

Detection

Evaluation

Decision

HEAT

Execution

Logging

Review/restart

1 Detection

Triggering inputs (continuous monitoring):

- WBGT, Heat Index, or Apparent Temperature from agreed primary source
- On-site measurements (mobile WBGT meters, black globe sensors)
- Meteorological forecast trends (next 1–6 h and next operational phase)
- Medical and steward reports:
 - Increased fatigue, dizziness, cramps
 - Reduced crowd mobility or clustering in shaded areas
- Identification of **vulnerable groups**:
 - Audience: children, elderly, persons with disabilities, intoxicated guests
 - Crew: stage, rigging, security, medical, cleaning, traffic staff

Trigger condition:

Predefined **Heat Level threshold crossed** OR
Rapid upward trend with high humidity and low wind

2 Evaluation

Structured assessment (heat impact check):

- Current heat level vs. site-specific trigger matrix (Level 1–4)
- Duration of exposure (already elapsed + expected continuation)
- Site characteristics:
 - Shade availability
 - Surface heat (asphalt, metal, artificial turf)
 - Wind conditions / air movement
- Operational phase:
 - Build-up / live show / peak crowd density / egress
- Medical capacity:
 - Number of heat-related cases
 - Response time and staffing level
- Workforce resilience:
 - Length of shifts already worked
 - PPE constraints (e.g. black clothing, helmets)

Outcome:

Confirmed **Heat Risk Level**

Priority groups and areas identified

3. Decision

Decision authority:

- Event Control / Safety Officer (clearly named)
- Medical Lead consulted

Decision logic:

- Is the current heat level manageable with mitigation?
- Are vulnerable groups sufficiently protected?
- Is medical capacity adequate for projected caseload?

Possible decisions:

- Activate **Heat Mitigation Package – Level X**
- Adjust work/rest cycles for crew
- Reduce or reschedule physically demanding tasks
- Modify programme timing (delays, extended breaks)
- Prepare escalation (partial stop / controlled shutdown if thresholds escalate)

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4 Communication

Internal communication (immediate):

- Control Room → Sector Commanders / Stage Managers / Medical Lead
- Clear statement:
 - Current heat level
 - Active measures
 - Behavioural expectations for staff

External / public communication:

- Audience messaging via:
 - Screens
 - PA announcements
 - App / social media
- Core messages:
 - Drink water regularly
 - Seek shade
 - Look after each other
 - Report symptoms early

Tone principle:

Calm, supportive, health-focused (no alarmism)

5. Execution

Audience-focused measures:

- Activate additional water points
- Free water distribution where possible
- Deploy shade structures / open shaded areas
- Activate misting or cooling systems
- Adjust queue management to shaded routes

Crew-focused measures:

- Enforce work-rest cycles
- Mandatory hydration breaks
- Temporary reassignment from high-heat zones
- Cooling PPE measures where available

Medical readiness:

- Increase medical staffing visibility
- Prepare cooling zones / treatment areas
- Proactive patrols for early symptom detection

6 Logging

Document in real time:

- Trigger values (WBGT / Heat Index)
- Time of threshold crossings
- Decisions taken and by whom
- Measures implemented
- Medical case numbers and types
- Communication actions (what / when / where)

Purpose:

- Legal defensibility
- Operational traceability
- Learning for future events

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7 Review

Short-term (during operations):

- Are measures effective?
- Are medical cases stabilising or increasing?
- Do thresholds require escalation or de-escalation?

Post-event review:

- Compare planned vs. actual heat response
- Assess adequacy of thresholds and measures
- Identify infrastructure improvements (shade, water, surfaces)
- Update Heat Flowchart and trigger matrix
- Feed lessons learned into training and briefing materials