

Energy
Formation



OUR TRAINING
PACKAGE

OPERATION AND MAINTENANCE OF THE NETWORKS

ENERGY FORMATION

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and Gennevilliers

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OUR TRAINING
PACKAGE

OPERATION AND MAINTENANCE OF THE NETWORKS

Learn how to build, operate and maintain your gas network.



9 key areas for your gas training



More than **70** training courses for servicing and maintaining your networks

⊕ We offer both catalogue and customised training courses, on our campus or at your site. Our instructors adapt to your needs and your business context.

If you are a GRDF service provider or a Local Distribution Company, find out more about our range of training courses.

The benefits of our training courses

Our training courses are built around GRDF's processes and specifications. They will enable you to acquire the gas techniques you need to operate your facilities, as well as being able to respond to GRDF calls for tenders. All training courses with the symbol **P** are open to GRDF service providers

Training courses with essential prerequisites

Energy Formation offers a range of training programmes to help our learners progressively build their skills. The training courses are built around learning objectives that **may have specific prerequisites or prior experiential learning requirements**. It is important to be aware of these prerequisites, otherwise staff may not be admitted to the training course.



Energy Formation is Qualiopi certified. Moreover, upon completion of our training courses, participants are awarded a certificate of achievement.

OPERATION AND MAINTENANCE OF THE NETWORKS

► Fundamentals

The fundamentals of gas culture	D332
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Managing customer, operations and maintenance activities in a Service Agency	B4009
Gas fundamentals for GRDF service providers P	Z6004

► Customer relations and gas development

Improving customer relations by telephone	B965
Gas professionals, develop your teams' sales skills	Z8006

► Biomethane

Basic technical concepts of biomethane injection stations	B4661
Initial Training in Electricity & Instrumentation and Industrial Computing (FIE3I)	Z4841
Preventive maintenance on biomethane injection stations	Z4662
Corrective maintenance on biomethane injection stations	Z4663
Chemical hazards associated with work on biomethane injection stations	M4008

Biomethane spot samples	Z492V2
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Control of a biomethane injection station by a local Gas Repairs Service within its area of responsibility - theoretical phase	B4651
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Managing the installation and connection of a Green Gas injection station	B495
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Designing and engineering a gas distribution network, incorporating the specific features of green gases	B494
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Developing a relationship of trust with a green gas producer	Z999V1
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► Design and mapping

Drawing up valve system diagrams	Z298
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Mapping fundamentals	Z382
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GIS update	Z384
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Large-scale update	Z385
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Cartographic and topographic services	Z309
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Engineering

Common core

Administrative and regulatory fundamentals of the gas engineering contracts **B330V2**

PE network extensions with customer connections and installation of pressure regulator stations < 100 m³/h **B334**

Contract manager management tools - Rapsodie **B340V2**

Networks

Managing PE extensions using special techniques or where there are challenges, and installing stations > 100 m³/h **Z341**

Technical management of a gas network renewal project **Z348V2**

Technical management of a steel pipe gas network installation contract **Z349V2**

Technical management of a medium pressure steel network installation contract **B342**

Building supply and riser pipes

Designing, inspecting and issuing final approval of gas mains installations built by third parties **B336**

Renewing gas distribution networks through the purchase of infrastructure **Z337**

Studying and designing building supply and riser pipes renewal projects **P** **Z723**

Compaction

Inspection and approval of trench backfill and compaction work **Z351**

Works

Geodetection and official approval for working near networks

Introduction to geodetection of gas distribution facilities **P** **Z724**

Damage prevention decree - worksite operators - preparing for and taking the MCQ exam required to obtain a certificate of proficiency (official approval for working near networks) **Z813**

Damage prevention decree - taking the operator MCQ exam required to obtain a certificate of proficiency (official approval for working near networks) **Z816**

Damage prevention decree - project designers - preparing for and taking the MCQ exam required to obtain a certificate of proficiency (official approval for working near networks) **Z815**

Damage prevention decree - taking the designer MCQ exam required to obtain a certificate of proficiency (official approval for working near networks) **Z818**

Networks

Becoming a Gas Operator/Operations Manager for PE network connection (gas work) **P** **Z734**

Techniques for connecting and working on PE networks **P** **Z7584**

Techniques for connecting and working on steel networks **P** **Z7585**

Working on a cast-iron pipe network with gas shut-off and gas connection + creating a cast-iron/PE connection **P** **Z752**

Preparation, roles and responsibilities

Role and tasks of a Gas Operator and a Gas Operations Manager P	Z745
Fulfilling the duties of Works Supervisor or Lone Operator	7336
Construction of polyethylene structures (non-gas works) - Qualification of polyethylene operators (ATG B527.9) P	Z730
Maintaining and developing the skills of works supervisors, lone operators and site coordinators	Z329V2
Risk prevention and preparation for work on gas facilities P	Z742V2
Preparing operating and maintenance sites in complete safety	B316
Preparing operating and maintenance sites - skills maintenance	B376
Role and duties of a lockout-tagout manager	Z441V2

Connections

Becoming a Gas operator/Operations manager - Working on building supply and riser pipes P	7596
Installing an existing connection protection device	3NEZ
Making a PE connection to a steel or cast-iron pipe network	Z434
Becoming a Gas Operator/Operations Manager for PE branch connections on PE and steel piping (gas work) P	Z733

▶ Operations

Safety maintenance

Becoming a safety and repair work technician	Z398
Carrying out the V3 Gas safety maintenance assignment	Z395

Operations Manager field support worker

Gas Operations Manager field support worker	B437
Providing field support to the operations manager - skills maintenance	B439
Disrupted gas situations	7356

Back-up

Training for back-up responders	Z427
Carrying out back-up responder duties - skills maintenance	Z394

Private networks

Operation and safety of a private natural gas network	Z714
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▶ Technical customer service

Carrying out customer service No. 2 - new staff	Z608
Maintaining gas skills and restarting equipment for a customer service technician	Z607V2
Installing and commissioning a smart meter	Z837
Verification of industrial safety compliance for service providers P	Z6005
Inspecting the serviceability of the pipe between the gas shut-off valve and the gas meter P	Z6006
Inventory/replacement of domestic pressure regulators and GAZPAR installations for service providers P	Z6009

► Maintenance

Metering	Training gas maintenance meter reading specialists in conversion and remote metering	Z359
Pressure regulation	The basics of pressure regulation	D009
	Reconnecting a direct-acting pressure regulator station	Z361V2
	Preventive and corrective maintenance of direct-acting pressure regulator stations associated with industrial gas meter removing/fitting tasks	Z453
	Preventive and corrective maintenance of pilot-operated pressure regulator stations	Z454
	Preventive and corrective maintenance of customer supply substations and industrial gas meter removing/fitting tasks P	Z729V2
	Replacing and adjusting a pressure reducing regulator when removing/fitting an industrial gas meter - complement to course EFZ729 P	Z5001
	Inventory of gas mains regulators (Mains regulator traceability) P	Z5002

Building supply and riser pipes	Maintaining gas mains connections	Z435
	Building supply and riser pipes maintenance call P	Z741V2
Remote operation	Installation, maintenance and operation of remote operation stations and their remote transmission chain	Z486
Networks	Maintaining network valves	Z436
	Initial training for systematic leak detection operators on foot	Z405
	Refresher course for systematic leak detection operators on foot	Z375
Concentrator	Managing and carrying out maintenance on radio network concentrators P	Z488

Fundamentals

D332

The fundamentals
of gas culture
E-LEARNING
6 hours - 1 day

Z432

Gas Technical
Fundamentals
**IN-PERSON
LEARNING**
28 hours - 4 days

B4009

Managing customer,
operations and
maintenance activities
in a Service Agency
IN-PERSON LEARNING
29 hours - 5 days

P

Z6004

Gas fundamentals
for GRDF service
providers
**IN-PERSON
LEARNING**
14 hours - 2 days

D332

THE FUNDAMENTALS OF GAS CULTURE

INSTRUCTIONAL METHOD: E-learning

DURATION: 6 hours - 1 day

TARGET AUDIENCE:

Gas network construction Contract managers, project execution owners. All new staff in Engineering but also in third-party works units, Mapping, Natural Gas Connection Advisory Service, the Design Office/project decision owner.

PREREQUISITES:

No prerequisites.

Objectives of the training course

- Interact with natural gas professionals using the technical, regulatory and economic vocabulary specific to the operation of natural gas networks.
- Situate their job within GRDF's activities and acquire basic knowledge of gas distribution facilities.

Skills developed

- Identify and use the units, physical and chemical laws, uses and hazards associated with distributed gases,
- Identify the distributor's scope of responsibility in the gas chain,
- Describe the roles and responsibilities of the distributor,
- Distinguish the roles and characteristics of networks,
- Distinguish the roles and characteristics of connections,
- Identify the issues involved in mapping as part of the remit of a distribution network contractor and operator.

Skills assessment

To be awarded a certificate, you need to pass 70% of the assessments. Each module will be assessed independently and will let you start the following module.

Z432

GAS TECHNICAL FUNDAMENTALS

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 28 hours - 4 days

TARGET AUDIENCE:

New staff in a Gas Technician job, Gas Technicians already in the position whose job now includes network activities, new staff in a Gas Repairs Service, a gas maintenance specialist job or the Design Office, new GRDF employees in an Operations Manager or Assistant Operations Manager job as a prerequisite for the Operations Management Academy (option decided by the Management Board).

PREREQUISITES:

No prerequisites.

Objectives of the training course

- Identify your scope of activity, your working environment and its components.
- Take appropriate measures to ensure the safety of yourself, people, property and nearby structures.

Skills developed

- Explain how gas operations work,
- Identify the impact of natural gas characteristics on the gas network and its activity,
- Describe a gas distribution facility from the transmission/distribution interface point to the meter,
- Determine the means for preventing and protecting against the hazards associated with the work of a gas technician,
- Manage a gas fire in complete safety,
- Transfer a gas structure onto a map by producing a cartographic plot plan (on a scale of 1:200) from a field survey,
- Take samples using an explosimeter-catharometer and interpret the measurements.

Skills assessment

The trainer uses progress indicators to measure the group's learning outcomes in each exercise. Trainees are assessed on the basis of their results in the theory exercises and proposed case simulations.

Qualitative monitoring of the training course is carried out by:

- A summary of the course,
- An evaluation questionnaire sent to trainees after the course.

B4009

MANAGING CUSTOMER, OPERATIONS AND MAINTENANCE ACTIVITIES IN A SERVICE AGENCY

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 29 hours - 5 days

TARGET AUDIENCE:

Manage customer, operations and maintenance activities in a Service Agency.

PREREQUISITES:

Z432 "The fundamentals of gas culture".

Objectives of the training course

- Managing the network and customer service teams.

Skills developed

- Briefing and debriefing work teams on operations, maintenance, works and customer activities,
- Preparing a site inspection of operations, maintenance, works and customer sites,
- Analysing and giving meaning to the indicators to improve management and meet the set targets,
- Finding your way around and acting on your environment, organisation and information,
- Describing and prioritising the customer activities of a gas technician; collecting and verifying feedback,
- Describing the roles and contributions of stakeholders involved in the customer's business and how the information system linking them works.

Skills assessment

Online summary assessment at the end of the course

Z6004 P

GAS FUNDAMENTALS FOR GRDF SERVICE PROVIDERS

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 14 hours - 2 days

TARGET AUDIENCE:

All new staff awarded technical customer service contracts.

PREREQUISITES:

No prerequisites.

Objectives of the training course

- Identify your scope of activity, your working environment and its components,
- Take appropriate measures to ensure the safety of yourself, people, property and nearby structures,
- Incorporate the customer's reference framework into its operations.

Skills developed

- Name and explain the roles of the main stakeholders in the gas market,
- Name the physical and chemical characteristics and behaviour of gas,
- Distinguish between structures upstream and downstream of the Main Shut-off Valve,
- Communicate and adapt your posture with customers as part of your work.

Skills assessment

At the end of the learning process, learning outcomes are measured by:

- The trainer, using group progress indicators in each exercise,
- Each trainee should be able to assess the results obtained from the theoretical exercises, case simulation and/or role-playing exercises,
- An individual assessment at the end of the session. Trainees who are unsuccessful will be re-registered for a future training session.



Customer relations and gas development

B965

Improving customer relations by telephone

BLENDÉ*

16 hours - 2 days

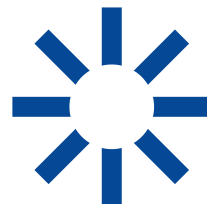
Z8006

Gas professionals, develop your teams' sales skills

IN-PERSON LEARNING

7 hours - 1 day

* In-person + distance learning



B965

IMPROVING CUSTOMER RELATIONS BY TELEPHONE

INSTRUCTIONAL METHOD:

Blended (in-person/distance learning)

DURATION: 16 hours - 2 days

TARGET AUDIENCE:

Engineering or Natural Gas Connection Advisory Service Contract manager, offer or connection study manager.

PREREQUISITES:

No prerequisites.

Objectives of the training course

- Ensuring the smooth running of the connection contract or project through effective communication.

Skills developed

- Understanding general customer expectations,
- Understanding the logic of a telephone conversation,
- Identifying the stages in a telephone conversation,
- Mastering the telephone conversation and theoretical knowledge acquired,
- Adding value to the actions carried out,
- Enhancing the company's image,
- Applying the reference framework of the Contract manager's customer.

Skills assessment

- Assessment of learning outcomes: formative.
- Individual attendance certificate.
- Course assessment: Summary. Written, individual assessment of the extent to which objectives have been achieved, based on a satisfaction questionnaire.



Z8006

DEVELOP YOUR TEAMS' SALES SKILLS

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 7 hours - 1 day

TARGET AUDIENCE:

All the employees of a company designated Gas Professional

PREREQUISITES:

No prerequisites.

Objectives of the training course

- Develop the sales skills of a Gas Professional company's staff.

Skills developed

- Discover your "communication style" and that of your customer to better understand their needs and motivations/qualms,
- Improve your conversion rate by adapting to your customer and tailoring your sales pitch,
- Argue and deal with objections,
- Reinforce trust to close the sale more easily and build loyalty.

Skills assessment

- Summative assessment by the trainer at the end of the case simulations.

Biomethane

TRAINING COURSES

B4661

Basic technical concepts of biomethane injection stations

BLENDÉD*

30 hours - 4.25 days

Z4662

Preventive maintenance on biomethane injection stations

IN-PERSON LEARNING

56 hours - 8 days

Z4841

Initial Training in Electricity & Instrumentation and Industrial Computing (FIE3I)

IN-PERSON LEARNING

35 hours - 5 days

Z4663

Corrective maintenance on biomethane injection stations

IN-PERSON LEARNING

28 hours - 4 days

M4008

Chemical hazards associated with work on biomethane injection stations

DISTANCE LEARNING

7 hours - 1 day

Z492V2

Biomethane spot samples

IN-PERSON LEARNING

7 hours - 1 day

TRAINING COURSES

B499V2

Remote maintenance on biomethane injection stations

BLENDÉD*

29 hours - 5 days

B4651

Control of a biomethane injection station by a local Gas Repairs Service within its area of responsibility - Theoretical phase

BLENDÉD*

8 hours - 1 day

B4652

Control of a biomethane injection station by a local Gas Repairs Service within its area of responsibility - Practical phase

BLENDÉD*

4.5 hours - ½ day

B495

Managing the installation and connection of a Green Gas injection station

BLENDÉD*

25.5 hours - 4.5 days

B494

Designing and engineering a gas distribution network incorporating the specific features of green gases

BLENDÉD*

31 hours - 4 days

Z999V1

Developing a relationship of trust with a green gas producer

IN-PERSON LEARNING

14 hours - 2 days

* In-person + distance learning

B4661

BASIC TECHNICAL CONCEPTS OF BIOMETHANE INJECTION STATIONS

INSTRUCTIONAL METHOD:

Blended (in-person/distance learning)

DURATION: 30 hours - 4.25 days

TARGET AUDIENCE:

Biomethane injection station maintenance technicians.

PREREQUISITES:

No prerequisites.

Objectives of the training course

- Work on an injection station in accordance with EXPL2210 guidelines and MAINT1310 skill C1.

Skills developed

- Understand the global requirements and operation of a biomethane production unit, to foster dialogue with the operator,
- Describe the functions of injection stations and related equipment (using Piping and Instrumentation Diagrams (PIDs), electrical plans and 360 animations),
- Perform the operating procedures at an injection station (as per EXPL2210 and specific instructions),
- Perform maintenance tasks at a biomethane injection station at skill level C1 (as per MAINT1310).

Skills assessment

- Acquired skills are assessed using code "E466-1 - Assessment of the learning outcomes of the course on the basic technical concepts of biomethane injection stations".

Z4841

ELECTRICITY & INSTRUMENTATION AND INDUSTRIAL COMPUTING (FIE3I)

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 35 hours - 5 days

TARGET AUDIENCE:

Injection station maintenance technicians.

PREREQUISITES:

No prerequisites.

Objectives of the training course

Acquire basic knowledge and initial training know-how in the following fields:

- Electricity,
- Instrumentation,
- Automation systems (PLCs, I/O boards, etc.),
- Regulation,
- Industrial IT and telecoms networks, so that these skills can be used in the biomethane injection station maintenance training courses provided by Energy Formation.

Skills developed

- Apply the rules and best practices of electricians when doing electrical work on an industrial facility (such as a container-mounted biomethane station),
- Perform diagnostics, adjustments, and replacements of devices on an automated measurement acquisition system,
- Identify and locate a fault on a PLC,
- Test and verify an industrial IT communication network.

Skills assessment

- Defined by the training provider.



Z4662

PREVENTIVE MAINTENANCE ON BIOMETHANE INJECTION STATIONS

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 56 hours - 8 days

TARGET AUDIENCE:

Injection station maintenance technicians.

PREREQUISITES:

Have completed course EFZ4841: Initial Training in Electricity & Instrumentation and Industrial Computing (FIE3I) or equivalent knowledge.

Objectives of the training course

- Carry out preventive maintenance on biomethane injection stations (INSP, REV, MRO, as per MAINT1310).

Skills developed

- Identify preventive maintenance actions and their frequency,
- Understand the technologies used,
- Perform preventive maintenance tasks,
- Comply with regulatory parameters,
- Communicate with all stakeholders involved in the operation of injection stations.

Z4663

CORRECTIVE MAINTENANCE ON BIOMETHANE INJECTION STATIONS

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 28 hours - 4 days

TARGET AUDIENCE:

Injection station maintenance technicians.

PREREQUISITES:

Have completed course EFZ4662: "Preventive Maintenance of Biomethane Injection Stations" course.

Objectives of the training course

- Perform maintenance tasks on a biomethane injection station (skill C2 of MAINT1310).

Skills developed

On completion of the course, trainees should be able to perform the following tasks if a fault occurs at a biomethane injection station, as per skill C2 of MAINT1310:

- Resolve a technical fault on an injection station in 5 steps, taking into account:
 - a. the injection station in its environment (producer site, distributor network),
 - b. the regulatory parameters,
 - c. the hazard prevention policy,
- Detect fault(s),
- Perform diagnostics,
- Identify the root cause of the fault,
- Recommend a way to resolve the fault,
- Carry out the repair operation,
- Communicate with all stakeholders involved in the operation of injection stations.

Skills assessment

- For those attending the course, learning outcomes are assessed through individual summative theoretical and practical assessment during the course.

M4008

CHEMICAL HAZARDS ASSOCIATED WITH WORK ON BIOMETHANE INJECTION STATIONS

INSTRUCTIONAL METHOD:

Distance learning

DURATION: 7 hours - 1 day

TARGET AUDIENCE:

Specialised Gas Maintenance Technicians

PREREQUISITES:

Be familiar with the prevention of general hazards

Z492V2

BIOMETHANE SPOT SAMPLES

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 7 hours - 1 day

TARGET AUDIENCE:

Gas Repairs Service and/or Specialised Gas Maintenance technicians

PREREQUISITES:

Be familiar with general risk prevention as described in GRDF's General Risk Directives Handbook (CPP) for all employees.

Objectives of the training course

- Identify the hazards of chemical to the health and safety of workers,
- Recognize protective equipment and the basic rules of risk prevention.

Skills developed

- Be aware of chemical hazards while working.
- Use the correct terminology.
- Take preventive measures.

Skills assessment

- Trainees will take an MCQ at the end of the session.
- A certificate will be issued by APAVE enabling the employer to issue Competence Orders or specific activities associated with the training: C1, C2, C3 and spot sampling

Objectives of the training course

- Take a spot sample.

Skills developed

- Prepare a spot sampling operation at a biomethane station,
- Take a sample using the pressurized cylinder sampling method,
- Take a sample using the bubbling method,
- Take a sample using the absorbent tube capture method,
- Implement the protocol(s) of the analytical laboratory(ies), including acceptance, storage, use and return of sample products and biomethane samples,
- Assessing risks and implementing preventive measures.

Skills assessment

- An individual assessment at the end of the session, based on the trainee's observation of practical situations.



B499V2

REMOTE MAINTENANCE ON BIOMETHANE INJECTION STATIONS

INSTRUCTIONAL METHOD:

Blended (in-person/distance learning)

DURATION: 29 hours - 5 days

TARGET AUDIENCE:

Biomethane injection station maintenance technicians.

PREREQUISITES:

Have completed:

- Course EFZ4662 - Preventive maintenance on biomethane injection stations
- Course EFZ4663 - Corrective maintenance on biomethane injection stations

Objectives of the training course

- Demonstrate and carry out Level 2 & Level 3 on-call duties as per EXPL2210 (GRDF).

Skills developed

On completion of the course, if a fault occurs at a biomethane injection station, trainees should be able to:

- Perform remote corrective maintenance according to the rights assigned to a Level 2 technician with skill C2,
- Perform local corrective maintenance under the supervision of a Level 3 technician with skill C3,
- Perform C2-Level 2 corrective maintenance via remote guidance.

Skills assessment

- Acquired skills are assessed via an EFQB499 evaluation completed online by the trainee.

B4651

CONTROL OF A BIOMETHANE INJECTION STATION BY A LOCAL GAS REPAIRS SERVICE WITHIN ITS AREA OF RESPONSIBILITY - THEORETICAL PHASE

INSTRUCTIONAL METHOD:

Blended (in-person/distance learning)

DURATION: 8 hours - 1 day

TARGET AUDIENCE:

Gas Repairs Service technicians: Safety Intervention, Operations Manager field support worker, Back-up team technician.

PREREQUISITES:

Everyone must have attended the "green gas" meetings organised in their region.

For technicians acting as safety officers:

- Have completed course EFZ398 - Becoming a safety and repair work technician,
- Have received information on the customer's conduct framework.

For Operations Manager field support workers:

- Have completed course EFZ437 - Responding to a gas incident for Operations Manager field support workers,
- Have received information on the customer's conduct framework.

For Back-up technician responders:

- Have completed course Z427 - Training for back-up responders,
- It would be an advantage to have received information on the customer's conduct framework.

Objectives of the training course

On completion of courses EFB4651 and EFB4652 courses:

- Work within the area of responsibility of your Gas Repairs Service on a local biomethane injection station, using appropriate hazard prevention methods, to:
 - Perform the level-1 biomethane emergency response
 - Perform simple operating procedures at a V3 biomethane injection station.

Skills developed

- Identify the hazards that may be encountered by a Gas Repairs Service technician when working on a V3 biomethane injection station, including those of a biomethane production site.
- Describe the operation of a V3 biomethane injection station using a block diagram.
- Prepare the tasks of a Gas Repairs Service technician (as per EXPL210 and MAINT 1310) on a V3 biomethane injection station.
- Incorporate into your actions an understanding of how the network sections operate (including adjustments to pressure regulator stations and transmission stations, concepts of reverse flow and overflow) impacted by biomethane.

Skills assessment

- After trainees have completed the classroom component of the course, an instructor uses progress indicators to assess the progress made by the group in each exercise.
- The B465 course is subject to summative assessment after trainees have completed courses EFB4651 and EFB4652.

B4652

CONTROL OF A BIOMETHANE INJECTION STATION BY A LOCAL GAS REPAIRS SERVICE WITHIN ITS AREA OF RESPONSIBILITY - PRACTICAL PHASE

INSTRUCTIONAL METHOD:

Blended (in-person/distance learning)

DURATION: 4.5 hours - ½ day

TARGET AUDIENCE:

Gas Repairs Service technicians: Safety Intervention, Operations Manager field support worker, Back-up team technician.

PREREQUISITES:

- Must have completed course EFB4651 within the last 4 weeks.
- The EFB4651 course prerequisites must also be met.

Objectives of the training course

On completion of courses EFB4651 and EFB4652 courses:

- Work within the area of responsibility of your Gas Repairs Service on a local biomethane injection station, using appropriate hazard prevention methods, to:
 - Perform the level-1 biomethane emergency response
 - Perform simple operating procedures at a V3 biomethane injection station.

Skills developed

At the end of the course, on the site used for the practical exercises, the trainee should be able to:

- Situate the functional elements of the biomethane production site, along with the associated hazards,
- Visually identify the functional elements of the V3 biomethane injection station, including valves R1, R4 and R6, in order to perform a simple task (Skill C1 as defined in MAINT1310 and the local tasks listed in course EXPL2210),
- Perform an inspection of a V3 biomethane injection station as part of a gas safety inspection until the station is made safe,
- Restart a V3 biomethane injection station in accordance with appendix 7 of course EXPL2210 following a decision by the Operations Manager.

Skills assessment

- After the trainees have completed the classroom component of the course, an instructor uses progress indicators to assess the progress made by the group in each exercise,
- Each trainee is assessed individually during the practical exercises and online assessment.

B495

MANAGING THE INSTALLATION AND CONNECTION OF A GREEN GAS INJECTION STATION

INSTRUCTIONAL METHOD:

Blended (in-person/distance learning)

DURATION: 31.5 hours - 4 days

TARGET AUDIENCE:

Project Execution Owner Coordinator

PREREQUISITES:

- Knowledge of medium pressure stations.
- It is advisable to have already visited a biogas plant before starting the training course.

Objectives of the training course

- Manage and support the installation and connection of Green Gas injection stations.

Skills developed

- Explain the Green Gas industry from a technical, financial and project-based standpoint,
- Describe the key stages in building a Green Gas production site, from contracting to commissioning,
- Identify the roles and the concerns of the stakeholders in a Green Gas injection stations installation and connection project,
- Review and approve a typical project (investigations, reverse planning), pre-identify problematic phases (e.g. risk of insufficient odorization at start-up),
- Oversee internal and external project activity management and planning,
- Carry out the activities and validate the key stages leading to start-up of the injection station,
- Review and apply the regulatory framework (limits, current developments, etc.),
- Cultivate a "customer-centric" approach vis-à-vis the producer.

Skills assessment

Learning outcomes are measured by:

- The trainer, using group progress indicators in each exercise,
- Each trainee should be able to assess the results obtained from the theoretical exercises, case simulation and/or role-playing exercises.



B494

DESIGNING AND ENGINEERING A GAS DISTRIBUTION NETWORK INCORPORATING THE SPECIFIC FEATURES OF GREEN GASES

INSTRUCTIONAL METHOD:

Blended (in-person/distance learning)

DURATION: 25.5 hours - 4.5 days

TARGET AUDIENCE:

Project Decision Owner and Design Office employees

PREREQUISITES:

- Persons responsible for and identified as "Green Gas" specialists in the project decision owner's team and the design office's team,
- At least 6 months' experience in biomethane studies is highly desirable.

Objectives of the training course

In work situations, Green Gas specialists must:

- Manage the development of Green Gas in compliance with the master plan, GRDF's strategic decisions and applicable rules (regulations, standards),
- On a case-by-case basis, validate studies for setting up Green Gas production sites and identify the need for reverse flow stations,
- Implement the applicable rules to promote the development of Green Gas,
- Carry out studies on connecting Green Gas production sites and technical solutions to promote injection capacity,
- Evaluate the impact of the installation of Green Gas facilities on networks,
- Propose adaptations that promote the operation of networks with Green Gas injection sources.

Skills developed

On completion of the course, trainees should be able to:

- Describe GRDF's policy and strategy in terms of the development of Green Gases and their impact on the design of gas networks,
- Use correct terminology in a Green Gas facility siting study (injection, reverse flow, etc.),
- List the technically and financially viable solutions that must be implemented when connecting Green Gas production sites and related facilities while complying with:
 - Regulations
 - GRDF's policy
- Proficiency with IT tools tailored to and/or developed specifically for "Green Gas" connection studies,
- Carry out and justify connection studies for "Green Gas" facilities in cases rated from simple to complex (1),
- Identify the need for technical solutions that promote injection into GRDF networks (e.g. reverse flow systems) and study their implementation,
- Validate connection studies for "Green Gas" facilities in compliance with GRDF's commitments and regulatory applications.

Skills assessment

- In accordance with the law of November 2009, a Training Certificate is issued to the trainee at the end of the session.

Z999V1

DEVELOP A RELATIONSHIP OF TRUST WITH A GREEN GAS PRODUCER

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 14 hours - 2 days

TARGET AUDIENCE:

All employees dealing with project leaders and green gas producers.

PREREQUISITES:

No prerequisites.

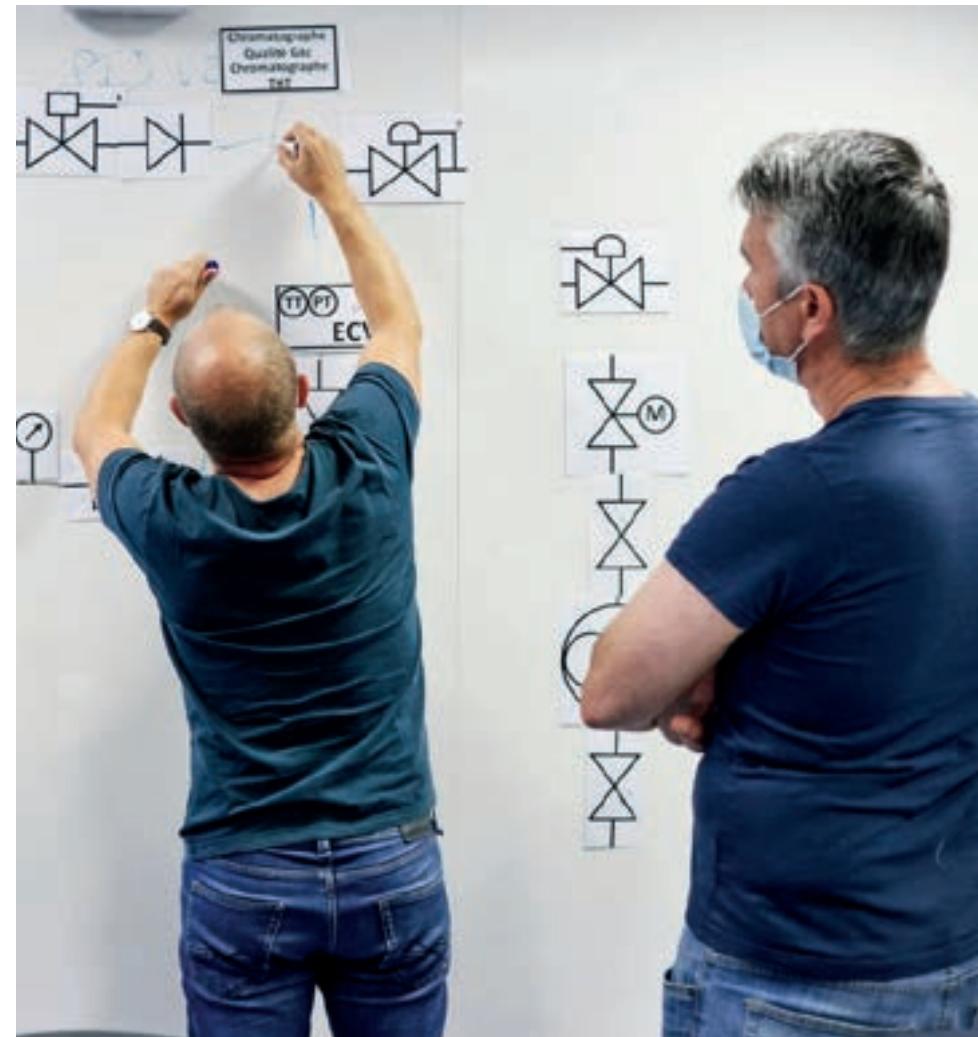
Objectives of the training course

- Develop a relationship of trust with a Biomethane project developer or producer, based on the 4 key stages of customer relations.

Skills developed

Conduct structured meetings in 4 stages:

1. Prepare for the meeting, introduce yourself
2. Understand by asking the right questions
3. Summarize the key points productively and gain agreement
4. Conclude the meeting positively by expressing appreciation for the interaction.





Design and mapping

Z298

Drawing up valve system diagrams

IN-PERSON LEARNING

21 hours - 3 days

Z382

Mapping fundamentals

IN-PERSON LEARNING

21 hours - 3 days

Z384

GIS update

IN-PERSON LEARNING

28 hours - 4 days

Z385

Large-scale update

BLENDED*

35 hours - 5 days

Z309

Cartographic and topographic services

IN-PERSON LEARNING

21 hours - 3 days

* In-person + distance learning

Z298

DRAWING UP VALVE SYSTEM DIAGRAMS

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 21 hours - 3 days

TARGET AUDIENCE:

The professions of Design Office project managers, Design Office design engineers, project decision owner.

PREREQUISITES:

- Must have completed course D332 - The fundamentals of gas culture + Z383 - GIS consultation + Z489 - Autonomous GIS/CARPATHE for Design Office or have acquired equivalent knowledge (see course sheet D332 + Z383 + Z489) through professional experience.

Z382

MAPPING FUNDAMENTALS

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 21 hours - 3 days

TARGET AUDIENCE:

- Built heritage contexts
- Mapping managers
- Database managers (employees of cartographic services).

PREREQUISITES:

- For admission to this course, employees must have completed course D332 "The fundamentals of gas culture" or have acquired the equivalent knowledge (see course sheet D332) through their professional experience.

Objectives of the training course

- To enable Design Office project managers, Design Office design engineers and project decision owners to acquire the knowledge they need to draw up and/or validate gas network valve system diagrams.

Skills developed

On completion of the course, trainees should be able to:

- Quote the regulations in force on gas distribution network disconnections
- State the constraints of decompression in the event of an incident on gas networks
- Apply the rules for designing valve system diagrams for all types of pressure
- Identify single point isolation requirements
- Produce medium-pressure valve system diagrams
- Use the Carpathe and SV applications (valve system diagrams)
- Distinguish between the control points for input and output data for the quality processes affecting their jobs.

Skills assessment

- Assessment of achievement of objectives based on an individual satisfaction questionnaire

Objectives of the training course

The aim of this course is to help you understand:

- Techniques for constructing a plan, tools and methods for topographic work,
- GRDF's mapping policy, the challenges of mapping quality, the new requirements of the decree on declarations of intended works and notices of commencement of works.

Skills developed

- Name the different IT tools used in cartography,
- Explain the links between IT tools,
- Differentiate between the techniques used to construct a plan and the tools and methods used in topographic work,
- Apply the fundamental principles of national mapping requirements in one's day-to-day work,
- Use cartographic and topographic vocabulary when communicating with internal and external contacts,
- Situate one's actions within the organisation defined by national policy,
- Identify the surveying tools needed to work in a specific geographical area,
- Identify lifting methods,
- Internalise the implications of changing the coordinate systems used in France for planimetry and altimetry.

Skills assessment

- Individual attendance certificate.
- Individual written assessment of the extent to which objectives have been achieved, based on a satisfaction questionnaire.

Z384

GIS UPDATE

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 28 hours - 4 days

TARGET AUDIENCE:

Cartographic group managers and staff.

PREREQUISITES:

For admission to this course, employees must have completed the Z382 "Mapping fundamentals" course or have acquired equivalent knowledge (see Z382 course sheet) through their professional experience.

Objectives of the training course

- This course will enable employees to acquire the main knowledge needed to: Updating cartographic data in the gas GIS, applying the cartographic dressing rules in force.

Skills developed

On completion of the course, trainees should be able to:

- Create update folders,
- Manage update and works folders,
- Run simple queries,
- Identify the various components of networks using GIS.

Skills assessment

- Individual attendance certificate.

Z385

UPDATED LARGE-SCALE MAPPING

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 35 hours - 5 days

TARGET AUDIENCE:

- Employees of gas mapping groups carrying out large-scale updates.

PREREQUISITES:

For admission to this course, employees must have completed the Z382 "Mapping fundamentals" course or have acquired equivalent knowledge (see Z382 course sheet) through their professional experience.

Objectives of the training course

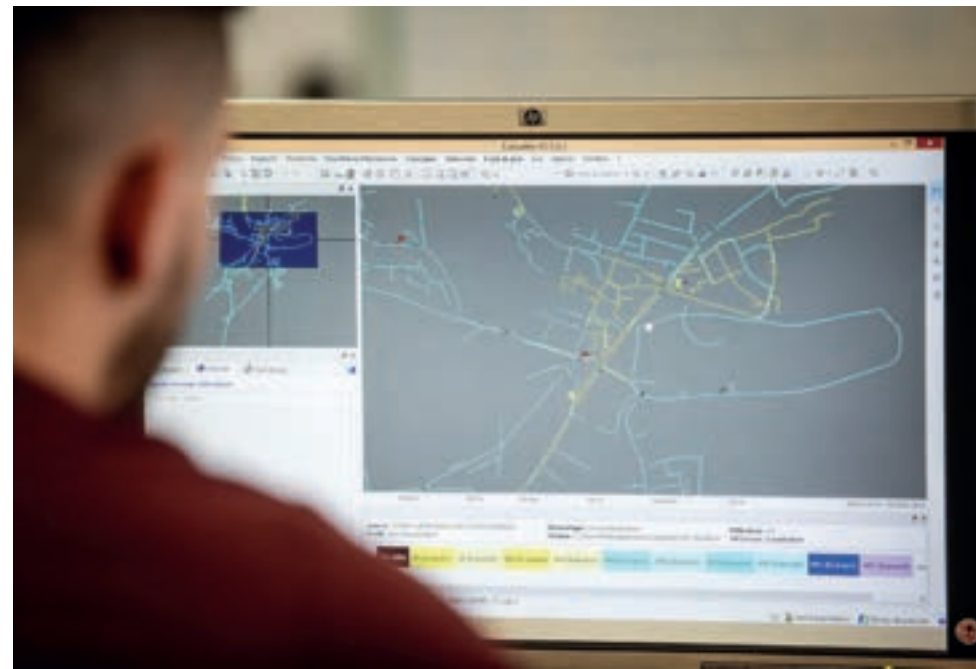
- The employee should be able to carry out updates in accordance with GRDF's regulatory expectations. EXPL 0410; EXPL0420; EXPL0430 using the various functions of the large-scale tools.

Skills developed

- Integrate the GRDF prescription into its activities,
- Update large-scale plans using large-scale tools,
- Manage an entire large-scale folder.

Skills assessment

- An individual satisfaction questionnaire is used to assess whether objectives have been achieved.



Z309

CARTOGRAPHIC AND TOPOGRAPHIC SERVICES

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 21 hours - 3 days

TARGET AUDIENCE:

The managers and employees of the Mapping group concerned by the following actions:

- Topographical surveys
- Checking deliverables in the field using surveying tools.
- Checking deliverables using specific IT tools.

PREREQUISITES:

For admission to this course, employees must have taken the EFD332 "The fundamentals of gas culture" and Z382 "Mapping fundamentals" courses, or have acquired the equivalent knowledge (see D332 and Z382 course sheet) through their professional experience.

Objectives of the training course

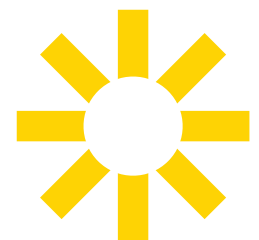
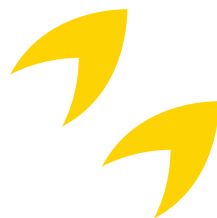
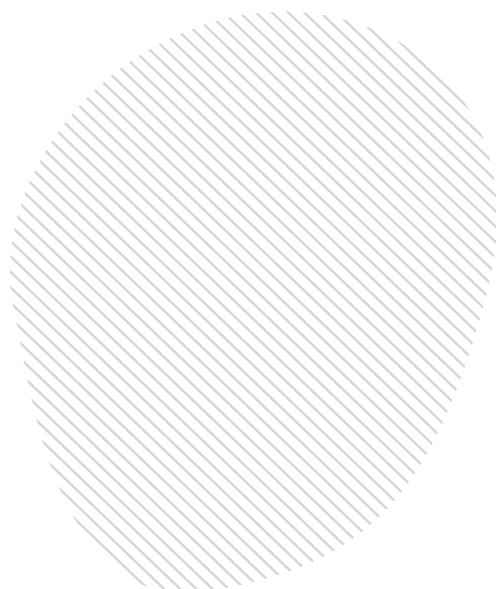
- Prescribe the purchase of services for detailed mapping, issue approval, validate and guarantee all the documents submitted by the service provider.

Skills developed

- Expertise in mapping-related Special Technical Specifications (base plan, final plan, mapping controls, topographical controls),
- Write orders to custom manufacturers with a view to carrying out topographical surveys,
- Validate and record the work carried out in accordance with the PREST process.

Skills assessment

- Individual attendance certificate.
- Individual written assessment of the extent to which objectives have been achieved, based on a satisfaction questionnaire.

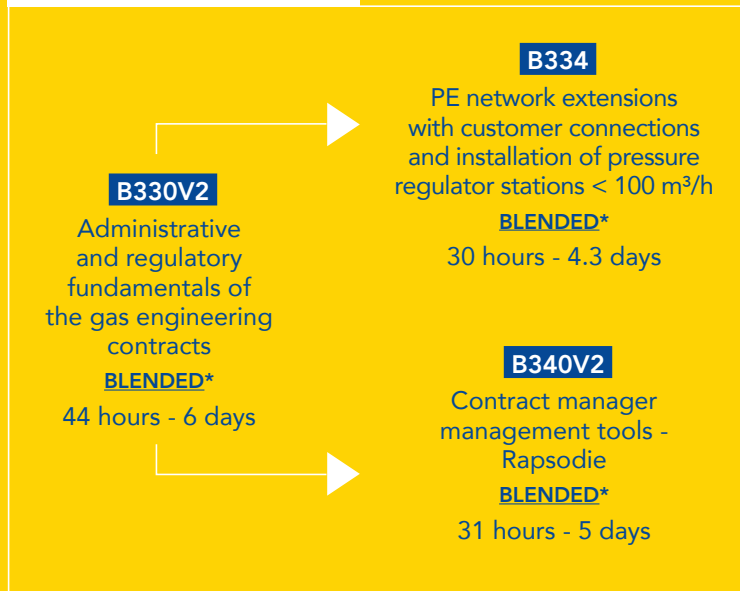




Engineering

Common core

TRAINING COURSES



* In-person + distance learning

B330V2

ADMINISTRATIVE AND REGULATORY FUNDAMENTALS OF THE GAS ENGINEERING CONTRACTS

INSTRUCTIONAL METHOD:
Blended (in-person/distance learning)

DURATION: 44 hours - 6 days

TARGET AUDIENCE:

Engineering Contract managers.

PREREQUISITES:

Completion of "The fundamentals of gas culture EFD332" course or equivalent knowledge:

- Identify and use the units, physical and chemical laws, uses and hazards associated with distributed gases,
- Identify the distributor's scope of responsibility in the gas chain,
- Describe the roles and responsibilities of the distributor,
- Distinguish the roles and characteristics of networks,
- Distinguish the roles and characteristics of connections,
- Identify the issues involved in mapping as part of the duties of a distribution network contractor and operator.

Skills developed

- Identify the roles and responsibilities of the various stakeholders,
- Explain GRDF's economic and industrial challenges,
- Apply administrative regulations governing roads, traffic, easement agreements, etc.,
- Factor into a contract the satisfaction of local authorities,
- Find and apply the contractual rules of procurement contracts (Special Technical Specifications, CGA, etc.),
- Organise and implement contract milestones,
- Carry out appropriate checks at the various stages of the project,
- Factor best customer relations practices into the conduct of a contract,
- Find the main internal and external texts relating to gas works,
- Identify the scope and legislation applying to a worksite,
- Identify the regulatory texts applying to a contract,
- Identify the responsibilities, limits of intervention and decision-making of each stakeholder,
- Applying the Handover and Withdrawal procedures,
- Apply the Damage Prevention Decree,
- Applying Work Risk Prevention measures.

Skills assessment

E-learning:

- Quiz-style assessment to validate each learning module

In-person learning:

- The trainer monitors progress indicators,
- End-of-course summative assessment

Objectives of the training course

- Manage a contract in compliance with regulatory requirements, city planning, highway and commercial codes, and procedures and authoritative texts,
- Find your bearings in the regulatory environment of a gas contract and apply the procedures arising from regulations in the field of Health, Prevention, Safety and Access to facilities.



B334

PE NETWORK EXTENSIONS WITH CUSTOMER CONNECTIONS AND INSTALLATION OF PRESSURE REGULATOR STATIONS < 100 M³/H

INSTRUCTIONAL METHOD:

Blended (in-person/distance learning)

DURATION: 30 hours - 4.3 days

TARGET AUDIENCE:

New employees in a Gas engineering job. It is advisable to take this course 6 to 12 months after taking up your new position.

PREREQUISITES:

- Must have completed the EFB330V2 "Administrative and regulatory fundamentals of the gas engineering contracts" course or have acquired the equivalent knowledge (see EFB330V2 course sheet) through professional experience.
- Be Gazodoc-accredited.

Objectives of the training course

- The B334 course should enable new staff in engineering jobs to manage a PE extension with installation of pressure regulator stations < 100 m³/H. This course is part of the engineering function's training programme for G1 attainment.

Skills developed

- Identify the procedures for the construction of PE networks and connections in current regulations and quality procedures, and:
 - Follow and apply the rules for building networks and connections for a PE extension
 - Set up pressure regulator stations < 100 m³/H.

Skills assessment

Learning outcomes will be measured by:

- The trainer uses group progress indicators in each exercise,
- Each trainee's results in the proposed theoretical and practical exercises,
- The trainees assess the quality of the training course by writing a short report and filling out an evaluation questionnaire handed out at the end of the session,
- An annual assessment of the course completes these evaluation procedures.

B340V2

CONTRACT MANAGER MANAGEMENT TOOLS - RAPSODIE

INSTRUCTIONAL METHOD:

Blended (in-person/distance learning)

DURATION: 31 hours - 5 days

TARGET AUDIENCE:

All Engineering staff in Works Delegations. It is advisable to take this initial training course 3 to 6 months after taking up the position.

PREREQUISITES:

Completion of course B330V2
- Administrative and regulatory fundamentals of the gas engineering contracts or equivalent knowledge (see course sheet B330V2) gained through professional experience.

Objectives of the training course

- As part of their activities, this training course should enable employees to oversee the financial management of an engineering contract and factor in the distributor's asset management issues.

Skills developed

- On completion of the course, trainees should be able to:
 - factor in the management rules in force within GRDF
 - check and update the technical and financial aspects of a contract
 - propose and monitor capital expenditure on a contract, subject to the project execution owner's approval.

Skills assessment

Learning outcomes will be measured by:

- The trainer uses group progress indicators in the exercises,
- Each trainee based on the results of the exercises,
- Qualitative monitoring of action will be carried out by means of a course summary, a satisfaction questionnaire completed by trainees at the end of the session and an annual training assessment.



Engineering Networks

Z341

Managing PE extensions using special techniques or where there are challenges, and installing substations > 100 m³/h

IN-PERSON LEARNING

28 hours - 4 days

Z348V2

Technical management of a gas network renewal contract

IN-PERSON LEARNING

24 hours - 3 days

TRAINING COURSES

Z349V2

Technical management of a steel pipe gas network installation contract

IN-PERSON LEARNING

24 hours - 3 days

B342

Technical management of a medium pressure steel network installation contract

BLENDED*

30 hours - 5 days

* In-person + distance learning

B341

MANAGING PE EXTENSIONS USING SPECIAL TECHNIQUES OR WHERE THERE ARE CHALLENGES, AND INSTALLING SUBSTATIONS > 100 M³/H

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 28 hours - 4 days

TARGET AUDIENCE:

Engineering Contract Manager

PREREQUISITES:

For admission to this course, employees must have completed the following courses:

- B330v2 "Administrative and regulatory fundamentals of the gas engineering contracts"
- B340v2 "Contract manager management tools - RAPSODIE"
- B334 "PE network extensions with customer connections and installation of pressure regulator stations of less than 100 m³/H"

or have acquired equivalent knowledge (see course sheet B330v2 - B340v2 - B334) through professional experience.

Objectives of the training course

- On completion of the course, employees should be able to:
 - Monitor and control particular fittings of PE extensions of up to 8 bar and the connection of delivery points or pressure regulator stations of over 100 m³/h equipped with adjustable stations.

Skills developed

On completion of the course, the employee should be able to manage a project involving the construction of a PE network and gas connections of over 100 m³/h:

- Apply the regulations in force for PE 8 bar networks and at customer or PD pressure regulator stations > 100 m³/h,
- Choose between trenchless and reduced-trench installation techniques,
- Choose PE network connection techniques for all types of network (end-to-end or bypass).

Z348V2

TECHNICAL MANAGEMENT OF A GAS NETWORK RENEWAL CONTRACT

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 24 hours - 3 days

TARGET AUDIENCE:

The entire population of the Gas Engineering function

PREREQUISITES:

- For admission to this course, employees must have completed course B334 "PE network extensions with customer connections and installation of pressure regulator stations < 100 m³/H"
- or have acquired equivalent knowledge (see course sheet B334) through professional experience.

Objectives of the training course

In work situations, employees must be able to:

- Ensure technical management of a gas network renewal contract, including studies, works and project owner assistance, while ensuring the safety of people and property.
- Find and rely on the various legal and regulatory texts.

Skills developed

On completion of the course, trainees should be able to:

- Draw up a phasing plan for the renewal works,
- Factor local authority satisfaction into the process,
- Identify the roles and responsibilities of the various stakeholders,
- Carry out and/or validate a renewal study,
- Carry out appropriate checks at various stages of the construction project,
- Issue approval of the works,
- Quote the principles of industrial safety.

Skills assessment

Written and individual assessment of the achievement of objectives, based on a satisfaction questionnaire.

Z349V2

TECHNICAL MANAGEMENT OF A STEEL PIPE GAS NETWORK INSTALLATION CONTRACT

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 24 hours - 3 days

TARGET AUDIENCE:

All Gas Engineering staff.

PREREQUISITES:

For admission to this course, employees must have worked as a Contract manager for at least 1 year. You must have completed the following courses:

- B330v2 "Administrative and regulatory fundamentals of the gas engineering contracts"
- B334 "PE network extensions with customer connections and installation of pressure regulator stations < 100 m³/H",
- or have acquired equivalent knowledge (see course sheet B330v2, B334) through professional experience.

Objectives of the training course

In work situations, employees must be able to:

- Ensure technical management of a steel pipe gas network installation contract, integrating studies, works and project owner assistance, while ensuring the safety of people and property
- Find and rely on the various legal and regulatory texts.

Skills developed

On completion of the course, as part of the technical management of a steel pipe gas network installation contract, the trainee should be able:

- Identify the roles and responsibilities of the various stakeholders,
- Carry out and/or validate a design study for medium-pressure steel networks,
- Carry out appropriate checks at various stages of construction,
- Validate and/or approve studies for the construction of medium-pressure steel networks in boreholes,
- State the principles of cathodic and corrosion protection,
- Validate and approve design studies for cathodic protection works,
- State the principles of welding qualification (DMOS/QMOS),
- Choose the best possible technical and economic solution for connection to a steel pipe network,
- Validate and approve the pipe testing and drying reports.

Skills assessment

Written and individual assessment of the achievement of objectives, based on a satisfaction questionnaire.



B342

TECHNICAL MANAGEMENT OF A MEDIUM PRESSURE STEEL NETWORK INSTALLATION CONTRACT

INSTRUCTIONAL METHOD:

Blended (in-person/distance learning)

DURATION: 30 hours - 5 days

TARGET AUDIENCE:

- Engineering Contract Manager responsible for building medium-pressure steel piping.
- This may also apply to MSG employees fitting and removing valves.

PREREQUISITES:

Completion of the fundamental courses for Contract managers and the Z349V2 course or equivalent G4 skills.

Objectives of the training course

- Manage and control the installation of medium pressure steel piping.

Skills developed

- Validate a medium pressure project study.
- Monitor and control the construction of a medium pressure structure.
- Ensure that the worksite complies with safety and prevention requirements.

Skills assessment

At the end of the learning process, learning outcomes are measured by:

- The trainer uses group progress indicators in each exercise.
- Each trainee should be able to assess the results obtained from the theoretical exercises, case simulation and/or role-playing exercises.
- By means of an individual assessment at the end of the session (knowledge test) and/or based on observing the trainee in the practical situations proposed to him.

After analysis of the summative assessment, we send the trainee's employer or their representative a certificate of learning outcomes with a qualitative assessment of whether the training objectives have been achieved.

The trainee's employer or his representative may, under his own responsibility, assign to his staff the ability to carry out the activity or activities related to the training: SATISFACTION G4+.



Engineering Building supply and riser pipes

TRAINING COURSES

B336

Design, inspection and final approval of gas mains installations built by third parties

BLENDÉD*

37 hours - 5 days

Z337

Renewing gas mains installations through the purchase of infrastructure

BLENDÉD*

21 hours - 3 days

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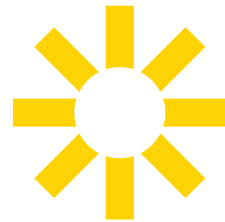
Z723

Study and design of building supply and riser pipes renewal projects

IN-PERSON LEARNING

35 hours - 5 days

* In-person + distance learning



B336

DESIGN, INSPECTION AND FINAL APPROVAL OF GAS MAINS INSTALLATIONS BUILT BY THIRD PARTIES

INSTRUCTIONAL METHOD:

Blended (in-person/distance learning)

DURATION: 37 hours - 5 days

TARGET AUDIENCE:

Engineering Contract managers, building supply and riser pipes technical experts or anyone responsible for final approval of gas mains installations.

PREREQUISITES:

Have a G1 certificate, i.e. have completed all the following courses:

- D332 - The fundamentals of gas culture,
- B330V2 - The fundamentals of the Contract manager. Regulatory and administrative context, prevention, health and safety,
- B340 - Contract manager management tools - Rapsodie,
- or provide proof of equivalent knowledge.

Objectives of the training course

- Applying the rules for the design, inspection and final approval of gas mains installations built by third parties,
- Use and search the various legal or internal texts to find regulations relating to installations in apartment blocks.
- Carry out your work in compliance with regulations governing the protection of the site's environment and explosive atmosphere hazards.

Skills developed

- Explain the fundamental principles and philosophy of the laws governing the construction and renewal of public structures, and their field of application.
- Use the terminology of gas mains connections and installations, as well as the main categories of buildings.
- Define the characteristics of gas connection shut-off and safety devices.
- Quote the technical documents dealing with the creation of gas mains installations in apartment blocks.
- List the documents required for the design of a preliminary study for the creation of gas mains installations in dwellings handed over.
- Define the type of marking, safety signage and signposting for public and private service connections.
- Validate a project for a riser pipe created by a third party, using currently applicable inspection standards and technical notes.
- Validate the design, layout, materials and assembly methods, and the required tests.
- Define the limits of model 1, 2 and 3 certificates of conformity.
- Define the roles and responsibilities of the various stakeholders mentioned in the reference notes and quote the principles of transfer of responsibility.
- Check a plan for a gas riser pipe created by a third party by drawing up an inspection report on gas mains installations. (REAL0620 appendix 2).

Skills assessment

- Creating quizzes for each e-learning module,
- The trainer, using group progress indicators in each exercise,
- Each trainee should be able to assess the results obtained from the theoretical exercises, case simulation and/or role-playing exercises,
- Based on the trainee's observations during practical exercises proposed to him.

Z337

RENEWING GAS MAINS INSTALLATIONS THROUGH THE PURCHASE OF INFRASTRUCTURE

INSTRUCTIONAL METHOD:

Blended (in-person/distance learning)

DURATION: 21 hours - 3 days

TARGET AUDIENCE:

Contract managers and other DR staff involved in the renewal of gas mains installations through purchase of infrastructure.

PREREQUISITES:

For admission to this course, employees must have completed the following courses:

- B330v2 "Administrative and regulatory fundamentals of the gas engineering contracts"
- B336 "Design, inspection and approval of riser pipes made by third parties" or have acquired equivalent knowledge (see course sheet B330v2 and B336) through professional experience.

Objectives of the training course

- The Z337 course is designed to enable employees who already have a G1 certificate (for gas engineering) to manage a contract for renewing gas mains installations through purchase.
- Validate the study and approval of gas mains installations built under the purchase contract.

Skills developed

- Carry out your work in compliance with quality procedures, regulations on environmental protection and asbestos-based products and the risks associated with explosive atmospheres,
- Choose the riser pipe renewal techniques that best ensure continuity of service,
- Manages relations with tenants' associations and customers as part of a project to renew communal installations (presentation, complaints, connecting the gas supply),
- Quote the documents required for the renewal of gas mains installations in apartment blocks,
- List the documents required for the design of a preliminary project for the renewal of gas mains installations in residential premises,
- Find the stopping points included in the Special Technical Specifications for riser pipe renewals,
- Validate a renewal project and take delivery of the riser pipe installed by a contractor, using the guide for inspecting gas installations.



Z723 P

STUDY AND DESIGN OF BUILDING SUPPLY AND RISER PIPES RENEWAL PROJECTS

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 35 hours - 5 days

TARGET AUDIENCE:

Technicians in Technical Design Offices or the staff of GRDF service providers who carry out studies and implement preparatory activities for building supply and riser pipes renewal projects.

PREREQUISITES:

No prerequisites.

Objectives of the training course

- Study and design a building supply and riser pipes construction project (partial or total renewal),
- Carry out the regulatory procedures and operations prior to constructing building supply and riser pipes within the framework of the national Special Technical Specifications and the appendices thereto.

Skills developed

- Quote the contractual framework for application of the Special Technical Specifications,
- Differentiate and use the terminology for accessories and components of gas systems in apartment blocks,
- Use the regulations governing the installation of communal and private gas pipes in buildings,
- Choose and use a gas distribution network operator's reference documents on the design of gas mains pipes in buildings (layout, material, assembly method, etc.),
- Explain the possible technological choices for supplying buildings with gas,
- Produce a study file for the renewal of building supply and riser pipes.

Skills assessment

Learning outcomes will be measured by:

- each participant's results in dealing with the theoretical and practical exercises proposed,
- a summative assessment of knowledge at the end of the course. The results of the assessment will be sent to the employer in the form of a certificate of prior learning.

This certificate will provide the employer with information that will be used in the final analysis, enabling him to issue a Recognition of Abilities for the "Preparation of building supply and riser pipes gas renewal worksites".



Engineering Compaction

Z351

Inspection and approval of trench backfill and compaction works

IN-PERSON LEARNING

7 hours - 1 day



Z351

INSPECTION AND APPROVAL OF TRENCH BACKFILL AND COMPACTION WORKS

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 7 hours - 1 day

TARGET AUDIENCE:

Gas Works Contract Managers or any employee in charge of supervising roadworks.

PREREQUISITES:

Knowledge of current highway regulations in the territory of the Gas Network Division concerned, and have G1 certification

Objectives of the training course

In work situations, employees must:

- Apply the technical specifications for backfilling and compacting a trench.
- Know how to interpret a penetrogram reading (trench compaction report).

Skills developed

On completion of the course, trainees should be able to:

- Identify the stakeholders and their role in backfilling and compaction,
- Identify backfill and compaction equipment and materials,
- Validate the choice of the backfilling and compaction technique,
- Carry out a compaction test using a dynamic penetrometer (PANDA 2),
- Interpret a penetrogram reading.

Skills assessment

Learning outcomes are measured by:

- The trainer uses indicators to monitor the group's progress in each exercise
- Each trainee should be able to assess the results obtained from the theoretical exercises and role-playing exercises on offer.

Trainees assess the quality of the training course by writing a short report and filling out an evaluation questionnaire handed out to them at the end of the session.

An annual review of the course is carried out then communicated to the project owner during the annual domain review.



Works

Geodetection and official approval for working near networks

P

Z724

Introduction to geodetection of gas distribution facilities
IN-PERSON LEARNING
31 hours - 4 days

TRAINING COURSES

Z813

Damage Prevention Decree - Worksite Operators - Preparing for and taking the MCQ exam required to obtain a Certificate of Proficiency (official approval for working near networks)
IN-PERSON LEARNING
7 hours - 1 day

Z816

Damage Prevention Decree - taking the Operator MCQ exam required to obtain a Certificate of Proficiency (official approval for working near networks)
IN-PERSON LEARNING
1.5 hours

TRAINING COURSES

Z815

Damage Prevention Decree - Project Designers - Preparing for and taking the MCQ exam required to obtain a Certificate of Proficiency (AIPR)
IN-PERSON LEARNING
7 hours - 1 day

Z818

Damage Prevention Decree - taking the Designer MCQ exam required to obtain a Certificate of Proficiency (official approval for working near networks)
IN-PERSON LEARNING
1.5 hours

Z724 P

INTRODUCTION TO GEODETECTION OF GAS DISTRIBUTION FACILITIES

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 31 hours - 4 days

TARGET AUDIENCE:

This course is one of the stages in the qualification process for GRDF's Works and Services Providers.

More generally, it is aimed at non-GRDF companies and their technicians commissioned to carry out geodetection of gas distribution structures.

PREREQUISITES:

Before starting this course, it is essential to spend 2 days working in a team responsible for building gas distribution structures.

Objectives of the training course

- Detect a gas distribution structure using the appropriate tools, in compliance with the safety and prevention instructions specific to the activity.

Skills developed

- Carry out the activities set out in the Special Technical Specifications associated with the detection and location of gas networks and connections defined by GRDF,
- Understand the risks associated with the distribution of gas energy and adopt appropriate behaviour in the face of such risks,
- Recognise and distinguish between the components of gas distribution systems, in particular pipes and connections,
- Read and understand a plan of the work supplied by the distributor,
- Comply with and apply the operating procedures in line with the Special Technical Specifications associated with the detection and location services for gas networks and connections defined by GRDF,
- Select and argue the choice of a location-finding technique according to the nature of the works to be located,
- Locate gas distribution systems using the appropriate tools,
- Shut off and restore the supply of an individual gas connection.

Skills assessment

- Trainees will have been informed of the objectives of the training course by their manager before starting the course.
- Learning outcomes will be measured by:
 - the trainer through indicators of the group's progress placed in each exercise.
 - each participant using a self-assessment grid to assess whether they have achieved their training objectives.
 - a summative assessment of knowledge at the end of the course.
- After analysis of the summative assessment, we e-mail the employer a certificate of learning outcomes along with an opinion on whether the related learning objectives have been achieved.
- Putting your learning outcomes into practice quickly is a key to success.
- In accordance with the law of November 2009, a Training Certificate is issued to trainees at the end of the session.

Z813

DAMAGE PREVENTION DECREE - WORKSITE OPERATORS - PREPARING FOR AND TAKING THE MCQ EXAM REQUIRED TO OBTAIN A CERTIFICATE OF PROFICIENCY (OFFICIAL APPROVAL FOR WORKING NEAR NETWORKS)

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 7 hours - 1 day

TARGET AUDIENCE:

The "Operators", employees of the company carrying out the work, responsible for operating worksite machinery or carrying out urgent work not requiring a declaration of intended works or notice of commencement of works.

PREREQUISITES:

No prerequisites.

Objectives of the training course

- Carry out the work of a worksite "Operator" who has official approval for working near networks (AIPR in French). Aim: to prepare the "Operator" candidate for the regulatory examination by MCQ with a view to obtaining a Certificate of Proficiency, and subsequently official approval for working near networks.

Skills developed

- Recognise the components of the various contractors' works and list the hazards involved in working in their vicinity,
- Depending on situations likely to be encountered by the Operator, describe the regulatory actions recommended by the new regulations,
- Internalise the information available when preparing an earthworks or excavation site,
- List the appropriate behaviours and actions to take in the event of damage to structures,
- Identify preventive actions to avoid damage to the most common structures,
- Combine the requirements of the "Technical Guide", the Standards and the Damage Prevention Decree with the Operator Questionnaire.

Skills assessment

- Each trainee's results from the MCQ test taken at the end of the session for Site Operators. (In accordance with the regulations, depending on the result of the MCQ test, a "Certificate of proficiency for working near networks" (regulatory model) is sent to the trainee and his employer after the session).

Z816

DAMAGE PREVENTION DECREE - TAKING THE OPERATOR MCQ EXAM REQUIRED TO OBTAIN A CERTIFICATE OF PROFICIENCY (OFFICIAL APPROVAL FOR WORKING NEAR NETWORKS)

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 1.5 h - Examination time

TARGET AUDIENCE:

The "Operators", employees of the company carrying out the work, responsible for driving site machinery or carrying out urgent work not requiring a declaration of intended works or notice of commencement of works.

PREREQUISITES:

Have read the MCQs on the official website www.reseaux-etcanalisations.ineris.fr



Z815

DAMAGE PREVENTION DECREE - PROJECT DESIGNERS - PREPARING FOR AND TAKING THE MCQ EXAM REQUIRED TO OBTAIN A CERTIFICATE OF PROFICIENCY (OFFICIAL APPROVAL FOR WORKING NEAR NETWORKS)

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 7 hours - 1 day

TARGET AUDIENCE:

The "Designers", who are the project manager's staff, responsible in particular for submitting declarations of intended works, analysing their response, carrying out or commissioning additional investigations and staking out networks, and monitoring and supervising execution of the works.

PREREQUISITES:

Have read and understood the following official texts: -the decree of 5 October 2011 on "work near certain underground, overhead or underwater transmission or distribution structures" (Damage Prevention Decree), - the associated orders and appendices, - the technical guide on "working near networks".

Objectives of the training course

- Perform the tasks of a "Designer", project manager and holder of official approval for working near networks (AIPR in French). Aim: to prepare the "Designer" candidate for the regulatory MCQ examination with a view to obtaining a Certificate of Proficiency, and subsequently official approval for working near networks

Skills developed

- Estimate the importance of the process and analyse the response to a declaration of intended works,
- Adapt a project and compile a tender documents package,
- Describe the notice of commencement of works process to ensure it is properly implemented by the contractor,
- Describe the implementation by the executing company of the obligations laid down in the regulations, particularly in the event of incidents,
- Link the requirements of the "Technical Guide", the Standards and the Damage Prevention Decree to the multiple-choice questionnaire for Designers.

Skills assessment

- Each trainee will use the results obtained in the MCQ test taken at the end of the session for Designers.

(In accordance with the regulations, depending on the result of the MCQ test, a "Certificate of Proficiency for Work Near Networks" (regulatory model) is sent to the trainees and their employers after the test)

Z818

DAMAGE PREVENTION DECREE - TAKING THE DESIGNER MCQ EXAM REQUIRED TO OBTAIN A CERTIFICATE OF PROFICIENCY (OFFICIAL APPROVAL FOR WORKING NEAR NETWORKS)

INSTRUCTIONAL METHOD:

In-person learning

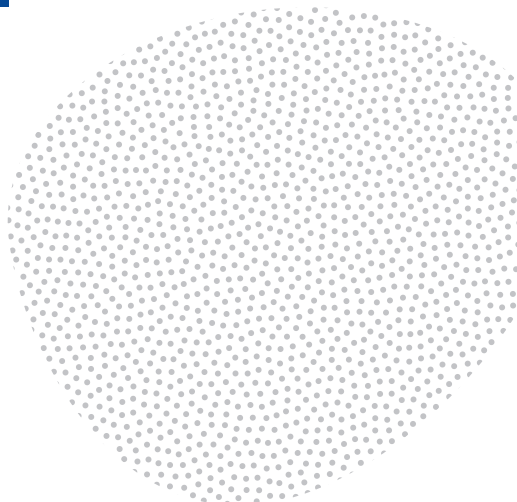
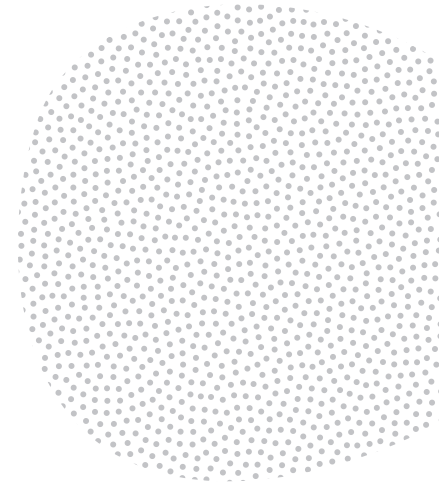
DURATION: 1.5 h - Examination time

TARGET AUDIENCE:

The "Designers", the project manager's staff, who are responsible in particular for submitting declarations of intended works, analysing their response, carrying out or commissioning additional investigations and staking out networks, and monitoring and controlling the execution of the works.

PREREQUISITES:

Have read the MCQs on the official website www.reseaux-etcanalisations.ineris.fr





Works Networks

TRAINING COURSES

P

Z734

Becoming a Gas Operator/Operations Manager for PE network connections (gas works)

IN-PERSON LEARNING

18 hours - 3 days

P

7584

Techniques for connecting and working on PE networks

IN-PERSON LEARNING

17.5 hours - 3 days

P

7585

Techniques for connecting and working on steel networks

IN-PERSON LEARNING

24.5 hours - 4 days

P

Z752

Working on a cast-iron pipe network with gas shut-off and gas connection + creating a cast-iron/PE connection

IN-PERSON LEARNING

17.5 hours - 2.5 days

Z734 P

BECOMING A GAS OPERATOR/ OPERATIONS MANAGER FOR PE NETWORK CONNECTIONS (GAS WORKS)

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 18 hours - 3 days

TARGET AUDIENCE:

The "Gas Operators" and the "Gas Operations Managers" of the companies required to connect and air-to-gas purge a PE pipe from a PE pipe under medium-pressure with a diameter of no more than 63 mm.

PREREQUISITES:

- Must have completed the Z730 training course entitled "Construction of PE pipelines (non-gas work) - Qualification of PE operators". or have the PE "electric welding and mechanical connection" qualification as per specification B 527.9 (currently valid),
- Must have completed the Z733 training course entitled "Becoming a Gas Operator/Operations Manager for PE network connection (gas work)",
- Be in possession of your company's internal regulations describing the safety measures to be implemented during gas work (e.g.: Gas Safety Handbook).

This course is one of the stages in the qualification process for GRDF's Works and Services Providers.

Objectives of the training course

- From a PE pipe under medium pressure, connect and inject gas into an extension of a PE gas pipe using the flattening technique, downstream of a closed valve or bypass using a tapping valve.
- This course may enable the employer to award the title of "Gas Operator" and/or "Gas Operations Manager", but only for the activity of connecting and injecting gas into a PE pipe with a diameter of no more than 63 mm, in the form of a Recognition of Abilities.

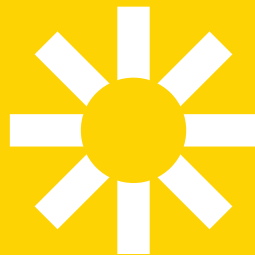
Skills developed

- Carry out the act of identifying and locating a structure ordered by the Operations Manager before carrying out the work (EXPL0530) or, on the basis of the work order, recognise and criticise the identification of the pipe if it has been located beforehand by a GRDF technician (EXPL0530),
- List the different techniques for connecting PE gas networks,
- Prepare a connection worksite,
- Make a connection behind an existing valve,
- Make a connection using the flattening technique,
- Make a connection using a tapping valve,
- Turn on the gas supply to the extension, applying the prevention rules in force,
- Apply the safety requirements of the Special Technical Specifications and the company's Requirements Specifications,
- Draw a freehand dimensioned plan of the extension.

Skills assessment

Learning outcomes will be measured by:

- Each participant's results in dealing with the theoretical and practical exercises proposed,
- A summative assessment of acquired knowledge at the end of the course, for which a certificate of achievement is sent to the employer,
- Each participant uses a self-assessment grid to assess whether they have achieved their training objectives.



P open to service providers

7584 P

TECHNIQUES FOR CONNECTING AND WORKING ON PE NETWORKS

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 17.5 hours - 3 days

TARGET AUDIENCE:

- Employees who routinely carry out fuel gas work on PE networks
- This course is also open to Gas Repairs Service managers or gas maintenance specialist managers responsible for overseeing the activity.

PREREQUISITES:

You must have completed courses Z733 + Z734.

Skills developed

On completion of the course, trainees should be able to perform the following:

Knowledge:

- Identify the procedures for accessing the structures and state their main characteristics.
- Determine the methods for working with and without a gas supply.
- State the general facts about PE.

Regarding know-how:

- Identify a PE gas pipe.
- Carry out tests prior to injecting gas into a network prior to connection.
- Inject or purge combustible gas in accordance with best industry practice and with instructions.
- Use the right equipment and tools for the job (P2000, Polystopp, flattening, tapping valve)
- Identify and use the equipment for routine tasks in accordance with the manufacturer's operating instructions and the instructions given.
- Identify and use the equipment for specialised operations in accordance with the manufacturer's operating procedures and the instructions given

Regarding people skills

- Report to the Operations Manager in normal and disrupted situations.

Skills assessment

Learning outcomes will be measured by:

- The trainers use group progress indicators in each exercise.
- The trainees through the results obtained from the theoretical and practical exercises as well as a self-assessment grid on the achievement of the training objectives

Objectives of the training course

Acquire the skills needed to enable employees, in work situation, to:

- Work as part of a specialist team, carry out fuel gas work on PE pipes,
- Carry out a PE network connection project.

7585 P

TECHNIQUES FOR CONNECTING AND WORKING ON STEEL NETWORKS

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 24.5 hours - 4 days

TARGET AUDIENCE:

Employees required to work on steel piping under pressure.

Please note: This course does not cover the construction of connections on steel piping or the use of related machines.

This course is also open to Gas Repairs Service managers or gas maintenance specialist managers overseeing the activity.

PREREQUISITES:

Have completed the following courses:

- Z733 Becoming a Gas Operator/ Operations Manager for PE branch connections on PE and steel piping (gas work) + Z734 Becoming a Gas Operator/ Operations Manager for PE network connection (gas work),
- or Z745 Become a Gas Operations Team Manager for work on networks.

Objectives of the training course

- In a specialised team, implement on-load work techniques adapted to the pressure range on steel piping.

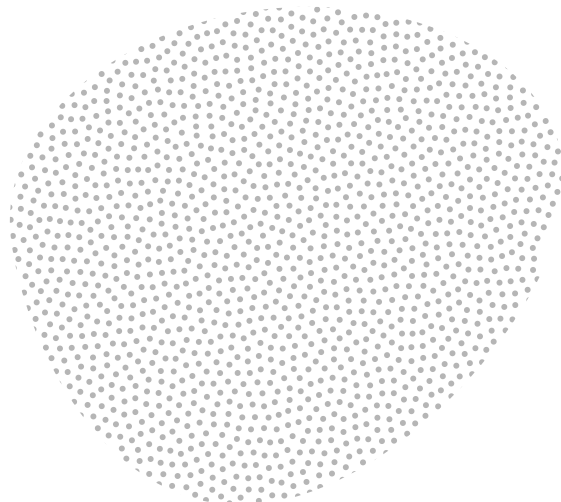
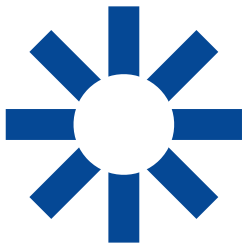
Skills developed

By the end of the course, trainees should be able to:

- Carry out your work in accordance with QSE procedures and the Asbestos and ATEX standards. Explain corrosion phenomena,
- Identify the work methods (with or without gas),
- Name the procedures for commissioning or decommissioning a gas network,
- State the rules of prevention and safety in their activities,
- Use equipment for working on steel pipes under pressure,
- Use the right tools and equipment,
- Carry out tests when gas is injected into the connected structure,
- Comply with the regulatory framework when operating,
- Purge combustible gas from the network,
- Always check the quality of the plug when making connections,
- Carry out the main fixes and repairs on steel piping,
- Factor preventive safety into your work on the worksite,
- Protect third parties,
- Report to the operations manager in a disrupted situation.

Skills assessment

- Individual written assessment of the extent to which objectives have been achieved, based on a satisfaction questionnaire.





Z752

WORKING ON A CAST-IRON PIPE NETWORK WITH GAS SHUT-OFF AND GAS CONNECTION + CREATING A CAST-IRON/ PE CONNECTION

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 17.5 hours - 2.5 days

TARGET AUDIENCE:

Employees of service providers who have to carry out on-load work on low-pressure cast-iron piping.

PREREQUISITES:

- Be a qualified PE operator (B527.9),
- You must have completed Z733 training course (becoming a Gas Connection Operator) or Z745 training course (Role and duties of a Gas Connection Operator or Gas Connection Operator),
- It is preferable for the trainee to have observed the activities corresponding to the training objectives prior to this course.

Objectives of the training course

- Carry out work on cast-iron networks operating at low pressure, and in this respect, ensure that the piping is turned off and on,
- Make or remove a polyethylene connection on cast-iron piping.

Skills developed

- Using a ballooning machine, carry out an operation requiring a low-pressure cast iron network to be shut off and re-gassed,
- Make, test, inject gas into or remove a polyethylene connection on cast iron piping.

Skills assessment

- Analysis of the results of the summative assessment enables an Assessment Certificate to be sent to the employer and the trainee, giving a qualitative assessment of the extent to which the learning objectives have been achieved.

Works

Preparation, roles and responsibilities



Z745

Role and tasks of a Gas Operator and a Gas Operations Manager

IN-PERSON LEARNING

14 hours - 2 days

7336

Fulfilling the duties of Works Supervisor or Lone Operator

IN-PERSON LEARNING

35 hours - 5 days



Z730

Construction of polyethylene structures (non-gas works)
- Qualification of polyethylene operators (ATG B527.9)

IN-PERSON LEARNING

28 hours - 4 days

Z329V2

Maintaining and developing the skills of Works Supervisors, Lone Operators and Site Coordinators

IN-PERSON LEARNING

21 hours - 3 days



Z742V2

Risk prevention and preparation for work on gas facilities

IN-PERSON LEARNING

14 hours - 2 days

TRAINING COURSES

B316

Preparing operating and maintenance sites in complete safety

BLENDED*

50 hours

B376

Preparing operating and maintenance sites - Skills maintenance

BLENDED*

21.5 hours - 3.5 days

Z441V2

Role and duties of a lockout-tagout Manager

IN-PERSON LEARNING

17.5 hours - 2.5 days

Z745 P

ROLE AND TASKS OF A GAS OPERATOR AND A GAS OPERATIONS MANAGER

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 14 hours - 2 days

TARGET AUDIENCE:

Employees of companies carrying out work on gas distribution networks using heavy-duty machines, including welders of related branch connections (site managers, welders, network technicians).

PREREQUISITES:

- Be in possession of your company's internal regulations describing the safety measures to be implemented during gas work (e.g.: Gas Safety Handbook).

This course is one of the stages in the qualification process for GRDF's Works and Services Providers

Objectives of the training course

- When carrying out underground work, perform the duties of a Gas Operator or Operations Manager, factoring in the specific risks associated with work on distribution facilities. This course may enable the employer to award the "Gas Operator" and/or "Gas Operations Manager" a Recognition of Abilities, but only for work on the network.

Skills developed

- Prepare, organise and manage a gas worksite as a Gas Operations Manager
- Implement operating procedures during work on a gas network
- Apply the safety instructions in service providers' Gas Safety Handbooks, a template of which is provided by GRDF
- List the appropriate behaviour and action to take in the event of a gas incident during the works.

Skills assessment

Learning outcomes will be measured by:

- Each participant's results in dealing with the theoretical and practical exercises proposed,
- A summative assessment of knowledge at the end of the course,
- Each participant uses a self-assessment grid to assess whether they have achieved their training objectives.



7336

FULFILLING THE DUTIES OF WORKS SUPERVISOR OR LONE OPERATOR

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 35 hours - 5 days

TARGET AUDIENCE:

This course is open to:

- Gas technicians required to act as works supervisors or lone operators
- Gas Repairs Service managers responsible for supervising the activities of a works manager or a lone operator.

PREREQUISITES:

Participants must have previously completed course Z432, have at least one year's experience as an Operator and have been a Works Supervisor or Lone Operator for less than six months.

Objectives of the training course

- This course will enable employees to carry out their new duties as Works Supervisors or Lone Operators, taking into account their responsibilities in terms of prevention, safety and the quality of gas work.

Skills developed

- Describe the role and duties of a Works Supervisor and Lone Operator,
- Know the different people involved in the operation and the related skills,
- Applying procedures and using various operating documents when carrying out Works Supervisor or Lone Operator duties,
- Incorporate good communication rules into the Works Supervisor's activity to make it easier to understand the instructions given when carrying out a task,
- Before the implementation phase, prepare and technically organise a worksite as a Works Supervisor,
- During a task, carry out the activities of a Works Supervisor: organise, give instructions, monitor, check and debrief,
- Analyse and summarise your practices, - Understand the role of trainer associated with the Works Supervisor role,
- Be aware of the civil and criminal liability associated with Works Supervisor duties,
- Assess your abilities.

Skills assessment

Learning outcomes will be measured by:

- The trainer uses group progress indicators to evaluate each exercise,
- Each trainee's results from theoretical and practical exercises:
 - During exercises in the teaching field,
 - At the end-of-course summative assessment.
- An assessment of the extent to which objectives have been achieved, based on an individual satisfaction questionnaire given to each trainee at the end of the session.



Z730 P

CONSTRUCTION OF POLYETHYLENE STRUCTURES (NON-GAS WORKS) - QUALIFICATION OF POLYETHYLENE OPERATORS (ATG B527.9)

INSTRUCTIONAL METHOD:
In-person learning

DURATION: 28 hours - 4 days

TARGET AUDIENCE:

Technicians from construction companies carrying out electro-welding operations on polyethylene pipes and connections.

PREREQUISITES:

No prerequisites.

Objectives of the training course

When carrying out work on polyethylene gas distribution structures, the trainee should be able to:

- Describe the characteristics of polyethylene and understand the implications for its use,
- Read, understand and follow the operating instructions for the various parts and accessories to be assembled (including mechanical assembly),
- Know the prevention and safety instructions associated with polyethylene assembly,
- Identify the pipes, fittings and accessories authorised for use and their conditions of use,
- Check and use the right tools and materials to make a polyethylene assembly, and preparing polyethylene assemblies,
- List the checks to be carried out when installing a polyethylene assembly, and include the consequences of incorrect installation of a polyethylene assembly,
- Carry out leakage tests on a new polyethylene branch connection,
- Take the polyethylene operator qualification examination (Complete electro-welding including degraded mode) in accordance with the specifications in ATG B527.9.

Skills developed

- State the characteristics of polyethylene and understand the implications for its use.
- Apply the installation specifications for polyethylene gas distribution systems.
- List the checks to be carried out when installing a polyethylene assembly.
- Internalize the ten commandments of electrofusion.
- Produce polyethylene assemblies according to "best industry practice" as described in the "Guide to electrofusion".
- Understand the consequences of incorrect electrofusion.
- Take the "Polyethylene Operator" qualification test in accordance with ATG B527.9.

Skills assessment

The "PE Operator" qualification examination, which complies with ATG B527.9 specifications, is taken on the last day of the course.

This qualification is valid for 3 years. Energy formation only offers this qualification in this Z730 training course.

The qualification can be renewed directly with the qualification body:

- GRDF Welding Quality Organisation, Contact: <https://qualite-soudage.grdf.fr/qui-sommesnous>
- Authorised bodies (APAVE, ASAP, BUREAU VERISTAS). See the organisations' websites for contact details.

Z329V2

MAINTAINING AND DEVELOPING THE SKILLS OF WORKS SUPERVISORS, LONE OPERATORS AND SITE COORDINATORS

INSTRUCTIONAL METHOD:
In-person learning

DURATION: 21 hours - 3 days

TARGET AUDIENCE:

This course is aimed at technicians who are already working as works supervisors or lone operators, as well as future site coordinators and lockout-tagout managers.

PREREQUISITES:

Employees must:

- first have completed training course 7336
- have an OC 22
- have experience working as a Works Supervisor or Lone Operator for several years (3 years recommended).

Objectives of the training course

In work situations, employees must:

- Ensure effective management of the work carried out by GRDF, by acting as a gas works supervisor or lone operator, as stated in the company's instructions to staff.

Skills developed

On completion of the course, trainees should be able to:

- Implement the operating procedure accessing gas facilities during works,
- Implement the operating procedure for turning gas systems "on" and "off" during works,
- Working as a works supervisor or lone operator.

Skills assessment

Learning outcomes are measured by:

- The trainer uses group progress indicators in each exercise.
- Each trainee should be able to assess the results obtained from the theoretical exercises, case simulation and/or role-playing exercises.
- An individual theoretical summative assessment at the end of the course (knowledge test).

Qualitative monitoring of the action is carried out by:

- A summary of the course at the end of the session.
- A course evaluation questionnaire e-mailed to the trainees.

Z742V2 P

RISK PREVENTION AND PREPARATION FOR WORK ON GAS FACILITIES

INSTRUCTIONAL METHOD:
In-person learning

DURATION: 14 hours - 2 days

TARGET AUDIENCE:

Team leaders from service providers who have to organise, prepare and carry out work on gas systems.

PREREQUISITES:

No prerequisites.

Objectives of the training course

In work situations, employees must:

- Factor prevention and safety into preparing and doing work or maintenance on gas facilities.

Skills developed

On completion of the course, trainees should be able to:

- Understand the main characteristics of natural gas and the related risks,
- Use an explosimeter and catharometer type detector,
- Explain what to do in the event of a gas leak,
- Extinguish a natural gas fire with a dry chemical extinguisher,
- Prepare work near or on gas distribution facilities,
- Use lessons learned from past accidents to understand and improve the preparation and conduct of work near gas distribution facilities.

Skills assessment

At the end of the learning process, learning outcomes are measured by:

- The trainer, using group progress indicators in each exercise,
- Each trainee should be able to assess the results obtained from the theoretical exercises, case simulation and/or role-playing exercises.



B316

PREPARING OPERATING AND MAINTENANCE SITES IN COMPLETE SAFETY

INSTRUCTIONAL METHOD:

Blended (in-person/distance learning)

DURATION: 50 h - Training programme over several months: Please contact us for further details

TARGET AUDIENCE:

This course is open to:

- Gas technicians required to prepare worksites
- Gas Repairs Service managers involved in preparing worksites.

PREREQUISITES:

Trainees will have completed course Z432 "The technical fundamentals of a Gas Technician" or Z440 "Managing network activities". They may also take on the role of site preparer in the near future.

Objectives of the training course

Prepare operating and maintenance worksites, taking into account all the factors required to ensure that they are carried out under optimum conditions (technical, material, regulatory, human, environmental, prevention and safety factors, etc.)

Skills developed

- Gather and interpret technical and safety information from the various parties involved,
- Choose compatible technical solutions and risk prevention methods,
- Write the Work Order and its associated elements in O2,
- Brief, visit and debrief the site.

Skills assessment

Learning outcomes are measured by:

- The trainer uses group progress indicators in each exercise.
- Each trainee should be able to assess the results obtained from the theoretical exercises, case simulation and/or role-playing exercises.
- An individual theoretical summative assessment at the end of the course (knowledge test).

The trainees assess the quality of the training course by writing a short report and filling out an evaluation questionnaire at the end of the session.

B376

PREPARING OPERATING AND MAINTENANCE SITES - SKILLS MAINTENANCE

INSTRUCTIONAL METHOD:

Training courses

DURATION: 21.5 hours - 3.5 days

TARGET AUDIENCE:

Confirmed preparer (analysis & drafting), line manager (validation in Service Agency and Specialised Gas Maintenance Agency), confirmed programmer and confirmed Works Supervisor:

- Works Supervisor, Technical Advisor, Team Leader, Gas Repairs Service & Works Supervisor Team Manager, Gas Maintenance Specialist Preparer
- Operations Manager & Assistant Operations Manager, APPI employee, Gas Repairs Service Manager or Deputy Manager, or Gas Maintenance Specialist if necessary.

PREREQUISITES:

Trainees must have worked as site preparers for at least three years.

They must have completed the following courses:

- Z432: The technical fundamentals of a gas technician or Z440: Managing network activities
- Z316 or B316: Preparing operating and maintenance sites

Objectives of the training course

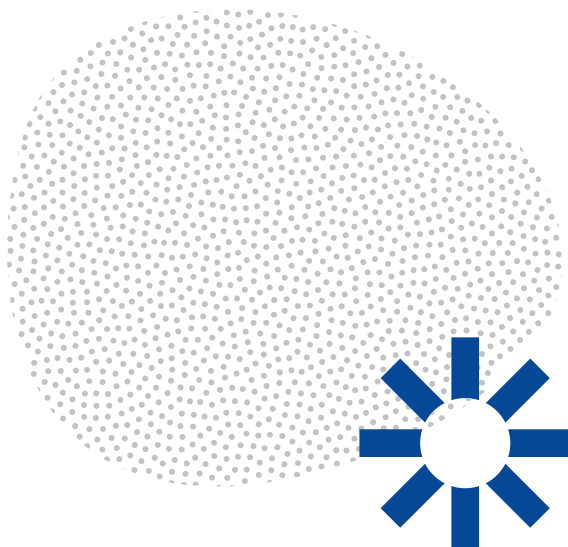
In work situations, employees must:

- Maintain skills when preparing operating and maintenance worksites, taking into account all the factors required to ensure that they are carried out under optimum conditions (technical, material, regulatory, human, environmental, prevention and safety factors, etc.)

Skills developed

On completion of the course, trainees should be able to:

- Gather and interpret technical and safety information from the various parties involved.
- Choose compatible technical solutions and risk prevention methods.
- Write the Work Order and its associated elements in O2.
- Brief, visit and debrief the site.



Z441V2

ROLE AND DUTIES OF A LOCKOUT-TAGOUT MANAGER

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 17.5 hours - 2.5 days

TARGET AUDIENCE:

This course is open to:

- Gas technicians working or needing to work as lockout-tagout managers
- Gas Repairs Service managers in charge of lockout-tagout manager activities

PREREQUISITES:

For admission to this course, employees must have completed the following courses:

- 7336 Performing the duties of a Works Supervisor or Lone Operator
- or B316 "Preparing operating and maintenance sites"
- or have acquired equivalent knowledge (see course sheet 7336 - B316) through professional experience.

Objectives of the training course

- Perform the role and tasks of a Lockout-Tagout Manager.

Skills developed

- Understand the roles and responsibilities of the various parties likely to be involved in gas-related work with a Lockout-Tagout Manager (responsibilities and limits).
- Comply with and apply operating procedures concerning fulfilment of the Lockout-Tagout Manager's duties.
- Complete and use the documents required for the duties of Lockout-Tagout Manager.

Skills assessment

Learning outcomes will be measured by:

- The trainers use group progress indicators in the exercises.
- Each trainee will use the results obtained from the theoretical and practical exercises on offer.
- A summative assessment at the end of the course, the results of which will be sent to the trainee and manager. The trainees assess the quality of the training course by writing a short report and filling out an evaluation questionnaire at the end of the session.



Works Connections

TRAINING COURSES

P

7596

Becoming a Gas Operator/Operations Manager - Working on building supply and riser pipes

IN-PERSON LEARNING

35 hours - 5 days

3NEZ

Installing an existing connection protection device

IN-PERSON LEARNING

14 hours - 2 days

Z434

Making a PE connection to a steel or cast-iron pipe network

IN-PERSON LEARNING

14 hours - 2 days

P

Z733

Becoming a Gas Operator/Operations Manager for PE branch connections on PE and steel piping (gas work)

IN-PERSON LEARNING

35 hours - 5 days

7596 P

BECOMING A GAS OPERATOR/OPERATIONS MANAGER - WORKING ON BUILDING SUPPLY AND RISER PIPES

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 35 hours - 5 days

TARGET AUDIENCE:

The "Gas Operators" and "Gas Operations Managers" of GRDF's service providers who carry out work on building supply and riser pipes.

PREREQUISITES:

Be in possession of your company's internal rules describing the safety measures to be implemented when working with gas (e.g.: Gas Safety Handbook).

Objectives of the training course

- Organise a construction or renewal project for a welded steel or copper building gas supply and/or gas riser pipe (building supply and riser pipes).

Welding and brazing assembly techniques will not be covered in this course.

Skills developed

- Internalise the regulations when building or renewing building supply and riser pipes,
- Identify the structural components of gas distribution systems in apartment blocks.

During a building supply and riser pipes construction or renewal project:

- Understand the roles and responsibilities of the various stakeholders,
- Implement the distributor's operating procedures,
- Organise the worksite, taking risks into account and complying with the associated safety rules.
- Decommission the structures to be removed,
- Connect and inject gas into new piping built on existing branch connections,
- Reconnect customers.

Skills assessment

Learning outcomes will be measured by:

- Each participant's results in dealing with the theoretical and practical exercises on offer.
- A summative assessment of knowledge at the end of the course.
- Each participant uses a self-assessment grid to assess whether they have achieved their training objectives.

3NEZ

INSTALLING AN EXISTING CONNECTION PROTECTION DEVICE

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 14 hours - 2 days

TARGET AUDIENCE:

- Gas technicians
- "Gas Operators" and "Gas Operations Managers" of companies who are required to secure gas mains connections by installing existing connection protection devices.

PREREQUISITES:

Have completed course 7596 entitled "Becoming a Gas Operator/Operations Manager - Working on Building Supply and Riser Pipes"

Objectives of the training course

As part of the policy to make gas mains connections safer:

- Locate and dimension an existing medium-pressure branch connection,
- Install a 20 or 32 mm existing connection protection device.

Skills developed

- Geolocate a medium-pressure PE branch connection using the Flexitrace tool and an RD2000 or RD 8000 electromagnetic detector.
- As part of geolocation activities, use and enhance the mapping of gas distribution facilities.
- Prepare and approve an existing connection protection device installation site.
- Install a 20 or 32 mm existing connection protection device in a PE branch connection operating under medium pressure.
- Apply the troubleshooting procedures drawn up by GRDF and partner manufacturers.
- Reconnect a mains gas supply and individual gas installations.

Skills assessment

- A formative assessment will be carried out throughout the course, based on the results of practical exercises and questioning.
- A summative assessment will take place at the end of the course, during course time. It must be followed by the trainee during course time on a smartphone, tablet or laptop (not supplied).

Z434

MAKING A PE CONNECTION TO A STEEL OR CAST-IRON PIPE NETWORK

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 14 hours - 2 days

TARGET AUDIENCE:

This course is open to:

- Gas technicians making polyethylene branch connections to steel or cast-iron pipes
- Gas Repairs Service managers overseeing the construction of polyethylene branch connections on steel or cast-iron pipes.

PREREQUISITES:

For admission to this course, employees must have completed the following courses:

- Z432: "Gas technical fundamentals"
- Z733: "Becoming a Gas Operator/Operations Manager for PE branch connections on PE and steel piping (gas work)",
- or have acquired equivalent knowledge (see course sheet Z432 - Z433 - PE operator qualification ATG B527.9) through professional experience.

Objectives of the training course

In work situations, employees must:

- Make, inject gas into and remove a steel/PE branch connection to a welded steel socket,
- Make, install and remove a cast iron/PE branch connection.

Skills developed

On completion of the course, trainees should be able to:

- Implement procedures for accessing and working on structures,
- Make, test and inject gas into a steel/PE connection under pressure, using the M80 and CMP50 machines,
- Remove a steel/PE branch connection under pressure, using the M80 and CMP50 machines,
- Carry out then inspect the passive protection of a steel branch connection socket,
- Make, test and inject gas into a cast iron/PE branch connection under pressure using the ballooning machine,
- Remove a cast iron/PE branch connection under pressure using the ballooning machine,



- Dimension completed branch connections,
- Comply with the regulatory framework for protecting employees and the environment when coal tar is present on a worksite.

Skills assessment

- A formative assessment will be carried out throughout the course, based on the results of practical exercises and questioning.
- A summative assessment will take place at the end of the course, during course time. It must be followed by the trainee during course time on a smartphone, tablet or laptop (not supplied).

Z733 P

BECOMING A GAS OPERATOR/OPERATIONS MANAGER FOR PE BRANCH CONNECTIONS ON PE AND STEEL PIPING (GAS WORK)

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 35 hours - 5 days

TARGET AUDIENCE:

"Gas Operators" and "Gas Operations Managers" of service-provider companies who have to make and commission a PE branch connection on a medium-pressure PE or steel pipe (excluding the welding of the steel connection).

PREREQUISITES:

- Have a valid PE "electrofusion and mechanical connection" qualification in accordance with specification B 527.9 (currently valid).
- Be in possession of your company's internal regulations describing the safety measures to be implemented during gas work (e.g.: Gas Safety Handbook).

This course is one of the stages in the qualification process for GRDF's Works and Services Providers.

Objectives of the training course

- Make and commission a PE connection on a PE or steel gas pipeline in operation (under pressure),
- Commission the domestic customer's installation supplied from this connection, in compliance with the distributor's rules,
- Carry out the role of Gas Operations Manager as defined in the Requirements Specifications model proposed in the Special Technical Specifications for Gas Works.

This course may enable the employer to award the Recognition of Abilities as "Gas Operator" and/or "Gas Operations Manager", but only for PE connections on PE or steel pipe networks.

Skills developed

- Recognise the components of gas distribution systems,
- Use a gas detector; interpret, understand and adapt its behaviour according to the measurement taken,
- Make or remove a PE/PE connection,
- Make or remove a PE/Steel connection,
- Passive protection of a steel connection socket,
- Draw a freehand diagram of a PE connection,
- Reconnect a domestic installation in compliance with the rules governing distributors,
- Name and implement the procedures and authorisations required to build a PE connection in operation,
- Describe the roles of the various people involved in a gas distribution operation,
- Identify the risks associated with gas distribution and making a PE connection to a pipe in operation (under pressure),
- Plan and implement gas mains prevention measures and PPE equipment appropriate to the work,
- Apply the requirements set out in the safety instructions in the event of an incident on the site,
- Put out a gas fire,
- Identify and locate a structure commissioned by the Operations Manager before carrying out the work (EXPL0530) or, on the basis of the work order, recognise and criticise the identification of the pipe if it has been located beforehand by a GRDF technician (EXPL0530).

Skills assessment

Learning outcomes will be measured by:

- Each participant's results in dealing with the theoretical and practical exercises on offer.
- A summative assessment of knowledge at the end of the course, leading to the issue of a certificate stating "Acquired" or "Not Acquired".
- Each participant uses a self-assessment grid to assess whether they have achieved their training objectives.



Operations Safety maintenance

TRAINING COURSES

Z398

Becoming a safety and repair work technician
IN-PERSON LEARNING
70 hours - 10 days

Z395

Carrying out the V3 Gas Safety maintenance assignment
IN-PERSON LEARNING
7 hours - 1 day



Z398

BECOMING A SAFETY AND REPAIR WORK TECHNICIAN

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 70 hours - 10 days

TARGET AUDIENCE:

Technicians required to carry out gas safety maintenance and repairs.

PREREQUISITES:

The trainee must have completed the Z432 + Z614 + Z608 core curriculum and developed the following skills:

- Explain the specifics of gas products, their characteristics and uses,
- Describe the structure and architecture of a gas distribution system,
- Factor in and measure the risks associated with the activities of a gas technician,
- Take the first safety measures in the event of an uncontrollable release of gas (set up a safety perimeter and turn off a valve), and if necessary put out a gas fire,
- Interrupting and then reconnecting a domestic customer supplied with gas. These pre-requisites are assessed before the sessions. They condition the registration process and the trainee's participation in the course.

Objectives of the training course

- Carry out gas safety operations,
- In connection with these duties, troubleshoot gas distribution systems.

Skills developed

- Replace a domestic gas meter and pressure reducing regulator,
- Reconnect building supply and riser pipes (medium and low pressure),
- Reconnect a branch connection fitted with a protective device,
- Diagnose and reconnect a "direct-acting" type customer pressure regulator station,
- Operate a network or service valve in the event of an incident,
- Flatten a 32 mm operational disconnected PE connection,
- Stop the uncontrollable release of low-pressure gas by installing sealing tape,
- Measure static and dynamic gas pressure in a gas system in operation,
- Participate in the installation of a flare to decompress a gas system in operation,
- Use the PPE required to carry out a gas safety maintenance task,
- Assess the risk specific to a situation and adapt your behaviour in the presence of gas inside the premises,
- Assess the risk specific to a situation and adapt your behaviour in the presence of gas outside the premises,
- Carry out, validate and track the removal of people and property from danger,
- Factor in the presence of multiple stakeholders during the assignment, coordinating in particular with the safety officer,
- Report to the Operations Manager to enable him to define his strategy,
- Apply the procedures for interrupting gas deliveries associated with safety maintenance,
- Track actions and report on a gas safety and troubleshooting assignment.

Skills assessment

Learning outcomes are measured by:

- The trainer, with group progress indicators placed in each exercise,
- Each trainee should be able to assess the results obtained from the theoretical exercises and simulated situations,
- A theoretical summative assessment and an individual practical assessment,

At the end of the course, a certificate of learning is sent to the trainee and the manager.

Z395

CARRYING OUT THE V3 GAS SAFETY MAINTENANCE ASSIGNMENT

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 7 hours - 1 day

TARGET AUDIENCE:

- This course is aimed at technicians who are required to carry out gas safety maintenance.
- Employees holding a local proficiency recognition mentioning Order of Competence 20 take course Z395 every 2 years.

PREREQUISITES:

- Must have completed course Z398 "Becoming a gas safety and repair work technician",
- Have CB 20, "Safety and repair work",
- Have been involved in gas safety work for at least two years.

Objectives of the training course

- Carry out gas safety maintenance duties.

Skills developed

On completion of the course, trainees should be able to:

- Prepare to carry out a gas safety maintenance task.
- Analyse and assess the risks associated with a safety maintenance situation.
- Adapt their behaviour to the situation and remove themselves from danger.
- Carry out, validate and ensure traceability of the removal from danger.
- Carry out temporary repairs on gas installations operating at low pressure.

Skills assessment

- A formative assessment will be carried out throughout the course, based on the results of practical exercises and questioning.
- A summative assessment will take place at the end of the course, during course time. It must be followed by the trainee during course time on a smartphone, tablet or laptop (not supplied).





Operations Operations Manager field support worker

TRAINING COURSES

B437

Gas Operations
Manager field support
worker

BLENDÉD*

57.5 hours - 8 days

B439

Providing field support
to the Operations
Manager - Skills
maintenance

BLENDÉD*

12.5 hours - 3 days

7356

Disrupted
gas situations
IN-PERSON LEARNING
17.5 hours - 2 days

* In-person + distance learning

B437

GAS OPERATIONS MANAGER FIELD SUPPORT WORKER

INSTRUCTIONAL METHOD:

Blended (in-person/distance learning)

DURATION: 57.5 hours - 8 days

TARGET AUDIENCE:

- Gas Operations Manager field support worker
- Gas Repairs Service Managers overseeing a Gas Safety maintenance and Troubleshooting assignment

PREREQUISITES:

- Trainees must have completed course Z432 "Technical fundamentals of a Gas Technician" or have equivalent experience.

Objectives of the training course

- Carry out all the activities associated with the Operations Manager's field support duties, in accordance with the instructions of the "safety maintenance" process, factoring in the distributor's national requirements.

Skills developed

On completion of the course, the employee should be able to carry out the following tasks:

- Take part in danger removal activities (operating multiple valves, setting up decompression points, etc.),
- Provide the Operations Manager with expertise in determining the strategy to adopt for incident management,
- Ensure coordination on the ground (between GRDF and service providers) and incident management with external parties (safety officer, police, etc.).

Skills assessment

Learning outcomes are measured by:

- The trainer, using group progress indicators in each exercise,
- Each trainee should be able to assess the results obtained from the theoretical exercises, case simulation and/or role-playing exercises,
- An individual theoretical summative assessment at the end of the course (knowledge test).

B439

PROVIDING FIELD SUPPORT TO THE OPERATIONS MANAGER - SKILLS MAINTENANCE

INSTRUCTIONAL METHOD:

Blended (in-person/distance learning)

DURATION: 12.5 hours - 3 days

TARGET AUDIENCE:

- This course is aimed at technicians who have been providing field support for the Operations Manager for at least one year.

PREREQUISITES:

Trainees must:

- Have completed course EFB437 "Providing field support to the Operations Manager"
- or EFZ437 "Responding to a gas incident for Operations Manager field support workers" or Z426 (B426) "Field activities and safety maintenance for Operations Manager/Assistant Manager"
- Have provided field support for the Operations Manager for at least one year.

Objectives of the training course

In work situations, employees must:

- Carry out all the activities associated with the Gas Operations Manager's field support duties, in accordance with the instructions of the "safety maintenance" process.

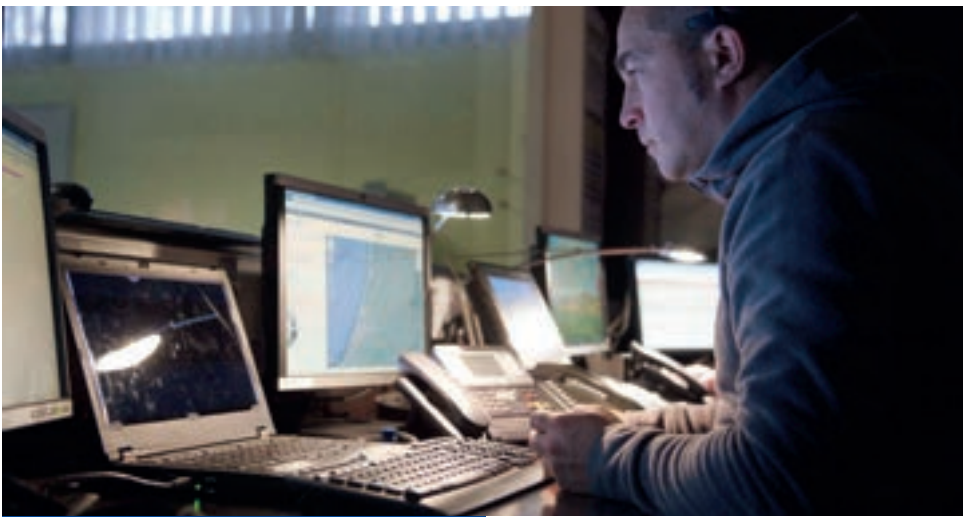
Skills developed

On completion of the course, trainees should be able to:

- OPG1 (Distance learning) Describe the tasks, scope, responsibilities and actions required of each player in the gas safety maintenance process, incorporating regulatory changes, in particular the procedures associated with the Standard Gas Procedures (SGPs) and Enhanced Gas Procedures (EGPs),
- OPG2 (In-person learning) Coordinate the actions of employees and earthworks companies during an EGP-type safety maintenance task, factoring in the presence of multiple stakeholders (the fire service in particular) and the media impact of the actions taken,
- OPG3 (In-person learning) Explain the steps required to shut off and block up the valves on a Network Pressure Regulator Station and a Biomethane Injection Station.

Skills assessment

Summative assessment at the end of the course



7356

GAS OPERATIONS MANAGER FIELD SUPPORT WORKER

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 17.5 hours - 3 days

TARGET AUDIENCE:

This course is open to:

- Employees likely to be assigned a role in managing a disrupted gas situation (Operations Manager, Assistant Operations Manager, Operations Manager field support worker, Duty Manager, Gas Network Support Manager)

PREREQUISITES:

Staff enrolled on the course must:

- Have knowledge of construction techniques for gas distribution systems and at least 6 months' experience in the trade.
- Have familiarised themselves with regulations governing the operation of gas distribution networks (Gazodoc notes), more particularly including: P11-06 organisation of operations, P12-08 management of significant events, EXPL0650 Origaz plan and reflex cards and tools.

Objectives of the training course

In work situations, employees must:

- Deal with an "abnormal" situation that has an impact on the quality of the gas supply, and do so effectively.

Skills developed

On completion of the course, trainees should be:

- Familiar with the procedures involved in managing a disrupted gas situation,
- Able to define and assess a disrupted gas situation (identify the nature of the problem and diagnose the situation),
- Able to deal with a disrupted gas situation (assess and implement resources and control their effects),
- In a position to make decisions (reminder of the roles and responsibilities of those involved in operations, managerial staff in particular),
- Able to measure the impact of decision-making and its implementation,
- Able to adapt their strategy to changing circumstances (be responsive),
- Able to carry out their work in compliance with quality procedures, environmental protection regulations and the risks associated with explosive atmospheres.

Skills assessment

Measuring achievement:

- The trainer uses indicators to measure the group's progress in each exercise,
- Each trainee is assessed on the basis of the results obtained from the theoretical exercises and the simulated situations.

Qualitative monitoring:

Qualitative monitoring of the training course is carried out by:

- A summary of the course,
- An evaluation questionnaire sent to trainees after the course.



Operations Back-up

TRAINING COURSES

Z427

Training for back-up responders

IN-PERSON LEARNING

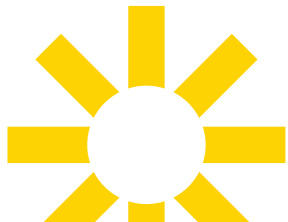
27 hours - 3.5 days

Z394

Carrying out back-up responder duties - Skills maintenance

IN-PERSON LEARNING

14 hours - 2 days



Z427

TRAINING FOR BACK-UP RESPONDERS

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 27 hours - 3.5 days

TARGET AUDIENCE:

- This course is aimed at experienced gas technicians whose knowledge has been validated prior to the course,
- Employees who are or will be acting as back-up responders in the "Gas safety response" process.

PREREQUISITES:

- Have worked as a Security Maintenance employee for at least two years.

Objectives of the training course

- Carry out all the activities associated with the role of back-up responder during gas safety operations.

Skills developed

- Communicate with the Operations Manager to enable him to work out an incident management strategy,
- Finalise the removal of the hazard by taking over from the gas safety technician,
- Coordinate work between GRDF and its service providers,
- Restore a structure following an incident, after it has been made safe.

Skills assessment

- Trainees will undergo an individual summative assessment of their knowledge by means of a questionnaire at the end of the course. The results will be made available to the trainee's superiors,
- An individual satisfaction questionnaire will be used to assess whether objectives have been achieved.

Z394

CARRYING OUT BACK-UP RESPONDER DUTIES - SKILLS MAINTENANCE

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 14 hours - 2 days

TARGET AUDIENCE:

- This course is aimed at technicians who have been working as back-up responders for more than two years.

PREREQUISITES:

Trainees must:

- Must have completed the "Carrying out back-up responder duties" course (Z427),
- Have been working as a back-up responder for at least two years.

Objectives of the training course

- Acting as a back-up response team.

Skills developed

- Set out the tasks, sphere of activity, responsibilities and actions to be carried out by each player in the gas safety maintenance process, incorporating regulatory changes, in particular the procedures associated with the Standard Gas Procedures (PGC) and Enhanced Gas Procedures (PGR).
- Implement a leak detection and location procedure for underground structures. Identify the factors to be taken into account and the actions to be taken when searching for and locating leaks in order to reduce the risks to people and property.
- To ensure safe operation, carry out technical procedures on structures operating under low and medium pressure. Carry out temporary and/or permanent repairs to the affected structures.

Skills assessment

Learning outcomes are measured by:

- The trainer, using group progress indicators in each exercise,
- Each trainee should be able to assess the results obtained from the theoretical exercises and role-playing exercises on offer,
- A summative assessment at the end of the course.

An annual review of the course is carried out then communicated to the project owner during the annual domain review.

After analysis of the summative assessment, an assessment letter is sent to the employer, including a qualitative assessment of whether the learning objectives have been achieved.



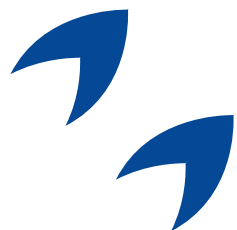
Operations Private networks

Z714

Operation and safety of a private natural gas network

IN-PERSON LEARNING

28 hours - 4 days



Z714

OPERATION AND SAFETY OF A PRIVATE NATURAL GAS NETWORK

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 28 hours - 4 days

TARGET AUDIENCE:

- Technical managers (fluids, energy, property, safety, etc.), maintenance or operations staff and safety engineers.

PREREQUISITES:

- Basic knowledge of physics and chemistry to understand the characteristics of combustible gases

Objectives of the training course

- Carry out all the activities associated with the role of back-up responder during gas safety operations.

Skills developed

Knowledge:

- Name the main physico-chemical characteristics of natural gas,
- List the risks associated with the distribution and use of natural gas,
- Name the limits of use of an explosimeter-catharometer type gas detector,
- Identify the various people involved in or responsible for gas installations on their production site,
- Name the limits of responsibility of the various parties involved in or responsible for gas installations,
- Distinguish between different gas installations based on operating pressures and their structures,
- Draw up a manoeuvre sheet,
- Name the different types of protection for steel pipe networks,
- State the principles of active and passive protection in the context of cathodic protection.

Regarding know-how:

- Respond to a natural gas fire,
- Ensure the safety of people and property in the event of an incident involving gas,
- Carry out or commission a gas installation lockout-tagout task,
- Carry out operations (switching a pressure regulator line on or off, emergency shutdown) on gas pressure regulator stations,
- Identify gas-related risks depending on the environment.

Regarding people skills:

- Adapt your behaviour to the situation, taking into account environmental protection regulations, asbestos-based products and the risks associated with explosive atmospheres.

Skills assessment

- Individual written assessment of the extent to which objectives have been achieved, based on a satisfaction questionnaire.



Technical customer service

TRAINING COURSES

Z608

Carrying out customer service No. 2 - new staff

IN-PERSON LEARNING

28 hours - 4 days

Z607V2

Maintaining gas skills and restarting equipment for a customer service technician

IN-PERSON LEARNING

23 hours - 3 days

Z837

Installing and commissioning a smart meter

IN-PERSON LEARNING

31 hours - 4 days

P

Z6005

Verification of industrial safety compliance for service providers

IN-PERSON LEARNING

14 hours - 2 days

P

Z6006

Inspecting the serviceability of the pipe between the gas shut-off valve and the gas meter

IN-PERSON LEARNING

31 hours - 4 days

P

Z6009

Inventory/replacement of domestic pressure regulators and GAZPAR installation for service providers

IN-PERSON LEARNING

35 hours - 5 days

Z608

CARRYING OUT CUSTOMER SERVICE NO. 2 - NEW STAFF

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 28 hours - 4 days

TARGET AUDIENCE:

This course is open to:

- Gas technicians carrying out or needing to carry out work for customers,
- Gas Repairs Service managers managing work for customers.

PREREQUISITES:

To start this course, employees must have completed the following courses

- Z432 "Gas technical fundamentals",
- Z614 "Carrying out customer service No. 1",
- and complete the "Z608 pre-requisites assessment" e-learning course or have acquired the equivalent knowledge (see Z432 • Z614 course sheet) through their professional experience.

Objectives of the training course

In work situations, the gas technician must:

- Carry out technical activities related to the customer area,
- Restore gas to a domestic appliance in accordance with current regulations,
- Factor customer relations into your activity and understand the issues involved, while complying with customer behaviour guidelines.



Skills developed

On completion of the course, trainees should be able to:

- Apply the regulations on delivery interruptions,
- Put into practice regulations governing different types of gas supply,
- Reconnect various domestic gas appliances in a customer installation,
- Explain the basic principles of the GAZPAR smart meter,
- Apply the customer behaviour guidelines.

Skills assessment

Learning outcomes are measured by:

- The trainer, using group progress indicators in each exercise,
- Each trainee should be able to assess the results obtained from the theoretical exercises and role-playing exercises on offer,
- The trainees assess the quality of the training course by writing a short report and filling out an evaluation questionnaire at the end of the session,
- An annual training review is carried out and communicated to the project owner during the annual domain review.

Z607V2

MAINTAINING GAS SKILLS AND RESTARTING EQUIPMENT FOR A CUSTOMER SERVICE TECHNICIAN

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 23 hours • 2.5 days

TARGET AUDIENCE:

This course is open to:

- Gas technicians who have been working for customers for at least 3 years
- Service Agency Managers managing customer activity

PREREQUISITES:

For admission to this course, employees must have completed course Z608 "Carrying out customer service No. 2 - new staff" or have acquired equivalent knowledge (see Z608 course sheet) through their professional experience.

Objectives of the training course

As part of the activities associated with their role, employees should be able to:

- Develop their skills in carrying out technical customer operations in compliance with current regulations,
- Develop their skills in restarting a domestic gas appliance in compliance with current regulations,
- Develop their skills in implementing the customer behaviour benchmark.

Skills developed

On completion of the course, trainees should be able to:

- Apply the regulations in force relating to the various types of technical customer service: Provision and interruption of gas deliveries, and deduce any deviations from one's own practice.
- Adapt the technical gesture safely according to hazards.
- Apply the procedure for restarting domestic gas appliances (types of domestic appliances, start-up systems, restart conditions and limits of the job) and deduce any deviations from their own practices
- Evaluate their application of the customer behaviour benchmark and improve their practices.

Skills assessment

- An individual satisfaction questionnaire is used to assess whether objectives have been achieved,
- Final assessment of know-how.

Z837

INSTALLING AND COMMISSIONING A SMART METER

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 31 hours - 4 days

TARGET AUDIENCE:

The technicians working for the company installing the system on behalf of the local distribution company.

PREREQUISITES:

No prerequisites.

Objectives of the training course

In work situations, employees must:

- Handle customer relations during a call-out,
- Replace an existing gas meter with a smart gas meter.
- Reconnect the customer's equipment.
- Identify and locate an individual shut-off valve.

Skills developed

On completion of the course, trainees should be able to:

- Identify the components of individual and mains branch connections,
- List the prevention and safety rules associated with the risks involved in the job,
- Replace an existing gas meter with a smart meter,
- Identify and locate an individual disconnect device in all the situations encountered,
- List the risks associated with the activity of replacing a meter and deduce the relevant preventive measures,
- Reconnect domestic gas appliances,
- Measure the gaps between theoretical and practical knowledge, and current regulations,
- Handle customer relations when removing/installing a smart gas meter.

Skills assessment

At the end of the learning process, learning outcomes are measured by:

- The trainer, using group progress indicators in each exercise,
- Each trainee should be able to assess the results obtained from the theoretical exercises, case simulation and/or role-playing exercises.
- By means of an individual assessment at the end of the session (knowledge test) and/or based on the trainee's observation of the practical situations that will be proposed.
- After analysis of the summative assessment, an learning outcomes assessment letter is sent to the employer along with a qualitative assessment of whether the learning objectives have been achieved. The local distribution company will be responsible for issuing the Recognition of Abilities (or equivalent) to service providers

Z6005 P

VERIFICATION OF INDUSTRIAL SAFETY COMPLIANCE FOR SERVICE PROVIDERS

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 14 hours - 2 days

TARGET AUDIENCE:

Employees of GRDF service providers selected in the call for tenders -MAINT 2021-05 (Securing inactive connections).

PREREQUISITES:

- The role of the distributor
- Name the main characteristics of natural gas

=> Objectives covered by course Z6004

Or

Have completed at least one of the courses required for the following activities:

- Removing/fitting domestic meters and networks (Z748/ Z748V2/B748V3/Z758/B758V2/Z6009)
- Working on pipes between gas shut-off valves and gas meters (Z6006)
- Maintenance of mains supply and riser pipes (Z741V2)

Skills developed

On completion of the course, trainees should be able to:

- Describe the regulatory requirement,
- Select the appropriate locking device for the valve family,
- Perform a plugging operation upstream of the dwelling's inlet if the configuration so allows,
- Record the completed procedure in the IS,
- Carry out the work in compliance with safety rules

Skills assessment

At the end of the learning process, learning outcomes are measured by:

- The trainer uses group progress indicators in each exercise.
- Each trainee should be able to assess the results obtained from the theoretical exercises, case simulation and/or role-playing exercises.
- An individual assessment at the end of the session.

After analysis of the summative assessment, we send the trainee's employer or their representative a certificate of learning outcomes with a qualitative assessment of whether the training objectives have been achieved.

The trainee's employer or his representative may, under his own responsibility, assign to his staff the ability to carry out the activity or activities related to the training.

Z6006 P

INSPECTING THE SERVICEABILITY OF THE PIPE BETWEEN THE GAS SHUT-OFF VALVE AND THE GAS METER

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 31 hours - 4 days

TARGET AUDIENCE:

GRDF contractors awarded a contract to check that pipes between gas shut-off valves and gas meters are in good order, or the manager in charge of scheduling the inspections.

PREREQUISITES:

Trainees must be able to use an application on a tablet so that they can easily learn how to input data into the data collection tool.

To enrol for course Z6006, trainees must:

- Have completed course "EFZ6004 - Gas culture for service providers working downstream of the main shut-off valve"
 - Be familiar with the role of the distributor
 - Name the main characteristics of natural gas
- or
- Have completed at least one of the training courses required for the following activities:

- Removing/fitting domestic meters and networks
 - Verifying industrial safety compliance
 - Carrying out maintenance on building supply and riser pipes
 - Ensuring gas mains regulator traceability
- or
- Have acquired equivalent skills

Objectives of the training course

In work situations, employees must:

- Carry out a functional inspection of pipes between shut-off valves and gas meters.
- Gather information for the inspection report.

Skills developed

On completion of the course, trainees should be able to:

- Identify,
- Situate their actions within the regulatory context,
- Check that the pipe is in good order when it is accessible,
- Check that the pipe is in good order when it is inaccessible and/or recessed,
- Collect procedures performed and new information using the dedicated IS tool/ application,
- Perform a task in compliance with safety rules and the correct procedures to follow in deteriorating situations.

Skills assessment

At the end of the learning process, learning outcomes are measured by:

- The trainer, using group progress indicators in each exercise,
- Each trainee should be able to assess the results obtained from the theoretical exercises, case simulation and/or role-playing exercises.
- By means of an individual assessment at the end of the session (knowledge test) and/or based on the trainee's observation of the practical situations that will be proposed.
- After analysis of the summative assessment, an learning outcomes assessment letter is sent to the employer along with a qualitative assessment of whether the learning objectives have been achieved. The local distribution company will be responsible for issuing the Recognition of Abilities (or equivalent) to service providers

Objectives of the training course

In work situations, employees must:

- Secure the connections in accordance with the procedure described in the Special Technical Specifications,
- Record the procedures performed in the IS tool,
- Ensure safety while performing their tasks.

Z6009 P

INVENTORY/ REPLACEMENT OF DOMESTIC PRESSURE REGULATORS AND GAZPAR INSTALLATIONS FOR SERVICE PROVIDERS

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 35 hours - 5 days

TARGET AUDIENCE:

GRDF service providers awarded a contract to carry out GAZPAR activities and make an inventory of or replace regulators.

PREREQUISITES:

- Understand the role of a GRDF distributor
- Name the main characteristics of natural gas
- Identify structures upstream and downstream of the main shut-off valve
- Communicate with customers using GRDF's customer reference system

Or

- Have completed at least one of the training courses required for the following activities:
 - Verifying industrial safety compliance
 - Verifying that pipes between shut-off valves and meters are in good order
 - Carrying out maintenance on building supply and riser pipes
 - Ensuring gas mains regulator traceability
 - Deploying smart meters

Objectives of the training course

In work situations, employees must:

- Identify and locate a main shut-off valve,
- Identify domestic regulators,
- Replace a domestic pressure reducing regulator,
- Replace an existing meter with a smart gas meter,
- Install a radio module on an existing meter,
- Reconnect domestic installations and appliances,
- Record completed job in the IS.

Skills developed

On completion of the course, trainees should be able to:

- Explain the objectives of the Regulator Traceability and Smart Gas Meter projects,
- Identify the regulators and meters affected by the projects,
- Remove/fit domestic meters and networks in accordance with the procedure,
- Ensure that the gas supply is restored,
- Reconnect domestic appliances,
- Apply safety instructions,
- Complete the ISs associated with the activity,
- Equip an existing meter with a smart module.

Skills assessment

At the end of the learning process, learning outcomes are measured by:

- The trainer uses group progress indicators in each exercise.
- Each trainee should be able to assess the results obtained from the theoretical exercises, case simulation and/or role-playing exercises.
- An individual assessment at the end of the session.

If the trainee is unsuccessful, the region will organise a new assessment.



Maintenance Metering

Z359

Training gas
maintenance meter
reading specialists in
conversion and
remote metering
IN-PERSON LEARNING
21 hours - 3 days



Z359

TRAINING GAS MAINTENANCE METER READING SPECIALISTS IN CONVERSION AND REMOTE METERING

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 21 hours - 3 days

TARGET AUDIENCE:

This concerns:

- Gas maintenance specialist technicians responsible for field work on metering equipment,
- Gas maintenance specialist managers responsible for monitoring the metering activity.

PREREQUISITES:

Learning will be facilitated by the following knowledge:

- The structure of a gas network
- The Characteristics and hazards associated with natural gas
- Metering environment (industrial gas meter removing/fitting tasks)

For Service Agency technicians, course EFZ453 must be completed before starting this course.

For Gas Maintenance Specialist meter reading technicians, at least one month's experience in the field is a prerequisite for this course.

Objectives of the training course

In work situations, employees must:

- Ensure that the installation, preventive and corrective maintenance of metering equipment complies with regulations.

Skills developed

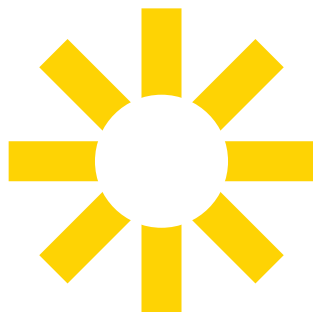
On completion of the course, trainees should be able to:

- Describe how the metering chain works,
- Install and configure a volume converter in compliance with regulations,
- Install and configure a remote meter reading system,
- Diagnose a problem in the metering chain.

Skills assessment

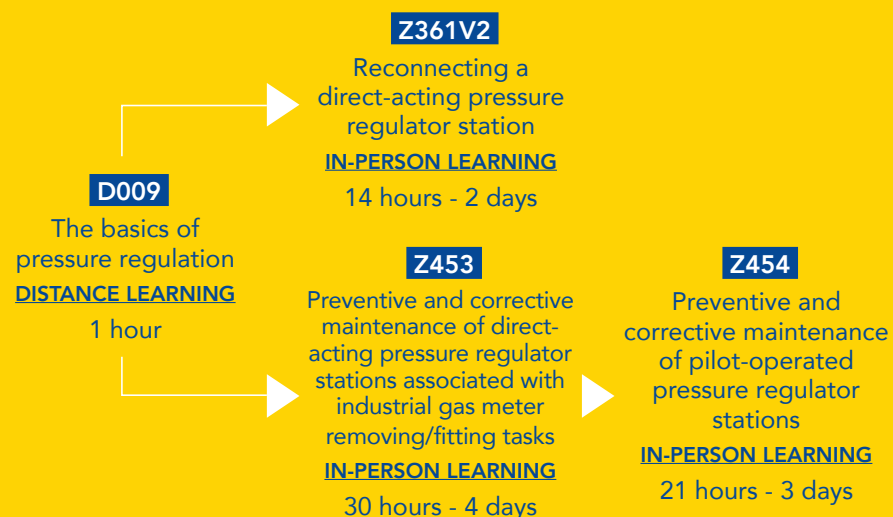
Learning outcomes are measured by:

- The trainer, using group progress indicators in each exercise,
- Each trainee should be able to assess the results obtained from the theoretical exercises, case simulation and/or role-playing exercises.

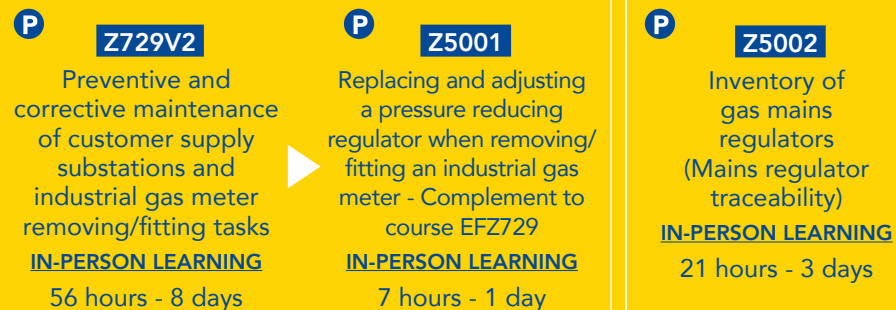


Maintenance Pressure regulation

TRAINING COURSES



TRAINING COURSES



D009

THE BASICS OF PRESSURE REGULATION

INSTRUCTIONAL METHOD:

Distance learning

DURATION: 1 hour

TARGET AUDIENCE:

This concerns:

- Technicians providing safety and repair services,
- Technicians working in service agencies or gas maintenance specialists responsible for the maintenance of pressure regulator stations,
- Any employee wishing to acquire a basic level of knowledge of gas pressure regulation and related equipment.

PREREQUISITES:

As this is the first course on pressure regulation, there are no specific prerequisites. However, learning will be facilitated by having the following knowledge:

- The structure of a distribution network
- The characteristics and hazards of natural gas

Z361V2

RECONNECTING A DIRECT-ACTING PRESSURE REGULATOR STATION

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 14 hours - 2 days

TARGET AUDIENCE:

This concerns:

- Gas technicians responsible for safety and repair services,
- Gas technicians providing back-up,
- Field support for the Operations Manager.

The course is particularly suitable for non-specialists.

PREREQUISITES:

For admission to this course, employees must have completed the Z432 "Gas technical fundamentals" and D009 "The basics of pressure regulation" courses or have acquired the equivalent knowledge (see Z432 and D009 course sheet) through their professional experience,

Z453

PREVENTIVE AND CORRECTIVE MAINTENANCE OF DIRECT-ACTING PRESSURE REGULATOR STATIONS ASSOCIATED WITH INDUSTRIAL GAS METER REMOVING/FITTING TASKS

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 30 hours - 4 days

TARGET AUDIENCE:

This concerns:

- Gas maintenance specialists or service agency technicians responsible for maintaining direct-acting pressure regulator stations and replacing industrial meters

The course is particularly well suited to technicians who have just been appointed or who will soon be working in the field of pressure regulation.

PREREQUISITES:

To start this training course, employees must have completed course D009 "The basics of pressure regulation" or have acquired the equivalent knowledge (see course sheet D009) through their professional experience.

Objectives of the training course

In work situations, employees must:

- Identify the various items of equipment in a direct-acting pressure regulator station and explain how it works using a block diagram.

Skills developed

On completion of the course, trainees should be able to:

- Explain the physical principle of expansion,
- Describe the architecture of a network pressure regulator station and a customer pressure regulator station,
- Describe a closed regulation loop,
- Explain the operating principle of a domestic pressure reducing regulator,
- Explain the operating principle of a safety valve,
- Explain the operating principle of a direct-acting pressure regulator station.

Skills assessment

- Each trainee's learning outcomes are measured by the results obtained in the assessment exercises,
- Training is deemed to have been completed when the trainee obtains at least 80/106 points,
- This course will not be included in the trainee's training history until the course has been completed.

Objectives of the training course

In work situations, employees must:

- Reconnect a direct-acting pressure regulator station as part of safety and repair work.

Skills developed

On completion of the course, trainees should be able to work on a direct-acting station:

- Carry out a basic diagnosis,
- Identify the main causes of tripping,
- Reconnect the station,
- List the specific features involved in reconnecting a network pressure regulator station.

Skills assessment

- A formative assessment will be carried out throughout the course, based on the results of practical exercises and questioning,
- A summative assessment will take place at the end of the course, during course time. It must be followed by the trainee during course time on a smartphone, tablet or laptop (not supplied).

Objectives of the training course

In work situations, the gas technician must:

- Carrying out an industrial gas meter removing/fitting and maintenance task on a direct-acting pressure regulator station (network and customer), detecting a problem or fault and repairing the installation.

Skills developed

On completion of the course, trainees should be able to:

- Reconnect or commission a direct-acting pressure regulator station,
- Replace an industrial meter,
- Apply maintenance processes (inspection and overhaul) to a direct-acting pressure regulator station,
- Diagnose a problem or fault then reconnect the installation.

Skills assessment

Learning outcomes are measured by:

- The trainer uses group progress indicators in each exercise,
- Each trainee should be able to assess the results obtained from theoretical exercises and real-life situations.



Z454

PREVENTIVE AND CORRECTIVE MAINTENANCE OF PILOT-OPERATED PRESSURE REGULATOR STATIONS

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 21 hours - 3 days

TARGET AUDIENCE:

This concerns:

- Gas maintenance specialists or service agency technicians responsible for maintaining pilot-operated pressure regulator stations.

The course is particularly suitable for technicians who have been servicing direct-acting regulators for at least three months.

PREREQUISITES:

- For admission to this course, employees must have spent at least 3 months carrying out preventive maintenance on direct-acting pressure regulator stations.
- Have completed the following courses:
 - D009 "The basics of pressure regulation"
 - Z453 "Preventive and corrective maintenance of direct-acting pressure regulator stations associated with industrial gas meter removing/fitting tasks"
 - or have acquired equivalent knowledge (see course sheet D009 - Z453) through professional experience.



Objectives of the training course

In work situations, the gas technician must:

- Carry out maintenance work on a pilot-operated pressure regulator station (network and customer),
- Detect a fault or malfunction and repair the installation.

Skills developed

On completion of the course, trainees should be able to:

- Perform recommissioning or initial commissioning of a pilot-operated pressure regulator station,
- Apply maintenance processes (inspection and overhaul) to a pilot-operated pressure regulator station,
- Diagnose a problem or fault then reconnect the installation.

Skills assessment

Learning outcomes are measured by:

- The trainer, using group progress indicators in each exercise,
- Each trainee should be able to assess the results obtained from the theoretical exercises, case simulation and/or role-playing exercises.

Z729V2 P

PREVENTIVE AND CORRECTIVE MAINTENANCE OF CUSTOMER SUPPLY SUBSTATIONS AND INDUSTRIAL GAS METER REMOVING/FITTING TASKS

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 56 hours - 8 days

TARGET AUDIENCE:

The staff of companies awarded a GRDF contract to provide preventive maintenance services for customer supply substations and industrial gas meter removing/fitting services.

PREREQUISITES:

- Employees with the skills involved in a technical activity (operations or maintenance).
- The employer must provide proof of this in the form of a CV or professional experience.

Objectives of the training course

In a work situation, employees must be able to carry out all the activity(ies) specified in the Special Technical Specifications relating to the preventive maintenance of customer supply substations and industrial gas meter removing/fitting tasks, incorporating changes to the Special Technical Specifications. (Ref: MAINT 2013-01C 18 Version 4 of 18 May 2021) applying to contracts for the removal and fitting of industrial meters and the preventive maintenance of delivery substations (including the removal and fitting of regulators associated with industrial gas meter removing/fitting tasks).

Skills developed

On completion of the course, trainees should be able to:

- Carry out the duties of gas operator or gas operations manager as defined in the CPPE model (handbook of requirements for company staff) proposed in the Special Technical Specifications,
- Depressurise and repressurise customer supply substations,
- Carry out all preventive maintenance tasks on customer supply substations,
- Remove and fit industrial meters,
- Replace and adjust a pressure reducing regulator,
- Reconnect customer supply substations.

By incorporating a risk assessment into all technical activities.

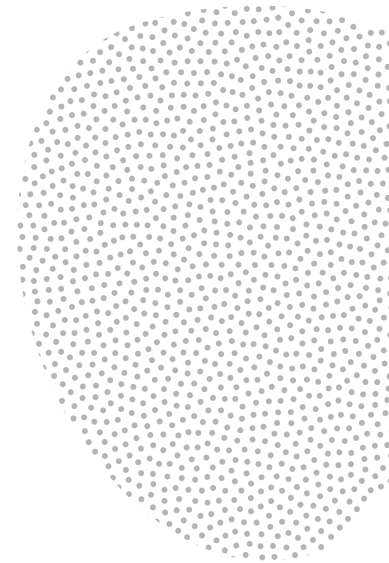
Skills assessment

At the end of the learning process, learning outcomes are measured by:

- The trainer, using group progress indicators in each exercise,
- Each trainee should be able to assess the results obtained from theoretical exercises and real-life situations,
- By means of two assessments, an individual assessment at the end of the session (knowledge test) and a practical assessment based on the trainee's observation of a practical situation.

After analysis of the summative assessment, we send the trainee's employer or their representative a certificate of learning outcomes with a qualitative assessment of whether the training objectives have been achieved.

The trainee's employer or representative may, under his own responsibility, grant his staff the ability to carry out the activity(ies) covered in the training course (removing/fitting industrial meters, removing/fitting pressure regulator regulating valves, etc.).



Z5001 P

REPLACING AND ADJUSTING A PRESSURE REDUCING REGULATOR WHEN REMOVING/FITTING AN INDUSTRIAL GAS METER - COMPLEMENT TO COURSE EFZ729

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 7 hours - 1 day

TARGET AUDIENCE:

Staff responsible for carrying out preventive maintenance on customer supply substations and industrial gas meter removing/fitting tasks.

PREREQUISITES:

- Must have completed course Z729 (preventive maintenance of customer supply substations and industrial gas meter removing/fitting tasks* incorporating changes to the Special Technical Specifications. (Ref: MAINT 2013-01C 18 Version 4 of 18 May 2021) applying to contracts for the removal and fitting of industrial meters and the preventive maintenance of supply substations).
- Or have been removing/fitting industrial gas meters on adjustable substations for more than one year.

Objectives of the training course

In work situations, employees must:

- Carry out preventive and corrective maintenance on customer supply substations and on industrial meters (removing/fitting),
- Remove and install regulators when removing/fitting industrial gas meters,
- Incorporate a risk assessment into all technical activities.

Skills developed

On completion of the course, trainees should be able to:

- Situate your activity within the current regulatory context,
- Carry out the duties of gas operator or Operations Manager as defined in the CPPE (handbook of requirements for company staff) linked to the Special Technical Specifications,
- Depressurise and repressurise customer supply substations,
- Carry out all preventive maintenance tasks on customer supply substations,
- Replace and adjust a pressure reducing regulator,
- Reconnect customer supply substations.

Skills assessment

At the end of the learning process, learning outcomes are measured by:

- The trainer, using group progress indicators in each exercise,
- Each trainee should be able to assess the results obtained from theoretical exercises and real-life situations.

The trainee's employer or representative may, under his own responsibility, grant his staff the ability to carry out the activity(ies) covered in the training course (removing/fitting gas pressure regulators, etc.).

Recognition of Abilities: Supply point/industrial gas meter removing/fitting maintenance task Z729

Z5002 P

INVENTORY OF GAS MAINS REGULATORS (MAINS REGULATOR TRACEABILITY)

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 21 hours - 3 days

TARGET AUDIENCE:

New employees and technicians who have completed the first module of the course, Z6004, or who have equivalent knowledge.

PREREQUISITES:

Have completed course Z6004, and have at least passed the Common Core module quiz:

- Name and explain the roles of the main stakeholders in the gas market,
- Name the physical and chemical characteristics and behaviour of gas,
- Distinguish between structures upstream and downstream of the Main Shut-off Valve,
- Communicate and adapt your posture with customers as part of your work.

Objectives of the training course

In a work situation, employees must be able to carry out all the activity(ies) specified in the Special Technical Specifications relating to the preventive maintenance of customer supply substations and industrial gas meter removing/fitting tasks, incorporating changes to the Special Technical Specifications. (Ref: MAINT 2013-01C 18 Version 4 of 18 May 2021) applying to contracts for the removal and fitting of industrial meters and the preventive maintenance of delivery substations (including the removal and fitting of regulators associated with industrial gas meter removing/fitting tasks).

Skills developed

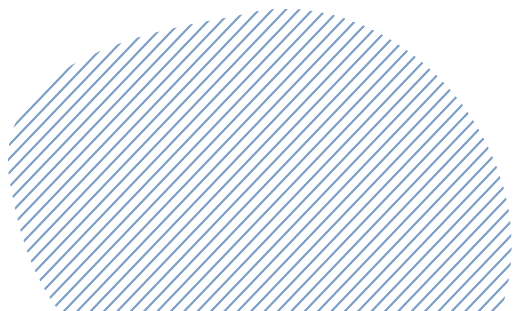
In work situations, employees must:

- Identify a gas mains regulator and its location,
- Collect the regulator's technical characteristics,
- Update the CAMM database using the MOBIGAZ tool.

Skills assessment

The trainer will measure learning outcomes through the proposed exercises, and each trainee through their results obtained in these exercises (theoretical and practical)

A summative assessment will conclude the course session and, if successful, a certificate of learning outcomes will be issued.





Maintenance

Building supply and riser pipes

Z435

Maintaining
gas mains
connections

IN-PERSON LEARNING

21 hours - 3 days

P

Z741V2

Building supply
and riser pipes
maintenance call

IN-PERSON LEARNING

21 hours - 3 days

Z435

MAINTAINING GAS MAINS CONNECTIONS

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 21 hours - 3 days

TARGET AUDIENCE:

This course is open to:

- Gas technicians working on gas installations in apartment blocks (building supply and riser pipes),
- Gas Repairs Service Managers supervising work on gas installations in apartment blocks (building supply and riser pipes).

PREREQUISITES:

Before the course, trainees must be able to:

- Describe the structure of a gas mains system,
- Use an explosimeter catharometer-type gas detector,
- List the characteristics of natural gas,
- Explain the risks associated with gas products,
- List the different operating pressures.

All these aspects are covered in course Z432 "Gas technical fundamentals". The trainees' learning process will be facilitated if they familiarise themselves with the PIXI tablet in the workplace before starting this course.



Objectives of the training course

In work situations, employees must:

- Make an inventory of a gas mains connection and carry out preventive and corrective maintenance.

Skills developed

On completion of the course, trainees should be able to:

- Check the inventory of a gas mains connection,
- Apply inspection and overhaul procedures for gas mains connections,
- Collect problems and carry out optimised corrective maintenance,
- Collect all inventory and maintenance data on a PIXI tablet.

Skills assessment

- A formative assessment will be carried out throughout the course, based on the results of practical exercises and questioning.
- A summative assessment will take place at the end of the course, during course time. It must be followed by the trainee during course time on a smartphone, tablet or laptop (not supplied).

Z741V2 P

BUILDING SUPPLY AND RISER PIPES MAINTENANCE CALL

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 21 hours - 3 days

TARGET AUDIENCE:

- Maintenance technician for a company awarded the "inspection - overhaul of mains gas installations in apartment blocks" contract.

PREREQUISITES:

No prerequisites

Objectives of the training course

In work situations, employees must:

- Identify the components of distribution systems in apartment blocks,
- Assess the risks associated with the distribution of natural gas (risk assessment and use of the explosimeter-catharometer) and adopt behaviour appropriate to the situation,
- Quote and apply the distributor's procedures before carrying out work on an installation in operation,
- Carry out the tasks specified in the maintenance procedures for building supply and riser pipes,
- When faced with a risky situation, apply the instructions set out in the safety guidelines,
- Enter information on the maintenance of the building supply and riser pipes.

Skills assessment

At the end of the learning process, learning outcomes are measured by:

- The trainer, using group progress indicators in each exercise,
- Each trainee should be able to assess the results obtained from the theoretical exercises, case simulation and/or role-playing exercises,
- By means of an individual assessment at the end of the session (knowledge test) and/or based on the trainee's observation of the practical situations that will be proposed.

After analysis of the summative assessment, we send the trainee's employer or their representative a certificate of learning outcomes with a qualitative assessment of whether the training objectives have been achieved.

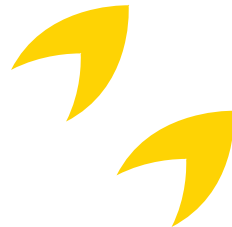
The trainee's employer or his representative will be able, under his own responsibility, to award his staff the aptitude to carry out the activity or activities in connection with the Recognition of Abilities training associated with the course.



Maintenance Remote operation

Z486

Installation,
Maintenance and
Operation of remote
operation stations
and their remote
transmission chain
IN-PERSON LEARNING
35 hours - 5 days



Z486

INSTALLATION, MAINTENANCE AND OPERATION OF REMOTE OPERATION STATIONS AND THEIR REMOTE TRANSMISSION CHAIN

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 35 hours - 5 days

TARGET AUDIENCE:

The target audience for this training course is mainly Gas Maintenance Specialist technicians and supervisors, or operators working on this equipment having technical responsibility for it.

PREREQUISITES:

Electrical risk certification.

Objectives of the training course

In work situations, employees must:

- Install, configure and start up a remote operation station authorised for use by GRDF, on all types of gas systems concerned,
- Exploit and check the quality of data such as measurements, alarms, positions and status, transmitted and logged,
- Maintain and troubleshoot all types of stations installed as part of the remote operation project,
- Use the Supervisor to create, configure, modify, update and analyse synoptic charts, stations and data,
- Update the CAMM tool associated with the remote operation station,
- Integrate and use the markets associated with the remote operation project to communicate with identified service providers,
- Formalise a fault diagnosis and pass it on to their superior.

Skills developed

On completion of the course, trainees should be able to:

- Describe how Remote Operations are organised,
- Identify the Distributor's remotely monitored equipment,
- Describe the communications protocols used between the stations and the supervision system,
- Install, configure and commission a remote operation station in situ,
- Analyse, maintain and troubleshoot a remote operation station, remotely and in situ,
- Configure and operate a supervision system (HMI/SCADA), by creating stations, synoptic charts and databases,
- Exploit and interpret the reports and transmitted data available in the supervision system (measurement and alarm logs),
- Update the CAMM tool associated with the remote operation station,
- Select and use the markets associated with the remote operation project,
- Control the fault reporting and transmission chain.

Skills assessment

Learning outcomes will be measured by:

- Formative assessment will take place throughout the course, based on the results of practical exercises and questions asked during theory classes.



Maintenance Networks

Z436

Maintain network valves
IN-PERSON LEARNING
14 hours - 2 days

Z405

Initial training for systematic leak detection operators on foot
IN-PERSON LEARNING
14 hours - 2 days

Z375

Refresher course for systematic leak detection operators on foot
IN-PERSON LEARNING
7 hours - 1 day



Z436

MAINTAIN NETWORK VALVES

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 14 hours - 2 days

TARGET AUDIENCE:

This course is open to:

- Gas technicians maintaining network valves
- Service Agency Managers overseeing network valve maintenance activities.

PREREQUISITES:

Staff enrolled on the course must:

- Have completed course Z432 "Technical fundamentals of a Gas Technician".

OR

- Have equivalent knowledge.

Objectives of the training course

In work situations, employees must:

- Maintain network valves (including network pressure relief valves).

Skills developed

On completion of the course, trainees should be able to:

- Implement procedures for accessing and working on gas installations,
- Link the different types of valve to their sensitivity class,
- Apply the maintenance schedules described in the instructions,
- Carry out the recommended treatment of each detected problem, including Optimised Maintenance of Gas Mains procedures,
- Ensure traceability by updating the CAMM system using mobile devices.

Skills assessment

- A formative assessment will be carried out throughout the course, based on the results of practical exercises and questioning.
- A summative assessment will take place at the end of the course, during course time. It must be followed by the trainee during course time on a smartphone, tablet or laptop (not supplied).

Z405

INITIAL TRAINING FOR SYSTEMATIC LEAK DETECTION OPERATORS ON FOOT

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 14 hours - 2 days

TARGET AUDIENCE:

- Gas Technician in a Service Agency responsible for monitoring networks,
- Gas Repairs Service or Gas Maintenance Specialist manager in charge of network monitoring activities.

PREREQUISITES:

For admission to this course, employees must have completed course Z432 "Gas technical fundamentals" or have acquired equivalent knowledge (see Z432 course sheet) through their professional experience.

Objectives of the training course

- Carry out surveillance of gas networks as part of a systematic search for leaks on foot.

Skills developed

- Carry out an investigation to monitor gas networks (systematic leak detection on foot),
- Adapt your behaviour when you detect a sign of a leak,
- Report on the analysis of signs during the systematic search for leaks on foot (with traceability tool/tablet/NGS environment).
- Diagnose a hardware fault and implement a level-1 solution.

Skills assessment

- A formative assessment is offered at the end of each theme.

Z375

REFRESHER COURSE FOR SYSTEMATIC LEAK DETECTION OPERATORS ON FOOT

INSTRUCTIONAL METHOD:

In-person learning

DURATION: 7 hours - 1 day

TARGET AUDIENCE:

Gas network and operations operators, who are responsible for monitoring networks by searching for leaks on foot and confirming signs of leaks (operational stage No. 1 of Systematic Leak Detection as defined in sheet EXPL0902 of the distribution guide).

PREREQUISITES:

- To start this training course, employees must have completed courses Z432 "Gas technical fundamentals" Z405 "Initial training for systematic leak detection operators on foot", or have acquired equivalent knowledge (see Z432 and Z405 course sheet) through their professional experience.

Objectives of the training course

This course will enable trainees to: -monitor gas networks as part of systematic searches for leaks on foot, in accordance with standard operating procedures and regulations governing this activity.

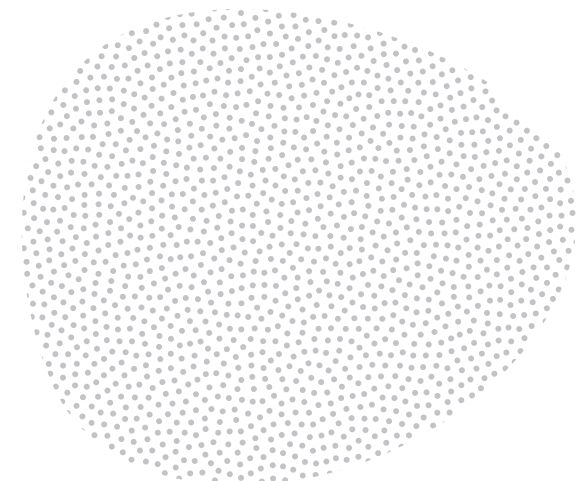
Skills developed

On completion of the course, trainees should be able to:

- Adapt their behaviour to the specific risks associated with gases,
- Identify the right detectors for systemic leak detection on foot on the networks,
- Link the activities of the various stakeholders to the regulatory context of systematic leak detection on foot,
- Carry out a gas networks monitoring investigation in compliance with requirements of systemic leak detection on foot,
- Report on the analysis of signs of leaks observed during the systematic search for leaks on foot.

Skills assessment

- A formative assessment will be carried out throughout the course, based on the results of practical exercises and questioning.
- A summative assessment will take place at the end of the course, during course time. It must be followed by the trainee during course time on a smartphone, tablet or laptop (not supplied).





Maintenance Concentrator

P

Z488

Managing and carrying out maintenance on radio network concentrators

BLENDED*

17.5 hours - 2.5 day

* In-person + distance learning

Z488 P

MANAGING AND CARRYING OUT MAINTENANCE ON RADIO NETWORK CONCENTRATORS

INSTRUCTIONAL METHOD:

Blended (in-person/distance learning)

DURATION: 17.5 hours - 2.5 days

TARGET AUDIENCE:

Specialised gas maintenance technicians.

PREREQUISITES:

Trainees will need to have BR level electrical clearance.

Objectives of the training course

Prepare, diagnose and maintain concentrators.

Skills developed

- Apply the concentrator maintenance procedure, differentiate between the roles and responsibilities of the various parties involved in the activity,
- Process work orders and finalise incident reports using the SID and MOB K computing tools,
- When processing service requests (SRs), analyse their priority and the conditions under which they can be carried out in order to assign them to internal or external service providers who may be able to carry them out within the required deadlines,
- Describe the operation of a concentrator, its component parts and peripheral installations,
- Carry out preventive and corrective maintenance on site (diagnosis, troubleshooting/repair follow-up),
- Describe a "non-compliant" equipment return circuit.

Energy Formation



OUR TRAINING
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