

Engineering Services



CONTROL **RISK ENGINEERING**



Risk inspection and evaluation

Based on MAPFRE GLOBAL RISKS © Np Methodology for Risk Assessment and Verification.

[more information](#)

Risk improvement plans

Preparation and monitoring of Risk Improvement Plans based on detailed recommendations for mitigation or reduction of identified risks.

[more information](#)

Account Engineering Service

Service to MAPFRE GLOBAL RISKS clients with the aim of sharing knowledge, supporting the implementation of the Improvement Plan and advising on risk management.

[more information](#)



Risk inspection and evaluation

Why? Main benefits

The growth of businesses requires effective management of the risks inherent to them. Risk management requires a detailed knowledge of the risks involved.

It is necessary to have an optimal diagnosis: the identification of critical points that allow for the design or validation of a suitable risk prevention and protection strategy.

The multidisciplinary nature of MGR's Engineering Department guarantees the quality of this diagnosis.

MGR's Engineering Department has specialists who provide a broad vision of the risks generated from the activities, based on experience of accidents and on the knowledge of the best prevention and protection standards that can be applied to the various activities.

How? Our proposal

The risk engineers at MGR prepare a technical report using their own methodology (© Np) for the assessment and verification of risks, adapted for each activity type.

The methodology (© Np) is the result of years of research and development of risk assessment, which has been continuously improved in line with the state of the art of each specialty.

What? Result

It consists of a report designed for easy interpretation and management, specific to each sector and company, focused on the diagnosis and assessment of levels of risk prevention and protection.

These reports will serve as the basis for the design of Risk Improvement Plans.



Risk improvement plans

Why? Main benefits

Having a Risk Improvement Plan allows you to develop a business strategy that ensures continuous improvement.

Improvement plans are necessary to be able to establish efficient investment policies aimed at mitigating or reducing risks.

MGR's participation in establishing these plans allows for establishing a long-lasting commitment with the company.

How? Our proposal

After a detailed analysis of the facilities and processes, we compare the results with the risk prevention and protection standards and the best practices for the sector.

Our analyses are based on joint work to collect information, which includes meetings, analysis of documentation, and visits to the facilities.

What? Result

We prepare a personalized report with recommendations for each facility where we set out their priorities and provide basic information for their implementation. We also offer ongoing customer service to answer any questions.



Account Engineering Service

Why?
Main benefits

The technical complexity of the activities carried out by our clients requires the exclusive dedication of a risk engineer.

The Account Engineer streamlines the management of the technical aspects related to the improvement of risks, and continually attends to the queries and support that these may require.

How?
Our proposal

We appoint an MGR Risk Engineer to provide ongoing technical support.

As a guideline, at least three engineering meetings will be convened for coordination and follow-up in addition to the visits scheduled in relation to the Risk Improvement Plans.

What?
Result

An exclusive risk management service for our main clients.



CULTURE AND TRAINING

KNOWLEDGE TRANSFER



Self-Check Course on Emergency Plans

Provide criteria to assess the suitability of Emergency Plans and the quality of their implementation, as well as facilitate the creation of homogeneous corporate standards for Emergency Plans.

[more information](#)

Procedures for safety management

Establish objectives, scopes, and implementation and control of procedures for safety management.

[more information](#)

Thermography

Provide more in-depth information on the methodologies used in thermographic techniques and their interpretation.

[more information](#)

Business continuity plans

Develop strategies to establish a business continuity plan.

[more information](#)

Lessons learned

Share with our clients the lessons learned from accidents in industries or facilities with similar activities.

[more information](#)

Maintenance of fire protection systems

We provide content to maintain fire protection systems in accordance with applicable standards.

[more information](#)



Self-Check Course on Emergency Plans

Why? Main benefits

The experience accumulated in the analysis of Emergency Plans of companies indicates that, in many cases, these Plans have deficiencies in basic aspects that limit their operability and effectiveness. Elements such as the self-protection structure, operational diagrams, and updating and maintenance repeatedly show areas for improvement.

How? Our proposal

The proposal consists of providing specific training aimed at the personnel responsible for developing and maintaining the Emergency Plans. This training will provide them with criteria to evaluate the suitability of the Plans of their facilities and the quality of their implementation.

What? Result

To this end, the basic structure and contents of a standard Emergency Plan are presented, and criteria for its implementation and maintenance are provided. This knowledge also allows for the establishment of uniform corporate standards for Emergency Plans across all locations



Procedures for Safety Management

Why?
Main benefits

Safety procedures are basic tools for minimizing human errors and providing an adequate response in case of abnormal operating conditions.

How?
Our proposal

Our engineers have been trained in training and communication techniques to ensure quality in the transfer of knowledge.

Our training proposal is personalized for the three forms of attendance: online, in-person, or mixed.

We have a robust and proven training platform for carrying out training sessions

What?
Result

Safety procedures revision course (2-4 hours).



Thermography

Why? Main benefits

According to our analysis of accident rates, electrical failure is one of the main causes of fires. The use of the thermographic technique by qualified professionals allows for control and reduction of electrical hazards.

How? Our proposal

Our engineers have been trained in training and communication techniques to ensure quality in the transfer of knowledge.

Our training proposal is personalized for the three forms of attendance: online, in-person, or mixed.

We have a robust and proven training platform for carrying out training sessions online.

What? Result

Training services are offered with different scopes depending on the needs of our client:

- Basic theory of thermography. Advantages of the tool for the maintenance of facilities (2 hours).
- Methodology for the practical application of thermography (3-4 hours).
- Interpreting thermographic reports (4-6 hours).



Lessons learned

Why? Main benefits

The analysis of accidents that have occurred is a consolidated technique for improving safety based on real experience.

We look for answers to the following questions: What failed? What worked correctly? What are the critical aspects and what conclusions can we draw in order to protect ourselves against these types of events?

How? Our proposal

Our engineers have been trained in training and communication techniques to ensure quality in the transfer of knowledge.

Our training proposal is personalized for the three forms of attendance: online, in-person, or mixed. We have a robust and proven training platform for carrying out training sessions online.

What? Result

Workshop studying a sample of accidents compatible with the selected activity (4 hours).



Maintenance of Fire Systems

Why? Main benefits

Accidents resulting from fire incidents remain one of the most significant causes of damage associated with facilities.

Fire protection systems require, in addition to a suitable design, proper maintenance to ensure their reliability.

How? Our proposal

Our engineers have been trained in training and communication techniques to ensure quality in the transfer of knowledge.

Our training proposal is personalized for the three forms of attendance: online, in-person, or mixed.

We have a robust and proven training platform for carrying out training sessions online.

What? Result

Fire System Maintenance course (4 hours).



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What? Result

Fire System Maintenance course (4 hours).



CONSULTANCY **CONSULTANCY REINFORCEMENT OF RISK**



Review of fire protection projects

Review projects in accordance with applicable regulations.

[more information](#)

Testing fire protection systems

Perform functional tests, analyze the results, and make recommendations for the adjustment of fire protection systems.

[more information](#)

Thermographic diagnostic center

Thermographic diagnosis and interpretation in situations of special complexity.

[more information](#)

Review of business continuity plans

Review business continuity plans and identify opportunities for improvement.

[more information](#)

Review safety management procedures

Review safety procedures and identify opportunities for improvement.

[more information](#)

Emergency Plan Stress Test

Practically evaluate an emergency plan by implementing an emergency situation that activates the action protocol.

[more information](#)



Review of fire protection projects

Why? Main benefits

The fire protection installations are a significant investment, which is why it is essential to ensure the projects' adequacy for the appropriate protection needs.

Sharing technical solutions with the insurer is an advantage to ensure the suitability of the design of these installations.

How? Our proposal

MAPFRE Global Risks' Engineering Department has certified engineers with extensive knowledge and experience in the evaluation of fire protection projects.

Our specialists have been trained to assess the suitability of the designs in accordance with reference standards and good practices, both in "active" and "passive" protection measures.

What? Result

Proposal of solutions from a technical/economic point of view to ensure the appropriate protection needs. It consists of a report that collects the technical opinions on the project and the adaptation suggestions proposed by our engineering experts.



Testing fire protection systems

Why? Main benefits

Fire protection systems must guarantee functional design features at all times. To ensure this is the case, it is necessary to perform functional tests to confirm it.

How? Our proposal

MAPFRE Global Risks' Engineering Department has certified engineers with extensive knowledge and experience in verifying the functionality of fire protection measures. One of our engineers will lead the on-site testing.

What? Result

It consists of a detailed report of the results of the tests carried out on the different systems, as well as any relevant recommendations.



Thermographic Diagnostic Center

Why? Main benefits

According to our analysis of accident rates, electrical incidents are one of the main causes of fires in the industrial sector. The use of the thermographic technique by qualified professionals helps to reduce and control electrical hazards in the most suitable way.

Sometimes it is necessary to have a second technical opinion to confirm the cause hypothesis of the defect producing the temperature anomaly in the thermographic component.

How? Our proposal

Based on work images taken by the client's technicians, we offer access to a thermographic diagnostic center as a service, where diagnostics will be received, analyzed, and shared.

What? Result

It consists of a customized descriptive report for each component submitted for consultation, as well as any recommendations that apply in each case.



Review of business continuity plans

Why? Main benefits

According to our experience, there may be certain areas of conflict between the concepts of business continuity plans, contingency plans, emergency plans, and, in general, the objectives that are set out in each of them.

It is necessary to verify the delimitations of the areas of action of each one of them.

How? Our proposal

We gather information and requirements from our client's main departments that are critical for the company to guarantee its continuity in the operation of its business, at certain levels in an exceptional situation.

We studied the methodology that has been followed to identify these requirements and how the desired activity level parameters and response time have been set for the different stages to which the new situation is subjected.

What? Result

The result of this service is to prepare a detailed report on the suitability of the current Business Continuity Plan with the pre-established objectives.



Review safety management procedures

Why? Main benefits

Safety procedures are basic tools for minimizing human errors and providing an adequate response in case of abnormal operating conditions.

Using reference standards and good practices accumulated by prestigious companies ensures the operational condition of these procedures and their effectiveness.

How? Our proposal

We offer stress tests as a service to confirm the suitability of the procedures.

We also propose recommendations for their adoption.

What? Result

It consists of a report on the evaluation and validation of the procedures reviewed and proposed to ensure their efficacy.



Emergency Plan Stress Test

Why?
Main benefits

After the activation of an Emergency Plan, significant points for improvement are often identified. Therefore, it is crucial to test and adjust the emergency plan through simulations. These actions allow the detection of possible mismatches in the action protocol and its adaptation to the risk, preventing them from manifesting in a real emergency.

How?
Our proposal

The service consists of a practical exercise in situ of an emergency situation that activates the action protocol and the mobilization of the human structure and means of self-protection.

What?
Result

A report is presented with conclusions and recommendations, both on the performance of the teams during the simulated emergency and on the content of the Emergency Plan



THE CUTTING-EDGE **SPECIALIZED SERVICES**

Providers registered at MGR

The Engineering Department has a list of specialized companies that it recommends to insured parties for consulting and developing products and services that require high specialization, as levers for carrying out the recommendations that they may require.

These companies are selected and registered after an internal evaluation process that guarantees the expertise and technical quality of the products and services that they offer, relating to the following specialty areas:

- Electrical maintenance
- Mechanical maintenance
- Fire extinguishing systems
- Fire detection systems
- The environment
- Emergency plans
- Business recovery plans
- Business continuity plans
- Crisis/communication plans
- Industrial Safety Studies: qualitative and quantitative assessment
- Human factor
- Training in emergencies
- Training in HSE
- Valuation of assets

