Engineering Services

CONTROL RISK ENGINEERING

CULTURE AND TRAINING

CONSULTANCY REINFORCEMENT OF RISK MANAGEMENT

Engineering Department MAPFRE Global Risks THE CUTTING-EDGE SPECIALIZED SERVICES

MAPFRE Global Risks

CONTROL RISK ENGINEERING

Risk inspection and evaluation

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

Risk improvement plans

Preparation and monitoring of RiskService 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

more information

Account Engineering Service

more information

CONTROL RISK ENGINEERING

Risk inspection and evaluation

	The growth of businesses requires effective manageme Risk management requires a detailed knowledge of the
Why? Main benefits	It is necessary to have an optimal diagnosis: the identifi design or validation of a suitable risk prevention and pr
	The multidisciplinary nature of MGR's Engineering Depo diagnosis.
	MGR's Engineering Department has specialists who pro from the activities, based on experience of accidents of and protection standards that can be applied to the ve
How? Our proposal	The risk engineers at MGR prepare a technical report u the assessment and verification of risks, adapted for ea The methodology (© Np) is the result of years of researc has been continuously improved in line with the state o
What? Result	It consists of a report designed for easy interpretation a company, focused on the diagnosis and assessment of These reports will serve as the basis for the design of Ris

hent of the risks inherent to them. The risks involved.

tification of critical points that allow for the protection strategy.

partment guarantees the quality of this

provide a broad vision of the risks generated s and on the knowledge of the best prevention various activities.

using their own methodology (© Np) for each activity type.

rch and development of risk assessment, which of the art of each specialty.

and management, specific to each sector and of levels of risk prevention and protection.

Risk Improvement Plans.

CONTROL RISK ENGINEERING

Risk improvement plans

Why? Main benefits	Having a Risk Improvement Plan allows you to develop continuous improvement. Improvement plans are necessary to be able to establ mitigating or reducing risks. MGR's participation in establishing these plans allows f with the company.

How? Our proposal	After a detailed analysis of the facilities and processes and protection standards and the best practices for th Our analyses are based on joint work to collect inform
	documentation, and visits to the facilities.



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.

op a business strategy that ensures

blish efficient investment policies aimed at

for establishing a long-lasting commitment

es, we compare the results with the risk prevention the sector.

mation, which includes meetings, analysis of

CONTROL RISK ENGINEERING

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? We appoint an Our proposal As a guideline in addition to t

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.



An exclusive risk management service for our main clients.

MAPFRE Global Risks

CULTURE AND TRAINING **KNOWLEDGE TRANSFER**

Risk management

Create a culture through informative actions about the concepts that are involved in the subject of Risk Management for the sustainability of businesses.

Procedures for safety management

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

more information	more information
Business continuity plans	Lessons learned
Develop strategies to establish a business continuity plan.	Share with our clients the lessons learned from accidents in industries or facilities with similar activities.

more information

more information

Thermography

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

more information

Maintenance of fire protection systems

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

more information

CULTURE AMD TRAININF KNOWLEDGE TRANSFER	Risk Management	
	Why? Main benefits	Our customers have departments specialized in risk mark knowledge of the best available methodologies.
	How? Our proposal	Our engineers have been trained in training and comm quality in the transfer of knowledge. Our training proposal is personalized for the three forms in-person, or mixed. We have a robust and proven training platform for carry online.
	What? Result	Personalized programs in specific or general subjects of

nanagement. This discipline requires up-to-date

nmunication techniques to ensure

ns of attendance: online,

irrying out training sessions

of Risk Management.

CULTURE AMD TRAININF KNOWLEDGE TRANSFER

Procedures for Safety Management

Why? Safety procedure Main benefits providing an ade

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

How?	Our engineers have been trained in training and com transfer of knowledge.
Our proposal	Our training proposal is personalized for the three form in-person, or mixed.
	We have a robust and proven training platform for ca

What? Result	Safety procedures revision course (2–4 hours).

mmunication techniques to ensure quality in the

rms of attendance: online,

carrying out training sessions

CULTURE AMD TRAININF KNOWLEDGE TRANSFER	Thermography	
	Why? Main benefits	According to our analysis of accident rates, electrical fail of the thermographic technique by qualified profession hazards.
	How? Our proposal	Our engineers have been trained in training and commu quality in the transfer of knowledge. Our training proposal is personalized for the three forms of in-person, or mixed. We have a robust and proven training platform for carry online.
	What? Result	 Training services are offered with different scopes dependient: Basic theory of thermography. Advantages of the factor of the practical application of therm. Interpreting thermographic reports (4–6 hours).

failure is one of the main causes of fires. The use onals allows for control and reduction of electrical

munication techniques to ensure

ns of attendance: online,

rrying out training sessions

ending on the needs of our

ne tool for the maintenance of facilities (2 hours). ermography (3–4 hours).

CULTURE AMD TRAININF KNOWLEDGE TRANSFER	Lessons learned	
	Why? Main benefits	The analysis of accidents that have occurred is a consolid real experience. We look for answers to the following questions: What faile aspects and what conclusions can we draw in order to p
	How? Our proposal	Our engineers have been trained in training and commu transfer of knowledge. Our training proposal is personalized for the three forms of We have a robust and proven training platform for carryi
	What? Result	Workshop studying a sample of accidents compatible w

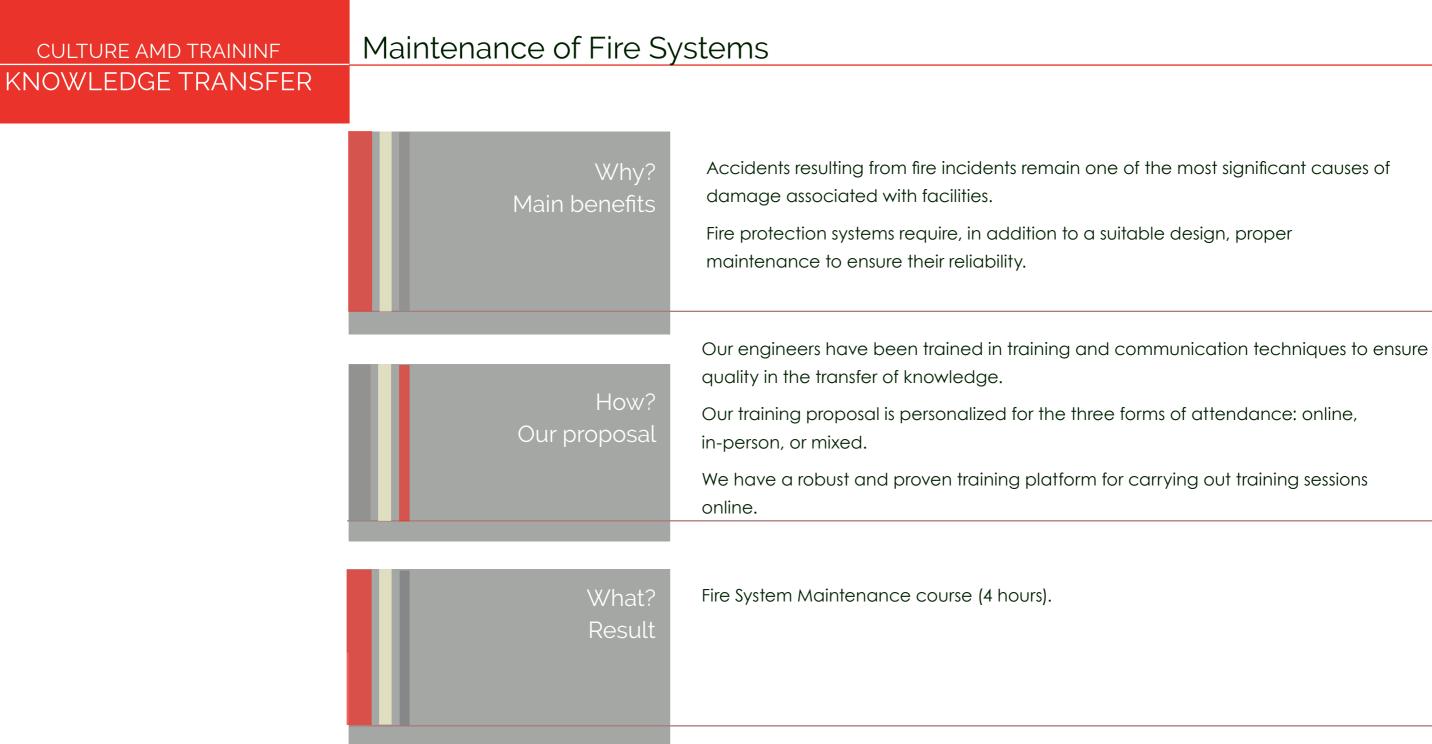
olidated technique for improving safety based on

iled? What worked correctly? What are the critical protect ourselves against these types of events?

munication techniques to ensure quality in the

s of attendance: online, in-person, or mixed. rying out training sessions online.

with the selected activity (4 hours).





CONSULTANCY CONSULTANCY REINFORCEMENT OF RISK

Review of fire protection projects	Testing fire protection systems
Review projects in accordance with applicable regulations.	Perform functional tests, analyze the results, and make recommendations for the adjust- ment of fire protection systems.
more information	more information
Review of business continuity plans	Review safety management procedures
Review business continuity plans and identify opportunities for improvement.	Review safety procedures and identify opportunities for improvement.

more information

more information

Thermographic diagnostic center

Thermographic diagnosis and interpretation in situations of special complexity.

more information

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Review of fire protection projects

The fire protection installations are a significant investment to ensure the projects' adequacy for the appropriate pro Sharing technical solutions with the insurer is an advantage design of these installations.
MAPFRE Global Risks' Engineering Department has certific experience in the evaluation of fire protection projects. Our specialists have been trained to assess the suitability reference standards and good practices, both in "active"
Proposal of solutions from a technical/economic point of needs. It consists of a report that collects the technical or suggestions proposed by our engineering experts.

nent, which is why it is essential protection needs.

ntage to ensure the suitability of the

ertified engineers with extensive knowledge and rs.

lity of the designs in accordance with tive" and "passive" protection measures.

t of view to ensure the appropriate protection al opinions on the project and the adaptation

Testing fire protection systems

Why? Main benefits	Fire protection systems must guarantee functional design To ensure this is the case, it is necessary to perform functional design is the case of the c
How? Our proposal	MAPFRE Global Risks' Engineering Department has cer experience in verifying the functionality of fire protection One of our engineers will lead the on-site testing.
What? Result	It consists of a detailed report of the results of the tests a as any relevant recommendations.

sign features at all times.

nctional tests to confirm it.

ertified engineers with extensive knowledge and tion measures.

s carried out on the different systems, as well

Thermographic Diagnostic Center

According to our analysis of accident rates, electrical industrial sector. The use of the thermographic technic control electrical hazards in the most suitable way.	Why? Main benefits
Sometimes it is necessary to have a second technical defect producing the temperature anomaly in the the	
Based on work images taken by the client's technician center as a service, where diagnostics will be received	How? Our proposal
It consists of a customized descriptive report for each well as any recommendations that apply in each case	What? Result

incidents are one of the main causes of fires in the que by qualified professionals helps to reduce and

opinion to confirm the cause hypothesis of the ermographic component.

ns, we offer access to a thermographic diagnostic d, analyzed, and shared.

component submitted for consultation, as e.

Review of business continuity plans

According to our experience, there may be certain area continuity plans, contingency plans, emergency plans, c each of them. It is necessary to verify the delimitations of the areas of a
We gather information and requirements from our client' for the company to guarantee its continuity in the opera in an exceptional situation. We studied the methodology that has been followed to i activity level parameters and response time have been s situation is subjected.
The result of this service is to prepare a detailed report or Continuity Plan with the pre-established objectives.

reas of conflict between the concepts of business s, and, in general, the objectives that are set out in

f action of each one of them.

ent's main departments that are critical eration of its business, at certain levels

to identify these requirements and how the desired on set for the different stages to which the new

on the suitability of the current Business

Review safety management procedures

Why? Main benefitsSafety procedures are basic tools for minimizing is providing an adequate response in case of abno Using reference standards and good practices a operational condition of these procedures and to providing an adequate response in case of abno to a standards and good practices a operational condition of these procedures and to	ormal op Iccumul
How? We offer stress tests as a service to confirm the su Our proposal We also propose recommendations for their add	-
What? Result It consists of a report on the evaluation and valid to ensure their efficacy.	lation of

n errors and operating conditions.

ulated by prestigious companies ensures the ffectiveness.

ty of the procedures.

of the procedures reviewed and proposed

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