

NFPA 610

Guide for Emergency and Safety Operations at Motorsports Venues

2003 Edition



NFPA, 1 Batterymarch Park, PO Box 9101, Quincy, MA 02269-9101
An International Codes and Standards Organization

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NFPA 610

Guide for

Emergency and Safety Operations at Motorsports Venues

2003 Edition

This edition of NFPA 610, *Guide for Emergency and Safety Operations at Motorsports Venues*, was prepared by the Technical Committee on Safety at Motorsports Venues and acted on by NFPA at its May Association Technical Meeting held May 18–21, 2003, in Dallas, TX. It was issued by the Standards Council on July 18, 2003, with an effective date of August 7, 2003.

This edition of NFPA 610 was approved as an American National Standard on July 18, 2003.

Origin and Development of NFPA 610

This is the first edition of NFPA 610, *Guide for Emergency and Safety Operations at Motorsports Venues*. A Technical Committee was appointed by the NFPA Standards Council in 1998 to address the subject of safety at motorsports venues. The committee has written this guide to assist facility owners, operators, promoters, and emergency management personnel in developing and implementing a system that provides for effective emergency operations at motorsports facilities and events. The guide is intended to assist with the planning for emergency operations, training and equipping emergency workers, and deploying resources at the time of an incident. These operations can lead to more effective fire suppression in the event of a fire and to improved rescue and medical care for competitors in post-crash situations, while providing for the safety of emergency response personnel working at the venue.

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NOTE: Membership on a committee shall not in and of itself constitute an endorsement of the Association or any document developed by the committee on which the member serves.

Committee Scope: This Committee shall have primary responsibility for documents on training, personnel, equipment and facilities not covered by other NFPA documents as they relate to emergency operations and safety at motorsports venues.

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A reference in brackets [] following a section or paragraph indicates material that has been extracted from another NFPA document. As an aid to the user, Annex D lists the complete title and edition of the source documents for both mandatory and nonmandatory extracts. Editorial changes to extracted material consist of revising references to an appropriate division in this document or the inclusion of the document number with the division number when the reference is to the original document. Requests for interpretations or revisions of extracted text should be sent to the technical committee responsible for the source document.

Information on referenced publications can be found in Chapter 2 and Annex D.

Chapter 1 Administration

1.1 Scope. This guide addresses planning, training, personnel, equipment, and facilities as they relate to emergency and safety operations at motorsports venues.

1.2 Purpose. The purpose of this document is to provide guidance for the development of a system that provides for the safety of emergency response personnel and effective emergency operations at motorsports facilities and events through planning, training, and equipping, and through the deployment of necessary resources.

1.3 Application.

1.3.1 This guide applies to both indoor and outdoor facilities, whether temporary or permanent, that provide a venue for competitive motorsports events, except for venues or events that involve air, ice, snow, or water vehicles.

1.3.2 It is not the intent of this guide that all portions of the document apply to every motorsports venue.

1.3.3 It is recommended that the authority having jurisdiction and the event/venue official review this document against the operating environment of the event or venue and determine which components of this guide are applicable.

1.3.4 It is also recommended that a plan be developed to implement the applicable portions of this guide.

1.4 Equivalency. Nothing in this guide is intended to prevent the use of systems, methods, or devices of equivalent or superior

quality, strength, fire resistance, effectiveness, durability, and safety over those recommended by this guide.

Chapter 2 Referenced Publications

2.1 General. The documents or portions thereof listed in this chapter are referenced within this guide and should be considered part of the recommendations of this document.

2.2 NFPA Publications. National Fire Protection Association, 1 Batterymarch Park, P.O. Box 9101, Quincy, MA 02269-9101.

NFPA 10, *Standard for Portable Fire Extinguishers*, 2002 edition.

NFPA 1561, *Standard on Emergency Services Incident Management System*, 2002 edition.

NFPA 1581, *Standard on Fire Department Infection Control Program*, 2000 edition.

NFPA 1936, *Standard on Powered Rescue Tool Systems*, 1999 edition.

NFPA 1951, *Standard on Protective Ensemble for USAR Operations*, 2001 edition.

NFPA 1971, *Standard on Protective Ensemble for Structural Fire Fighting*, 2000 edition.

NFPA 1977, *Standard on Protective Clothing and Equipment for Wildland Fire Fighting*, 1998 edition.

2.3 Other Publications.

2.3.1 ANSI Publications. American National Standards Institute, Inc., 11 West 42nd Street, 13th floor, New York, NY 10036.

ANSI Z41, *American National Standard for Personal Protection — Protective Footwear*, 1999.

ANSI Z87.1 *Practice for Occupational and Educational Eye and Face Protection*, 1989.

2.3.2 ASTM Publication. American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

ASTM D 3578, *Standard Specification for Rubber Examination Gloves*, 2001.

2.3.3 SFI Publications. SFI Foundation, Inc., 15708 Pomerado Road, Suite N208, Poway, CA 92064.

SFI Specification 3.2A, *Driver Suits*, November 29, 2001.

SFI Specification 3.3, *Driver Accessories*, November 29, 2001.

SFI Specification 31.0A, *Open Face and Closed Face Helmets*, December 1, 2001.

SFI Specification 41.0A, *Open Face and Closed Face Motor-sports Helmets*, December 1, 2001.

2.3.4 Snell Publications. Snell Memorial Foundation, Inc., 3628 Madison Avenue, Suite 11, North Highlands, CA 95660.

M2000, *Standard For Protective Headgear For Use With Motorcycles and Other Motorized Vehicles*, 2000 edition.

M-95, *Standard For Protective Headgear For Use With Motorcycles and Other Motorized Vehicles*, 1995 edition.

M-90, *Standard For Protective Headgear For Use With Motorcycles and Other Motorized Vehicles*, 1990 edition.

SA2000, *Standard for Protective Headgear for Use in Competitive Automotive Sports*, 2000 edition.

SA-95, *Standard For Protective Headgear For Use in Competitive Automotive Sports*, 1995 edition.

SA-90, *Standard For Protective Headgear For Use in Competitive Automotive Sports*, 1990 edition.

2.3.5 U.S. Government Publication. U.S. Government Printing Office, Washington, DC 20402.

Title 29, Code of Federal Regulations, Part 1910.1030, “Bloodborne pathogens.”

Chapter 3 Definitions

3.1 General. The definitions contained in this chapter apply to the terms used in this guide. Where terms are not included, common usage of the terms applies.

3.2 NFPA Official Definitions.

3.2.1* Approved. Acceptable to the authority having jurisdiction.

3.2.2* Authority Having Jurisdiction (AHJ). An organization, office, or individual responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, an installation, or a procedure.

3.2.3 Guide. A document that is advisory or informative in nature and that contains only nonmandatory provisions. A guide may contain mandatory statements such as when a guide can be used, but the document as a whole is not suitable for adoption into law.

3.2.4 Labeled. Equipment or materials to which has been attached a label, symbol, or other identifying mark of an organization that is acceptable to the authority having jurisdiction and concerned with product evaluation, that maintains periodic inspection of production of labeled equipment or materials, and by whose labeling the manufacturer indicates compliance with appropriate standards or performance in a specified manner.

3.2.5* Listed. Equipment, materials, or services included in a list published by an organization that is acceptable to the authority having jurisdiction and concerned with evaluation of products or services, that maintains periodic inspection of production of listed equipment or materials or periodic evaluation of services, and whose listing states that either the equipment, material, or service meets appropriate designated standards or has been tested and found suitable for a specified purpose.

3.2.6 Should. Indicates a recommendation or that which is advised but not required.

3.3 General Definitions.

3.3.1 Clean-up Personnel. Personnel primarily responsible for restoring a racing surface by mitigating liquid spills and removing debris.

3.3.2 Command Post. The location where the incident commander and associated staff are located during an emergency incident.

3.3.3 Competition Area. The designated area of a motorsports venue in which vehicles compete, perform, train, demonstrate, or test at competitive speeds.

3.3.4 Critical Incident Stress. An unusual or traumatic event that creates or might create stress or other adverse condition for persons who have been exposed to the event but who have not necessarily incurred bodily injury from the event.

3.3.5 Drag Strip. A straight, open-ended course without turns that generally does not incorporate changes in elevation.

3.3.6 Emergency Action Plan (EAP). A written plan that defines the emergency response resources, organization, administration, and response procedures for any emergency incident that might occur at or during a motorsports venue/event.

3.3.7 Emergency Incident. An incident involving an unforeseen combination of circumstances or the result of such an incident that calls for immediate action that might or might not be covered by the EAP.

3.3.8 Emergency Medical Personnel. Personnel primarily responsible for providing emergency medical care or having additional responsibilities of extrication.

3.3.9 Emergency Medical Services (EMS). The provision of treatment such as first aid, cardiopulmonary resuscitation, basic life support, advanced life support, and other pre-hospital procedures, including ambulance transportation to patients. [1500:3.3]

3.3.10 Emergency Services Personnel. Personnel who are designated by the emergency action plan or who are operating above the motorsports safety awareness level to serve in responder or safety roles, including emergency medical personnel, marshals, recovery personnel, rescue personnel, security personnel, track fire fighters and pit area fire fighters.

3.3.11 Event/Venue Official. An individual assigned to oversee the operation of a particular event or the facility and who might serve as both the event official and venue official.

3.3.12 Garage. A secured area, protected from the elements by a structure or structures, in which competition vehicles are parked or stored and in which work is performed.

3.3.13 Hazard. That which is capable of posing an unreasonable risk to health, safety, or the environment; capable of causing harm.

3.3.14 Hazardous Materials Incident. An incident involving hazardous or volatile chemicals or other materials that, pursuant to local, state, or federal law, requires prescribed actions for clean-up, disposal, or both.

3.3.15 Hazardous Situation. An act or condition that is judged to present a danger to persons or property that is so urgent and severe that it requires immediate corrective or preventive action.

3.3.16 Incident Commander (IC). The individual in overall command of an emergency incident. [1561:3.3]

3.3.17 Incident Management System (IMS). A system that defines the roles and responsibilities to be assumed by personnel and the operating procedures to be used in the management and direction of emergency incidents and other functions. [1561:3.3]

3.3.18 Local Authority. See Authority Having Jurisdiction.

3.3.19 Major Facility. A purpose-built motorsports venue occupying a large amount of land that can accommodate a mass gathering to witness a motorsports event.

3.3.20* Marshal. An individual assigned to provide observation and communications, to show flags to drivers, to provide first-response fire fighting and first-response emergency medical care, and to remove debris and assist in removing vehicles.

3.3.21 Medical Gloves. Protective handwear that is specifically designed for EMS personnel.

3.3.22 Motorsports Safety Awareness Level. A designation for the capability expected of an individual who has been given basic safety information as provided by the venue/event emergency action plan.

3.3.23 Motorsports Safety Command Manager. An individual in management assigned to oversee the direction and supervision of the venue/event emergency action plan and operations.

3.3.24 Motorsports Safety Operations Level. A designation for the capability expected of operations personnel that per-

tains to their specific responsibilities and duties as provided by the venue/event emergency action plan.

3.3.25 Motorsports Safety Specialist Level. A designation for the capability expected of highly specialized personnel that pertains to the performance of their specific areas of rescue or emergency expertise as provided by the venue/event emergency action plan.

3.3.26 Motorsports Safety Technician Level. A designation for the capability expected of emergency personnel that pertains to the implementation of rescue procedures as provided by the venue/event emergency action plan.

3.3.27 Motorsports Venue. A facility or designated area at which motorsports and related activities are conducted.

3.3.28 Multi-Casualty Incident (MCI). An emergency casualty incident involving multiple persons with bodily injuries that exceeds the capacity of the medical resources available at the motorsports venue/event.

3.3.29 Multi-Use Facility. A motorsports venue that incorporates more than one type of course and is adaptable to a variety of motorsports disciplines.

3.3.30 Off-Track Emergency Response. Response to emergencies at a motorsports facility in areas other than the competition area and immediately adjacent areas including, but not limited to, hospitality areas, concession stands, cooking facilities, grandstands, parking areas, and media areas.

3.3.31* Paddock Area. A secured or restricted area in which competition and support vehicles are parked or staged, or both, and in which work is performed.

3.3.32 Pit Area. A designated area in which work is performed on competition vehicles during the race or performance.

3.3.33 Pit Area Fire Fighter. A fire fighter who is responsible for providing fire suppression in the pit area and who might be responsible for fire suppression at the fueling depot.

3.3.34 Recovery Personnel. Personnel primarily responsible for the operation of recovery equipment and the removal of disabled competition vehicles and their components from the competition and adjacent areas.

3.3.35 Rescue Personnel. Personnel assigned to extricate injured or trapped occupants from disabled competition vehicles.

3.3.36 Road Course. A closed, permanent course on which there are turns in both directions and that might incorporate changes in elevation.

3.3.37 Sanctioning Body. The individual or organization responsible for the rules and conduct of the competition.

3.3.38 Security Personnel. Personnel, with or without arrest authority, assigned to control crowds and traffic at a motorsports venue whose duties might also include checking of credentials and identification and deterring theft.

3.3.39 Site Emergency Team. An organized group of trained response personnel operating under an emergency response plan and appropriate standard operating procedures that handles and controls actual or potential emergency incidents and that responds to emergencies for the purpose of control or stabilization of the incident.

3.3.40 Street Circuit. A closed, temporary course on closed public or private roadways on which there are turns in both directions and that might incorporate changes in elevation.

3.3.41 Terrorist Activities. Disruptive or violent actions taken by an organized group or individuals in order to intimidate a population group or civil authorities.

3.3.42 Track Clean-Up Personnel. Personnel whose primary responsibility is to keep the racing surface in proper condition for racing.

3.3.43 Track Emergency Medical Personnel. Personnel assigned to emergency medical duties on and adjacent to the competition area who respond by ambulance, safety vehicles, other vehicles or on foot and whose training levels range from first responder to medical doctor.

3.3.44 Track Fire Fighter. A fire fighter primarily responsible for competition area fire suppression activities and possibly extrication efforts.

Chapter 4 Emergency Action Plan

4.1 General. For each motorsports venue or event, an emergency action plan (EAP) should be prepared by the venue owner/operator working in conjunction with the local emergency response coordinator. Changing resources and event characteristics might require ongoing modifications or built-in adaptability. A designated person should be responsible for the maintenance of the plan. (See Figure B.1 for a sample emergency action plan.)

4.2 Statement of Purpose.

4.2.1 The emergency action plan (EAP) should begin with a statement of purpose that defines the goals of the plan. An example of a statement of purpose for a motorsports venue is as follows: "The following emergency action plan is to provide response procedures to protect people and property during an emergency or disaster situation. This plan identifies and assigns personnel to various emergency tasks and responsibilities, thus creating the site emergency team. This plan defines emergency response systems for on-track emergencies and off-track occurrences. This plan also provides for coordination between the site emergency team response and government authorities to promote an effective response."

4.2.2 All parties involved in the operations described in the EAP should know their responsibilities under the plan.

4.3 Adapting EAP to Resources and Event.

4.3.1 The EAP should be capable of being scaled to the size and type of event.

4.3.2 The EAP should identify the number and types of positions necessary to carry out the objectives of the plan.

4.4 Consistency with Plans of the Authority Having Jurisdiction.

4.4.1 The EAP should be consistent with emergency operation plans of the authority or authorities having jurisdiction. Motorsports venues are designed in different configurations, based on the type of competition/performance that takes place at a facility. Facilities include, but are not limited to, ovals, drag strips, road courses, street circuits, arenas, major facilities, and multi-use facilities. The facility might be located within a major city or in a rural area. Due to these variables, it is important that the facility, when preparing an EAP, work closely with the local providers of emergency services to incorporate its plan into their community emergency plan.

4.4.2 The venue might be responsible for meeting the requirements placed on it by the authorities having jurisdiction beyond those that are outlined in this guide.

4.5 Management Structure.

4.5.1 The EAP should define a management structure for handling emergency situations.

4.5.2 The management structure should be based on an incident management system (IMS) consistent with NFPA 1561, *Standard on Emergency Services Incident Management System*.

4.5.3 The EAP should provide for the coordination of efforts by the wide variety of agencies that might interact in an emergency situation, including event staff, local agencies, state agencies, and federal authorities.

4.5.4 The EAP should be provided to all agencies identified in the plan, and such agencies should acknowledge their participating roles in the plan.

4.5.5 The EAP should provide for unified command with an incident commander and a predefined command post location. For small venues, such a command post location could be a designated meeting location where coordinators for each of the emergency operations could gather. For major venues, the command post might be a fixed facility equipped with communications and command/control technology.

4.5.6 The EAP should establish a pre-determined area for staging of resources, giving consideration to arrival and departure access.

4.5.7 The EAP should provide for the creation and distribution to participating agencies designated in the plan and to on-site personnel of current site location information that includes significant features on the property. This information could be disseminated as a map. However, to provide more flexibility, some features, such as gates, might be better described as being located near a seating section or a particular building, rather than being included as part of a map detail.

4.6 EAP Components. The EAP should contain the components specified in 4.6.1 to 4.6.10.4 for all motorsports venues, events, or both.

4.6.1 Fire Protection Component.

4.6.1.1 The EAP should include fire protection information for the facility, the event, or both. It is important that the plan include information on any materials that present a fire hazard specific to the event, including their location, the quantity of material, and how the materials are distributed together with the impact the presence of the materials could have on the event or the persons present at the event.

4.6.1.2 The EAP should include information on the fire protection available at the venue. This could include information related to fire alarm systems, standpipe systems, sprinkler systems, fire extinguishing systems, and fire hydrants or other available water resources. The identification of the agencies and a method to contact those responsible for the maintenance or repair of these fire protection systems are important if a system needs repair.

4.6.1.3 To supplement the fixed fire protection, an inventory of fire suppression vehicles and equipment scheduled to be on the property and the methods of contact agencies and management personnel responsible for response to fire-related scenarios should be part of an EAP.

4.6.2 Traffic Control Component.

4.6.2.1 The traffic control component should include plans for inbound and outbound flow of emergency vehicles and provisions for emergency evacuation of all or part of the site.

4.6.2.2 The traffic control component should include the identification and method of contact for agencies or persons, or both agencies and persons, responsible for traffic flow management and emergency traffic scenarios.

4.6.3 Emergency Medical Services (EMS) Component. The EAP should include EMS response information for the facility, the event, or both.

4.6.3.1 EMS response information generally should include an inventory of EMS equipment and staffing scheduled to be at the venue as well as the identification and method of contact of agencies and management personnel responsible for response to a medical emergency.

4.6.3.2 The EAP should identify the emergency medical care provided at the event and the procedure for obtaining an additional level of care or a higher level of care if necessary.

4.6.4 Multi-Casualty Incident (MCI).

4.6.4.1 The EAP should provide for coordination between EMS and public safety agencies having jurisdiction in the area where the venue is located, for the purpose of managing a multi-casualty incident.

4.6.4.2 Agencies and management personnel responsible for response to multi-casualty incidents should be identified along with methods of contact.

4.6.5 Civil Disturbance/Terrorist Incident. The EAP should include a component for response to possible disruptive or terrorist activities.

4.6.6 Hazardous Materials Incidents.

4.6.6.1 The EAP should identify any necessary resources anticipated to mitigate any hazardous materials incident that impacts the site.

4.6.6.2 The EAP should include information on the location of the material safety data sheet (MSDS) for hazardous materials on the site.

4.6.6.3 The EAP should include contact information for response agencies that could assist with hazardous materials incidents that might occur on site.

4.6.7 Environmentally Threatening Incidents Including Weather-Related Problems.

4.6.7.1 The plan should consider the management of weather-related and environmental problems, including factors such as the geographic location of the venue and conditions unique to the local area or time of year.

4.6.7.2 The EAP should contain procedures for the following:

- (1) Receipt of weather and other emergency warnings
- (2) Event cancellation prior to or after the start of activities
- (3) Notification of warnings to participants, staff, and guests
- (4) Evacuating, sheltering, or providing direction to people potentially affected by the threat

4.6.7.3 Planning should consider conditions such as the following that can adversely impact an event:

- (1) Simultaneous events at other nearby venues
- (2) Government-declared emergencies or warnings, such as predicted deteriorating weather or environmental problems
- (3) Proximity to other locations or operations with the potential for creating environmental hazards, such as rail yards, manufacturing facilities, and nuclear power plants

4.6.8 Relocation/Evacuation. Planning for the complete or partial relocation/evacuation of a facility should include the following:

- (1) Person(s) authorized to order the relocation/evacuation prior to or after the start of activities
- (2) Consideration of the estimated time to complete the relocation/evacuation
- (3) Notification procedure for the relocation/evacuation of participants, staff, and guests
- (4) Assistance and resources needed to effect an orderly relocation/evacuation
- (5) Availability and utilization of shelters on site or off site

4.6.9 Resources. The EAP should consider the utilization of available resources to deal with an emergency situation.

4.6.9.1 Personnel. The EAP should describe each position key to the provisions of the plan and the primary responsibilities of that position as it relates to the plan. Personnel resources that the plan may identify include the following:

- (1) Administrative/event/maintenance staff
- (2) Sanctioning body staff/officials
- (3) Security/law enforcement personnel
- (4) Fire personnel
- (5) Emergency medical service personnel
- (6) Emergency management representatives
- (7) Contracted service providers

4.6.9.2 Equipment and Supplies. The EAP should identify and determine the availability of internal and external resources that could be used in an emergency situation, such as the following:

- (1) Heavy equipment
- (2) Generators
- (3) Power tools
- (4) Traffic barriers
- (5) Fencing
- (6) Construction materials
- (7) Fire-fighting equipment
- (8) Technical rescue equipment
- (9) Portable lighting
- (10) Patient care equipment and multi-casualty equipment
- (11) Refrigeration facilities
- (12) Welding and cutting tools
- (13) Debris removal equipment
- (14) Hazardous waste mitigation equipment

4.6.9.3 Transportation. The EAP should identify and determine the availability of transportation resources that could be used in an emergency situation, such as the following:

- (1) Trams
- (2) Tractors
- (3) Buses
- (4) Trucks
- (5) Personal vehicles
- (6) Agency vehicles available for movement of personnel and victims

4.6.10 Communication Component.

4.6.10.1 The EAP should include an emergency communication component to establish coordination of all communication systems operating at the venue or event, including the following:

- (1) Public address system and digital message board (if available)
- (2) Broadcast radio frequency

- (3) Two-way radio system, channel assignments, or both
- (4) Telephone systems (internal and external)
- (5) Cell/satellite systems information
- (6) Data systems

4.6.10.2 Consideration should be given to communication challenges that might arise, especially during an emergency, such as the following:

- (1) Communication with marshals, response personnel, and administrative/event staff
- (2) Notification of guests and participants
- (3) Responsibility for the following:
 - (a) Communication with the news media
 - (b) Authorized release of information and the wording of media releases
 - (c) Locations for interviews or press conferences
 - (d) Identification of contacts to provide information
- (4) Communication systems failures due to equipment failure, interference, or systems overload

4.6.10.3 Where a backup communication system that could be used in the event of a failure of the primary system is identified, the backup system should consist of a technology sufficiently different from the primary system to make failure unlikely in the event of a primary system failure.

4.6.10.4 Pre-event testing of communication systems should be part of the EAP. It might not be possible to test some parts of the system until the event is in full progress. At that time, problems related to equipment positioning and radio channel interference might first become apparent, and alternatives should be considered.

4.7 Pre-Event Agreements.

4.7.1 Prior arrangements for assistance from outside agencies for resources such as fire, rescue, law enforcement, EMS, and contracted services should be established where needed.

4.7.2 Incidents or events that might require multiple jurisdictional response should be identified.

4.8 Critical Incident Stress Debriefing (CISD).

4.8.1 A process for identifying incidents in which critical incident stress is a significant hazard should be established that includes identifying personnel adversely affected by incident stress and promptly initiating critical incident stress debriefing (CISD).

4.8.2 CISD assistance and resource availability should be identified.

4.9 Death at the Venue. The EAP should include procedures for notification of appropriate authorities and compliance with local statutes in the event of a death at the venue.

4.10 Emergency Action Plan Review.

4.10.1 The EAP should be reviewed periodically and changed as appropriate to meet current or future conditions.

4.10.2 A post-incident review should be held with participating agencies to identify practices that could benefit from additional attention or plan revision.

4.11 Emergency Action Plan Checklist. The use of a checklist might help event organizers verify that their EAP has addressed all appropriate elements. Figure 4.11 shows an emergency action plan checklist that can be modified as appropriate to fit local needs.

EMERGENCY ACTION PLAN CHECKLIST				
EAP Component	Yes	No	Assistance Needed and Possible Resource(s)	Notes
Plan Distribution				
Local public safety	☐	☐		
Sanction body	☐	☐		
Event coordinator	☐	☐		
Track management	☐	☐		
Subcontractors	☐	☐		
Management Structure				
Incident commander	☐	☐		
Operations officer	☐	☐		
Safety officer	☐	☐		
Unified command	☐	☐		
Personnel				
Liaison Officer	☐	☐		
Communications Officer	☐	☐		
Public Information Officer	☐	☐		
Other positions	☐	☐		
Responsibility of track personnel detailed	☐	☐		
Consistent with and coordinated with emergency operations plans of authorities having jurisdiction	☐	☐		
Access to on-site emergency services	☐	☐		
Access to off-site emergency services	☐	☐		
Command post identified	☐	☐		
Resource staging location identified	☐	☐		
Communication System				
On-site	☐	☐		
Off-site	☐	☐		
Radio	☐	☐		
Telephone	☐	☐		
Centralized system	☐	☐		
Testing of system	☐	☐		
Release of information to media considered	☐	☐		
Site maps	☐	☐		

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FIGURE 4.11 Sample Checklist for Verifying Completeness of an EAP.

EMERGENCY ACTION PLAN CHECKLIST (Continued)				
EAP Component	Yes	No	Assistance Needed and Possible Resource(s)	Notes
Fire Protection Plan				
Hazards identified	☐	☐		
Equipment Resources				
On-site	☐	☐		
Off-site	☐	☐		
Personnel Resources				
On-site	☐	☐		
Off-site	☐	☐		
Traffic Control				
On-site	☐	☐		
Off-site	☐	☐		
Mass transport resources identified	☐	☐		
Emergency Medical Services				
On-site	☐	☐		
Off-site	☐	☐		
Does the EAP include methods for handling the following:				
Multi-casualty incidents	☐	☐		
Terrorist incidents	☐	☐		
Hazardous materials incidents	☐	☐		
Environmental and weather incidents	☐	☐		
Evacuation decisions, process, and notification methods	☐	☐		
Death management	☐	☐		
Critical incident stress management	☐	☐		
Process identified for receiving government weather and other warnings	☐	☐		
Transportation resources identified	☐	☐		
Arrangements for requesting and receiving outside assistance when necessary	☐	☐		
Critical incident stress debriefing available	☐	☐		
Process for handling death on venue property	☐	☐		
Process for amending and updating plan	☐	☐		

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FIGURE 4.11 *Continued*

Chapter 5 Training and Competency

5.1 General. Any paid or volunteer personnel having an assignment or defined responsibility with a motorsports facility or serving a designated function at a motorsports venue should be informed or trained using the levels defined in Section 5.2 through 5.6 commensurate with their assigned function.

5.2 Motorsports Safety Awareness Level.

5.2.1 Personnel expected to function at the motorsports safety awareness level should be informed of the following:

- (1) The facility's layout for the portion of the facility with which they are directly involved and the possible hazards
- (2) How to call for assistance
- (3) Their role, if any, in the emergency action plan

5.2.2 Information provided to personnel, if applicable, should include the following:

- (1) Hazards that exist in their area of operation and the potential incidents associated with those hazards
- (2) How to recognize the presence of a hazardous situation or safety threat
- (3) How to identify an emergency incident
- (4) Basic safety measures to be taken to protect themselves from the risks associated with the incident
- (5) When immediate assistance is to be sought and how to make appropriate notifications as identified in the emergency action plan
- (6) Reasonable and prudent initial actions to be taken that might reduce the severity of the incident
- (7) Understanding of their role in the incident management system (IMS) and the public relations plan contained within the EAP
- (8) Facility features and access/egress points for the facility

5.2.3 It is not the intent to expect someone informed at the awareness level to take an aggressive role in reducing the severity of the incident. However, there might be actions that personnel could take while moving to a safe area, such as closing a door, shutting off a fuel valve on a burner, shutting off a power switch, or directing people away from the incident area, as such actions could reduce the severity of the incident without jeopardizing their personal safety. [See 5.2.2(6).]

5.2.4 The motorsports safety awareness level training might be accomplished with a briefing, a handout that can include a map, or both.

5.3 Motorsports Safety Operations Level.

5.3.1 Personnel expected to function at the motorsports safety operations level should meet the following criteria:

- (1) They should be informed to the motorsports safety awareness level.
- (2) They should have knowledge of the facilities and the event-specific hazards.
- (3) They should know how to call for emergency assistance.
- (4) They should be able to take first emergency mitigation actions in their areas of operation.
- (5) They should be able to fulfill their role in the emergency action plan.

5.3.2 Training for motorsports safety operations level personnel should develop the person's knowledge and skills so they have the ability to do the following:

- (1) Recognize and identify hazards
- (2) Select and properly use personal protective equipment appropriate to the function or assignment
- (3) Function within an assigned role in the IMS
- (4) Suppress incipient fires with a portable fire extinguisher
- (5) Perform hazard control operations, incident mitigation, and rescue operations within the capabilities of the resources and personal protective equipment (PPE) available in their assigned area of operations
- (6) Use basic equipment and follow established emergency procedures
- (7) Take appropriate measures to assist or rescue victims
- (8) Use the appropriate procedures to return to routine operation

5.3.3 Motorsports safety operations level personnel typically include the following:

- (1) Pit area fire fighters
- (2) On-track clean-up, repair, and maintenance workers
- (3) Off-track emergency responders
- (4) Track emergency medical personnel (non-rescue)
- (5) Marshals
- (6) Recovery workers
- (7) Security
- (8) Event/venue officials

5.4 Motorsports Safety Technician Level.

5.4.1 Personnel expected to function at the motorsports safety technician level should meet the following criteria:

- (1) They should have the knowledge, skills, and ability to function at the motorsports safety operations level.
- (2) They should have knowledge of the facilities and the event-specific hazards.
- (3) They should have knowledge of the type of competitive vehicles and specific features and hazards associated with those vehicles.
- (4) They should understand how to take emergency mitigation actions in their areas of operation.
- (5) They should understand their role in the emergency action plan.

5.4.2 Training for motorsports safety technician level personnel should develop the person's knowledge and skills so they have the ability to do the following:

- (1) Implement those segments of the venue's EAP associated with their assignment
- (2) Function within an assigned role in the IMS
- (3) Select and properly use PPE for the technician level
- (4) Use hazard and risk assessment techniques
- (5) Suppress fires that are commonly expected at the venue/event or in the areas covered by their specific assignment, given appropriate equipment
- (6) Perform advanced hazard control operations, incident mitigation, and rescue operations within the capabilities of the resources and personal protective equipment available in their assigned area of operations
- (7) Extricate or remove victims
- (8) Conduct basic patient assessment, initiate patient care, and call for appropriate medical support
- (9) Use event-specific special equipment including power tools used to cut or remove vehicle body and structural components
- (10) Apply the relevant standard operating procedures
- (11) Implement the procedures to return to routine operation

5.4.3 Typically, persons trained to the motorsports safety technician level include the following:

- (1) Pit area fire fighters
- (2) Track fire fighters
- (3) Combination or cross-trained personnel responsible for extrication, rescue, EMS, or any combination thereof.

5.5 Motorsports Safety Specialist Level.

5.5.1 Personnel expected to function to the motorsports safety specialist level should meet the following criteria:

- (1) They should have the knowledge, skills, and ability to function at the motorsports safety operations level.
- (2) They should have a specific knowledge, skill, or ability to take specialized mitigation actions in their demonstrated areas of expertise.
- (3) They should understand their role in the EAP.

5.5.2 Training for motorsports safety specialist level personnel should develop the person's knowledge and skills so they have the ability to do the following:

- (1) Select and use specialized equipment and personal protective equipment and apply procedures necessary to perform their assigned function
- (2) Perform specific and specialized hazard control operations, incident mitigation operations, or rescue operations within the capabilities of the resources in their specific area of operations

5.5.3 Typically, motorsports safety specialists include the following:

- (1) On-track physicians
- (2) Hazardous entry specialists
- (3) Stabilization and extrication specialists
- (4) Specialized track maintenance personnel

5.6 Motorsports Safety Command Manager.

5.6.1 Personnel expected to function to the motorsports safety command manager level should meet the following criteria:

- (1) They should have the knowledge, skills, and ability to function at the motorsports safety operations level.
- (2) They should have detailed knowledge of the facilities and the event-specific hazards.
- (3) They should be able to command or direct emergency mitigation actions.
- (4) They should understand the roles of all persons involved in the EAP.

5.6.2 Training for motorsports safety command manager level personnel should develop the person's knowledge and skills so they have the ability to do the following:

- (1) Implement and direct the IMS
- (2) Implement and manage the event/venue EAP
- (3) Identify and understand the hazards and risks to personnel working in motorsports safety roles
- (4) Activate and coordinate efforts with external emergency resources

Chapter 6 Personal Protective Equipment

6.1 General.

6.1.1 All personnel with assigned responsibilities at a motorsports venue should wear appropriate personal protective

equipment (PPE) commensurate with the hazards associated with their assignment.

6.1.2 A personal protective equipment (PPE) program should be established that might contain such items as the following:

- (1) PPE selection and use
- (2) Storage, maintenance, and inspection procedures
- (3) Training considerations

6.1.3 Personnel functioning in multiple capacities should wear PPE commensurate with the task associated with the highest level of exposure. For example, personnel whose primary responsibility is EMS might also be responsible for fire fighting. When such personnel are performing the more hazardous duty, in this case fire fighting, they should be protected to that higher level when performing that task. Therefore, members can be attired in their EMS uniform, while having the fire-fighting PPE available for use when a fire occurs.

6.1.4 PPE should be selected and used in accordance with the manufacturer's instructions. Some protective clothing designed for motorsports competitive use is not intended for fire-fighting use.

6.1.5 During selection of PPE, careful consideration should be given to fit and comfort. PPE that fits poorly will not afford the necessary protection. Initial and continued wearing of the PPE is more likely if it fits the wearer comfortably.

6.1.6 PPE should be maintained and stored in accordance with the manufacturer's instructions.

6.1.7 PPE alone should not be relied on to provide all levels of protection against all hazards.

6.1.7.1 PPE should be used in conjunction with proper use of tools and equipment, proper training, standard operating guidelines, and deployment of personnel to minimize the risk(s) to responders.

6.1.7.2 PPE is designed to provide a specific level of protection, and the user should not attempt to exceed this level.

6.2 Eye Protection.

6.2.1 Care should be taken to recognize the possibility of multiple and simultaneous exposure to a variety of eye hazards. A list of the hazards expected to be encountered should be developed. Examples of the expected hazards are impact from flying debris, dust, heat, chemical splash, bloodborne pathogens, glare, and optical radiation from welding or a cutting torch.

6.2.2 Personnel exposed to a potential hazard or dealing with a specific incident should use primary face and eye protection appropriate for that given specific hazard.

6.2.3 Face and eye protection should meet the requirements of ANSI Z87.1, *Practice for Occupational and Educational Eye and Face Protection*, Selection Chart.

6.2.4 Emergency medical personnel or others with potential exposure to bloodborne pathogens should wear eye protection in accordance with the requirements of 29 CFR 1910.1030, "Bloodborne pathogens."

6.2.5 Persons whose vision requires the use of prescription (Rx) lenses should wear either protective devices fitted with prescription lenses or protective devices designed to be worn over regular prescription eyewear when required.

6.2.6 Wearers of contact lenses (Rx) should wear appropriate eye and face protection devices in a hazardous environment. Dusty or chemical environments might represent an additional hazard to contact lens wearers.

6.3 Foot Protection.

6.3.1 To diminish the hazards of slips and falls, protective footwear selection should entail design and product review to obtain sure footing. Sole grip, sole stability, and ankle support are essential factors to minimize the risk of fall and slip effects due to environment, ground obstacles, and operations. The terrain features involving motorsports emergency response encompass the entire range of ground conditions found at motorsports venues. Slopes and surface material, the two main factors affecting an emergency responder's ability to move, range from the flat or nearly flat asphalt of a street course to the steep incline and unevenness of a high-banked dirt track. The footwear appropriate for motorsports emergency response in such terrain and surface conditions can be variable.

6.3.2 Track clean-up personnel, recovery personnel, marshals, and EMS personnel should wear appropriate closed-toe protective footwear commensurate with the tasks they routinely perform.

6.3.2.1 Purpose-built shoes designed expressly for the needs of an emergency response team can be used but should consist of a sole with heel, totally enclosed upper of leather or heat-flame-resistant material, insole, and shank, and should provide some amount of penetration, impact, and compression protection. Both the sole and heel should be of nonslip tread. Additional considerations should include double-welt construction, toe and metatarsal protection, and bloodborne pathogen protection.

6.3.2.2 Boots complying with NFPA 1951, *Standard on Protective Ensemble for USAR Operations*; NFPA 1977, *Standard on Protective Clothing and Equipment for Wildland Fire Fighting*; or ANSI Z41, *American National Standard for Personal Protection — Protective Footwear*, are examples of boots that could be chosen. These standards are noted for guidance and suggestion and are not intended to limit the user.

6.3.3 Personnel who engage in fire fighting or are exposed to the hazards of fire fighting should wear footwear that provides protection as recommended in 6.3.2.1 plus thermal protection. Boots complying with NFPA 1971, *Standard on Protective Ensemble for Structural Fire Fighting*, or NFPA 1977, *Standard on Protective Clothing and Equipment for Wildland Fire Fighting*, are examples of boots that could be chosen. Other purpose-built footwear that incorporates the protection features of these standards but that might not specifically meet the standards could be worn if approved by the authority having jurisdiction.

6.4 Hand Protection.

6.4.1 The activities of each function should be studied to determine the degree of dexterity required and the duration, frequency, and degree of exposure to the hazard. No single glove can provide protection against all potential hand hazards.

6.4.2 Track clean-up and recovery personnel should wear gloves that provide protection from heat, sharp objects, or rough surfaces.

6.4.3 Fire-fighting personnel should wear gloves that provide thermal protection, conductive heat resistance, flame resistance, cut resistance, puncture resistance, dexterity, and grip characteristics. Gloves complying with NFPA 1971,

Standard on Protective Ensemble for Structural Fire Fighting, or NFPA 1977, *Standard on Protective Clothing and Equipment for Wildland Fire Fighting*, are examples of gloves that could be chosen. These standards are noted for guidance and suggestion and are not intended to limit the user.

6.4.4 Personnel engaged in extrication should wear gloves that provide thermal protection, conductive heat resistance, cut resistance, puncture resistance, dexterity, and grip characteristics. Gloves complying with NFPA 1951, *Standard on Protective Ensemble for USAR Operations*; NFPA 1971, *Standard on Protective Ensemble for Structural Fire Fighting*; or NFPA 1977, *Standard on Protective Clothing and Equipment for Wildland Fire Fighting*, are examples of gloves that could be chosen. These standards are noted for guidance and suggestion and are not intended to limit the user.

6.4.5 Personnel should wear emergency medical gloves when providing emergency medical care that exposes them to the hazards of bloodborne pathogens.

6.4.5.1 Medical gloves should be single-use, disposable, and meet the requirements of ASTM D 3578, *Standard Specification for Rubber Examination Gloves*.

6.4.5.2 Universal precautions should be followed when treating any victim of illness or injury. Different localities and jurisdictions mandate different levels of protection for the worker. NFPA 1581, *Standard on Fire Department Infection Control Program*, and 29 CFR 1910.1030, "Bloodborne pathogens," can be used as reference to determine the proper level of protection for the worker.

6.5 Head Protection.

6.5.1 Thermal Protection.

6.5.1.1 Thermal protection should be provided by a protective hood designed to provide limited protection to the head, face, and neck.

6.5.1.2 Pit area fire fighters and track fire fighters involved in fire suppression operations should wear a hood that meets NFPA 1971, *Standard on Protective Ensemble for Structural Fire Fighting*.

6.5.1.3 EMS and rescue personnel who might be exposed to flash fire should wear a hood that meets NFPA 1971, *Standard on Protective Ensemble for Structural Fire Fighting*, or SFI 3.3, *Driver Accessories*.

6.5.2 Impact Protection.

6.5.2.1 Personnel riding in or on response vehicles should be seated and restrained with a safety belt at all times while the vehicle is in motion.

6.5.2.2 If the job function is such that personnel cannot be seated and belted, they should wear impact protection that provides protection for the head. Helmets that meet the requirements of Snell SA-90, SA-95, or SA2000, *Standard For Protective Headgear For Use in Competitive Automotive Sports*; Snell M-90, M-95, or M2000, *Standard For Protective Headgear For Use With Motorcycles And Other Motorized Vehicles*; SFI Specification 31.0A, *Open Face and Closed Face Helmets*; SFI Specification 41.0A, *Open Face and Closed Face Motorsports Helmets*; or DOT helmets are some examples of the type of head protection that could be worn by personnel exposed to falls from moving vehicles. These documents are noted for guidance and suggestion and are not intended to limit the user.

6.5.2.3 Pit area fire fighters who are exposed to the hazards of flying debris and tools should consider wearing head protection that provides impact protection.

6.6 Hearing Protection. Hearing protection should be worn by all personnel exposed to high noise level hazards.

6.7 Garment Protection.

6.7.1 Pit fire fighters, track fire fighters, and rescue personnel have the potential to be exposed to both flash fires and running fuel fires and should be protected from the dangers from both types of fires as well as the radiant heat expected while engaged in fire-fighting operations.

6.7.2 Pit area fire fighters, track fire fighters, and certain rescue personnel who actively engage in or are exposed to the hazards of fire fighting should wear a protective garment that meets or exceeds NFPA 1971, *Standard on Protective Ensemble for Structural Fire Fighting*, or meets or exceeds SFI 3.2A-5, *Driver Suits*, used in conjunction with fire-resistive thermal protection underwear.

6.7.3 EMS personnel or rescue personnel who are actively engaged in extrication that exposes the personnel to flash fires should wear a protective garment that meets NFPA 1951, *Standard on Protective Ensemble for USAR Operations*; NFPA 1977, *Standard on Protective Clothing and Equipment for Wildland Fire Fighting*; or SFI 3.2A-1, *Driver Suits*. EMS personnel who do not participate in extrication should be protected as outlined in 6.7.6.

6.7.4 Personnel who actively engage in or are exposed to the hazards of fire fighting should avoid wearing clothing that is considered unsafe due to poor thermal stability or poor flame-resistant characteristics, such as nylon or polyester. Such garments could cause injury to the wearer despite the appropriate protective garments worn over or under such clothing.

6.7.5 Track clean-up and recovery personnel and marshals should wear cotton, wool, or similarly flame-retardant, long-sleeved, long-legged clothing.

6.7.6 All EMS personnel should use appropriate PPE when providing emergency medical care that potentially exposes the personnel to the hazards of bloodborne pathogens. The federal OSHA standard 29 CFR 1910.1030(c)(3)(i) defines protective equipment as "appropriate" only if it does not permit blood or other potentially infectious materials to pass through to or reach the employee's work clothes, street clothes, undergarments, skin, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of time that the protective equipment will be used.

6.7.7 Personnel operating at motorsports events should be attired in clothing that provides function identification and maximum visibility within the operational environment.

Chapter 7 Equipment

7.1 General. The goal of emergency services personnel at any motorsports venue/event should be to respond to an emergency situation within the motorsports competition and paddock areas with minimal time delays and with the necessary equipment to handle the incident and to protect persons from further injury.

7.2 Fire Suppression Equipment. Fire suppression equipment should be available for immediate deployment at a motorsports venue. Such equipment is the first line of defense in the event of a fire. Fire suppression equipment can be divided into two categories: portable fire extinguishers and motorized fire-fighting apparatus.

7.2.1 Portable Extinguishers. NFPA 10, *Standard for Portable Fire Extinguishers*, provides detailed information about the selection, use, and maintenance of portable fire extinguishers.

7.2.1.1 The four common classes of fires are as follows:

- (1) Class A, which are fires in ordinary combustible materials such as wood, paper, cloth, rubber, and many plastics
- (2) Class B, which are fires in flammable liquids such as gasoline, alcohol, and nitromethane; and combustible liquids such as diesel oil, motor oil, and greases
- (3) Class C, which are fires of the Class A and Class B types, which occur in energized electrical equipment
- (4) Class D, which are fires in combustible metals such as magnesium and titanium

7.2.1.2 In Class C fires, the user of the fire extinguisher must be concerned with the conductivity of the extinguishing agent. Water should not be used on fires involving energized electrical equipment, as it exposes the user to the risk of electrocution.

7.2.1.3 In Class D fires, application of water might cause a violent reaction.

7.2.1.4 Only listed and labeled portable fire extinguishers should be used to ensure that compliance with minimum construction and performance requirements has been met.

7.2.1.5 The size of the portable fire extinguisher should be matched to the hazard that is being protected. The extinguisher or a combination of extinguishers must be able to extinguish the various types of fires that might occur in each area to be protected. In the case of exotic fuels or special hazards, it might be necessary to refer to material safety data sheets (MSDS) for health hazards and special fire-fighting agents or equipment that should be used. Some materials used in the construction of motorsports vehicles might present health hazards, unique extinguishing requirements, or both.

7.2.1.6 Each fire extinguisher should be inspected before each deployment for an event.

7.2.1.6.1 The person inspecting the extinguisher should look for evidence of damage such as dents and corrosion.

7.2.1.6.2 The person inspecting the extinguisher should also check the pressure gauge to verify that the extinguisher is fully charged, since an extinguisher will not operate if the pressure has leaked out.

7.2.1.6.3 The fire extinguisher nozzle should be examined to make certain that mud, insects, or insect nests have not blocked it.

7.2.1.6.4 If there are any problems detected during the inspection, the extinguisher should be replaced immediately so that, in an emergency, a fully functional fire extinguisher will be available.

7.2.1.7 Each extinguisher should be maintained annually by a fire extinguisher service professional. Professional maintenance businesses are listed in the Yellow Pages of the local phone book. The local fire department should also be able to provide relevant information on the maintenance of

fire extinguishers. This annual examination and maintenance is essential to ensure the extinguishers will operate as intended. Pressure vessels such as fire extinguishers require periodic disassembly, internal inspection, and pressure testing to be certain they are safe for use.

7.2.1.8 Fire extinguishers should be placed at intervals around the competition area to facilitate rapid deployment and application. It might also be necessary to provide other types of suppression agents or backup fire suppression capabilities such as water buckets or supplied water hose reels. It is important that properly trained personnel are stationed near the extinguishers to minimize response time during a fire.

7.2.1.9 Fire extinguishers or other fire-fighting equipment should also be available in areas designated for working on competitive vehicles. These areas can include garages, paddock areas, staging areas, and pit areas not adjacent to the competition area. Fire extinguishers should also be available anywhere fuel is transferred from one container to another, whether from fuel storage facilities to a vehicle or intermediate container, or from an intermediate container to a vehicle.

7.2.2 Motorized Fire-Fighting Vehicles/Apparatus. A motorized fire-fighting vehicle should be provided where the distances are such that there is not time for a sufficient number of emergency services personnel with portable extinguishers to respond on foot, or where there is a potential need for fire-fighting capability beyond that which can be delivered with portable fire extinguishers. The size and layout of the competition area to be covered, the access points, and the type of motorsports event to be held must all be considerations when determining on-track fire suppression needs.

7.2.2.1 The motorized fire-fighting vehicle can be a specifically designed fire-fighting apparatus, or a vehicle as simple as a pickup truck, quad-runner, or golf cart-type vehicle equipped with fire-fighting equipment.

7.2.2.2 The motorized fire-fighting vehicle should be equipped with a fire-extinguishing agent(s) appropriate for the hazard expected to be encountered, which might include one or more of the following:

- (1) A large listed and labeled portable fire extinguisher mounted in or secured to the vehicle, which typically contains about 57 kg (125 lb) or more of a dry chemical extinguishing agent that is discharged through a hose with a control nozzle at the end of the hose
- (2) A minimum 285-L (75-gal) water tank with a pump or a pressurized water tank and 15 m to 30 m (50 ft to 100 ft) of hose with appropriate fire-fighting nozzle, with consideration given to the following:
 - (a) In certain types of motorsports or with certain fuels, a fire suppression additive might be appropriate for use in the water.
 - (b) Such additives should be used in compliance with the manufacturer's recommendations.
- (3) One or more portable fire extinguishers with a rating of at least 80-B:C each and one or more 9.5-L (2.5-gal) pressurized water extinguishers
- (4) Additional fire extinguishers listed and labeled for Class D fires or special extinguishing agents appropriate for the special hazards of the motorsports type, if needed

7.2.2.3 The following rescue and clean-up tools and equipment as appropriate for the type of event should be provided on a motorized fire-fighting vehicle or a rescue vehicle:

- (1) Tool box with common hand tools and seat belt cutter
- (2) Heavy tools such as a pry bar, bolt cutters, flat shovel, crowbar, sledge hammer, and crash axe
- (3) A tow strap or rope of approximately 10 m (30 ft)
- (4) Push brooms
- (5) Containers of coarse, oil-absorbent material, fine oil-absorbent material, or both

7.2.2.4 All of the equipment carried on the vehicle should be securely mounted to the vehicle to ensure its arrival at the incident scene.

7.3 Rescue and Extrication Equipment. Rescue and extrication equipment to release a driver or any other persons trapped as a result of an accident in the competition area should be available. Such equipment might include manual, electric, hydraulic, or otherwise powered spreaders and cutters. Hand or power saws designed for the anticipated materials to be cut should also be available.

7.3.1 Rescue cutting equipment should be sufficient to cut roll bars, the vehicle body, or cockpit materials of the type found in motorsports competitive vehicles expected at an event.

7.3.2 The equipment should be on site at the venue or close by with a local emergency response agency with the capability and willingness to respond to the venue.

7.3.3 All powered rescue tools should be in compliance with NFPA 1936, *Standard on Powered Rescue Tool Systems*.

7.4 Emergency Medical Services.

7.4.1 EMS should be provided in accordance with the requirements of the local authority with legal responsibility for setting EMS requirements. Consideration should be given to providing emergency medical capability on site, depending on the type of event and locally available resources.

7.4.2 Methods of EMS delivery could include the following:

- (1) Advanced life support (ALS) unit(s) on site
- (2) Basic life support (BLS) unit(s) on site
- (3) BLS provider(s) with equipment on site with local medical transport available
- (4) Off-site local emergency medical provider

7.4.3 Ambulances and other EMS vehicles used at the venue should be equipped in accordance with the requirements of the local authority or state and national regulations.

7.4.4 At any event where competitive speeds will exceed normal highway limits and where there is wheel-to-wheel competition or where the horsepower exceeds that of consumer/production vehicles, an ambulance(s) equipped to no less than the standard of care of the surrounding community and staffed by no less than two certified emergency medical personnel should be available on site.

7.4.5 The number of the units and the level of care should be consistent with local standards of care for EMS and relative to the size of the venue and number of attendees expected.

7.5 Hazardous Materials Mitigation. Equipment and materials to handle hazardous material spill mitigation and disposal should be available based on the hazardous materials present at the venue and the potential for a spill. The equipment and materials might vary depending on the design of the course and the type of motorsports event to be held. All containment and clean-up procedures should conform to federal, state, and local governmental regulations.

7.6 Course Clean-Up Equipment. Course clean-up equipment should be available. This equipment might be as simple as brooms, shovels, and leaf/lawn blowers used with absorbent materials, or as elaborate as special vehicles designed to spread and pick up items such as absorbent materials, motorized blowers or jets, street-type vacuums, and mechanized street brushes. The clean-up equipment needed will depend on the competition area size and type and the expected event type.

7.7 Communications. Portable communications equipment should be provided to allow designated emergency services personnel to communicate with the event/venue official and with each other.

7.8 Recovery Equipment. Recovery equipment includes boom-type tow trucks, flat bed tow trucks (rollbacks), or any other specialized equipment appropriate for removing crashed or disabled vehicles from the competition area. The type and amount of equipment will vary depending on the type of vehicles entered in the competition, the design of the particular competition area, and the urgency for resuming full racing competition.

7.9 Vehicle Marking. Response vehicles used on a competition area where movement of competitive vehicles continues after an incident should be conspicuously marked and have appropriate visual warning devices. All on-course emergency, clean-up, or recovery vehicles should be equipped with some type of manually operated, portable visual warning devices to be deployed by personnel working on the competition area. These warning devices can include flags, lights, signs, or paddles or any combination thereof.

7.10 Parking or Staging Areas. Safe parking areas, staging areas, or both, should be provided for response vehicles. These response vehicles should be staged in proximity to the competition area for easy access but should be protected by barriers or space from potential collision with competition vehicles.

Chapter 8 Operations

8.1 General. The success of emergency operations does not depend only on emergency action planning, training and equipping of personnel, and provision of equipment. It is equally important that all personnel understand the nature of the specific event and their roles in the emergency operations.

8.2 Pre-Event Planning. The venue manager should review the equipment and capabilities of the on-site staff and emergency personnel with the event/venue officials or sanctioning body officials. Where the needs for emergency services exceed the on-site capability, the venue manager should determine how the required emergency services should be provided.

8.3 Review of Emergency Action Plan (EAP). The emergency action plan (EAP) should be reviewed to ensure that the requirements defined in the plan with regard to handling on-site emergencies can be met with the resources available. Where the plan calls for using off-site resources, a check should be made to verify that those resources have been contacted, are aware of the event, and are available.

8.4 Review of Operational Readiness. The overall event emergency operations checklist shown in Figure 8.4 is provided to assist the venue manager in preparing for and providing emergency services at a motorsports venue. The venue

manager should adapt this checklist to the specific needs of the motorsports venue. Such adaptation could include adding items on the list for larger venues or disregarding items on the list if they are not applicable.

8.5 Individual Fire Crews.

8.5.1 Individual fire crews should be provided with written information or should otherwise be briefed to ensure they have the following information to assist them in understanding, preparing for, and executing its role during an emergency:

- (1) Name of the individual to whom the crew reports and that individual's position in the chain of command
- (2) Name(s) of individual(s) to call if needs develop such as replacing an ill crew member or used or broken equipment, if problems need to be resolved, or if information is needed, such as updates on the status of the event(s)
- (3) Names of the other members of the crew and identification of individual crew member assignments
- (4) Individual crew member assignments at the venue, including where each crew member is stationed and identification of each member's geographic area of responsibility
- (5) Identification of the appropriate personal protective equipment (PPE) for the crew's assignment
- (6) Equipment provided for the assignment
- (7) Means of communicating the crew's status and needs including, as appropriate, the radio frequencies to be used
- (8) Time the crew is expected to start its assignment and when, or under what situations, the assignment is considered to be complete
- (9) Identification of the dispatcher or circumstances under which the crew is to respond to render assistance

8.5.2 Figure 8.5.2 shows a form that, if completed, will provide the fire crew with the necessary information recommended in 8.5.1.

8.6 Individual Rescue Crews.

8.6.1 Each rescue crew should be provided with written information or should otherwise be briefed to ensure that it has the following information to assist it in understanding, preparing for, and executing its role during an emergency:

- (1) Name of the individual to whom the crew reports and that individual's position in the chain of command
- (2) Name(s) of individual(s) to call if needs develop such as replacing an ill crew member or used or broken equipment, if problems need to be resolved, or if information is needed, such as updates on the status of the event(s)
- (3) Names of the other members of the crew and identification of individual crew member assignments
- (4) Individual crew member assignments at the venue, including where each crew member is stationed and identification of each member's geographic area of responsibility
- (5) Identification of the appropriate personal protective equipment (PPE) for the crew's assignment
- (6) Equipment provided for the assignment
- (7) Means of communicating the crew's status and needs including, as appropriate, the radio frequencies to be used
- (8) Time the crew is expected to start its assignment and when, or under what situations, the assignment is considered to be complete
- (9) Identification of the dispatcher or circumstances under which the crew is to respond to render assistance

8.6.2 Figure 8.6.2 shows a form that, if completed, will provide the rescue crew with the necessary information recommended in 8.6.1.