Safety Academy Training 2024

ABOUT THE SECURITY ACADEMY

Safety Academy

The Safety Academy is a coherent and comprehensive system of specialized and certified training in explosion prevention created by experienced specialists-practitioners associated with Automatic Systems Engineering - the Polish leader in explosion safety.

ASE Technology Group

The mission of the companies in the ASE TECHNOLOGY GROUP is to provide secure technologies and solutions for industry and economic infrastructure.

The ASE Technology Group, formed as a result of years of development of the engineering company Automatic Systems Engineering, illustrates the development and specialization of Polish industry, and provides unique opportunities for the implementation of industrial facilities.

As the parent company of the ASE Automatic Systems Engineering Technology Group, it has specialized in providing comprehensive secure technology solutions for industry and infrastructure for nearly 30 years.

Since 2018, EKO-KONSULT has been operating within the Group. More than 25 years of experience in the implementation of environmental consulting including: support and preparation of investment processes, documentation for environmental impact assessment procedures.

As of 2019, the Technical Analysis Department and the ASE Safety Academy have become part of EKO-KONSULT, and this company has become the implementer of the training previously provided by Automatic Systems Engineering.

Why is it necessary to train?

European Union directives (ATEX, ATEX USER, SEVESO II) implemented into Polish legislation through relevant regulations of the Minister of Economy oblige companies to train employees in explosion prevention.

The Regulation of the Minister of Economy of July 8, 2010 on the minimum requirements, concerning occupational safety and health, related to the possibility of occurrence of an explosive atmosphere in the workplace (Official Gazette of 2010 No. 138 item 931) states:

§ 9. 1. The employer shall ensure that persons working in areas where there is a possibility of explosive atmospheres, appropriate training on explosion protection, as part of the existing training in occupational health and safety

Regardless of the dictates of the law, specialized training of employees is necessary for the safety of people, the entire plant and the correct and undisturbed operation of the production process. The importance of issues of proper competence of employees involved in the production process is evidenced by the high-profile disasters and accidents of past years in Poland and around the world.

Who should get training?

The training courses offered by the ASE Security Academy are aimed at personnel of many levels and specialties:

- Users of systems operating in hazardous areas,
- designers
- employees of companies implementing the systems,
- equipment suppliers,
- managers responsible for security matters.

Why take advantage of training?

ASE Technology Group has many years of experience in the field of explosion protection - comprehensively serving customers in the field of selection, completion of equipment, service and documentation. A reference of the company's competence are thousands of objects in Poland realized with the use of supplies in the field of explosion-proof, intrinsically safe and safety technology.

For more than a dozen years, the ASE Technology Group has been organizing scientific and technical conferences, issuing publications, and performing expert reports and audits.

Safety Academy has been organizing training courses in explosive safety issues since 2006, which have been completed by several thousand people. Trainings are conducted on the basis of the most current national and European knowledge by recognized specialists - practitioners and receive very high ratings from participants

Employees of such companies as PKN Orlen, Lotos Group, Zakłady Azotowe Puławy, Jaworzno Power Plant, Elektrociepłownia Kraków, Petrobaltic, Polpharma, Lurgi, Fluor, Energoprojekt took part in Safety Academy training. The list of plants whose employees have taken part in ASE Safety Academy training reaches several hundred positions.

Participants in Safety Academy training receive a certificate of training in Polish and English.

Training is covered by quality certification under the ISO 9001:2008 quality management system by Bureau Veritas Certification and certification by the SITP Fire Services Certification Center.

.

IECEx Recognised Training Provider

ASE Safety Academy has *IECEx Recognized Training Provider* status in accordance with *IECEx System Rules and IECEx OD 521 Procedures.*

The IECEx international certification program responds to globalization trends in industry and facilitates the free movement of goods and services while maintaining a high level of safety in the area of explosive hazards.

Certification of personnel competence according to the IECEx scheme assures businesses that employees with the appropriate certification have the qualifications and skills necessary to implement IEC standards for explosion-proof equipment. IECEx certification is particularly convenient for employees providing contract services in different countries around the world.

Workers can earn proof of their qualifications in one of ten areas, such as basic, zone designation, equipment installation, operation, overhaul, or plant design. To obtain this certification, they must pass an exam with an IECEx-certified examiner as well.

The process of obtaining a certificate of personnel competence is not easy and requires adequate preparation. That's why IECEx recommends proven training units around the world, awarding them the title of *IECEx Recognized Training Provider.* After a thorough check of the training center, programs, competence of trainers, etc., the international verifying body recognizes that during training at this particular unit, the participant will be provided with the knowledge necessary to pass the exam.


International Electrotechnical Commission

IEC IECEx

International Certification System for Electrical Equipment for use in Explosive Environments

CERTIFICATE OF RECOGNITION

IECEx Recognised Training Provider Program

This is to confirm that

Automatic Systems Engineering Sp. z o.o.

has been recognised in accordance with
IECEx System Rules and IECEx OD 521 Procedures

IEC

Chris Agius
Executive Secretary IECEx
August 2017

Safety Academy Training Certification

The Safety Academy's training courses, in addition to IECEx certification, are covered by quality certification under the ISO9000:2008 quality management system by Bureau Veritas and certification by the SITP Fire Services Certification Center.

Closed-door training in the company

Safety Academy offers closed-door training courses conducted on the premises of the workplace. We offer such trainings for groups of more than 15 people (in special cases this number can be lower).

The advantage of such training is:

- adaptation of the program to the needs of the plant
- Avoiding the cost of employee travel (travel, hotels);
- No disruption to the technological process associated with the absence of employees;
- Adjusting the date and time of the training to the plant's work system, such as an afternoon date;

We set the price of such training in each case individually.

Certificates and certificates for training participants

Each participant receives a personal certificate of training in Polish and English after passing an open knowledge test verifying the level of assimilation of the material.


AKADEMIA BEZPIECZEŃSTWA

CERTYFIKAT

Certificate

Nr/No XXXXXX/761/ASE/ATEXDM/06/2021

Pan/Mr

Imię i Nazwisko

Firma

Ukończył szkolenie

„ATEX – Dobór i montaż instalacji elektrycznych w strefach zagrożenia wybuchem"

has completed training concerning hazardous atmospheres, explosion protected electrical devices and ATEX Directives

Data szkolenia/Date of the training: 2021-06-23

Certyfikat ważny do dnia/Valid till: 2026-06-23

Zakres szkolenia / Training scope:

Zasady zapobiegania wybuchowi atmosfer gazowych i par cieczy. Analiza bezpieczeństwa. Klasyfikacja stref zagrożenia wybuchem. Źródła zapłonu / Rules of gas and liquid vapour atmospheres explosion prevention. Safety analysis. Classification of potentially explosive zones. Ignition sources

Konstrukcje urządzeń w wykonaniu przeciwwybuchowym / Explosion-proof equipment designs

Przykłady i opis urządzeń elektrycznych w wykonaniu przeciwwybuchowym / Examples and description of explosion-proof electrical equipment

Znakowanie urządzeń w wykonaniu przeciwwybuchowym / Explosion-proof equipment marking

Zabezpieczenie silników Ex / Ex motors protection

Zabezpieczenia silników Ex zasilanych z przetwornic częstotliwości / Protection of frequency converter fed Ex motors

Uziemienia w strefach zagrożenia wybuchem / Grounding in potentially explosive atmospheres

Instalacja odgromowa w strefach Ex / Lightning protection system in Ex zones

Utrzymanie ruchu – zakres przeglądów i konserwacji urządzeń Ex / Maintenance – extent of inspections and maintenance of Ex equipment

Odbiory instalacji technologicznych / Process installations acceptance

Prowadzenie prac remontowych i inwestycyjnych / Overhaul and investment works

Bezpieczne wykonywanie prac w strefach zagrożenia wybuchem / Safe performance of work in explosion hazard zones

Marcin Chorosz
Wykładowca/Tutor

Automatic System Engineering has been recognised as **IECEx Recognised Training Provider** in accordance with IECEx System Rules and IECEx OD 521 Procedures

Dariusz Jachowicz
Prezes Zarządu
General Manager

Szkolenie zostało przygotowanie i przeprowadzone pod nadzorem procedur ustanowionych w ramach systemu zarządzania jakością zgodnego z normą ISO 9001:2015 zaaprobowanego przez SGS Polska Sp. z o.o.

Numer Certyfikatu: PL 16/0458

Szkolenie certyfikowane przez Ośrodek Certyfikacji Usług Przeciwpożarowych

Numer Certyfikatu: 1/09/2008

Gdańsk, 25 czerwca 2021 r.

List of companies whose employees took part in training courses organized by the Safety Academy

- Energoprojekt-Warszawa S.A.
- Elektrobudowa S.A.
- BSiPE "Energoprojekt Gliwice" S.A.
- Liquid Fuels Logistics Operator Ltd.
- Polskie Sieci Elektroenergetyczne - Zachód S.A.
- Elektrobudowa S.A. in Katowice
- Elektromontaż - Poznań S.A.
- PGNiG S.A. in Warsaw O/Zielona Góra
- Elektrociepłownie Wybrzeże S.A. Gdańsk Combined Heat and Power Plant (Ec2)
- Petrolot Sp. z o.o
- Zakłady Azotowe "Puławy" S.A.
- Klose Pomorska Fabryka Mebli Sp. z o.o.
- Gdansk Shipyard "Remontowa" 35 people
- Elektrownia Połaniec S.A. - Electrabel Group
- Control Process S.A.
- PBG S.A.
- Energoprojekt Gliwice S.A.
- Office of Technical Inspection
- LOTOS Group S.A.
- LOTOS Serwis Sp. z o.o.
- Powszechny Zakład Ubezpieczeń S.A.
- Przedsiębiorstwo Eksploatacji Rurociągów Naftowych "Przyjaźń" S.A.
- Przedsiębiorstwo Poszukiwań i Eksploatacji Złóż Ropa i Gazu "PETROBALTIC" S.A.
- Przedsiębiorstwo Serwisu Automatyki i urządzeń Elektrycznych ELPAK Sp. z o.o.
- Siemens Industrial Turbomachinery Ltd.
- EUROPOL GAZ S.A. Transit Gas Pipeline System.
- Zakłady Chemiczne "Police" S.A.
- Zakłady Farmaceutyczne POLPHARMA S.A.
- H. Cegielski Fabryka Pojazdów Szynowych Sp. z o.o.
- Walbrzyskie Zakłady Koksownicze "Victoria" S.A.
- Lubelski Węgiel "Bogdanka" S.A.
- Naftoserwis Sp. z o.o.
- Statoil Poland Sp. z o.o.
- International Tobacco Machinery Poland Sp. z o.o.
- PETRO EnergoRem Sp. z o.o.
- CIECH S.A.
- Grodziskie Zakłady Farmaceutyczne "POLFA" Sp. z o.o.
- ORLEN Projekt S.A.
- PKN Orlen S.A.
- NESTLE Poland S.A.
- ArcelorMittal Poland S.A.
- LURGI S.A.
- LOTOS JASŁO S.A.

- PCC Rokita S.A.
- Rockfin Ltd.
- ABB Sp. z o.o.

Contact

Training under the Safety Academy brand is carried out and invoiced by EKO-KONSULT, which is part of the ASE Technology Group.
EKO-KONSULT Ltd.
6 Narwicka St., 80-557 Gdansk
KRS 0000696797, NIP 5842763741,
e-mail: biuro@ekokonsult.pl, tel. 58 554 31 38/39

Training coordinator
Grzegorz Kulczykowski
tel. +48 58 520 77 39
mob. +48 601 480 291
email: szkolenia@ase.com.pl

Secretariat of the Security Academy
Alexandra Soukup
tel. +48 572 487 508
mob. +48 58 778 54 35
email: szkolenia@ase.com.pl

TRAINING CALENDAR

Training dates and locations in 2024

SECURITY TRAINING SESSIONS

ATEX and ATEX USERS training session. Explosion safety

- February 1-2 - Gdansk
- February 22-23 - Cracow
- May 9-10 - Gdansk
- June 20-21 - Cracow
- September 19-20 - Gdansk
- November 14-15 - Gdansk
- December 12-13 - Cracow

ATEX EMAINTENACE training session. Selection, installation, inspection and maintenance of Ex equipment

- March 7-8 - Gdansk
- May 28-29 - Gdansk
- October 24-25 - Gdansk

Gaseous explosive atmospheres - classification of explosive atmospheres - dedicated training course

- February 27-28 - on line
- September 17-18 - on line

Lightning and surge protection in building structures - two-day training course

- April 9-10 - Cracow
- November 19-20 - Gdansk

EXPLOSION PROTECTION

ATEX USER - Health and safety when conducting work in potentially explosive atmospheres

- February 1 - Gdansk
- February 22 - Cracow
- May 9 - Gdansk
- June 20 - Kraków
- September 19 - Gdansk
- November 14 - Gdansk
- December 12 - Krakow

ATEX - Explosion-proof technology. Selection, installation, operation of explosion-proof equipment.

- January 24 - Poznań (Course for electricians working in open-pit mines)
- February 2 - Gdansk
- February 23 - Cracow
- March 19 - Warsaw (Course for electricians working in open-pit mines)
- May 10 - Gdansk
- June 21 - Kraków
- September 20 - Gdansk
- September 26 - Poznań (Course for electricians working in open-pit mines)
- November 6 - Warsaw (Course for electricians working in open-pit mines)
- November 15 - Gdansk

- December 13 - Krakow

ATEX - Selection and installation of electrical installations in explosion hazardous areas

- March 7 - Gdansk
- May 28 - Gdansk
- October 24 - Gdansk

ATEX - Inspection and maintenance of electrical installations in explosive atmospheres

- March 8 - Gdansk
- May 29 - Gdansk
- October 25 - Gdansk

ATEX - Repair, overhaul and reconditioning of explosion-proof motors, electrical and non-electrical and heating assemblies

- January 23 - Katowice
- May 9 - Gdansk
- May 22 - Katowice
- November 7 - Katowice

Lightning and surge protection in hazardous areas

- January 24 - Warsaw
- October 22 - Warsaw

SYSTEMS AND EQUIPMENT

Lightning and surge protection in building structures - two-day training course

- April 9-10 - Cracow
- November 19-20 - Gdansk

Design, selection, installation and operation of electric heating systems on industrial installations

- May 21 - Katowice
- October 23 - Gdansk

PROCESS SECURITY

Process safety management in practice (HAZOP)

- January 29 - Gdansk
- March 7 - Kraków
- October 3 - Gdansk
- November 28 - Kraków

Introduction to functional safety management

- January 30 - Gdansk
- March 8 - Kraków
- October 4 - Gdansk
- November 29 - Kraków

Functional safety in practice (or what every automation specialist should know)

- April 3 - Gdansk/on-line
- November 26 - Gdansk/on-line

FIRE SAFETY

Fire safety - required fire protection documentation for designed and existing facilities

- February 20 - Gdansk
- June 4 - Kraków
- November 19 - Gdansk

Conditions for fire protection in a construction project - training for non-firefighters

- February 21 - Gdansk
- June 5 - Kraków
- November 20 - Gdansk

NOT recalcitrant installation transitions - that is, what you won't find in the European Technical Assessment

- February 22 - Gdansk
- June 6 - Kraków
- November 21 - Gdansk

SAFETY OF PHOTOVOLTAIC INSTALLATIONS

Work safety at photovoltaic installations in the aspect of fire protection

- January 29 - Warsaw
- April 12 - Gdansk
- October 8 - Warsaw
- December 5 - Gdansk

Lightning and surge protection for photovoltaic installations, electric vehicle charging stations and energy storage facilities

- January 30 - Warsaw
- April 13 - Gdansk
- October 9 - Warsaw
- December 6 - Gdansk

PREVENTION OF MAJOR INDUSTRIAL ACCIDENTS

SEVESO III. Methodology for preparing the Security Report

- February 7 - on line
- June 12 - on line
- December 4 - on line

ENERGY TRANSFORMATION

Energy transformation in district heating and plant thermal management

- March 13 - Kraków
- May 15 - Gdansk
- October 16 - Kraków

ENERGY OPTIMIZATION

Efficient management of electricity

- March 20 - Gdansk/on line
- October 1 - Gdansk/on line

Benefits of energy storage

- April 18 - Gdansk/on line
- October 10 - Gdansk/on line

Training courses, the dates of which we set in consultation with interested participants

- Specialized course of operation of explosion-proof construction equipment for electrician of electrical machines and equipment with voltage up to 1 kV and above 1 kV in mining plants extracting minerals by boreholes
- Explosion-proof equipment - manufacturer's responsibility
- Technical and explosion safety taken into account at the stage of design and installation of mining machines on rubber and crawler chassis in the aspect of the ATEX Directive and mining standards
- Gas and leak detection systems
- Electrical safety in Ex zones. Tests and measurements
- Security of OT systems in light of the law on the National Cyber Security System and related regulations
- Problems of risks in environmental impact assessments of planned projects
- Installation technology for sealing cable and/or pipe ducts in fire and watertight penetrations using the certified RISE®/Nofirno® System
- Installation technology for sealing cable and/or pipe ducts in fire penetrations using system and certified sealing compounds GEAQUELLO ® E 950, Fire Seal, Navy Cross, Flamastic.
- Use of unmanned aerial vehicles (BSP, drones) in an industrial plant

Participants interested in participating in the above-mentioned trainings, as well as the organization of these trainings at the sites, please contact the Training Coordinator directly: tel: szkolenia@ase.com.pl

ATEX and ATEX USERS training session. Explosion safety

Description	The two-day ATEX and ATEX USERS training session. Explosion Safety is the most comprehensive way to gain knowledge about explosion safety. Explosion safety issues in all EU countries are regulated by two directives, known as ATEX USERS and ATEX. The ATEX USERS Directive covers basic issues of explosion safety in industrial plants, dealing with safety rules, designation of Ex zones, ORD and conditions for safe work. The ATEX directive applies to equipment and protective systems used in explosive atmospheres. The session introduces the whole issue of explosion safety: both from the side of technological and organizational requirements, as well as equipment and technical requirements. Particularly recommended for those entering Ex topics or intending to consolidate and systematize existing knowledge in a coherent manner. In the evening of the first day of the session in Gdansk, we invite Participants for a walk through the Old Town with a guide and dinner at an atmospheric restaurant on the Motlawa River. Participants of the session in Krakow are invited to take a stroll through the Market Square, along the Royal Road to Kazimierz and have dinner at a restaurant.
Training recipients	Technical and managerial staff responsible for plant safety
Tutor	Grzegorz Orlikowski, Jolanta Bladowska, Rafał Sieńko, Marcin Chorosz, Jan Milczewski
Language	PL, EN
Program	**First Day** 1. Formation of explosive atmospheres. 2. Explosion - definition, effects. 3. Legislation. 4. Minimum health and safety requirements, in workplaces where explosive atmospheres may occur. 5. Comprehensive risk assessment. 6. Explosion Protected Document (EPD) 7. Explosion hazard assessment. 8. Classification of facilities in terms of explosion hazard. 9. Principles of classification of zones in terms of explosion hazard. a) Determination of parameters of flammability and explosiveness of gases, vapors of flammable liquids and dusts. b) Process and equipment characteristics. c) Determination of combustible emission sites.

d) Assessing the probability of explosive atmospheres.
e) Consider the impact of ventilation and other safeguards on the type of zone.
f) Explosion risk analysis and assessment.
g) Minimum requirements for workplaces: integrated explosion protection.

10. integrated explosion protection measures.

Second Day

- The elements of explosion proof equipment.
- Examples and descriptions of the explosion proof electrical equipment.
- Marking of explosion-protected equipment
- Ex protected motors/engines.
- Protection systems for Ex motors powered by frequency converters
- Grounding in hazardous areas
- Lightning protection in hazardous areas
- Maintenance - the scope of the inspection and maintenance of Ex-equipment
- Carrying out repairs and investments

Duration	2 days of 6 hours each
Deadlines	According to the schedule at 9

ATEX MAINTENANCE Training Session. Selection, installation, inspection and maintenance of Ex equipment

Description	The training provides comprehensive knowledge of the implementation and operation of explosion-proof equipment and is dedicated especially to employees of plants where explosion-proof equipment is already installed and in use. The scope of the training includes PN-EN 60079-0, 60079-14, 60079-17 standards The training is enriched with a practical part. Participants will be able to practice the principles of construction of explosion-proof equipment on specific devices, train practically in the proper inspection of equipment and the principles of proper installation. The training program was developed based on the experience gained from operating equipment at one of the most modern refining plants in Poland.
Training recipients	Technical personnel at workplaces with explosive atmospheres, persons working in explosive atmospheres, persons responsible for the installation and operation of equipment in explosive atmospheres
Tutor	Marcin Chorosz
Language	PL, EN
Program	**Day I of the training** 1. Rules to prevent explosions within gas and vapor atmospheres. Analysis of safety. Hazardous area classification. Ignition sources. 2. The elements of explosion proof equipment. 3. Examples and descriptions of the explosion proof electrical equipment. 4. Marking of explosion-protected equipment **Day II of the training** 5. Ex protected motors/engines. 6. Protection systems for Ex motors powered by frequency converters 7. Grounding in hazardous areas 8. Lightning protection in hazardous areas 9. Maintenance - the scope of the inspection and maintenance of Ex-equipment 10. Carrying out repairs and investments 11. Safety when carrying out the work in hazardous areas
Duration	Day 1 - 6 hours Day 2 - 6 hours
Deadlines	According to the schedule at 9 Or by arrangement with the Training Coordinator

Gaseous and dust explosive atmospheres - classification of explosive atmospheres - dedicated training

Description	Correct classification of explosion hazard zones has a very serious impact on the safety of the installation. The classification of hazardous areas is a specialized field of safety, increasingly based on complex mathematical models, and changes frequently. The training aims to discuss the principles of classification of explosion hazard zones presented in the IEC 60079-10-1:2021 standard and in others selected standards and codes. An important advantage of the training are the workshops, during which the training group will classify zones for several typical situations.
Training recipients	Members of qualification committees approving the classification of explosion hazard zones NOTE: the training is not expected to be attended by non-members of the qualification committees
Tutor	Grzegorz Orlikowski
Language	PL, EN
Program	1. Introduction - technical standards 2. Formation of explosive atmospheres 3. Material properties of the substance affecting the risk of explosion 4. Introduction to the classification of explosion hazard zones 5. Standard IEC 60079-10-1:2021 a) Scope of the standard and exemptions b) Structure of the standard - division into normative and informational parts c) Concept of a negligible extent zone (NE) d) Principles of classification of explosion hazard zones (diameters of discharge holes, ventilation assessment, determination of the scope of explosion hazard zones) e) Significant changes compared to the 2016 version of the standard. f) Examples of classification of explosion hazard zones 6. Limitations related to the application of the IEC 60079-10-1:2021 standard 7. Review of accepted standards and technical codes for the classification of explosion hazard zones 8. Standard IEC 60079-10-2:2015: a) Scope of the standard and exemptions b) Principles of classification of explosion hazard zones c) Examples of classification of explosion hazard zones
Duration	Day 1 - 6 hours Day 2 - 6 hours
Deadlines	According to the schedule at 9 Or by arrangement with the Training Coordinator

ATEX USER - Safety of workers in potentially explosive atmospheres

Description	Basic training for all workers, including basic-level technical workers, operating in potentially explosive zones. It provides the knowledge necessary for understanding the risks caused by explosive atmospheres. The program teaches principles of safe operation of equipment and installations as well as behaviour operating in potentially explosive zones.
Training recipients	Employees of the plant working on installations with explosion hazard zones and persons responsible for the safety of the above installations.
Tutor	Jolanta Bladowska, Roman Stadnicki, Grzegorz Orlikowski, Rafał Frączek
Language	PL, EN
Program	• Explosion phenomenon, explosive atmospheres. • Material characteristics for gas, vapour and dusts. • Hazardous areas classification. • Identification and classification of ignition sources. • Risk analysis. • Explosion Protection Document for the work places (if we received EPD). • Selection of electrical and non-electrical equipment to hazardous areas. Basic knowledge.
Duration	5 hours + 1 hour for possible consultations
Deadlines	According to the schedule at 9 Or by arrangement with the Training Coordinator

ATEX - Selection and installation of explosion-protected equipment in explosion hazardous areas

Description	Training conducted by a specialist-practitioner from one of the most modern Polish refinery plants with extensive experience in the installation and assembly of electrical equipment in Ex zones. The scope of knowledge transferred in the training coincides with the requirements of PN-EN 60079-14 standard. It is based on the experience of the largest Polish companies and on proven operating practice. Especially recommended for experienced electricians.
Training recipients	Persons responsible for the installation and operation of equipment in potentially explosive atmospheres, Technical personnel at workplaces with explosive atmospheres, persons working in explosive atmospheres,
Tutor	Marcin Chorosz, Jan Milczewski
Language	PL, EN
Program	1. Rules to prevent explosions within gas and vapor atmospheres. Analysis of safety. Hazardous area classification. Ignition sources. 2. The elements of explosion proof equipment. 3. Examples and descriptions of the explosion proof electrical equipment. 4. Marking of explosion-protected equipment 5. Methods of selection of grooves and cable seating in explosive atmospheres 6. Discussion of sample installation errors
Duration	7 hours + 1 hour for possible consultations
Comments	The same topics in an expanded scope are discussed during the two-day training courses *Explosion-proof Technique and Operation of Ex Equipment on the following* dates
Deadlines	According to the schedule at 9 Or by arrangement with the Training Coordinator

ATEX – Maintenance and inspection of explosion-protected equipment in gas and dust explosion hazard zones

Description	The training provides comprehensive knowledge of the implementation and operation of explosion-proof equipment and is dedicated especially to employees of plants where explosion-proof equipment is already installed and in use. The scope of the training includes PN-EN 60079-0, 60079-14, 60079-17 standards
Training recipients	Technical personnel at workplaces with potentially explosive atmospheres, persons working in explosive atmospheres, persons responsible for the condition of equipment in explosive atmospheres
Tutor	Marcin Chorosz
Language	PL, EN
Program	1. Overview of current legislation related to explosion-proof equipment 2. Discussion of the principles of construction and operation of explosion-proof equipment 3. Equipment marking 4. Associated equipment 5. Methods of selection of grooves+ and cable seating in explosive atmospheres 6. Discussion of explosion-proof equipment and operating rules: • Electric motors • Intermediary boxes • Electrical switchboards • Lighting installations • Electric heating installations • Switchgear for repair outlets 7. Protection of motors operating in Ex zones 8. Protection of motors operating in the Ex zone powered by frequency converters 9. Lightning protection installations in potentially explosive atmospheres 10. Grounding in potentially explosive atmospheres 11. Anti-electrostatic protection in potentially explosive areas 12. Competence of personnel involved in the operation of installations in potentially explosive atmospheres 13. Maintenance - scope of inspection and maintenance of Ex equipment 14. Inspection periods for electrical installations 15. Discussion of defects that disqualify the device from operation in potentially explosive atmospheres 16. Technical acceptance of new and modernized electrical installations 17. Safe execution of installation and maintenance work in hazardous areas 18. Marking of explosion-proof equipment 19. Certification of explosion-proof equipment 20. Carrying out repair and investment works 21. Discussion of sample installation errors
Duration	7 hours + 1 hour for possible consultations

Comments	The same topics in an expanded scope are discussed during the two-day training *session ATEX OPERATION. Selection, installation, inspection and maintenance of Ex equipment*
Deadlines	According to the schedule at 9 Or by arrangement with the Training Coordinator

ATEX - Repair, overhaul and reconditioning of explosion-proof motors, electrical and non-electrical and heating assemblies

Description	The purpose of the training is to learn how to repair electric and non-electric motors/assemblies in an authorized repair facility with a Repair Capability Document. The training applies to repair and overhaul of motors up to 10 kV and repair of lighting fixtures and other equipment up to 1 kV labeled in accordance with the ATEX Directive in a potentially explosive atmosphere of gases and dust.
Training recipients	Managers and employees of repair shops, persons ordering the repair and overhaul of explosion-proof equipment responsible for the selection of the workshop
Tutor	Edward Pęcak
Language	PL
Program	1. Preliminary information. concerning equipment/assemblies in explosion-proof execution 2. Organization of the repair and overhaul facility for labeled equipment 3. Certification of a repair, overhaul and remanufacturing facility. 4. Mechanical overhaul of explosion-proof equipment. 5. Electrical repair of explosion-proof equipment. 6. Testing and post-repair protocols Introductory information on explosion-proof equipment and installations.
Duration	5 hours + 1 hour for possible consultations
Deadlines	According to the schedule at 9 Or by arrangement with the Training Coordinator

Lightning and overvoltage protection in explosive atmospheres

Description	Thunderstorms and associated lightning pose a huge explosion hazard. Facilities and technical equipment operating in Ex zones, which may be exposed to lightning, should be protected by a system of comprehensive lightning and surge protection. The training is dedicated to designers and those responsible for the safety of plants in this area
Training recipients	Designers of explosion-proof equipment in the electrical and automation industry, Technical staff at workplaces with explosive atmospheres
Tutor	Dr. Jaroslaw Wiater, Eng. Ph.D.
Language	PL
Program	• Regulations and standards on lightning protection and the principles of limiting surges in the electrical system and signal circuits; • The mechanism of lightning development and the effects of lightning current. Basic principles of lightning protection of buildings and technical equipment. Principles of designation of protected zones and safe distances; • Zonal concept of surge protection. Basic information about surge mitigation devices and principles of surge mitigation in electrical installation; • Surge mitigation devices and principles of surge mitigation in signal transmission circuits; • Specifics of lightning protection of explosion-prone facilities. Limiting surges in intrinsically safe circuits.
Duration	5 hours + 1 hour for possible consultations
Comments	Lightning protection issues are also discussed during the two-day ATEX PROJECT training session described at 15
Deadlines	According to the schedule at 9 Or by arrangement with the Training Coordinator

Explosion-proof equipment - manufacturer's responsibility

Description	Dedicated training intended for employees of plants marketing explosion-proof equipment. The training is addressed to manufacturers of electrical or mechanical equipment. In the case of manufacturers of other products (protection systems , combustion drives, apparatus), we recommend dedicated training, with a program adapted to the specific requirements for the product.
Training recipients	Those responsible for product certification, quality control, auditing, designers and builders of explosion-proof equipment
Tutor	Experienced specialist in ATEX and IECEx certification, member of Technical Committees
Language	PL, EN

Program	Framework program, subject to change to accommodate specific customer needs
	• Placing products on the EU market - producer responsibility
	• The manufacturer's role in conformity assessment according to Directive 2014/34/EU (ATEX)
	• Manufacturer's own research
	• Documents issued by Notified Bodies
	• Conformity assessment modules after the EU type testing module
	  ○ Harmonized standards and their application
	  ○ Product standards
	  ○ EN ISO/IEC 80079-34 standard
	• Use of EN ISO/IEC 80079-34 in the manufacture of explosion-proof products
	• Differences in evaluation of production system according to ATEX system and IECEx system
	• Cooperation with Notified Body
	• Evaluation of changes in the design or production technology of products and changes in standards

Duration	6 hours + 1 hour for possible consultations
Deadlines	We implement the training by arrangement with the ordering party. Please contact the Training Coordinator

EXPLOSION PROTECTION IN MINING PLANTS

Specialized course of operation of explosion-proof construction equipment for electrician of electrical machines and equipment with voltage up to 1 kV and above 1 kV in mining plants extracting minerals by boreholes

Description	Specialized course in the operation of explosion-proof construction equipment approved by the OUG in Poznań in accordance with the Decree of the Minister of the Environment of December 15, 2011 on qualifications in mining and mine rescue (Decision No. 004/626/0001/12/03763/AK) Completion of this training meets the requirements of the Act of June 9, 2011. Geological and Mining Law (Journal of Laws 2011 No. 163 item 981) and the Regulation of the Minister of Environment of August 2, 2016 on qualifications in mining and mine rescue (Journal of Laws 2016 item 1229).
Training recipients	Electrical fitters of electrical machines and equipment with voltage up to 1 kV and above 1 kV working in mining plants extracting minerals by boreholes
Language	PL
Tutor	Marcin Chorosz
Program	• Rooms and outdoor spaces at risk of explosion; • Requirements of Directive 2014/34/EU for electrical and non-electrical equipment; • Types of explosion-protected construction; • Selection, installation and operation of protective equipment and systems; • Safety of work in rooms and outdoor spaces at risk of explosion.
Duration	6 hours + 1 hour for possible consultations
Deadlines	The training covers the scope of the training course *Operation of explosion-proof equipment in gaseous and dusty atmospheres* described on the page 23, which will be specifically supplemented with a module related to the specifics of mine operations after prior notification to the Training Coordinator.

Technical and explosion safety taken into account at the stage of design and installation of mining machines on rubber and crawler chassis in the aspect of the ATEX Directive and mining standards

Description	The purpose of the training is to supplement existing knowledge in the selection, labeling and execution of electrical power supply and control projects for mining machinery and their installation in accordance with the requirements of the ATEX Directive, PN-EN harmonized standards and mining standards.
Training recipients	Persons responsible for the design, construction, manufacture and delivery of mining machinery
Tutor	Edward Pęcak
Language	PL
Program	• Introduction. Technical safety in mining plants. • Categorization of plants/equipment/installations by Group II, III and Group I according to ATEX Directive 214/34/EU; RMR OJ. 2016,item 817. • Mining machinery design structure. • Video. Coal dust explosion hazard. • Characteristics of equipment/machinery approved for underground mine operation. Group I • Definitions and division of Group I equipment into M1 and M2 categories. • Explosivity pentagon. A method of prevention considered at the design stage of mining plant/machinery and equipment. • Classification and labeling of hazards resulting from the presence of methane and/or coal dust (coal and lignite) in mine workings/processing plants in accordance with the RMŚ of January 29, 2013. Journal of Laws item 230 of 2013. • List of basic machinery and equipment used in coal mining of longwall system. List of drives. • Technical requirements for mining equipment/machinery according to PN-EN 60079-0 0:2013-03/A11:2014-03 considered at the design stage. Example list of longwall shearer components. • Mining legal acts recommended for use at the design stage of mining machinery. • Machinery Directive - 2006/42/EC - and harmonized standards. • ATEX Directive - 2014/34/EU and related harmonized standards • ATEX Directive 2014/34/EU and explosion safety in mining plants • Assessment of compliance of equipment with the essential requirements of the ATEX Directive. • Contents of technical, design documentation of mining machinery. • Technical and operational requirements of mining machinery in terms of work safety according to RMG. Dz.U Nr 199.poz.1228 taken into account at the design stage.

	• Fundamentals of the mining machinery design process. Hazard identification, risk assessment and ways to eliminate hazards. • List of materials used for structural components of mining machinery and electrical apparatus housings in accordance with PN-EN 1127-2 pt. 6.4.4. • Marking of explosion-proof electrical and non-electrical equipment according to ATEX Directive 2014/34/EU:2016 and PN-EN 60079-0:2013-03/A11:2014-03 /EPL/ and PN-EN ISO 80079-37. • Description of the signs in the description of the explosion-proof design feature of the device for Group I, II and III. • Example of labeling of housing characteristics of mining machinery components/apparatuses/assemblies in accordance with the requirements of the ATEX Directive. • IK protection degree against mechanical impact according to the standard(PN-EN 50102) and IP protection degree (housing tightness) according to PN-EN 60529:2003. • Types of contact enclosures of electrical equipment / Exe, Exd, Exde, Exi... / and non-electrical / Ex h according to PN-EN ISO 80079-37 approved for operation in potentially explosive atmospheres. • Cable inlets/glands used in the construction of Exd I equipment • Types of flameproof joints used in the detailed design of mining equipment and machinery. Tabular set of max value of flameproof joints • Intrinsically safe equipment and circuits used in potentially explosive atmospheres according to PN-EN 60079-11:2016-02, PN-EN 50394-1:2007 (group I). Examples of selected designations of intrinsically safe circuits I M1 Ex ia I Ma, I M2 Ex ib I Mb, I M2 Ex db ia ib [ia Ma][ib Mb][op is Ma] I Mb, etc. • Cables and cables used in hazardous areas for industrial installations • Electrical power systems for mining machinery, examples.
Duration	5 hours + 1 hour for possible consultations
Deadlines	Please contact the Training Coordinator

SYSTEMS AND EQUIPMENT

Lightning and surge protection in building structures - two-day training course

Description	The two-day training is designed for electrical professionals interested in expanding their competence in lightning and surge protection. The training is not limited only to issues related to facilities where there are explosion hazard zones, but applies to all building structures.
Training recipients	Electrical specialists, designers, persons responsible for the safety of plants in the field of lightning and surge protection
Tutor	Dr. Jaroslaw Wiater, Eng., PhD.
Language	PL
Program	*Day I of the training - Lightning protection* • Regulations and standards for lightning protection in MV, LV and instrumentation electrical installations. • The mechanism of lightning development and the effects of lightning current. • Detailed rules for lightning protection of buildings and technical equipment. • Risk of lightning damage, • Zonal concept of lightning protection and safe spacing, • External lightning protection of building structures, • Equalization of potentials in construction facilities, • The specifics of lightning protection of buildings at risk of explosion. *Day II of the training - Surge protection* • Regulations and standards for surge protection in MV, LV and instrumentation electrical installations. • Impact resistance of device connections. • Surge voltages and currents in LV circuits. • Detailed information on surge mitigation devices and the principles of surge mitigation in the MV, LV and instrumentation electrical system. • Coordination of the laying of low-voltage installations in a construction facility, • Limiting surges in intrinsically safe circuits. • Examples of surge protection of installations and equipment in a building facility
Duration	2 days of 6 hours each + 1 hour for possible consultations
Deadlines	According to the schedule at 9 Or by arrangement with the Training Coordinator

Detection systems and gases and leaks

Description	Threats from explosive atmospheres indicate the need for protection against this in the form of early, effective and reliable detection. The training has been developed on the basis of ASE's many years of experience in this field and legal and normative requirements. The program also covers the necessary foundation of functional safety knowledge. In the training, the participant has the opportunity to consult the basic issues of detection of his own plant.
Training recipients	Technical personnel at workplaces where toxic and explosive gases are present, People working in areas where toxic and explosive gases are present, Persons responsible for the safety of workers at workplaces with toxic and explosive gas hazards.
Tutor	Slawomir Bizewski
Language	PL
Program	• Gas detection systems: requirements, regulations; • Flammable gases: basic principles of explosion protection, ATEX issues in gas detection systems; • Toxic gases and oxygen: hazards; • Detection methods and design issues; • SIL issues in gas detection systems; • Liquid leak detection.
Duration	5 hours + 1 hour for possible consultations
Deadlines	By arrangement with the Training Coordinator

Electrical safety in Ex zones. Tests and measurements

Description	Training specifically dedicated to those responsible for the proper and compliant operation of electrical power equipment
Training recipients	Technical personnel, persons responsible for the installation and operation of electrical power equipment
Tutor	Roman Stadnicki
Language	PL
Program	Electrical safety in hazardous areas • Environment at risk of explosion • Electrical installations and equipment in Ex zones - requirements • Power supply network systems • Potential equalization systems • Electricity supply • Surge protection • Electrical safety features Tests and measurements • Measurement Law. • SI system of units • Legal metrological control of measuring instruments • Measurement methods and instruments • Measurement errors • Test and measurement instructions • Safety of measurements • The scope of tests and acceptance measurements (according to PN-EN 60079 part 17 detailed inspection of equipment and installations in the execution: "d", "e", "n" para. 6, 7, 8, 9, 10) • Scope of periodic tests and measurements • Performing the measurements required for EX objects (subject, method, purpose, conditions, principles of performance, interpretation, instrument)
Duration	5 hours + 1 hour for possible consultations
Deadlines	By arrangement with the Training Coordinator

Design, selection, installation and maitenance of electric heating systems on industrial installations

Description	Unique training on heating systems by an experienced specialist in the field
Training recipients	Designers, technical staff, people responsible for the installation and operation of electric heating systems
Tutor	Edward Pęcak
Language	PL
Program	1. The role and importance of steam and electric heating systems used in industry. 2. Advantages and disadvantages of the systems used, taking into account losses and benefits considered at the stage of design, installation and operation of the system. 3. Sources of emission of flammable substances capable of creating a potentially explosive atmosphere on industrial installations (cases of unsealed connections) during operation. 4. Marking of the resulting explosive zones formed by flammable gases, vapors and mists and dusts in accordance with the requirements of § 5.1. RMG 08.06 2010 "on the minimum requirements for occupational safety and health, related to the possibility of occurrence of an explosive atmosphere in the workplace" (Journal of Laws 2010 No. 138 item 931). 5. Labeling of heating elements and equipment in accordance with the requirements of the ATEX Directive/ 2014/34/EC. RMR 06.06.2016. (Journal of Laws 09.06.2016 item 817) and PN-EN 60079-0: 2018-09 standard. 6. Division of heating elements according to the purposes of their application according to the requirements of PN-EN 60079-30-2:2017(Electrical resistance path heating- Guidelines for design, installation and operation). 7. Fundamentals of design of electrical heating circuits including: • the type of heated medium and its minimum auto-ignition temperature • The place and environment in which the heating system will be operated, • what role does it play, i.e.: maintain process temp, protect against freezing and cooling, protect against sticking to the surface of tank-plate enclosures, or heat the medium from.... to temp at (t?) and maintain its process value. 8. Heating characteristics of used self-regulating tapes, cables and heating mats taken into account at the stage of design and operation (modernization, addition, replacement) of the heating system. 9. Control, monitoring and power distribution systems for electric heating circuits. 10. Electrical start-up of heating cables of fixed resistance and self-regulating. 11. Selection of temperature controllers and electric shock protection system during the operation of the heating system. 12. Examples of complete wiring diagrams for heating circuits for various applications. 13. Basics of installation of heating circuits on surfaces: pipes, tanks and process apparatus using junction boxes and accessories in accordance with the requirements of PN-EN 60079-30-2:2017. 14. Requirements for the selection and installation of heaters installed in tanks, in process apparatus and inside rooms at risk of explosion of flammable substances and non-explosive.

	15. Examples of installation of custom heating circuits on industrial installations. 16. Measurement of insulation resistance for heating cables and self-regulating tapes: before and after installation in accordance with the requirements of PN-HD 60364-6: 2008. 17. Requirements for how to install insulating covers for an electric heating system operated in various industrial environments. • Selection of the type and parameters of thermal insulation covers depending on the place of installation. 18. Examples of the installation of thermal insulation so-called "rigid" and flexible "tailor-made" with the use of special fibrous fabrics chemo and fireproof, 19. Protocol of handover and acceptance of the completed heating system. 20. Basics of operation of electric heating systems as required: • PN-EN 60079-17:2014 standards • PN-IEC 60364-4-47: 1999 • RMG 08.06 2010. (Journal of Laws 2010 No. 138 item 931).
Duration	5 hours + 1 hour for possible consultations
Deadlines	By arrangement with the Training Coordinator

PROCESS SAFETY

Process safety management in practice (HAZOP)

Description	HAZOP analysis is one of the most widespread analytical methods for identifying hazards in a technological process. HAZOP analysis is increasingly becoming a standard hazard identification method used in Polish industry. Due to its team nature, it requires the participation of specialists from various fields. The training prepares participants for effective participation in HAZOP sessions.
Training recipients	Technical and managerial staff responsible for plant safety, potential participants in HAZOP sessions
Language	PL, EN
Tutor	Tomasz Barnert, Łukasz Kras

Program	• Introduction to process safety management issues.
	• Discuss the security life cycle of an industrial facility.
	• Discuss risk management from a systems perspective.
	• An analytical approach to identifying threats and risks.
	• Discussion of the HAZOP method as a tool for analyzing threats and operational problems.
	• Description of emergency scenarios:
	  ○ Characterize possible root causes of emergency events.
	  ○ Characterize possible consequences due to different loss criteria.
	  ○ Characterize possible risk reduction measures and their impact on the level of security.
	• Maintain the assumed safety in the operational phase of the industrial installation.
	• Example of HAZOP analysis.
	• Competency Management System.

Duration	5 hours + 1 hour for possible consultations
Deadlines	According to the schedule at 9 Or by arrangement with the Training Coordinator

Introduction to management functional safety

Description	Reliability of safety systems has become an integral component of a long-term strategy in any industrial field. Thus, it becomes necessary to develop or update safety management systems, including functional safety. This training includes a discussion of standards and regulations, risk analysis and assessment, analysis of safety layers, determination and verification of reliability levels (SIL), along with various examples from engineering practice in Polish and foreign plants.
Training recipients	Technical and managerial staff responsible for plant safety
Tutor	Lukasz Kras, Tomasz Barnert
Language	PL, EN
Program	• Introduction to functional safety • Functional safety in directives and standards • Safety systems • Analysis of safety layers • Determination and verification of SIL safety integrity levels • Functional safety in practice - industrial examples
Duration	5 hours + 1 hour for possible consultations
Deadlines	According to the schedule at 9 Or by arrangement with the Training Coordinator

Functional safety in practice (or what every automation specialist should know)

Description	Any automation technician working on a plant will have contact with an interlocking automation system. Therefore, he should know the answer to fundamental questions, such as: how are devices selected and is their reliability the only parameter that determines this? What hardware solutions are used for measurement, logic and execution systems? What affects the correct performance of safety functions? How to define periodic tests, how to conduct them and why are they needed? Is it the only way to ensure the safety of the installation? These and many other questions are answered by a hands-on training course designed specifically for automation engineers.
Training recipients	Specialist automation engineers
Tutor	Tomasz Barnert (CFSE)
Language	PL, EN
Program	1. What is functional safety 2. Identifying SIF safety functions 3. Ways to describe and represent SIF's security functions 4. Determining the requirements for interlocking automation 5. Technical specifications and required documentation 6. Overview of equipment included in SIS systems 7. Parameters on which the reliability of equipment depends 8. Ensure the required operating conditions of SIS equipment 9. Maintaining key parameters over time 10. Required competence of personnel
Duration	5 hours + 1 hour for possible consultations
Deadlines	According to the schedule at 9 Or by arrangement with the Training Coordinator

Security of OT systems in light of the law on the National Cyber Security System and related regulations

Description	The publication of the National Cyber Security System Act of July 5, 2018 was an implementation of Directive (EU) 2016/1148 of the European Parliament and of the Council of July 6, 2016 on measures for a high common level of security of networks and information systems within the Union. The law not only imposes a number of obligations on companies in the energy, transportation, banking and financial markets infrastructure, health care or digital infrastructure sectors, but also defines severe financial penalties for identified irregularities such as lack of cyber security audits, lack of a risk management system or lack of documentation. The training will cover both the mentioned requirements as well as discuss procedural, hardware and software solutions that form the basis of cyber security systems.
Training recipients	Training addressed to: people responsible for network infrastructure security in industrial plants, OT system designers, automation specialists, OT system users
Tutor	Rafal Cichocki - since 2000, an independent cyber security systems expert in network and information systems security, data protection and incident management. Lecturer at Gdynia Maritime University from 1997 to 2007. Specialist in building high-performance and reliable computer networks. Designer and auditor of information systems security. In recent years, he has specialized in government security and security compliance issues. As of March 2018, he holds the title of Certified Palo Alto Networks Cybersecurity Academy Instructor and conducts authorized classes at the Palo Alto Networks Cybersecurity Academy.
Language	PL, EN
Program	▪ What we need to know about the legal requirements for cyber security, i.e. an overview of current laws and regulations o Directive 2016/1148 of the European Parliament and of the EU Council of July 2016 o Law of July 5, 2018 on the national cybersecurity system o Regulations of the Minister of Digitization to the law of July 5 ▪ What does the entry into force of the law On the National Cyber Security System mean in practice? o Financial penalties - is there anything to be afraid of? o No specific requirements - or due diligence? o Does the Act impose a de facto requirement to use ISO/IEC 27001, ISA99 or NIST standards? ▪ OT systems - a challenge for cyber security professionals o Why OT systems cannot be treated like IT systems - an overview of the basic differences between IT and OT systems o Overview of threats to OT systems in recent years o Man - the weakest link in the security system ▪ Implementing cyber security systems in OT systems - where to start? ▪ Cyber security standards - an overview of security models for OT systems o ANSI/ISA-62443

	○ IEC 62443 ○ ISO/IEC 2700x
Duration	5 hours + 1 hour for possible consultations
Deadlines	According to the schedule on page 9 or by arrangement with the Training Coordinator

FIRE SAFETY

Fire safety - required fire protection documentation for designed and existing facilities

Description	Introductory training on fire safety for designers, those responsible for property management, safety of facilities and installations, etc. It provides an overview of the entirety of issues related to fire safety conditions and provides a good basis for gradually expanding one's competence in this area.
Training recipients	Designers, technical and managerial staff responsible for fire safety of plants
Tutor	Piotr Samojluk
Language	PL
Program	1) Conditions for fire protection a) Laws, responsibilities b) Fire protection conditions for the construction project • Plot or land development project • Architectural and construction project • Technical design c) Fire protection conditions vs. acceptance activities 2) Fire report 3) Fire safety instruction
Duration	5 hours
Deadlines	According to the schedule at 9 Or by arrangement with the Training Coordinator

Conditions for fire protection in a construction project - training for non-firefighters

Description	The training is designed to organize the knowledge of fire safety and fire protection for people who do not have specialized training in firefighting, so that they can freely participate in work related to this area. It presents the entirety of issues related to fire protection conditions in an illustrative manner and provides a good basis for gradually expanding their competence
Training recipients	People who come into contact with fire protection issues in their professional work,
Tutor	Piotr Samojluk
Language	PL
Program	You will learn the required content about fire protection conditions for the project: • landscaping • architectural and construction • technical You will gain the ability to find information You will gain knowledge and use it in your daily work You will know where to turn for customized assistance
Duration	5 hours
Deadlines	According to the schedule at 9 Or by arrangement with the Training Coordinator

NOT recalcitrant installation transitions - that is, what you won't find in the European Technical Assessment

Description	The training prepares for the design, implementation and acceptance of installation penetrations. This topic is a very important, yet often underestimated element of fire safety.
Training recipients	Designers, contractors, building and installation acceptors
Tutor	Piotr Samojluk
Language	PL
Program	• How to read admission documents • Conditions for optimizing installation passages • Discussion of execution errors • Practical knowledge • Assistance in non-standard cases • Assist in planning fire seals for design
Duration	5 hours
Deadlines	According to the schedule at 9 Or by arrangement with the Training Coordinator

SAFETY OF PHOTOVOLTAIC INSTALLATIONS

Work safety at photovoltaic installations in the aspect of fire protection

Description	An introductory training course on fire safety in dealing with photovoltaic installations for fire inspectors and emergency services. It presents in an illustrative manner the entirety of issues related to the construction of photovoltaic installations, their operation and the dangers they introduce to users and firefighters. This training provides a basis for expanding one's competence in this area.
Training recipients	Persons responsible for fire safety of buildings and installations
Tutor	Marek Lasek - co-owner and director of Solar Safety Solutions Sp. z o.o. industry expert on photovoltaic installations and risks associated with photovoltaic modules.
Language	PL

Program	• Construction of photovoltaic installations. Regulations, standards and guidelines.
	• The nature of photovoltaic installations. How they work.
	• Overview of different types of photovoltaic installations.
	• Maintenance of photovoltaic installations
	• Determining the risks associated with a photovoltaic installation - risks and mistakes
	• Potential risks during rescue and firefighting operations
	  ○ Electric arc - DC considerations and issues
	  ○ Smoke and other hazards
	• How to neutralize the dangers of photovoltaic installation.
	• Turning off the generation of the photovoltaic system.
	• Methods for detecting dc voltages in a photovoltaic system
	• Product presentation here PVStop - a liquid tarp for switching off generation in PV installations.

Duration	5 hours
Deadlines	According to the schedule at 9 Or by arrangement with the Training Coordinator

Lightning and surge protection for photovoltaic installations, electric vehicle charging stations and energy storage facilities

Description	Effective extinguishing of photovoltaic installations, electric vehicles and battery energy storage facilities is a very serious problem. This makes effective fire prevention measures for such installations all the more important. Thunderstorms are a very common weather phenomenon in the area of Poland and pose a very serious threat to PV installations located on the roofs of houses and open charging stations for electric vehicles and energy storage facilities
Training recipients	Persons responsible for fire safety of buildings and installations
Tutor	Dr. Jaroslaw Wiater, Eng.
Language	PL
Program	• Lightning and surge hazards to electronic systems. • Lightning and surge protection - basic principles. • Lightning and surge protection of photovoltaic installations. • Lightning and surge protection for electric vehicle charging stations. • Lightning and surge protection of electricity storage facilities. • The most common problems in lightning and surge protection. • Insurance problems for facilities equipped with photovoltaic installations, charging stations and electricity storage.
Duration	6 hours
Deadlines	According to the schedule at 9 Or by arrangement with the Training Coordinator

PREVENTION OF MAJOR INDUSTRIAL ACCIDENTS

SEVESO III. Methodology for preparing the Safety Report

Description	The training is designed to provide participants with cross-cutting knowledge on: • Obligations for lower-tier and upper-tier establishment resulting from the implementation of the SEVESO III Directive into Polish legislation, • Practical aspects related to the preparation of the Emergency plan/Safety report
Training recipients	Technical and managerial staff responsible for the safety of lower-tier and upper-tier establishment
Tutor	Grzegorz Orlikowski
Language	PL
Program	• Obligations of the operator of a lower-tier and upper-tier establishment resulting from the implementation of the SEVESO III Directive • Security analysis and development of major-accident scenarios. List possible major-accident scenarios • Determination of the frequency of events (LOPA) • Determination of impact magnitude and safe distances according to new requirements • Selection of the possible major-accident scenarios • Risk assessment and definition of requirements for technical systems • Confirmation of compliance with new "reliability" requirements • New investments and modernization of production facilities at upper-tier establishment
Duration	5 hours
Deadlines	According to the schedule at 9 Or by arrangement with the Training Coordinator

ENVIRONMENTAL PROTECTION

Problems of risks in environmental impact assessments of planned projects

Description	A significant event in 2017 was the entry into force of new legal regulations related to the implementation into Polish law of Directive 2014/52/EU of the European Parliament and of the Council of April 16, 2014 amending Directive 2011/52/EU on the assessment of the effects of certain public and private projects on the environment (Official Journal of the EU L 124 of April 25, 2014, pp. 1-18). It resulted in an expansion of the requirements for the documentation necessary to obtain a decision on environmental conditions. The goal of the training is to provide participants with cross-cutting knowledge: About new requirements for submitted documentation at the stage of obtaining a decision on environmental conditions (project information sheet, environmental impact report) concerning, among other things: climate change, assessment of the risk of a major accident or natural and construction disaster, consequences resulting from the decision on environmental conditions for the design, preparation , implementation and operation of projects, including obtaining decisions, permits and other approvals. The training is designed to prepare cadres to identify key issues regarding the scope of the project and its anticipated environmental impact.
Training recipients	Technical and managerial staff responsible for investments in plants, environmental specialists
Tutor	Monika Bednarska, Andrzej Tyszecki
Language	PL
Program	• Environmental protection in the investment process • Environmental impact assessments • Integrated permits • Environmental audits and reviews • Public consultation • Environmental consulting
Duration	5 hours + 1 hour for possible consultations
Deadlines	According to the schedule at 9 Or by arrangement with the Training Coordinator

CRITICAL INFRASTRUCTURE SECURITY

Security of offshore critical infrastructure - Offshore Wind Farms

Description	Energy facilities, ports, fuel terminals are important elements of critical infrastructure. Currently, Offshore Wind Farms located beyond the border of the Polish territorial zone are gaining particular importance. Companies that are involved in various aspects of the process of construction and subsequent operation of the OWF and its offshore infrastructure must navigate among complex Polish, European and international regulations. Training conducted by an expert in the area of *security* in the offshore zone.
Training recipients	Operators monitoring the operation of critical infrastructure facilities - coastal and offshore. Those responsible for the safety of offshore critical infrastructure. Managers and technical staff of OWF investors, design companies and contractors related to the offshore industry
Tutor	Miroslaw Ogrodniczuk
Language	PL, EN

Program	• Concept of Critical Infrastructure.
	  ○ Basic terminology
	  ○ Legislation
	  ○ CI Protection Program and Plan
	  ○ Categories of protected objects and responsibility for their protection
	  ○ CI operator
	• Maritime Critical Infrastructure
	  ○ Shore, offshore
	  ○ Specifics and limitations
	  ○ Regulations
	  ○ Duties and responsibilities of the CI Operator
	  ○ Responsibility for protection
	  ○ Legal and competence gaps
	• Introduction to Offshore Wind Farm Projects in the Polish Exclusive Economic Zone.
	  ○ Location
	  ○ Meaning
	  ○ Specifics
	  ○ Classification in the Critical Infrastructure system
	  ○ Protection or defense
	• Safety of the OWF in the context of Critical Infrastructure
	  ○ Intentional and unintentional violations of IMF security
	  ○ Targets and perpetrators.
	  ○ Losses and consequences.
	  ○ Risk analysis
	  ○ Participants in the protection and defense system
	  ○ How to respond and with whom to interact
	  ○ Procedures

	• Case Study
	  ○ Script
	  ○ Problem
	  ○ Decisions
	  ○ Actions and reactions
	• Q&A. Summary

Duration	5 hours
Deadlines	According to the schedule at 9 Or by arrangement with the Training Coordinator

ENERGY TRANSFORMATION

Energy transformation in district heating and plant thermal management

Description	The purpose of the training is to present available technologies for heat (and electricity) generation that enable a shift away from fossil fuels to build a transition strategy in line with EU climate policies. Participants will become familiar with both the characteristic parameters of individual technologies, e.g.: heat pumps, hydrogen cogeneration, thermal energy storage, ultra-low-temperature grids, etc., and the limitations to their use. Examples of building an energy mix that meets the requirements of modern district heating will be presented. Selected formal issues affecting the heat generation industry will also be presented, i.e., EU Taxonomy; Fit for 55; Energy Law, Law on Renewable Energy Sources, Law on Energy Efficiency.
Training recipients	The training is intended for industrial and district heating plants, cooperatives and housing communities, owners of fossil fuel-fired heat sources. The training should be attended by representatives of management, energy services, services responsible for the strategy and development of enterprises, as well as representatives of local governments with district heating assets.
Tutor	Janusz Mazur
Language	PL

Program	• Concept of Critical Infrastructure.
	  ○ Basic terminology
	  ○ Legislation
	  ○ CI Protection Program and Plan
	  ○ Categories of protected objects and responsibility for their protection
	• Key EU and RP policies on heating
	  ○ Warming in the EU Taxonomy
	  ○ Fit for 55 (ETS; RED, EPBD; etc.).
	  ○ Energy law, RES law Energy efficiency law
	• Technologies for modern district heating
	  ○ Heat pumps
	  ○ Agricultural biogas plants
	  ○ Application of hydrogen in the heating industry
	  ○ Methane and hydrogen cogeneration and ORC
	  ○ Large-area and hybrid solar collectors
	  ○ Thermal energy storage facilities (PTES, BTES, TTES)
	  ○ Phase-change magazines
	  ○ Deep geothermal
	  ○ Thermal waste conversion facilities (including RDF)
	  ▪ Ultra-low-temperature networks
	  ▪ Waste heat (sewage treatment plants, among others)
	• Profiling the energy mix with simplified balancing

	○ Alternative climate transformation strategies for heat generation ○ Analysis of the possibility of covering the profile with non-fossil fuels and energy sources ○ Centralized heat supply ○ Supply based mainly on distributed sources ○ Media selection for base load and peak coverage ○ Comparison of heat/electricity generation costs using the LCOH/E method • Case study ○ NCBiR Veolia Lidzbark Warmiński (Solar energy, heat pumps and PTES long-term storage) ○ NCBiR Sokolow Podlaski (Biogas plant in the country cogeneration in the city and peak source)
Duration	5 hours
Deadlines	According to the schedule at 9 Or by arrangement with the Training Coordinator

ENERGY OPTIMIZATION

Efficient management of electricity

Description	The training will present ways to reduce the cost of electricity consumption in an industrial plant. There are quite a lot of methods for optimizing energy use and the savings associated with this are very tangible. The training will be conducted by Izabela Prazuch, Ph.D. - assistant professor at the Department of Electrical Power Engineering, Faculty of Electrical Engineering and Automation, Gdansk University of Technology, specializing in energy management, author of numerous expert opinions in this field. We will conduct the training in a hybrid formula: stationary in Gdansk and simultaneously broadcast on line. Participants of the training in Gdansk are provided with catering and are invited to visit the energy storage facility located on the campus of the ASE Technology Group in the company of a competent engineer.
Training recipients	Training designed for business owners, management, people responsible for the financial aspect of the company's operations, people responsible for energy management in the plant
Tutor	Dr. Izabela Prazuch, Eng.Ph.D.
Language	PL
Program	• Electricity cost analysis - tariff billing structure • Optimization of electricity consumption • Monitoring and the role of systems for day-to-day management of electricity • Analysis of network parameters • Reactive power compensation • Lighting • Automation and modernization of electrical installations
Duration	5 hours
Deadlines	According to the schedule at 9 Or by arrangement with the Training Coordinator

Benefits of energy storage

Description	The training will discuss an important aspect of optimization: using one of the many methods of accumulating energy when we have it in excess and it is cheap, to use it when it is scarce or expensive. The training will be conducted by an experienced specialist in this field: Mieczyslaw Wroclawski - vice president of the Polish Energy Storage Association. We will conduct the training in a hybrid formula: stationary in Gdansk and simultaneously broadcast on line. Participants of the training in Gdansk are provided with catering and are invited to visit, accompanied by a competent engineer, the energy storage facility located on the campus of the ASE Technology Group.
Training recipients	Training designed for business owners, management, people responsible for the financial aspect of the company's operations, people responsible for energy management in the plant
Tutor	Mieczyslaw Wroclawski
Language	PL
Program	• Goals we can achieve with energy storage • Safety services for the operation of the National Electricity System. • Increase the energy security of the enterprise regardless of the energy supplier - island operation • Process safety - network fault tolerance, • Increased productivity from RES with limited capacity to feed energy back into the grid-installed capacity vs. connected capacity • Local balancing - energy clusters, energy cooperatives, local communities. • Energy storage as a business activity - Energy storage operator • Energy storage facilities - Types, technical parameters and their impact on the achievement of objectives, • Business models for energy storage
Duration	5 hours
Deadlines	According to the schedule at 9 Or by arrangement with the Training Coordinator

OTHER TRAINING

Installation technology for sealing cable and/or pipe ducts in fire and watertight penetrations using the certified RISE System® /Nofirno®

Description	Theoretical and practical training designed for electricians preparing for technical work at the facility
Training recipients	Electricians, personnel supervising the execution of the work
Tutor	Edward Pęcak
Language	PL

Program	• Basic technical and performance requirements for Rise /Nofirno sealing systems , including, among other requirements:
	  ○ excessive and variable temperatures (Arctic conditions)
	  ○ temporary and continuous presence of fire in UL fire classification
	  ○ Mechanical properties and long-term retention of parameters
	• Technical parameters and usable components of NOFIRNO silicone rubber resistant to changing weather conditions, UV radiation, ozone, shock, vibration, etc.
	• Practical steps for installing a 50mm diameter cable seal using the Rise /Nofirno system, expandable to other cable and pipe diameters from 5 to 240mm included for single and/or bundled cable/pipe
	• Visual and leak-pressure evaluation with air for the completed sample. Positive result
	• Basic occupational health and safety requirements when performing cable and pipe sealing installation work with the Rise /Nofirno system

Duration	4 hours + 1 hour for possible consultations

Installation technology for sealing cable and/or pipe ducts in fire penetrations using GEAQUELLO's system and certified sealing compounds® E 950, Fire Seal, Navy Cross, Flamastic.

Description	Theoretical and practical training designed for electricians preparing for technical work at the facility
Training recipients	Electricians, personnel supervising the execution of the work
Tutor	Edward Pęcak
Language	PL
Program	• Methods of making and fixing cable and pipe routes on industrial ground installations and vessels using sealing compounds • Installation of fire sealing in horizontal penetrations and vertical cable and pipe ducts using GEAQUELLO ® E 950 system • Installation of seals using Fire Seal, Navy Cross and Flamastic system sealants. • Multi Cable Transit System • Health and safety at work during the installation of cable and pipe seals in conduits on installations in shipbuilding and vessels
Duration	4 hours + 1 hour for possible consultations

Use of unmanned aerial vehicles (BSP, drones) in an industrial plant

Description	The purpose of this training is to provide participants with knowledge of the use of unmanned aerial vehicles in the performance of tasks in industry. Upon completion of the training, they will have knowledge of the legalities of using BSPs within the workplace, as well as knowledge of: • The legal requirements for the plant's use of BSP, • requirements for the plant as a BSP user entity , • personnel requirements (psychophysical qualities, sustained fitness for the tasks of personnel and equipment, responsibility), • licensing of personnel, • The fundamentals of aviation accident investigation, • issues and organizational problems of BSP use. The training is a lecture with a practical element in the form of a flight on a BSP simulator (as a workshop option)
Training recipients	Executives of large industrial/critical infrastructure facilities. Participants do not need to have knowledge of aviation, airspace, etc.
Tutor	Grzegorz Trzeciak
Language	PL, EN
Program	General principles of operation of BSP in the airspace of the Republic of Poland • Aviation law - use of BSP • flight rules (VLOS, BVLOS) • division of flights as to purposes (recreational and sports - other) Personnel requirements • authority to fly • general vesting procedure • Maintenance of current operational capacity • psychophysical characteristics of the staff • compulsory insurance Requirements for entities • organization of the use of BSP within an industrial plant • requirements for aircraft operators • permanent airworthiness and its maintenance • investigation of aviation incidents Exercises on the simulator - flights over the plant (optional, workshop part).
Duration	5 hours + 1 hour for possible consultations