15.15 Scope:

When a decision by command or an Emergency Medical Services unit has been initiated for the intervention of an air operation, command shall establish an air operations sector. As soon as the Incident Commander knows the possible or actual need for air medical transportation exists, this shall be communicated to the Berks County Communications Center. The communications center will be responsible for establishing contact with the appropriate air medical transport organizations to determine their availability and estimated response time. Should the possibility exist for use, the aircraft shall be placed on stand-by mode. When in stand-by mode the Incident Commander shall communicate as quickly as practical the actual need to activate or cancel the helicopter.

At the time of the request for air medical transportation, the incident commander shall provide as much patient information as may be available at that time, as well as known information about the incident location and confirmation of the radio frequency. At the time that air medical transportation is requested at the incident, the Incident Commander shall establish the air operations group; available units on location with sufficient personnel may be utilized. If there are no units available, insufficient personnel, or off scene landing zone, the Incident Commander shall request an additional Engine Company to establish the landing zone.

15.1501 Selecting a Landing Zone:

An area should be selected large enough to land a helicopter. The landing surface shall be flat and firm, free of debris that would blow up into the rotor system.
The landing area should be free of people, vehicles, and obstructions such as trees, poles and wires. Keep in mind that wires cannot be seen from the air. The landing area should be free of stumps, brush, posts, and large rocks.

1. Touchdown area: **minimum of 100 feet by 100 feet**.
2. Wind direction and touchdown area: Consider the wind direction. Helicopters land and take off into the wind. The approach and departure path must be free of obstructions such as wires, poles, antennas, trees, etc. If there are any obstructions, this information must be relayed to the pilot as soon as possible.
3. The LZ shall be marked as follows:
    a. Day Time: Five traffic cones- one in each corner and one indicating wind direction.
    b. Night Time: Five traffic cones **with hand lights inside**- one in each corner and one indicating wind direction.

15.1502 Personnel Safety and Night Landing:

All spectators and non-essential emergency personnel shall be kept at least 200 feet from then touchdown area. All emergency equipment shall be kept at least 100 feet from the LZ. All persons working around the helicopter shall wear full personal protective equipment including eye protection (SCBA are not required). Helmets shall have chinstraps secured (Loose equipment may be blown into the rotor system). If the LZ is extremely dusty, an engine company shall wet down the LZ area. During the final approach of the helicopter, radio traffic shall be kept at a minimum should an emergency occur that requires immediate communication with the helicopter. When the helicopter has landed, no personnel shall approach the aircraft.

For night landings, assure that no lights, including but not limited to, spot lights, flood lights, vehicle headlights, white emegency lights and hand-lights are not pointed toward the helicopter. All non-essential lights shall be turned off, because lights such as spotlights, flash bulbs, and high beam lights ruin the pilot's vision and temporarily blind him/her. Emergency lights however, are very helpful in finding accident locations and do not effect the pilot's night vision.

15.1503 Ground Guide and Landing Zone Officer:

After the request for an air operations group has been made, an officer or an experienced senior firefighter shall be designated as the air operations group leader. This person shall secure a designated landing zone frequency from the Berks County Communications Center, designate the landing zone as LZ42, and use that designation until termination of the landing zone. This individual shall be the only person to make radio contact with the communications center and the aircraft. This individual shall supervise the establishment of the landing zone, and once radio contact has been made shall provide pertinent landing zone information as found in 15.1501 above.

When the helicopter has landed, the LZ officer shall relay to the BCCC that the helicopter as landed. Then when the helicopter has taken off, relay to the BCCC that the patient is loaded and the helicopter has taken off and that the Landing Zone may be terminated.

15.1504 Helicopter Safety:

When working around helicopters, never approach helicopters from the rear. Always approach and depart the aircraft from the front so you can see the pilot and, he/she may see you.

When approaching helicopters, remember to keep low to avoid the main rotor, winds may cause the rotor to flex downward.

If the helicopter is located on a slope, approach and depart from the down-slope side only.

When the helicopter is loaded and ready for takeoff, keep the departure path free of vehicles and spectators. If an emergency should occur, the helicopter would need this area to execute a landing.

Once the helicopter has landed, do not approach the helicopter. The crew will approach you when it is safe to do so.

No one is permitted to go near or touch the helicopter. Security is necessary for safety.

Eye protection is mandatory whenever working in or around a helicopter.

15.1505 Hazardous Materials:

Helicopter crews must be told of any hazardous materials that are on scene to avoid contamination of the crew. Of special concern are toxic, poisonous, flammable, explosive, irritating, or radioactive in nature. Helicopter crews do not carry protective suits or breathing apparatus to protect them from hazardous materials.

Always inform the flight crew of hazardous chemicals or gases. Never assume they have been informed. If the aircraft were to fly through the hazardous gases, the crew could be poisoned and/or the engines could develop mechanical problems.

Poisonous or irritating gases may cling to a victim's clothing and go unnoticed until the patient has been loaded and the doors of the helicopter are closed; the pilot and crew is then compromised.

Helicopter landing zones shall be selected to avoid all possibilities of compromising the safety of the helicopter and its crew.

When explosives, poisonous gases/vapors, or chemicals in danger of exploding and burning are on site, the landing zone must be prepared upwind and at least one mile from the hazardous materials accident site and never in low lying areas. The toxic gases or vapors may be heavier than air and gather in these low-lying areas.