

***Haz-Mat Paramedic and Technical Rescue Paramedic
Policies and Procedures (6005.00)***

I. GENERAL PROVISIONS

- A. The Haz-Mat/Technical Rescue Paramedic program is a specialized prehospital basic and advanced life support program administered by the Kern County EMS Department in cooperation with the Bakersfield Fire Department. The program functions as an extension to State and County rules and regulations and operates under medical control and authority of the Kern County EMS Department Medical Director.
- B. The Haz-Mat/Technical Rescue Paramedic program is to be operated with continual evaluation of program effectiveness, incident critiques, and program activity by the Bakersfield Fire Department and with medical control and EMS operational oversight by the EMS Department.
- C. The Bakersfield Fire Department shall be responsible for administration of all Haz-Mat operations associated with Haz-Mat responses.
- D. The Haz-Mat/Technical Rescue Paramedic program involves the use of specially trained paramedic(s) with State licensure and local accreditation, authorized by the Bakersfield Fire Department. The Haz-Mat/Technical Rescue Paramedic Program operates solely as a part of a Haz-Mat or technical rescue operation.
- E. The Haz-Mat/Technical Rescue Paramedic, under the on-scene direction of the Incident Commander and in accordance with these policies, shall be responsible for planning and coordination of EMS resources during Haz-Mat or technical rescue operations. The Haz-Mat/Technical Rescue Paramedic shall also be responsible for the direct provision of prehospital basic or advanced life support within the exclusionary zones or contamination reduction zones of the incident operation. Licensed and locally accredited paramedic personnel may only provide prehospital advanced life support.
- F. The purpose of the program is to provide a means of refined prehospital basic and/or advanced life support unique to the Haz-Mat or technical rescue environment where a higher level of personal protection equipment is required beyond ambulance paramedic capability and training, provide a basis for structured EMS support planning for operations, and reduce the possibility of injury, disability, or mortality of fire personnel, EMS personnel, other agency personnel, and the general public.
- G. Nothing in these policies is intended to interfere with the operational procedures of a Haz-Mat or technical rescue operation. In the event that staffing place the Haz-

Mat/Technical Rescue Paramedic in a position of inability to provide medical coordination or medical care, the Incident Commander may use other available fire or EMS personnel resources to provide medical coordination or medical care as appropriate.

II. DEFINITIONS

- A. Haz-Mat Team: "Hazardous Materials Team" is a specially trained fire department team of personnel. Members of the Haz-Mat Team function in a structured team environment. Haz-Mat Team members deal with incidents that would be too hazardous for untrained or improperly equipped personnel. The Haz-Mat Team members are used for identification, rescue, patient treatment, Haz-Mat Team member treatment/rehabilitation, and mitigation of known or suspected Hazardous Materials releases.
- B. Haz-Mat/Technical Rescue Paramedic: A State licensed and Kern County accredited paramedic serving as a member of the Bakersfield Fire Department.
- C. Non-Fire EMS Personnel: Non-Fire EMS Personnel are those professional medical personnel licensed or certified to provide prehospital basic and/or advanced life support within the County EMS System.
- D. Haz-Mat Operational Zones: A Haz-Mat operation is defined geographically by its zones. The Hot Zone is the area surrounding the incident that has been contaminated by the released material. This zone may contain exceptional danger and extreme threat to life safety. The Hot Zone extends far enough to prevent people outside the zone from suffering ill effects from the released material. Work performed inside the Hot Zone is generally limited to Haz-Mat Team members with the highest level of Personal Protective Equipment (PPE). The Warm Zone is the area abutting the Hot Zone and extending to the Cold Zone. Some hazard potential to public or environment exists in the Warm Zone. PPE is required at a lesser level for workers in the Warm Zone. The Warm Zone is an area of limited access, usually set by first on-scene fire personnel. The Warm Zone is used to support workers in the Hot Zone and to decontaminate personnel and equipment exiting the Hot Zone. Decontamination generally takes place within a corridor (also known as contamination reduction corridor or area) located in the Warm Zone. The Cold Zone surrounds the Warm Zone and is used to carry out all other support functions of the incident. Workers in the Cold Zone are not required to wear PPE because the Cold Zone is considered safe. The command post, staging, and triage/treatment area are located within the Cold Zone.
- E. Incident Commander: The Incident Commander is the representative from the agency with investigative authority over the incident.
- F. Haz-Mat Group Supervisor: The Haz-Mat Group Supervisor is the individual assigned to direct the Haz-Mat Team members, including the Haz-Mat/Technical Rescue Paramedic, during a Haz-Mat incident.

- G. Victim(s): A victim will include any personnel or Haz-Mat Team member exposed to the contaminant or suffering ill effects from Haz-Mat operations, multiple Level A entries, dehydration, or other injuries. For a technical rescue incident, the term victim is applied to any individual that requires technical rescue as defined in these policies.
- H. EMS Resources or Personnel: EMS resources or personnel shall include fire department first responders, ambulance services, EMS aircraft providers and general acute care hospitals operating stand-by or basic emergency medical services within the County.
- I. Technical Rescue: A technical rescue is an incident where victim rescue operations requires specialized personal protective equipment (PPE) generally beyond the capability and training of ambulance paramedic personnel. The term technical rescue, as used in these policies, shall be limited to any one the following:
 - 1. Victim vehicle entrapment or extrication prior to ambulance paramedic arrival at scene;
 - 2. Victim vehicle entrapment or extrication where the ambulance paramedic is on scene, but the ambulance paramedic determines he/she cannot safely access the patient;
 - 3. High or low angle rescue operations requiring ropes and other rescue equipment for safe victim access and rescue;
 - 4. Confined space or trench collapse rescue; or
 - 5. Swift water rescue.

III. SCOPE OF PRACTICE

- A. Haz-Mat/Technical Rescue Paramedic personnel are authorized to provide prehospital Basic Life Support (BLS) and Advanced Life Support (ALS) within the scope of practice allowed by the State and in accordance with EMS Department policies, procedures, and protocols. Haz-Mat/Technical Rescue Paramedic personnel may only provide prehospital advanced life support during incidents or events that involve Haz-Mat or technical rescue operations.
 - 1. For Haz-Mat incidents, patient health care authority shall immediately transition to ambulance paramedic personnel once the patient is completely decontaminated and is safe for conventional patient contact and transport. If a risk of cross-contamination continues or more in-depth decontamination is required, the Haz-Mat/Technical Rescue Paramedic shall retain patient health care authority until the patient is safe for conventional patient contact and transport.

2. For technical rescue incidents, patient health care authority shall immediately transition to ambulance paramedic personnel once the ambulance paramedic determines he/she can safely access the victim(s). The Haz-Mat/Technical Rescue Paramedic shall not restrict ambulance personnel's access to victims.
- B. ALS treatment authorization shall be commensurate with compliance of the required MICU supplies and equipment inventory specified in the *Provider Mandatory Inventory List*.
- C. Haz-Mat/Technical Rescue Paramedic personnel shall provide for the planning, notification, response, communications and coordination of local EMS resources in support of Haz-Mat or technical rescue operations under the direct supervision of the Incident Commander.

IV. PROVIDER REQUIREMENTS

- A. The Bakersfield Fire Department is authorized by the EMS Department to be a Haz-Mat/Technical Rescue Paramedic Provider under the authority of Title 22 of the California Code of Regulations. EMS Department authorization as a Haz-Mat/Technical Rescue Paramedic Provider shall be required to maintain the program.
- B. Haz-Mat/Technical Rescue Paramedic Provider authorization shall immediately be terminated if the provider is unable to provide personnel meeting the requirements of these policies, or the program is discontinued. The EMS Department may revoke program authorization for non-compliance with these policies and procedures.

V. PERSONNEL QUALIFICATIONS, CERTIFICATION, AND TRAINING

- A. Paramedic personnel shall be active employees of the Bakersfield Fire Department Haz-Mat Team and hold active State licensure and Kern County paramedic accreditation.
- B. Paramedic personnel shall receive a minimum of four (4) hours training in EMS system resource coordination before operating in a capacity as a Haz-Mat/Technical Rescue Paramedic. This training shall include orientation in communications systems, resource utilization, ambulance service operating areas, and prehospital care capability, dispatch, stand-by procedures, EMS aircraft utilization, multi-casualty incident/Med-Alert operations, hospital care capabilities, and hospital emergency department status.

VI. ACTIVATION AND USE

- A. Haz-Mat/Technical Rescue Paramedic personnel will normally be activated by the Incident Commander, or by an on-call status by radio or pager. The Haz-Mat/Technical Rescue Paramedic will, under the direction of the Incident Commander, begin contingency and EMS planning as soon as activated.
- B. All planning and use of resources will be at the discretion of the Incident Commander.

VII. SCENE OPERATIONS FOR HAZ-MAT INCIDENTS

- A. The Haz-Mat/Technical Rescue Paramedic, under the direction of the Incident Commander or Haz-Mat Group Supervisor, shall be responsible for the direct emergency medical care of all victims contained within the Hot, Warm or Cold zones of a Haz-Mat operation, EMS contingency planning, and the coordination of EMS resources in support of the Haz-Mat operation at the scene. Once a patient is fully decontaminated and cleared by the Haz-Mat/Technical Rescue Paramedic, patient health care authority for the individual patient shall automatically transition to ambulance paramedic personnel.
- B. The Haz-Mat/Technical Rescue Paramedic will also be responsible for medical monitoring of Haz-Mat team members before initial entry and after each exit from the Warm Zone. Medical monitoring will at a minimum include an assessment and a full set of vital signs documented for each Haz-Mat team member before initial entry and after each exit from the Warm Zone. Medical monitoring may also be assigned to EMS personnel on-scene in the Cold Zone. The Haz-Mat/Technical Rescue Paramedic may advise the Incident Commander or Haz-Mat Group Supervisor of any Haz-Mat team member that has vital signs outside normal limits or has any signs or symptoms that may constitute a safety risk for initial entry or re-entry.
- C. The Haz-Mat/Technical Rescue Paramedic, as approved by the Incident Commander or Haz-Mat Group Supervisor, shall make arrangements for EMS resources, which may include ambulance service or EMS aircraft notification, ambulance or EMS aircraft stand-by, hospital notification and EMS Department notification of incidents that may involve significant medical hazard or may result in multiple casualties. For large scale incidents involving Haz-Mat operations, the Haz-Mat/Technical Rescue Paramedic may identify a non-Haz-Mat EMS person for coordination of EMS resources. All Haz-Mat EMS coordination personnel shall be staged at or near the incident command post as appropriate.
- D. Prehospital emergency medical care for victims located outside the Cold Zone shall be the responsibility of EMS personnel at the scene while Haz-Mat team operations are in progress.

- E. Whenever possible, at the discretion and direction of the Incident Commander or Haz-Mat Group Supervisor, EMS personnel will be assigned by the Haz-Mat/Technical Rescue Paramedic to care for victims located inside the Cold Zone.
- F. A victim shall not be approached by any non-Fire designated EMS personnel until the victim has been properly decontaminated, determined safe by the Haz-Mat/Technical Rescue Paramedic for conventional contact/patient care and removed to the Cold Zone. The decontamination process shall take place in the corridor between the Hot Zone and Warm Zone. Final determination for patient contact by non-Fire designated EMS personnel will be the decision of the Haz-Mat/Technical Rescue Paramedic in coordination with the Haz-Mat Group Supervisor or Incident Commander.
- G. During transition of patient care from the Haz-Mat Paramedic to the ambulance paramedic, the Haz-Mat Paramedic shall provide or cause to be provided a written report to ambulance paramedic personnel regarding victim condition, treatment, and any condition trends during the Haz-Mat operations. The written report shall not delay patient care. The Haz-Mat/Technical Rescue Paramedic may continue to assist with basic life support or advanced life support patient care if requested by the ambulance paramedic.

VIII. SCENE OPERATIONS FOR TECHNICAL RESCUE INCIDENTS

- A. The Haz-Mat/Technical Rescue Paramedic, under the direction of the Incident Commander, shall be responsible for basic life support and advanced life support level intervention:
 - 1. Prior to arrival of the ambulance paramedic, or
 - 2. While the victim is within a hazardous rescue environment and the ambulance paramedic cannot safely access the patient, as defined by Section II. I
- B. Once the ambulance paramedic can safely access the victim, patient health care authority shall immediately transition to ambulance paramedic personnel at the scene. The Haz-Mat/Technical Rescue Paramedic shall provide an immediate verbal report to ambulance paramedic personnel regarding victim condition, treatment, and any condition trends during technical rescue operations. The Haz-Mat/Technical Rescue Paramedic shall complete a written report containing the information listed above and provide a copy of the report to ambulance paramedic prior to patient transport from the scene. The written report shall not delay patient care. The Haz-Mat/Technical Rescue Paramedic may continue to assist with basic life support or advanced life support patient care if requested by the ambulance paramedic.

- C. Basic and advanced life support treatment administered by the Haz-Mat/Technical Rescue Paramedic during technical rescue operations shall not unreasonably delay victim extrication or rescue. The Haz-Mat/Technical Rescue Paramedic shall only provide treatment as demanded by the victim condition while in the hazardous rescue environment.

IX. INCIDENT CONTINGENCY PLANNING FOR HAZ-MAT INCIDENTS

- A. The Haz-Mat Paramedic shall be responsible for Haz-Mat operations and EMS contingency planning under the direction of the Incident Commander or Haz-Mat Team Leader as follows:
 - 1. A functional plan for access to, decontamination, treatment, and removal of victims from the hazardous environment.
 - 2. Continuous knowledge of the quantity, location, and function of EMS resources at the scene or in the area, including quantity and type of EMS personnel, vehicles, and equipment.
 - 3. The best route of EMS resources ingress to the scene area, staging location, and route of transport to the nearest appropriate hospital able to receive a victim of a hazardous materials exposure, injuries or medical problems.
 - 4. A briefing of EMS resources that have been responded to the scene during a Haz-Mat operation. The briefing should include information in scene safety, Haz-Mat Paramedic scene operations, number and type of victims, the contaminants they have been exposed to, general information about the properties of the contaminant, toxicological effects, and any special prehospital care for the patients.
 - 5. A communication protocol with on-scene EMS personnel. The protocol will include unit identification for all units and assignment of a common medical coordination frequency. EMS personnel and vehicles will be directed to safe staging areas and assigned routes to enter the incident Cold Zone when requested by the Haz-Mat/Technical Rescue Paramedic.
 - 6. The medical history of all Haz-Mat team members that may be located within the Hot Zone or Warm Zone. This information will be obtained for special contingency planning, EMS priority determination, and briefing of EMS personnel at the scene.
 - 7. If necessary, the Haz-Mat Paramedic may also provide notification to appropriate hospital emergency departments regarding the incident, number and type of victims, the hazardous material(s) involved, and any special prehospital or hospital considerations. All notifications shall be

subject to the approval of the Incident Commander and in coordination with Haz-Mat Group Supervisor.

- B. For large scale incidents involving Haz-Mat operations, the Haz-Mat Paramedic should delegate or assign specific contingency planning and EMS resource coordination functions inside the Cold Zone of the Haz-Mat operation to EMS personnel qualified by experience to coordinate resources.
- C. Should the Haz-Mat Paramedic become disabled or unable to perform Haz-Mat Paramedic functions during a Haz-Mat operation, the Incident Commander may assign EMS responsibilities in the Cold Zone to an EMS person at the scene and non-medical functions within the Warm Zone to another Haz-Mat Team member.

X. PRE-INCIDENT CONTINGENCY PLANNING

- A. The Haz-Mat/Technical Rescue Paramedic shall have access in advance to pertinent medical history information on Haz-Mat team members should they become ill or injured. It will be the paramedic's responsibility to notify the Incident Commander any time a medical issue may interfere with a Haz-Mat team member's ability to perform his or her duties on the scene of an incident.
- B. The Haz-Mat/Technical Rescue Paramedic shall ensure that all Haz-Mat team members are thoroughly briefed and regularly updated in Haz-Mat/Technical Rescue Paramedic functions.
- C. The Haz-Mat/Technical Rescue Paramedic shall provide in-service education to EMS resources within the County regarding the Haz-Mat/Technical Rescue Paramedic Program and basic Haz-Mat team functions.

XI. EMS RESOURCE USE

- A. The Haz-Mat/Technical Rescue Paramedic shall be responsible for appropriate notification, response and use of all EMS resources under the direction of the Incident Commander or Haz-Mat Group Supervisor and shall immediately release such resources from the scene when no longer needed or indicated for use.
- B. If an EMS resource response to the scene is requested for stand-by, the Haz-Mat/Technical Rescue Paramedic shall inform the EMS resource provider with an estimate of the expected duration of time for stand-by and shall provide for regular incident status updates to EMS resources on scene.
- C. If EMS resources are notified of an incident, but not responded, the Haz-Mat/Technical Rescue Paramedic shall be responsible to notify all EMS resources when an incident is secured or provide regular updates during extended operations.

- D. In cases involving remote or rural Haz-Mat or technical rescue operations where an extended patient transport time by ground to the closest and most appropriate hospital is evident, the Haz-Mat/Technical Rescue Paramedic should plan for the use of EMS Aircraft (for ill or injured patients not contaminated by a hazardous material) in addition to ground EMS resources. Typically, air ambulance use within Metro Bakersfield to a hospital within Bakersfield will not result in significant transport timesavings to justify use of the aircraft. Aircraft use will not be considered for a victim that has been contaminated by any hazardous material, unless fully decontaminated and no risk exists for cross contamination or vapor release. The Haz-Mat/Technical Rescue Paramedic shall be cognizant that EMS Aircraft use does not replace the use of ground EMS resources for prehospital patient care at the scene of a Haz-Mat or technical rescue incident, but serves as an adjunct to basic EMS resources subject to availability.
- E. When using the EMS Aircraft in response to, stand-by, or support of a Haz-Mat or technical rescue incident, the Haz-Mat/Technical Rescue Paramedic shall request EMS Aircraft through ECC and make arrangements for securing a helicopter landing zone approved by the Incident Commander. On-scene fire personnel shall be used for securing the helicopter landing zone as appropriate.

XII. TRANSPORT

- A. The Haz-Mat/Technical Rescue Paramedic may accompany a patient in transport to the hospital emergency department if requested by the ambulance paramedic.

XIII. DOCUMENTATION AND QUALITY ASSURANCE

- A. For quality assurance purposes, the Haz-Mat/Technical Rescue Paramedic shall complete an incident report for all responses and scene operations. The incident report shall contain a basic description of the incident including date, time, location, hazards involved. Further the report shall provide a complete sequence of Haz-Mat/Technical Rescue Paramedic actions regarding scene operations, notifications, EMS resource use, briefing, and contingency planning.
- B. The Haz-Mat/Technical Rescue Paramedic shall complete an EMS Department PCR Transport Record for any pre-hospital patient care he/she provided at the scene or during transport.
- C. All Incident Reports and EMS Department PCR Transport Records shall be forwarded to the Bakersfield Fire Department and the EMS Department.
- D. The EMS Department shall be notified of any anticipated changes in the personnel or function of the Haz-Mat/Technical Rescue Paramedic Program. The Bakersfield Fire Department shall monitor the program for medical quality assurance.

- E. The Bakersfield Fire Department shall provide a quarterly update (by the 15th of January, April, July, and October) to the EMS Department regarding Haz-Mat/Technical Rescue Paramedic Program.
1. The report will include a listing of each incident during the preceding quarter where ALS paramedic services were provided by Fire Department personnel;
 2. An assessment of each of the following ALS skills:
 - a. Number of times an IV line was established on first attempt, compared to all times an IV line was established/indicated.
 - b. Number of times an ET intubation placement was established on first attempt compared to all times an ET intubation placement was established/indicated.
 - c. Number of patients who successfully got an advanced airway established when it was indicated, compared to all times an advanced airway was indicated.
 - d. Number of patients who receive a Combitube as their primary airway, and an assessment/analysis as to why this method was used.
 - e. For all patients requiring spinal precautions, number of times a circulation, sensation, movement assessment was taken before and after spinal precautions applied.
 - f. Number of times vital signs were taken within 5 minutes after medications administered, compared to number of patients receiving medications.
 3. Any other information the EMS Division requests, in writing, that the Bakersfield Fire Department include in the reports.

XIV. MALPRACTICE INSURANCE

- A. The Haz-Mat/Technical Rescue Paramedic and the Bakersfield Fire Department shall secure and maintain a means for malpractice insurance coverage for the Haz-Mat/Technical Rescue Paramedic(s) and the Haz-Mat/Technical Rescue Paramedic Provider. This requirement may be satisfied with documentation of malpractice coverage under the City of Bakersfield.

XV. REQUIRED MICU EQUIPMENT AND SUPPLIES

- A. The Haz-Mat/Technical Rescue Paramedic Provider is required to maintain a complete inventory of Mobile Intensive Care Unit (MICU) equipment and supplies

as specified in the *Provider Mandatory Inventory List*. The provider is responsible for the care and maintenance of the MICU Inventory.

- B. The MICU Inventory shall be specially configured for use within the hazardous environment, and advanced life support supplies. Equipment shall only be used by Haz-Mat/Technical Rescue Paramedic personnel when associated with a Haz-Mat or technical rescue operation.
- C. The MICU inventory is subject to inspection by the EMS Department.

Log of Revisions:

- 11/12/2002 - Original approval/adoption of Haz-Mat Paramedic program
- 7/18/2005 - Draft revisions to add Rescue Paramedic function, and general verbiage editing
- 8/11/2005 – EMCAB Advisory to Implement
- 8/16/2005 – Addition of Rescue Paramedic function - final version
- 06/01/2010- Add Amiodarone, MAD, ET confirmation, and ET securing device to stock.
- 08/15/2014 – Add Atrovent, Zofran, oral glucose and Fentanyl, pediatric non-rebreather, bulb syringe, multi-trauma dressing, petroleum gauze, shears, irrigation solution, and burn pack. Remove blood tubes, scalpel, and electrode jell. Change normal saline to isotonic balanced salt solution, combitube to king airway,
- 12/01/2015 - Removed the mandatory inventory table and placed in a separate document