Occupational health and safety

BP Photovoltaic and BF/HF Excavation Authorisation

A day and a half for two situations provided for by NF C 18-510 (A1:2020): operations on photovoltaic installations (BP) and excavations near buried electrical networks (BF, HF). Voltage present as soon as modules are lit, making the DC side safe, locating cables before digging: each point is worked on your installations and sites. Named attestation; authorisation issued by the employer.

Duration : 1.5 days

Objectives

1. Explain the electrical risk specific to photovoltaic installations: generation under illumination, direct current, arc
2. Carry out the operations allowed by the BP symbol in compliance with procedures and protective equipment
3. Identify buried electrical networks before and during an excavation, from plans and surveys
4. Apply prevention measures when excavating near low- or high-voltage cables
5. React to damage to a cable or an accident of electrical origin

Programme

Day 1 — morning

• Reminders on electrical risk, authorisation and the employer’s role

• Photovoltaic installation: modules, strings, junction boxes, inverter, DC part and AC part

• Specific hazards: voltage present under illumination, DC arc, roof work

• BP symbol: operations allowed and limits

Day 1 — afternoon

• Making the DC and AC sides safe according to the installation’s documentation

• Protective equipment, tools and verification of absence of voltage

• Practical exercises on a photovoltaic bench or on an installation made safe

• What to do in case of fire or accident on a photovoltaic installation

Day 2 — morning (workshop)

• Excavation near buried electrical networks: typical accidents and consequences

• BF and HF symbols: roles of the site manager and the operative

• Before the excavation: network plans, informing the operators, locating and marking on the ground

• During the excavation: mechanical and manual digging nearby, what to do on exposing or damaging a cable

• Theoretical test and practical assessment for BP, BF or HF according to the target symbol

Teaching methods

• Supervised practice by an equipped partner trainer, listed and rated on Inspirra
• Exercises on a photovoltaic bench or on your installation made safe
• Study of the network plans and site documents of your projects
• Cases of accidents linked to excavations and photovoltaic installations
• Theoretical and practical tests for each symbol

Assessment and documents

Theoretical test and practical assessment for each target symbol, plus a day+1 learner feedback survey. Named attestation per symbol, to be attached to the authorisation document issued by the employer, and a numbered training certificate verifiable online; training report given to the company.

Bilingual materials for every participant; each classroom course comes with its digital twin on OmniLearn.

Good to know

Participants with no training at all in electrical risk benefit from first attending “Electrical Authorisation NF C 18-510 (A1:2020)”. For operations on high-voltage installations, see “High-Voltage Authorisation (H1, H2, HC) and Live Working (TST)”.

Practical information

Duration	1.5 days
Audience	Photovoltaic installers and technicians, maintenance electricians, site managers and excavation operators
Prerequisites	Basic knowledge of electrical risk; medical fitness
Group size	Groups of 6 to 12 participants, in-company
Format	In-company, face to face on your site
Language	French, Darija or English; bilingual materials
Funding	OFPPT special training contracts (TFP), GIAC, Maroc PME: we prepare the applications with you, at no extra cost.
Programme customisation	Programme adapted to your procedures, your equipment and your audience

Frequently asked questions

Who needs BP authorisation?
People who install, connect, maintain or troubleshoot photovoltaic installations, on roofs or on the ground: maintenance technicians of sites with self-consumption plants, installers, subcontractors.

Who is concerned by the BF and HF symbols?
Site managers and operators who carry out excavations, trenches or drilling near buried electrical cables, whether electricians or not: civil works and network companies, site maintenance teams.

What does the participant receive at the end of the session?
A named attestation per symbol assessed and a numbered training certificate. The authorisation document is drawn up and signed by the employer, who remains responsible for assigning the employee to the corresponding operations.

Why combine photovoltaic and excavation in the same session?

The two situations are often met on the same projects: building a solar plant on site, extending networks, infrastructure works. The day-and-a-half format lets you train a team in both without tying it up for long.