REC ULUSLARARASI
Aziziye Mah. Portakal Çiçeği Sok. No:33 Çankaya / ANKARA
Phone: +90 312 441 31 41 Fax: +90 312 442 58 16

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1. PURPOSE

During the execution of the activities carried out in the Mersin-Adana-Osmaniye-Gaziantep High Standard Railway Project, to ensure that the necessary security measures are taken and controlled for fire safety.

2. SCOPE

It includes all persons (employees, interns, etc.) operating within the Mersin-Adana-Osmaniye-Gaziantep High Standard Railway Project, all operating consultants, consultants, intermediary persons and companies, and subcontractor employees.

The content of this document has been developed to determine the minimum requirements for Rönesans Holding and all affiliated Group Companies; It can be developed according to the legal regulations of the working area, employer expectations and international standards.

3. IMPROVEMENT

Persons who detect ambiguity and inconsistency in this document can report their requests and suggestions using the "User Feedback Form" in APPENDIX 1.

4. REFERENCES

MAOG-RECU-GN-GNL-IS-GNL-PRG-0002-0 Hazard and Risk Management Procedure

MAOG-RECU-GN-GNL-IS-GNL-PRG-0008-0 Work Permit System Procedure

MAOG-RECU-GN-GNL-IS-GNL-PRG-0022-0 Electrical Safety Procedure

MAOG-RECU-GN-GNL-IS-GNL-PRG-0025-0 Arrangement and Layout Standard

MAOG-RECU-GN-GNL-IS-GNL-PLG-0003-0 Emergency Action Plan

MAOG-RECU-GN-GNL-IS-GNL-PRG-0019-0 Personal Protective Equipment Procedure

TS EN 2 and TS EN 2 / A1

Regulation on Protection of Buildings from Fire

Construction Site Fire Safety, A Guide for Construction of Large Buildings – Canadian Wood Council, 2015

5. RESPONSIBILITY

5.1. Project Manager

The responsibilities of the MAOG Project Manager are as follows:

- To establish a fire safety policy covering all levels of the project, covering all employees, in order to adequately ensure and maintain fire safety in the MAOG Project.
- Leading fire safety efforts to adopt the priority of fire safety among all employees in the MAOG Project.
- Ensuring the implementation of this document in the MAOG Project and allocating the necessary resources.

5.2. Fire Safety Officer

The responsibilities of the Fire Safety Officer are as follows:

- To lead the preparation of an Emergency Action Plan, taking into account all fire risks, existing and potential resources specific to the MAOG Project.
- Taking into account this document and the Emergency Action Plan to be prepared, to appoint people with special responsibilities, to prepare their training plans and to ensure their training.
- To determine the necessary resources for the implementation of this document and the Emergency Action Plan, specific to the project.
- Conduct daily inspections to identify existing fire hazards and develop measures for their disposal.
- Liaising with the fire department when necessary.
- To ensure that everyone in the project knows and understands their responsibilities under the Emergency Action Plan.
- Ensuring daily inspections of critical facilities and equipment such as evacuation routes, fire safety markings, emergency services (lighting, communication, etc.), fire detection and alarm systems, extinguishing equipment and facilities.
- Updating evacuation routes and other elements of the Emergency Action Plan as needed based on site conditions.

5.3. Fire Fighting Team Members

The responsibilities of the Fire Fighting Team Members are as follows:

- Extinguish and control the fire at the initial level using existing fire extinguishing materials,
- Taking the necessary precautions in the areas below, above and next to the fire place, trying to prevent and extinguish the expansion of the fire,
- To ensure that vehicles and other obstacles on the route are removed in order to assist future fire and ambulance vehicles,
- Supporting the fire brigade in extinguishing activities after the fire brigade arrives,
- Working in coordination with the Operations Unit Manager regarding the supply of the team's needs,
- Maintaining the environmental safety measures after the fire is extinguished, ensuring the cleaning of the fire place, and making investigations with other teams regarding the location of the fire, the reason for the exit, fire extinguishing efforts, material damage and other losses after the fire,
- Activating manual alarms, if any, in case of fire.
- Taking measures to facilitate the evacuation of employees, visitors, suppliers and subcontractors.
- Taking part in daily inspections of critical facilities and equipment such as evacuation routes, fire safety signs, emergency services (lighting, communication, etc.), fire detection and alarm systems, extinguishing equipment and facilities.
- Ensuring accurate records of site controls, violations and the Emergency Action Plan are kept.
- Taking part in fire drills.

5.4. Fire Watchers

The responsibilities of Fire Watchers are as follows:

- To confirm the existence of necessary fire precautions before hot work begins on site.
- To monitor the fire prevention measures of the ongoing hot works in the field.
- Maintain fire surveillance until there is no possibility of fire in the work area for at least 30 minutes after hot work is completed.
- Constantly patrolling hot work areas to prevent potential fires from being triggered.

- In the event of a fire, familiarize yourself with the facilities and instructions and reach out to emergency services in order to activate the alarm.
- Keeping firefighting equipment ready and responding to fires of certain sizes when necessary.
- To investigate the potential release of flammable vapors or liquids before, during and at the end of each shift by inspecting the entire work area.

5.5.PIU (Project Implementation Unit)

- **PIU Department Manager (Superstructure / Civil Engineer) will** be responsible for overseeing the implementation of all health, safety and social measures, as specified within the disclosure package of the Project, and regular reporting to AYGM PIU.

- **PIU Physics Engineer** who is responsible for supervising health and safety for the Project.

5.6.Executive Environmental and Social Management Committee

- **Executive E&S Committee Project Manager (Department Head / Branch Manager /Head of Department)** will be ultimately responsible for overseeing the activities undertaken by the AYGM/TCDD specialists (listed below), overseeing the implementation of mitigation measures and management procedures specified within the disclosure package of the Project, and overseeing the preparation and implementation of a CESMP, which will be based on this ESMP.
- **Executive E&S Committee Environmental, Health and Safety, and Social (EHSS) Manager (Specialist / Engineer)** will be responsible for overseeing all matters that relate to environment, health, safety and social aspects of the Project. Also, s/he will be appointed to be responsible for supporting the implementation of the SEP, by conducting regular consultation with affected communities on any concern regarding the Project. CLOs will also have responsibility for disseminating the Project disclosure package as described in the SEP. They will also conduct regular inspections of records relating to grievances received and their resolution. S/He will report regularly to AYGM PIU.

Further technical staff may be required during the course of the Project, who will be assigned internally by the AYGM, either by means of permanent or temporary basis until the completion of relevant tasks under the Project whilst they undertake their current responsibilities

5.7.Headquarter E&S Manager:

Responsible for managing infrastructure and superstructure projects regarding environmental and social governance issues and member of the Executive E&S Committee on behalf of the REC.

5.8.Employees

The responsibilities of the employees are as follows:

- Reporting all potential fire hazards.
- Comply with all fire safety rules, instructions, markings and warnings.
- Use workplace-appropriate safety equipment and personal protective equipment as assigned by MAOG Project Management.

6. DEFINITIONS AND ABBREVIATIONS

Emergency Lighting:It refers to the lighting provided by the luminaire's own power or by being fed from a second energy source, in case the ordinary lighting circuits are interrupted.

Exothermic ReactionReactions that release heat while taking place are called exothermic reactions. In these reactions, the energy of the substance decreases.

Endothermic Reaction:Reactions that take heat from the outside while taking place are called Endothermic reactions. Reactions that require external heat energy to provide the activation energy required for a chemical reaction to occur.

Heat:It is a physical effect that causes the temperature of an object to increase. Heat is energy. As the temperature of an object increases, the motion of the molecules also increases. This event allows the substance to combine with oxygen.

Escape (Fire) Ladder:It refers to the staircase that can be used for the safe and rapid evacuation of people in the building in case of fire and other emergencies, which is arranged in a fire-proof manner and opens to a secure area at natural ground level.

Escape Distance:It refers to the length of the walking path that a user, who is at the furthest point that can be stopped in a space on any floor, has to take to the nearest floor exit.

Escape route!It refers to the whole of the road from any point of the building to the street or street at ground level, which is not blocked in any way, including exits from rooms and other detached volumes, corridors and similar passages on the floors, floor exits, stairs reaching the ground floor and the roads leading to the last exit of the building.

Welding Blanket:Made of heat-resistant fabric, approved and kept in the area where hot works (works that will cause sparks and flames such as chipping, grinding, welding works, heat application, sandblasting) are carried out, to prevent the contact of the fire factor with the flammable material, to cut the contact of the welding blanket with the air and to extinguish it. non-combustible material used for extinguishing fires.

Welding Curtain:Made of heat resistant fabric, approved and designed to be positioned near hot works; non-combustible material used to prevent the fire factor from contacting with flammable material.

Control: Inspection for the evaluation of fire fighting equipment and all equipment, installations and equipment used in the project / operation to ensure fire safety.

Nozzle:They are pressure-resistant pipes made of materials such as copper, yellow and aluminum injection, which are attached to the end of the hose in order to process the water from the hoses used to send water to the fire, and which allow it to be given with more pressure by compressing the pressurized water.

Oxygen (corrosive substance): It is a colorless, odorless gas that does not burn itself but carries out combustion. -The ratio of oxygen in air is 21%. A fire needs at least 16% oxygen to survive.

Hot Work:Operations including cutting, welding, brazing, grinding, thermal spraying, torch sealing, open flame, spark, friction or other similar activity involving another source of heat or ignition.

Hot Work Equipment: Electric or gas welding, brazing or cutting devices used in hot work.

Hot Work Permit It refers to the permission given after the control made by the authorized person or unit in order to confirm that the necessary safety conditions are met for the start and continuation of any hot work in the project / operation.

Last Exit:It refers to the end point of the road that provides an escape from a building, which gives passage to a secure area such as a road or street outside the building.

Combustion:It is a self-sustaining exothermic chemical chain reaction in which a combustible substance occurs with a combustible substance (mostly oxygen in the air) at the lowest ignition temperature.

Combustible Substance: It is a substance that can emit flammable vapor or gas or liquid in the face of heat, which can easily become charred. It is found in nature as solid, liquid and gas. Although their ignition temperatures are different, solids are less likely to ignite and explode compared to liquids and gases.

Fire:It is an uncontrollable, dangerous burning event that causes material and moral damage unless it can be extinguished.

Sprinkler System:It refers to the automatic system that is installed and sprays water in order to extinguish the fire, provide cooling and limit the developing fire until the fire brigade arrives.

Fire DoorIt refers to a door, cover or shutter that provides circulation for users, air or objects in a building, and which, when kept closed, resists the passage of smoke, heat and flame for a certain period of time.

Firewall In the event of a fire, it refers to the materials applied to prevent the fire from growing further.

Fire WatchersIt is a person who has been adequately trained in his duties and authorities, will observe the work area and all the area that the work may affect, have knowledge about fire fighting, emergency plan, use of fire-related equipment and is authorized by the MAOG Project Management.

Fire Safety Equipment:It refers to all equipment used for detection, extinguishing, protection, rescue purposes in order to eliminate and reduce fire safety risks.

7. IMPLEMENTATION

7.1. Competence Requirements and Evidence and Acceptance of Competence

In the MAOG Project, only employees with the competency specified in this document can work in the field of fire safety. The minimum competency requirements for the designated tasks are defined below.

Table1 Competency Matrix

Position	**Professional competence**	**Experience**	Vocational training
Fire Watcher	High School	Experience: At least 2 years in the field of fire safety	At least 1 day of theoretical and practical training in the field of fire safety in the last 2 years by the relevant project or enterprise (by IGU, etc.) or from an approved institution.
Fire Fighting Team Member	High School	Experience: At least 2 years in the field of fire safety	At least 1 day of theoretical and practical training in the field of fire safety in the last 2 years from an institution approved by the relevant project or enterprise.
Fire Safety Officer	Graduated from 4-year departments of universities	Experience: At least 5 years in the field of fire safety.	At least 2 days of theoretical and practical training in the field of advanced fire safety or fire surveillance in the last 2 years from

			an institution approved by the relevant project or enterprise.

Fire Watch, Fire Fighting Team Member and Fire Safety Responsible are all duties, and people with these assignments may have different job descriptions.

For proof of competence and acceptance by MAOG Project Management, the following must be provided.

Professional competence

The original or certified copy of the relevant secondary or higher education diploma or graduation certificate.

The original or a copy of the relevant professional qualification or vocational training certificate.

Experience:

SSI statement showing that you have worked in the relevant task or field for the period of time or a working document or reference letter on the letterhead of the institution, stamped and signed by the authorized person.

Vocational training:

The original or certified copy of the certificate containing the content, duration, date, name of the participant, information of the training provider organization, or the letterhead of the training provider institution, which contains the same information and confirms the participation in the training, by the training provider institution, stamped and signed by the authorized person. .

7.2. Fire Classes and Fire Extinguishing Methods

7.2.1. Fire Classes:

Combustion begins when fuel, heat and oxygen come together in the right proportions. This is often described as the "fire triangle". Thanks to the addition of a fourth component to this triangle, called a chemical chain reaction, the fire continues until at least one of the components is removed.

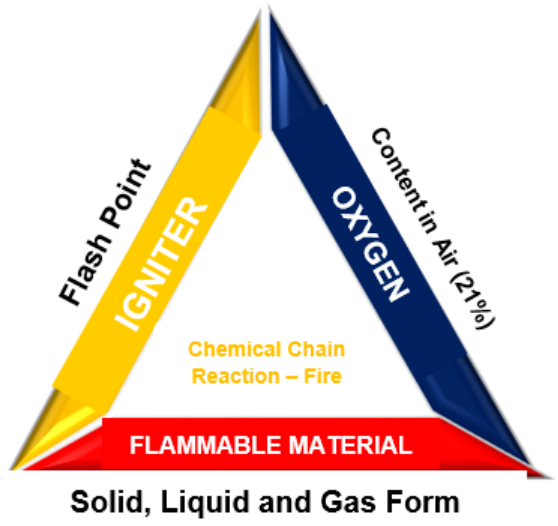

Figure1: Fire tetrahedron

According to TS EN 2 and TS EN 2 / A1 fire classes are as follows;

A class fire: It covers solid material fires, usually of organic nature, that normally burn in the form of embers. (Example: wood, coal, paper, grass, cloth, etc.)

B class fire: Covers liquid or liquefiable solid fires. (Example: Gasoline, benzol, diesel, solvent, tar, alcohols etc.)

C Class fire: Covers gas fires. (Example: Methane, propane, butane, LPG, acetylene, coal gas, natural gas, hydrogen etc.)

D class fire: Covers metal fires. (Example: Aluminum, lithium, magnesium, titanium, zirconium, zinc, bairam, uranium, plutonium, sodium, potassium, calcium etc.)

F Class fire: Covers fires of vegetable and animal cooking oils in cooking appliances.

Although not specified in TS EN 2 and TS EN 2/A1, fires of electrical devices and electrical installations connected to the energy source will be defined as “Electrical Fires” in this document.

7.2.2. Special firefighting methods

Extinguishing is accomplished by eliminating at least one of the combustible material, oxidizer, heat and chain chemical reaction components that make up the combustion. The methods for this are listed below:

Cooling: It is to reduce the temperature below the ignition point by taking heat from the combustible material. For example, the ignition temperature of wool is 600C. It goes out when the burning wool is cooled to 550C.

Suffocation: It is to reduce the oxygen concentration below the required rate for combustion. For example, while the automatic carbon dioxide extinguishing system is being designed, the amount that will reduce the oxygen ratio in the relevant volume to 15% is calculated. Oxygen does not need to be down to zero. The fire goes out when the oxygen content is reduced below 16%.

Removing fuel: In some cases, the fire is effectively extinguished by eliminating the fuel source. Liquid or gas flow is stopped to destroy the fuel source. For example, by closing the gas valve, the fuel is cut off. Or the solid fuel in the path of the fire is eliminated. The counterfire method in forest fires is based on this method. In addition, the continuation of the fire is prevented by increasing the ignition temperature of the combustible material and rendering it incombustible by chemical and physical effects of some extinguishing agents. For example, in an alcohol fire, the dilution made by squeezing water prevents the fire from continuing.

Preventing the chain reaction: Some extinguishing agents, such as dry chemical powders and halogenated hydrocarbons, create reactions that do not produce heat with the combustible material, interrupting the flame-producing chemical reaction and stopping the ignition. For example, when halon gas is applied, a reaction with halogens occurs and oxidation stops abruptly.

7.2.3. Substances Used as Fire Extinguishers

Substances used in fire extinguishing are detailed below:

Water: It is seen as the most used extinguishing agent today. Although there is a wide variety of extinguishing agents, water will always remain the main extinguishing agent. Because 90% of the fires

are Type A (Solid) fires. Class A fires are embers. The basic principle in fire extinguishing is to suffocate the flame and to cool the fire. The most ideal extinguishing agent for cooling is water.

Foam: Pressurized water + foam concentrate (Detergent) + obtained mechanically from the air mixture, with a lower density than oil or water, which can adhere to vertical or horizontal surfaces, form a cover on the burning liquid, preventing the air from entering and flammable vapors to come out, keeping these properties for a long time. It is a stable mass of tiny bubbles that persists. Where a hose is used, it is used by attaching a mixer (Mixer, Melanger) equipment to the fire scene before a hose is left and giving foam concentrate from this point. There are holes in the lance to mix the air. In portable extinguishing devices, water and foam concentrate are ready mixed. While being ejected by the pressure given by the propellant, it also takes the air from its lance and forms the foam. The foam production success of portable foam extinguishers is low and should be tested.

Dry Chemical Powder It is especially effective in extinguishing Class B and C fires. There is also one that is effective in class A fires in the initial stage. Powder can be thrown out through hoses and pipes with the help of Nitrogen or Carbon Dioxide as propellant. It is not recommended for fires of dust sensitive devices such as dry chemical powders, computer systems.

Dry chemical powder extinguishing powders are successfully used in portable extinguishing devices as well as installed as a system. However, powder extinguishers are disposable and a pin is attached to prevent the trigger from being pressed in any way before use. For use, the following steps are applied respectively:

- The pin is removed,
- The hose is removed and the point of fire is aimed,
- The trigger is pressed all the way,
- It is moved to cover the burning object.
- Even if the device is not empty after use, it must be sent to filling-maintenance.

BC type dry chemical powders: They are sodium bicarbonate, potassium bicarbonate and potassium chloride powders. There are free roots in the burning area in flammable liquids. In order for the combustion to continue, they must react with each other. When BC powders are given to the fire area, they interfere with these reactive substances and act superficially. In other words, they perform extinguishing by blocking. This extinguishing agent is used in liquid and gas fires.

ABC type dry chemical powders: It is a mono ammonium phosphate (NH4H2PO4) substance. Flaming fires and superficial embers can be extinguished with ABC powder. Deeper embers continue to burn and may cause the fire to re-ignite. Backfire is prevented with ABC powders, also called core fire powder.

Carbon dioxide gas: It is a non-flammable and suffocating extinguishing agent. It is effective in B and C class fires, as well as energized electrical installation and device fires. It is also effective in the initial stages of Class A fires where not much ember has formed yet. After extinguishing class F fires by suffocating, additional cooling is required. Carbon dioxide gas is effective in closed areas, but cannot be effective in windy open areas. When carbon dioxide gas, which is liquefied under 57 bar pressure in a seamless tube, is applied approximately 50 cm above the burning object, it is 1.5 times heavier than the air and collapses downwards, removing the oxygen and creating a suffocating effect. While carbon dioxide comes out as a gas from the tube where it is a liquid, it cools down by taking the enthalpy of evaporation and comes out at a coldness of -79C. Carbon dioxide cools itself and its own container, while the effect of cooling the fire remains negligible. In order not to be harmed by this coldness, this type of extinguishers should be held by their special heat insulated handles. Since its critical temperature is 31 C, it cannot remain as a liquid at this and above temperatures, and it quickly passes

into the gas phase and opens the safety valve with the increase in pressure and the gas is discharged to the outside. Therefore, it should be kept in environments below this temperature.

Halon alternative gases:There are gases that are used as alternatives to the banned halogenated hydrocarbons because they are toxic and/or damage the ozone layer. The most common is Heptafluoropropane gas, trade name FM200. FM200 is not harmful to the ozone layer and is used successfully, especially in the system rooms of electronic systems, since its extinguishing concentration of 7% is not toxic. Unfortunately, it is known that alternatives produced for portable devices cannot show the success of halons.

D powder: They are extinguishing powders developed to intervene in class D fires. Generally, Sodium Chloride (NaCl) (table salt) powder with dehumidifying silicates added is used. Copper-based powder for vertical Lithium surfaces, as an alternative to copper for Lithium, and graphite-based powder for Magnesium, Sodium Carbonate-based extinguishing agents are also used as an alternative to the negative corrosion effect of Sodium Chloride in fires of Sodium, Potassium and Sodium-Potassium alloys. D powders do not react chemically and cause suffocating effect by isolating the metals that burn with physical effect from the oxygen of the air. After strangulation, it should be waited for cooling.

Wet chemicals: Wet chemicals are extinguishing agents specially developed for cooking oil fires. These chemicals, when applied to cooking oils, are designed to quickly extinguish the burning material by turning it into non-combustible material by creating a saponification reaction. Also, this reaction is endothermic. Thus, while the burning cooking oil is converted into non-flammable soap, cooling is also carried out. Wet chemicals consist of alkali salts and stabilizers. The most common are:

Mixture of potassium acetate (>90%) and potassium citrate (<10%),

Mixture of potassium carbonate (40 – 42%) and water (58 – 60%),

It is a mixture of potassium citrate (50%) and Water (50%).

An automatic wet-chemicals system is recommended for oil fires that may occur in hoods.

7.2.4. Extinguishing Method and Equipment to be Used According to Fire Class

Table2 Extinguishing Method and Equipment to be Used According to Fire Class

Fire class **TS EN 2**	**Description**	**Sample**	Extinguishing Method	Extinguishing media / equipment
Class A	Solid Material Fires	Wood, paper, grass, fabric etc.	Cooling	Water, ABC type dry chemical powders
Class B	Liquid fires	Gasoline, benzol, diesel, solvent, alcohols etc.	Suffocating, defueling, cutting the chain reaction	Foam, BC type dry chemical powders, carbon dioxide
Class C	Gas fires	Methane, propane, butane, LPG, natural gas etc.	Suffocating, defueling, cutting the chain reaction	Foam, BC type dry chemical powders, carbon dioxide
Class D	Metal fires	Aluminum, lithium, magnesium etc.	Suffocation	D powders
Class F	Cooking oil fires	Vegetable and animal cooking oils	Interrupting chemical reaction, cooling	wet chemicals

Fire class **TS EN 2**	**Description**	**Sample**	Extinguishing Method	Extinguishing media / equipment
Electrical fires		Electrical panels, electrical installations	Suffocation	Carbon dioxide, halon alternative gases for electronic equipment and system rooms (FM200)

7.3. Management of Fire Risks

7.3.1. Risk Assessment:

In the MAOG Project, fire risks are evaluated before the work. Although this assessment is not less than the following;

- Presence of hot works,
- Flammable, combustible and explosive substances to be used or in the environment,
- Electrical installation and electrical equipment,
- Construction machinery and equipment,
- Escape routes from the working environment,
- Detection and extinguishing systems, equipment,
- Waste disposal
- Heating and heating equipment,
- Order And Layout
- Nearby buildings, facilities and works,
- Smoking ban,
- Hazardous chemicals, flammable and combustible materials, warehouse areas
- Surveillance

Above issues are taken into account.

The methods to be used in the risk assessment to be carried out are explained in the MAOG-RECU-GN-GNL-IS-GNL-PRG-0002-0 Hazard and Risk Management Procedure.

Special risk assessment methods and techniques are applied within the framework of applicable legal requirements and good practices in areas with special risks in terms of fire, such as hospitals and shopping malls.

7.3.2. Hot Work Permit System

The hot works carried out in the MAOG Project are subject to a work permit. Requirements for the work permit system to be applied for the hot works to be done. 7.1.4 of the MAOG-RECU-GN-GNL-IS-GNL-PRG-0008-0 Work Permit Procedure. explained in the article.

7.3.3. Emergency Action Plan

Emergency Action Plan (ADEP) is prepared by considering the specific conditions and risks of the project. In the preparation of ADEP, this document, local legal requirements in the country where the project is located and international references are taken into account. While developing the plan, the

opinions and suggestions of the authorities, such as the local fire safety authority, fire brigade and/or the MAOG Project fire safety authority in the area where the project is located, are considered beneficial.

ADEP varies by project size and complexity, but covers at least the following topics:

- Identification of employees responsible for fire safety duties, definition and organization of their duties and responsibilities,
- Emergency instructions to follow, including sounding the alarm in the event of a fire, notifying the fire department, instructions to workers on procedures to follow when the alarm sounds, and extinguishing the fire;
- Measures to identify and eliminate/reduce fire hazards in and around the site,
- Maintenance instructions for fire detection and extinguishing facilities and equipment,
- Documents and diagrams showing the type, location and operation of fire detection and extinguishing systems of on-site buildings,
- Mission descriptions and contact details of all emergency responders.

The Emergency Action Plan is revised in case of any changes in the project that may affect the fire risks.

MAOG Project Management carries out the following activities in order to increase the effectiveness of the Emergency Action Plan.

Fire safety training should be at least in the following scope. These are;

- Trainings explaining fire protection and evacuation instructions for all employees,
- Training given by a qualified instructor on firefighting methods, fire prevention, emergency instructions, chain of command, firefighting team safety and communication for firefighting team members and fire observers.

Minimum protective measures:

- Regular evacuation and extinguishing drills, the frequency of which will be determined at least according to the legal requirements of the location of the project,
- Management of fuel-powered equipment, including limiting use and using electric-powered alternatives whenever possible.
- Making inventories of temporary heaters, monitoring the points of use and ensuring that they are used in accordance with the manufacturer's instructions,
- Effective implementation of the hot work work permit system,
- high-level organization standards,
- Arrangements and drills for fire brigade's easy access to work areas.

Minimum detection and extinguishing measures:

- Activated fire extinguishing system installed in stages in the field,
- Sprinkler system as applicable in warehouses or flammable material warehouses,
- Fire stations with portable fire extinguishers, the number and location of which are determined in the light of legal requirements in the country of residence,
- Early installation of fire pumps when necessary for extinguishing water supply,
- Detection systems that can be monitored centrally in offices, employee dormitories, cafeterias, warehouses and warehouses and all mobilization buildings.

Minimum occupational safety and surveillance measures:

- Security guards on patrol 24 hours a day,
- Fire watchers to monitor during hot works and up to 1 hour after completion.

7.3.4. Fire Safety Equipment Registry

All fire safety equipment used in the project is recorded at the first admission to the site. The fire safety equipment record tracking chart contains all the following information regarding each fire safety equipment:

- Type
- Model
- Identity Number
- Intended Place of Use
- Manufacturer
- Field acceptance date
- Date if deprecated
- All kinds of periodic control dates
- All kinds of periodic maintenance dates.

Fire safety equipment registration chart is kept up to date.

7.4. Fire Safety Applications

7.4.1. Electrical Installation and Equipment

All electrical systems and equipment, including temporary installations, are installed and maintained by a qualified technician in accordance with country/region and project standards.

Where alternatives are available, low-voltage equipment is preferred over high-voltage equipment, while additional electrical wiring, especially temporary installations, is protected against damage from construction activities.

If possible, the main switches are turned off when the operation is finished (except those controlling the security and automatic fire detection systems) and all equipment is unplugged when not in use and stacked in such a way that it does not disturb the order.

Safe installation and operating methods for electrical wiring and electrical equipment are specified in the Electrical Safety Procedure MAOG-RECU-GN-GNL-IS-GNL-PRG-00022-0.

Electrical equipment that can be easily broken and damaged, such as lighting, and which has a negative impact on human life in cases of damage, are properly protected and attention is paid to the following points in order not to be easily damaged:

- Flammable and flammable materials are not stored directly under the lighting fixture in case of a possible lighting failure.
- In areas where flammable gases or liquids are stored, electrical equipment and lighting with ex-proof features specified in the project standards are used.
- Electrical equipment, including portable tools and power cords, is checked before starting work. Equipment that does not comply with the MAOG-RECU-GN-GNL-IS-GNL-PRG-00022-0 Electrical Safety Procedure is reported and quarantined to prevent future use by contacting the project Electrical Unit.
- Overheated electrical equipment is contained in a safe place and kept away from combustible materials.

7.4.2. Emergency, Escape and Evacuation Instructions

The information in this section has been prepared specifically for emergency measures to be taken in fire safety.

Written emergency and evacuation instructions are posted on the routes heavily used by employees and visitors within the project and are conveyed to all employees and visitors in the field.

Drills are conducted periodically to ensure the development of emergency plans and to ensure that all employees are familiar with their roles and responsibilities in any emergency.

A diagram showing the locations of fire response team routes, emergency escape routes, fire hydrants and hoses and fire extinguishers provided for use by trained personnel is prepared and hung in the appropriate areas within the project. The charts are reviewed regularly and updated as needed.

Emergency instructions contain the following information:

- Contact (phone) information according to the role distribution of the emergency team.
- Contact information for local emergency services such as the police, fire and chemical hotline.
- Notifications to warn of an emergency or a possible emergency, such as a warning alarm, depending on the nature of the emergency that may occur in the field.
- Evacuation instructions, including arrangements to assist people with hearing, vision, or mobility impairments.
- Post-incident follow-up, such as informing competent legal authorities and organizing trauma counseling or medical treatment processes.
- Practice organizations.

Employees who are exposed to fire in emergency situations activate the fire alarm and inform all employees in the immediate vicinity as well as the surrounding areas that may be affected by the fire. In addition, the employees inform the emergency team about the emergency by contacting the emergency team from the phone numbers on the emergency information boards by phone and/or radio in accordance with the project emergency instructions.

In the light of the roles and responsibilities specified in the Emergency Action Plan, Fire Fighting Team Members respond to the fire with a fire extinguisher suitable for the burning material. This intervention is carried out in situations that do not / will not pose a vital risk for the response team, taking into account the size of the fire, the danger and risks in the environment.

7.4.3. Construction Machinery and Equipment

Vehicles are not allowed to be parked inside buildings unless there is a fire detection system. If a fire detection system is in place, first make sure that the equipment has cooled down and that there are no leaks in the fuel or hydraulic systems, otherwise mobile construction equipment is not stored indoors.

Combustible materials are avoided to come into contact with or close to hot surfaces such as fluids and exhaust pipes, and the exhausts of equipment and vehicles are placed as far away from combustible materials as possible.

Fuel storage and refueling areas are not located in structures under construction, renovation or demolition.

A special area is allocated in the project for the refueling of construction machinery and equipment and refueling is carried out in this area as much as possible. During the supply, all the conditions for supply safety specified in the written manufacturer's instructions of the construction machinery and equipment are fulfilled. The precautions to be taken during the supply are specified in the MAOG-RECU-GN-GNL-IS-GNL-PRG-00013-0 Construction Equipment and Equipment Procedure.

7.4.4. Fire Extinguishing Systems

Extinguishing with water

Water extinguishing systems are designed and applied according to the legal requirements in the country and the risk assessment to be made. Water extinguishing systems can be fire hoses and valves, hydrants, sprinkler systems or a combination of these methods, depending on the assessment to be made.

If there is only the fire cabinet system as the water extinguishing system in the project, the water capacity is calculated to extinguish the fire. If there is only an environmental hydrant system in the project, the water requirement capacity is determined by the hydraulic calculations to be made. The sprinkler system design is made according to EN 12845.

Sprinklers are activated gradually as the project phases are completed as much as possible. Early commissioning is important to control the spread of fire when exposed to flammable materials during the project construction phase.

According to the legal requirements in the country of residence and the risk assessment to be made, water extinguishing systems are available in the construction site offices, employee dormitories, dining hall, resting areas, warehouses and warehouses.

Water extinguishing systems are not installed in areas where there are substances that expand with water or react with substances that may cause the fire to grow.

Fixed automatic extinguishing and prevention with foam, gas and dry powder

An appropriate type of extinguishing system is installed in areas where the extinguishing effect of water is not considered sufficient or where substances that can react with water are found, stored and produced.

The design of gaseous fire extinguishing systems is based on the EN 14520 standard. When installing all kinds of gas extinguishing systems; During automatic gas discharge or when the system is activated, audible and visual warnings are installed, which notify the personnel working in the area and enable people to evacuate the extinguishing zone.

It is designed in such a way that the vents and, if any, ventilation chimneys on the window, door or wall for natural ventilation purposes in the areas where gas fire extinguishing system will be applied are automatically closed at the time of fire detection and gas discharge.

portable extinguishing equipment

Portable extinguishing equipment shall be clearly visible and easy to access in case of fire. Fire extinguishers are located near the places where the fire is most likely, along passages and at an exit, and do not interfere with the evacuation of people during a fire.

The type and number of portable extinguishing equipment is determined by the conditions and risks existing in the areas. Unless the legal requirements in the country of residence make a definition, the type and amount of portable fire extinguisher is determined according to the risk assessment to be made. Accordingly;

- In places where a class A fire is likely to occur, primarily, multi-purpose dry chemical powder or water,
- In places where a class B fire is likely to occur, primarily dry chemical powder, carbon dioxide or foam,
- In places where a class C fire is likely to occur, primarily dry chemical powder or carbon dioxide,
- In places where a class D fire is likely to occur, primarily, dry metal powder (D powder) extinguishing equipment shall be available.

Unless local legislation defines a safer method in the project, 6 kg dry chemical powder or equivalent gas fire extinguishers of appropriate type, one for each 250 m² area, are kept.

It is obligatory to have a wheeled type extinguisher in parking lots, warehouses, installation rooms and similar places.

Extinguishing devices are visibly marked outward, near passageways and evenly distributed, and placed in or near fire cabinets, in places that are easily accessible in any case. The distance to reach the extinguishing devices is maximum 25 m. Extinguishing devices should not be kept behind doors, in closed cabinets except fire cabinets and in deep wall recesses, and should not be placed on or near heating devices. However, if for any reason extinguishing devices are placed in places that prevent them from being seen directly, their locations are indicated with appropriate phosphorescent signs.

In portable extinguishing devices, the hanging ring of the extinguisher is placed on the wall so that it can be easily removed from the wall, and the height of the devices weighing more than 4 kg and less than 12 kg from the floor does not exceed approximately 90 cm.

Wheeled fire extinguishing equipment is EN 1866 and other portable fire extinguishing equipment is EN 3 certified.

When the equipment is taken for filling, in order not to endanger the places where the extinguishing equipment is located, instead of the fire extinguishing equipment that is taken into service, fire extinguishing equipment that is ready for use is temporarily provided with the characteristics of the extinguishing equipment and in the same number.

Automatic fire detection and alarm systems; It is established and kept active in temporary structures such as dormitories, kitchens, offices, warehouses and warehouses and other mobilization areas working in the projects. Fire detection and alarm systems in permanent structures are activated gradually when each phase is completed.

Portable fire extinguishers are used as specified in the Appendix-2 Fire Extinguisher Instructions for Use.

7.4.5. Flammable and explosive materials

The planning of the use of easily flammable materials in the project / operation is done in a way that minimizes storage. Easily flammable materials are stored in a safe area at a sufficient distance from any closed area or any area where hot works are carried out, to be determined according to legal requirements or risk assessment to be made.

All application equipment used for insulation purposes is stored in a safe place at a safe distance away from buildings when not in use.

If there is no alternative to storing flammable building materials in or near a building under construction, the storage area will comply with the following rules:

- Access to the warehouse area should be limited.
- It should not be close to the area where hot works are carried out.
- The project should be in an area with fire detection and, if possible, extinguishing system or in an area where regular fire checks are carried out.
- Fire fighting equipment must be available.

7.4.6. Flammable and Flammable Liquids and Gases

The storage and use of flammable liquids and gases requires special safety precautions that address confined spaces and potential explosion risks, in addition to the normal fire risks.

Employees are given training on the storage and transportation of flammable and combustible liquids and gases.

Temporary storage of flammable liquids and gases is limited to one day's supply. When not in use, flammable liquids and gases are stored in sealed, labeled containers/tubes in a safe area, permanent areas and adequate distance from other buildings, workplaces and facilities.

All electrical installations in storage areas such as lights and switches are suitable for an environment where there may be a flammable or explosive atmosphere, non-flammable electrical installations / equipment are used.

All sources or potential sources of ignition in which an explosive atmosphere exists or are likely to exist are eliminated or kept under constant surveillance.

Easily flammable liquids and gases; It is stored separately from materials that may pose a toxic hazard such as oxygen or acetylene and chlorine that may increase the severity of the fire.

Flammable liquids, compressed gases and/or liquid propane gas are not stored together.

Empty and full gas cylinders are separated from each other and empty cylinders are marked for easy identification.

Warning and information signs indicating the dangers of the materials to be stored, the precautions to be taken and the rules to be followed are hung.

The use of acetylene is minimized and is not stored in the work area. As soon as the job is complete, the acetylene cylinders are returned to the landfill.

Leaks or spills are immediately intervened and the wastes generated after the intervention are disposed of in accordance with the project / operation waste management instruction.

Flammable liquids should never be used when there are open flames or sources of ignition in the work area. E.g; The heater fuel tanks are never filled while the equipment is running or when the fuel is hot enough to ignite. During the transfer of flammable or explosive materials from one container to another, necessary precautions are taken for static charge accumulation. In this context, the grounding connection of the transferred container and the electrical cable connection that will reset the electrical potential difference between the container is made appropriately.

Flammable liquids are used only for their intended purpose. E.g; It cannot be lit with gasoline or used as a cleaning agent.

7.4.7. Heaters

Heaters are selected in accordance with local regulations, installed, used and maintained in accordance with the manufacturer's instructions.

In heaters that work with fuel and produce exhaust, the exhaust is definitely given to a clean and air flow area. In addition, this type of heaters are at least 3 meters away from the structures where they provide the hot air flow and the material is not stacked near them. In areas with high risk of fire, a system is installed to disable all heaters at the same time.

The following precautions are taken for heaters:

- Do not use heaters near flammable materials.
- Fixing heaters in a way that minimizes the risk of tipping or misplacing.

- Periodic checking of heating equipment.
- Not covering the heaters with wet or damp covers.

7.4.8. Order And Layout

Project sites are kept neat and orderly in order to reduce fire risks. In this context, combustible materials and materials are not left haphazardly in the field, and order is kept at the highest level, especially in places where hot works are carried out.

All wastes are separated and disposed of in accordance with project instructions and local legislation. In addition, it is ensured that the storage areas are always accessible for the fire response team.

For the disposal of combustible waste materials such as oily absorbent cloths, suitable metal bins (or, for some items, lidded bins) are provided and stored away from sources of ignition.

There are gaps between the piles of stored material that can be easily used by fire fighting equipment. If applicable, the local legislation of the country where the project is located is taken into account to determine the dimensions of the relevant gaps or passage corridors.

If the sprinkler system is installed, all material piles are arranged for the effective operation of the sprinkler system, the manufacturer's instructions are taken into account before installation or during storage to ensure effective operation.

7.4.9. Hot Works

If hot work is required in the field, the person responsible for the work to be done obtains work permit in accordance with the MAOG-RECU-GN-GNL-IS-GNL-PRG-0008-0 Work Permit System Procedure, provides the work permit requirements in the work area and continues until the end of the work.

Training

All employees who will do hot work are provided with training that includes the risks of hot work and the precautions to be taken.

It is also ensured that all employees engaged in hot work are familiar with the information contained in the emergency procedures, such as how to notify the firefighting team, how to activate the fire alarm and how to evacuate the area safely in case of fire.

GENERAL RULES

- During hot work, flammable materials and liquids are far enough away from the hot work area. If it cannot be removed from the region; Fire blankets are isolated from combustible materials by guards or metal barriers.
- Before starting hot work, the work area is cleared of all combustible materials and debris.
- Combustible floors and flooring (eg wood or carpet) are covered with damp sand or fireproof covers.
- All openings in the floor and walls close to the hot work area are sealed to prevent sparks from entering or falling to a lower level, if there is a danger of heat transfer to other areas (e.g. via metal beams, bolts or pipes), these areas are inspected prior to work and easily flammable materials are removed .
- Welding or cutting torches are kept under control until the gas cylinders are completely closed.
- Hot work should never be done in areas with flammable or explosive gas, vapor, liquid, substance or dust.
- Welding or cutting metals or containers cleaned with a flammable or combustible liquid is not permitted until the metal has dried and has been cleaned using an effective method.
- Emergency response equipment is kept in the hot working area against a possible emergency.

- All hot works are supervised by the fire watcher. The fire watcher checks the work area during and after hot work. In case of a possible emergency, hot work areas are monitored at least one hour after the work is completed and checked again after four hours.
- In buildings with heat or smoke detectors, a risk assessment is made before the detectors are disabled, and the personnel working in the areas that may be affected by the work area are informed.
- After hot work is complete, hot waste materials are safely removed and disposed of, and all equipment, including gas cylinders, is stored in a safe area.
- Hot work areas are controlled by the work supervisor and the fire observer at the end of the day.

Personal Protective Equipment (PPE)

The information in this section is specific to hot work. PPE for reducing risks other than fire risks are specified in the Personal Protective Equipment Procedure MAOG-RECU-GN-GNL-IS-GNL-PRG-00019-0.

All personal protective equipment used (including parachute type safety belt and lanyard) shall be fire resistant.

Fire response team members intervene until the fire brigade arrives in order to prevent the spread of the fire. The fire response team intervenes with the following personal protective equipment.

Fire Response team minimum PPE list:

- Fireman Gloves
- Firefighter helmet with neck protector
- firefighter suit
- firefighter boat

7.4.10. Protection of Nearby Buildings and Facilities

In the Emergency Action Plan to be prepared, the buildings and facilities that are likely to be affected by fire risks near the project site are specified and the measures taken to protect the nearby buildings and facilities in case of any fire that will occur in the project / operation are determined. Among these measures:

- Emergency communication methods with buildings and facilities,
- Temporary fire barriers such as water curtains, barriers or fire tarps and other applicable effective measures are included.

7.4.11. Smoking ban,

Smoking is allowed in the MAOG Project only in areas permitted by the project management.

All employees and site visitors are fully briefed on on-site smoking areas and restrictions.

Smoking Areas

- Before it is installed, a risk assessment is made by considering the dangers around it,
- clearly defined, marked and controlled,
- It is made of non-combustible materials and is located at a sufficient distance from the buildings,
- There is an ashtray made of metal material, in which the garbage cannot be thrown out, only the butt can be extinguished,
- A fire extinguisher is available.

Smoking is prohibited in the employee dining hall, dormitory, rest rooms, offices, warehouses, warehouses and closed construction areas.

7.4.12. Detection and Extinguishing Systems in Temporary Structures

In temporary structures (such as camps, cafeterias, offices or warehouses), there is a fire detection and extinguishing equipment or system to be determined according to the requirements of the local legislation and the result of the risk assessment. Detection and extinguishing systems are installed by authorized institutions and are kept in operation continuously.

Detection systems have a central panel to easily locate a possible fire.

Extinguishing systems are determined according to the possible type of fire in accordance with the risk assessment to be made and include the following methods:

- Portable Fire Extinguishers
- Fire Hoses:
- Sprinkler systems in places with high fire risk.

Temporary structures are built with non-flammable and easily extinguished materials, taking into account local legislation requirements and risk assessment results.

In order to prevent the spread of fire between temporary structures, a separation is made or spaces are left.

All kinds of heaters and electrical equipment that produce open flames and are resistant are not used in temporary structures. Electrical installations in temporary structures, multiplexers with extension cables and all kinds of electrical equipment are regularly checked and unsuitable ones are destroyed.

Electrical installations where direct human contact of temporary structures is not foreseen are protected by residual current relays with a threshold value of 300 mA. Installations and parts where human contact may occur are protected by residual current relays with a threshold of 30 mA.

All temporary structures are checked by competent personnel before commissioning and at least once a month in accordance with their nature, taking into account the following annexes.

- ANNEX-5 Campground Fire Safety Checklist,
- EK-6 Dining Hall and Kitchen Fire Safety Checklist,
- EK-7 Office Buildings Fire Safety Checklist,
- EK-8 Warehouse and Warehouse Fire Safety Checklist

7.4.13. Waste Management

The information in this section specifies the waste management measures to be taken for fire protection. All waste management practices are expected to be defined in the project Waste Management Plan.

Dust and residues are removed from the building and its immediate surroundings at the end of each shift or as soon as possible, wastes are never incinerated for disposal or for heating purposes.

Scrap timber and other combustible waste are stacked as far away from buildings/structures as possible.

Garbage bins are located outside of buildings and away from hot works or sources close to igniting rubbish. Considering the hazards while creating a waste point, additional measures to be taken, if necessary, are specified in the risk assessment.

Low-flammability wastes, such as oily materials and materials contaminated with flammable chemicals, are stored in clearly labeled fireproof containers and removed from the site at the end of each work shift.

Waste collection areas will be sheltered and not accessible to any visitors or people around the project.

If dry grass and plants or mown grass needs to be collected (eg for green manure purposes), it is stored at a sufficient distance from closed areas and waste points.

If waste chutes are used, they are made of non-combustible materials whenever possible and placed outside the building. If not possible, additional measures to be taken by considering the hazards are indicated in the risk assessment. Measures are taken to minimize the accumulation of flammable materials close to the waste chutes as much as possible, and the garbage collection points under the chutes are emptied frequently to prevent blockages under the chutes.

It is not allowed to start a fire on the site by burning waste materials for heating purposes.

7.4.14. High Risk Sites

Local regulations may define structures, facilities and sites with higher risks in terms of fire. MAOG Project Management applies all of the measures identified in the class defined in accordance with local legislation. If the local legislation does not define places with higher risks in terms of fire, buildings and facilities where people can be found together such as hospitals, shopping malls, business centers, schools, religious buildings are considered within this definition and special precautions are applied in these buildings and facilities.

In buildings with a building height of more than 30.5 m during the construction phases, sufficient reservoir, redundant transmission line and pumping system are kept ready to ensure that the extinguishing water reaches the top floor at the desired pressure.

Permanent access ladders are built with the building so that workers can evacuate the building in case of any fire during the construction phase. Escape stairs have standard handrails, the stairs are free from tripping and falling hazards and are adequately illuminated by emergency lighting systems.

7.4.15. Cooperation with Local Fire Brigade

While preparing the Emergency Action Plan, the views of the local fire brigade are consulted and the final version of the Emergency Action Plan is shared with the local fire brigade whenever possible.

The Emergency Action Plan includes the following drawings:

- Site access points of the local fire department.
- Locations of fire extinguishers and first responder equipment.
- Built-in fire protection systems.
- Emergency escape routes and ladders.
- Available water sources and locations of operational hydrants and fire hoses.
- All other working fire safety systems provided.
- Locations of assembly points.
- Details of temporary accommodation and storage areas, including designated locations for the storage of hazardous materials such as flammable liquids and gas cylinders.

It is ensured that the local fire department visits the project at regular intervals and is informed about the structural changes that have occurred. In addition, the participation of the local fire brigade in fire drills is ensured.

The Emergency Action Plan includes arrangements for who will contact the local fire department in what situations and by what method.

7.5. Control and Maintenance of Fire Detection and Extinguishing Equipment

7.5.1. Fire Extinguishers

Monthly checks:

All fire extinguishers; A record list is kept including the inventory, locations, identification numbers, types, inspection and maintenance dates. It checks portable and wheeled fire extinguishers every month.

The following criteria are taken into account in the controls of portable fire extinguishers:

- The fire extinguisher is in its designated location and accessible. The presence of a sign or safety sign in the place where the fire extinguisher is located.
- The extinguisher is unused and its pin is sealed.
- The robustness of the control tag. Legible visibility of the fire extinguisher's identification number on the inspection label.
- Absence of significant cracks and damage to the fire extinguisher hose.
- No corrosion or damage to the fire extinguisher (especially the bottom).
- Preventing the grinding of dust by moving the dry chemical powder inside by shaking the fire extinguishers once in 15 days.
- The pressure gauge is in the green safe range.
- Replacing any fire extinguisher under repair with a spare extinguisher during this repair period.

In addition to the controls of wheeled fire extinguishers, the following criteria are taken into account:

- The gauge does not show pressure less than 1,500 PSI (10,341 KPa).
- No significant cracks, cuts or other defects in the pressure hose.
- The hose is wrapped neatly around the hose hanger.
- The wheels are undamaged, lubricated and can rotate freely.
- Access to the fire extinguisher is not blocked.
- The fire extinguisher number is clearly visible.

Controls are made using the ANNEX-3 Fire Extinguisher Checklist, after the control, the checklist is kept, the control date is written on the control label on the fire extinguisher and the signature of the person performing the control is taken.

The fire extinguisher is not allowed to be used if the following findings are encountered as a result of the check:

- The pin seal has been opened.
- The pressure gauge is in the red area.
- Deformation, wear of the fire extinguisher tube.
- Defective pressure gauge.
- Absence of month-based control label.
- Torn hose or other mechanical defects that render the fire extinguisher unusable.

Annual maintenance:

Every fire extinguisher is serviced at least once a year. Annual maintenance is carried out by the fire extinguisher manufacturer or its authorized organization. Annual maintenance covers the following elements:

- Checking the exterior for signs of damage and wear.
- Complete control of all components.
- Filling with nitrogen and dry powder if necessary.
- Checking and replacing gaskets and valves if necessary.
- Replacing the annual maintenance label.
- Taking note of annual maintenance inspection in the fire extinguisher logbook.

Extinguishers with damaged or corroded chambers are taken out of service and replaced.

The service life of dry chemical powder fire extinguishers is twelve (12) years, and carbon dioxide (CO2) fire extinguishers are five (5) years.

New fire extinguishers are inspected by the person assigned responsibility in the Emergency Action Plan, before they are put into use, and the control label is attached, and recorded in the fire safety equipment logbook.

Registration Management
Each fire extinguisher has a label affixed in a not easily deformed manner indicating the month and year of annual maintenance and signing, and a number attached to this label or to the extinguisher.

The unit that controls and maintains the fire extinguisher keeps maintenance and control records regularly.

The results of the annual maintenance of fire extinguishers are indicated in the fire extinguisher record tracking chart and fire safety equipment logbook.

7.5.2. Fire Hoses and Valves

Indoor fire hoses and valves:

Indoor fire hose valves are checked and flow tested every 6 months at an ambient temperature of not less than 5oC above zero. All functions of the valves are also checked in the test. Testing and control is carried out by persons authorized by receiving relevant training from the hose and valve manufacturer and assigned responsibility in the Emergency Action Plan.

In addition to the test and control to be carried out every 6 months, fire hoses and valves are visually checked once a month. The cabinet where the fire hose and valve is located is numbered and there are labels showing that monthly and 6-month controls and tests are carried out.

The following elements are considered in the monthly controls:

- The hose is attached to the outlet end (nozzle) and the hose valve.
- Pressurized water connection to the fire cabinet.
- Free rotation of the reel.
- No damage, tear or crack in the rubber hose.
- The hose is wound neatly around the reel.
- No gasket damage.
- All connections can be tightened without tools.

The reports of the 6-month and monthly controls and tests carried out are also kept and recorded in the fire safety equipment logbook.

EK-4 Sample Fire Cabinet and Panel Checklist is used in the controls of fire hoses and valves.

7.5.3. Extinguishing Water Supply System and Hydrants

Fire pumps:

All commissioned fire pumps are numbered and labeled so that the inspection and test dates can be seen.

The maintenance of fire pumps is carried out by the manufacturer or authorized persons or organizations in accordance with the manufacturer's instructions. Records of maintenance performed are kept.

Fire pumps are subject to a monthly visual inspection including the general condition of the pump, reservoir water level, pump power connection, position of valves and pressure gauges.

Apart from the monthly visual inspection, fire pumps are subjected to functional testing and control at least once a year by persons authorized by the pump manufacturer after receiving relevant training and assigned responsibility in the Emergency Action Plan.

Annual test and control report is kept. All tests and controls performed will be marked on the label on the pump and recorded in the pump's logbook.

Fire hydrants:

All commissioned hydrants are numbered and labeled so that the inspection and test dates can be seen.

All hydrants are subjected to functional testing and control at least once every 6 months by persons assigned responsibility in the Emergency Action Plan. In the test and control to be carried out once in 6 months, the following elements are considered:

- Easy accessibility of the hydrant.
- No damage to hydrants and valves.
- Valves can be opened easily.
- No leaks in the hydrant.
- Opening and ironing/correcting the hoses by removing them every 6 months
- Having the covers in place.
- Drain is working.

Annual test and control report is kept. All tests and controls performed are marked on the label on the hydrant and recorded in the hydrant's logbook.

7.5.4. Foaming Agent and Foam Generator

Control and testing of automatic foam extinguishing systems is carried out by persons or institutions who have received relevant training from the manufacturer and whose responsibility is assigned in the Emergency Action Plan.

The following elements are considered in the control:

- Availability of sufficient foam concentrate to feed automatic foam extinguishing systems.
- The automatic foam extinguishing system is connected to the power unit.
- The valves are in the correct position.
- Control of foam spray nozzles.
- Status of autostart detectors and extinguishing system remote controls.

Performance testing of all automatic foam extinguishing systems is performed at least once a year (using foam). The person who will prepare the test programs and make the recording method is defined in the Emergency Action Plan.

Foaming agent test:

The foaming agent needs regular testing for pH, specific gravity and foam stability.

Foaming agent stored in containers (processing units) and transported in firefighting vehicles at least once every 6 months; Tested for confirmation of pH, specific gravity and foam stability. The reports of the tests performed are kept.

Test methods, schedules and organization are specified in the Emergency Action Plan.

7.5.5. Sprinkler systems

Performance testing of all automatic sprinkler extinguishing systems is carried out at least once a year by persons or institutions that have received relevant training from the manufacturer and assigned responsibility in the Emergency Action Plan.

Test and control findings are reported and recorded.

Test methods, schedules and organization are specified in the Emergency Action Plan.

7.5.6. Fire Detection System:

All fire detection systems are checked and functionally tested at least once every 6 months, both individually and systemically. The tests and controls to be carried out are carried out in accordance with the manufacturer's instructions, by persons or institutions who have received the relevant training and assigned responsibility in the Emergency Action Plan.

Test and control findings are reported and recorded.

Test methods, schedules and organization are specified in the Emergency Action Plan.

8. MONITORING, ASSURANCE AND VERIFICATION

Key success indicators (KPIs) of this procedure will be monitored, verified and evaluated by the relevant parties in accordance with their responsibilities set forth in the E&S Governance document, within the scope of the MAOG-RECU-GB-GNL-IS-PRG-0007-0 HSE Monitoring, Assurance and Verification Procedure.

9. RELATED FORMS

APPENDIX A – Feedback Form

APPENDIX -2 Fire Extinguisher Usage Instruction

APPENDIX-3 Fire Extinguisher Checklist

APPENDIX-4 Fire Cabinet and Panel Checklist

APPENDIX-5 Campground Fire Safety Checklist

APPENDIX -6 Dining Hall and Kitchen Fire Safety Checklist

APPENDIX -7 Office Buildings Fire Safety Checklist

APPENDIX-8 Warehouse and Warehouse Fire Safety Checklist

APPENDIX 1 – FEEDBACK FORM

User Feedback Page			
When the user identifies an inaccuracy, error or uncertainty in the document, he notifies the person responsible for the document so that the necessary action can be taken. The user is asked to clearly state the changes he proposes and to return by filling out this page completely.			
User Name			
Document No		**Date**	
Page Ref.	**Brief Description of Required Changes / Corrections and Reasons**		

Submit this Page:	**Person in Charge or Corporate OHS – E Management Department**