



PROCESS AND CHEMICAL ENGINEERING

Relief, Flare and Blowdown Systems

5 day course

Classroom, online or in-house

Course overview

Relief systems are the last barrier between an overpressure event and a loss of containment, and they are frequently undersized for scenarios nobody revisited after the plant changed. This course covers verifying and operating them. Delegates work through overpressure scenarios and relief load determination, relief device selection and sizing including valves and rupture discs, and the inlet and tailpipe requirements that decide whether a device performs. Flare system hydraulics, radiation and dispersion are covered. Blowdown and depressuring follow. The course closes on testing, maintenance and the revalidation that a modified plant requires.

What you will learn

- Identify overpressure scenarios and determine relief loads
- Select and size relief devices including valves and rupture discs
- Apply inlet pressure drop and tailpipe requirements correctly
- Analyse flare system hydraulics, radiation and dispersion
- Design and operate blowdown and depressuring systems
- Test and maintain relief devices to keep them functional
- Revalidate a relief system after plant modification

Who should attend

- Process and process safety engineers
- Design and project engineers
- Inspection and maintenance engineers
- Operations engineers on major hazard plant
- Regulators and technical auditors

Course outline

- 01 Relief as the last barrier
- 02 Overpressure scenarios and relief loads
- 03 Relief device selection and sizing
- 04 Inlet pressure drop and tailpipe effects
- 05 Flare hydraulics and radiation
- 06 Dispersion and flare siting
- 07 Blowdown and depressuring
- 08 Testing, maintenance and revalidation

Upcoming dates

Dates	Venue	Format	Fee per delegate
26 to 30 October 2026	Online	Online	R8,500
28 December 2026 to 1 January 2027	Johannesburg, South Africa	Classroom	R19,950
25 to 29 January 2027	Dar es Salaam, Tanzania	Classroom	USD 1,325

Fees and how to register

This 5 day course is **R8,500** per delegate online, **R19,950** in the classroom in South Africa, Botswana, Namibia, Lesotho and Eswatini, and **USD 1,325** in the classroom elsewhere in Africa. In-house training is quotation on request.



Book 2 or more delegates on this course and save 10%.

To register or request an in-house proposal, visit www.afrisciencegroup.com, email info@afriScience.co.za, or WhatsApp us on **+27 63 479 1136**.

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