



HEALTH AND SAFETY MANUAL

Annex II - ADVERSE WEATHER CONDITIONS PROTOCOL

The following action protocol sets out the steps to be followed during the execution of works where adverse or extreme weather conditions require preventive, corrective or emergency measures.

1. Adverse weather conditions

Adverse weather conditions are defined as those that may compromise the health and safety of workers during the assembly and disassembly phases of the event, taking into account both environmental conditions and the nature of the work to be carried out (outdoor work, manual handling, work at height, use of machinery, etc.).

For these purposes, official alerts issued by the **Spanish State Meteorological Agency (AEMET)** at **yellow, orange or red level** for the following phenomena will be used as reference:

- **Heat:** High or abnormally elevated temperatures that may generate significant heat stress on the health, operations and/or performance of workers, particularly in moderate physical work¹, and which may be aggravated in combination with high humidity, solar radiation or low ventilation.
- **Rain:** Precipitation that due to its intensity over short periods or prolonged accumulation may compromise the safety or continuity of operations, generating slippery surfaces, waterlogging, flooding, reduced visibility or electrical hazards.
- **Storm:** Convective episode with electrical activity, potentially associated with heavy rain, wind gusts or hail, and capable of generating lightning strikes, electrical hazards, sudden changes in visibility and direct impact on persons, temporary structures and temporary installations.
- **Wind:** Gusts that may affect the stability of marquees, temporary structures, signage, furniture, suspended elements, work at height, lifting operations or the safety of workers.

The internal protocol will be activated where either an official alert is issued by AEMET or the reference values set out in this document are reached. More restrictive measures may be adopted where required by the specific conditions of the project, production requirements, the H&S team or instructions issued by competent authorities.

2. Detection method

Continuous monitoring will be carried out during the assembly, event and disassembly phases.

¹ Moderate physical work is defined as work involving a continuous level of physical exertion, with active use of arms and legs and handling of medium-weight loads in accordance with NTP 922

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This system provides for permanent monitoring of official notices issued by AEMET and the reference values detailed in this protocol. Monitoring will be carried out through official communication channels and the possible activation of regional emergency plans.

3. Internal alert activation criteria

An internal alert will be issued when any of the following circumstances occur and will be duly communicated to all companies involved:

- **Issuance of an official meteorological alert at yellow level or above by AEMET** for the event area (Metropolitan and Henares).
- **Issuance of warnings, pre-alerts or activation of emergency plans** by AEMET, the Madrid City Council or other bodies with competence in emergency management.
- **Issuance of warnings when wind gust reference values are equal to or greater than those established in this protocol.**

As a general criterion, the internal alert will be activated when the risk is objective, official or otherwise verifiable, and potentially relevant to the safety of the event. Decisions must not be based solely on unconfirmed forecasts, informal interpretations or unofficial sources.

4. Action protocol

The following meteorological risk levels are established:

LEVEL	PHENOMENON	ACTIVATION VALUE	ACTION	
RISK 1 YELLOW ALERT AEMET	Heat	36°C	- Enhanced hydration (continuous access to cold water). - Periodic breaks every 60-90 min. in cool, air-conditioned areas. - Use of sun protection and appropriate clothing.	- Internal communication to production managers and H&S team. - Monitoring of weather conditions and progress of works.
	Wind	Gusts 40 km/h or sustained 30 km/h	- Suspension of work at height. - Review of stability of temporary structures. - Securing of lightweight materials and unfixed elements.	
	Storm	Heavy storm	Supervision of transit and work areas.	

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LEVEL	PHENOMENON	ACTIVATION VALUE	ACTION	
			Review of possible electrical hazards in temporary installations.	
	Rain	15 mm/h	- Monitoring of affected areas. - Inspection of drainage and protection of electrical equipment.	
RISK 2 ORANGE ALERT AEMET	Heat	39°C	- Reorganisation of works (prioritisation of tasks in the first and last hours of the day). - Increased breaks (every 45 minutes) in cool, air-conditioned areas. - Rotation of workers in tasks with greater physical demand. - Active monitoring of heat stress symptoms by line managers.	- Internal communication to production managers and joint evaluation with H&S team. - Preparation for possible partial suspension of works depending on how conditions develop.
	Wind	Gusts 50 km/h or sustained 40 km/h	- Suspension of lifting operations. - Review and reinforcement of anchors and temporary structural elements.	
	Storm	Very severe storm with high impact	- Suspension of work at height. - Suspension of lifting operations. - Suspension of outdoor electrical works.	
	Rain	30 mm/h	- Assessment of continuity of electrical works. - Reinforcement of anti-slip measures. - Possible suspension of works in particularly affected areas.	
RISK 3 RED ALERT AEMET	Heat	42°C	- Suspension of outdoor works during peak exposure hours. - Rescheduling of activity (night shifts or cooler hours).	- Immediate suspension of affected works. - Activation of the H&S coordination team within the preventive organisation. - Continuous assessment of the situation and
	Wind	Gusts 70 km/h or sustained 50 km/h	- Immediate stoppage of work at height, structures and machinery operations. - Interruption of electrical works. - Evacuation of at-risk areas.	

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LEVEL	PHENOMENON	ACTIVATION VALUE	ACTION	
			General securing of materials, equipment and temporary structures.	coordination with production teams.
	Storm	Very severe storm	- Suspension of all outdoor works. - Evacuation of exposed areas. - Suspension of electrical works and machinery.	
	Rain	60 mm/h	- Suspension of electrical and outdoor works. - Evacuation of at-risk areas. - Emergency securing of temporary installations.	

*Notwithstanding the above levels, any instructions, warnings or guidelines issued by competent authorities, including Civil Protection, 112, AEMET, National Police, Fire Service or any other competent body, will prevail over the internal criteria set out in this document.

Action in the event of schedule adjustment due to heat

With the aim of minimising workers' exposure to heat stress, specific organisational measures will be established based on weather conditions and the risk levels defined in this protocol. In particular:

- Priority will be given to performing the most physically demanding work in the first hours of the working day and, where possible, in the late afternoon.
- The carrying out of intense physical work during the period between 12:00 and 17:00 hours, considered highest risk for thermal exposure, will be avoided as far as possible.
- In high or extreme risk situations (orange or red risk), the working shift schedule will be reorganised, which may include:
 - o bringing forward the start of the working day,
 - o delaying certain tasks,
 - o establishing night or early morning shifts.
- Daily work planning will be adapted based on the weather forecast and actual conditions.
- Periodic breaks in cool, air-conditioned areas will be guaranteed, especially for the most physically demanding tasks.

These measures must be coordinated by production managers in collaboration with the H&S team, prioritising the health and safety of workers over the project's operational requirements.



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Action in the event of heat stroke

In order to prevent serious situations arising from heat stress, workers must know and be able to identify the main symptoms associated with heat, as well as the actions to be taken.

Warning symptoms

- *Initial symptoms:*
 - o intense thirst
 - o fatigue or weakness
 - o headache
 - o dizziness or feeling of instability
- *Moderate symptoms:*
 - o excessive sweating or, conversely, absence of sweating
 - o hot or flushed skin
 - o nausea or vomiting
 - o muscle cramps
- *Serious symptoms (heat stroke):*
 - o confusion or disorientation
 - o behavioural disturbances
 - o loss of consciousness
 - o elevated body temperature

Action when symptoms are present

- Activity must be stopped immediately.
- The worker should be moved to a cool, air-conditioned area.
- Hydration should be provided and, if possible, body temperature should be reduced (loosening clothing, applying water or ventilation).
- The line manager must be informed immediately.

In the event of serious symptoms or deterioration of the worker's condition, the emergency protocol will be activated and the **IFEMA MADRID Control Centre (91 722 54 00)** will be contacted to activate the action protocol.

Awareness and surveillance

Line managers must actively monitor the condition of workers, especially in conditions of high heat. Special attention should be paid to particularly vulnerable or non-acclimatised workers.



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5. **Public information regarding heat exposure risks**

Where heat exposure risks are identified, workers and contractors must be informed in advance of the applicable preventive measures, including hydration, rest periods, shaded or air-conditioned rest areas, changes to working schedules and the symptoms associated with heat stress.

Information may be reinforced through briefings, written notices, contractor coordination meetings or other operational channels used on site. Public information issued by competent authorities, including the Madrid Regional Government, AEMET or emergency services, must be taken into account and, where applicable, circulated to the relevant teams.

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IRSST HEAT EXPOSURE RISK

Instituto Regional
de Seguridad y Salud
en el Trabajo

WHAT MEASURES CAN I ADOPT AS AN EMPLOYER

if the risk assessment identifies heat exposure risk, for OUTDOOR WORK

CHECK THE WEATHER FORECAST

Temperature and relative humidity
(AEMET)

ASSESS THE RISK

By checking the heat index graphically
(AEMET)

INFORM WORKERS

About the heat index and measures to
adopt

27–32	Caution	Possible fatigue from prolonged exposure or physical activity
33–40	Extreme caution	Heatstroke, heat stroke, cramps. Possible from prolonged exposure or physical activity
41–53	Danger	Heatstroke, heat stroke, cramps. Very likely from prolonged exposure or physical activity
54+	Extreme danger	Imminent heatstroke

ORGANISE WORK ACCORDING TO THE DATA OBTAINED

AVOID ACTIVITIES DURING
THE HOTTEST HOURS

MOST PHYSICALLY
DEMANDING WORK FIRST
THING IN THE MORNING

PLAN WORKER ROTATION
(IF NECESSARY)

PREPARE WORKERS FOR EXPOSURE

CHECK THEY ARE
ADEQUATELY
ACCLIMATISED

VERIFY THEY ARE NOT
PARTICULARLY SENSITIVE
TO THIS EXPOSURE

TRAIN AND INFORM ON
THIS RISK AND
MEASURES TO FOLLOW

PROVIDE ADEQUATE MEANS FOR WORKING WITH SUN EXPOSURE

LIGHT CLOTHING,
COTTON, LIGHT
COLOURS, CAPS OR HATS

REST IN THE SHADE
AND/OR COOL OR AIR-
CONDITIONED AREAS

DRINKING WATER

OBSERVE RDL 4/2023 OF 11 MAY

MONITOR ORANGE OR RED METEOROLOGICAL ALERTS

REVIEW AND ADAPT WORKING CONDITIONS IF PLANNED MEASURES ARE INSUFFICIENT

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★★★★
Comunidad
de Madrid