance yield.

WHO SHOULD ATTEND

- This course is designed for process operators, metallurgical technicians, and production supervisors working in nickel refining or hydrometallurgical plants who are responsible for impurity removal operations.

COURSE OUTLINE

Day 1: Fundamentals of Nickel Briquette Impurity Removal via Reduction

- Overview of nickel briquette production and impurity challenges
- Chemistry of reduction: oxidising agents, reducing agents, and reaction thermodynamics
- Key impurities: iron, cobalt, copper, and sulphur – sources and removal strategies
- Process parameters: temperature, pressure, residence time, and gas flow rates
- Equipment used in reduction: kilns, furnaces, and gas handling systems
- Quality control: sampling, analysis, and specification compliance
- Safety considerations: handling of reducing gases, high temperatures, and hazardous materials
- Troubleshooting common issues: incomplete reduction, re-oxidation, and energy efficiency

ASSESSMENT & CERTIFICATION

Delegates are assessed through exercises and a final test. A mark of **50% or above** earns an **AATICD Certificate of Completion**, issued digitally with a unique verification code. This course carries **4 NQF credits** at **NQF Level 2**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 12,800.00	R 12,800.00
1	In-House	R 16,600.00	R 16,600.00
1	On-Campus (Pretoria)	R 19,200.00	R 19,200.00

UPCOMING SESSIONS

Start	End	Method	Venue
31 Jul 2026	31 Jul 2026	On-Campus	Lagos, Nigeria
03 Aug 2026	03 Aug 2026	On-Campus	Mauritius
04 Aug 2026	04 Aug 2026	On-Campus	Cape Town, South Africa
05 Aug 2026	05 Aug 2026	On-Campus	Dubai, UAE
06 Aug 2026	06 Aug 2026	On-Campus	Pretoria, South Africa
06 Aug 2026	06 Aug 2026	On-Campus	Lagos, Nigeria
07 Aug 2026	07 Aug 2026	On-Campus	Johannesburg, South Africa
10 Aug 2026	10 Aug 2026	On-Campus	Cape Town, South Africa

Contact us if no suitable date is listed – on-demand sessions can be arranged for groups.

HOW TO GET A QUOTE OR APPLY

1. **Get an instant quotation online:** visit www.aaticd.co.za, open the page for this course (Unit Standard 110164) and click **Get A Quote / Apply**. Select your training method and number of delegates – your quotation is generated immediately and emailed to you with the course brochure attached.
2. **Apply by email:** send the course title, your preferred training method (Online, In-House or On-Campus Pretoria), the number of delegates and your preferred dates to apply@aaticd.co.za – our team will reply with a formal quotation.
3. **Apply by phone or WhatsApp:** call +27 12 004 8389 or WhatsApp +27 65 077 6310 and we will prepare your quotation and reserve your seats.
4. **Confirm your booking:** accept the quotation and settle the invoice. As soon as payment is confirmed your delegates are enrolled and receive their AATICD LMS login details by email, along with joining instructions for their chosen training method.

Group discounts apply automatically – the more delegates you enrol, the lower the price per delegate. No payment is required to request a quotation.

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