

# **Recommended Guidelines for the Use of Conducted Energy Devices**

*December 2009*



**Municipal Police  
Training Council**

New York State Division of Criminal Justice Services  
80 South Swan Street, Albany, New York 12210

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Conducted Energy Devices  
Guidelines for Use

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## Preface

Among the plethora of less-lethal weapons available to law enforcement, the conducted energy device (CED) has received considerable public attention and has emerged as a popular tool to gain suspect compliance. Based on a recent Florida Gulf Coast University study conducted by Mesloh, Henych, & Wolf (2008), CEDs were found to have the benefit of a higher success rate in conflict resolution between a suspect and officer than other less-lethal force options by ending the conflict more rapidly while reducing the need for multiple applications. The study also found since CEDs are effective at rapidly ending a confrontation, injuries to officers and suspects are reduced. Additional studies indicate the use of deadly physical force by officers and the number of officers injured during arrest confrontations has been dramatically reduced as a result of the CED. (Hopkins & Beary, 2003; Mesloh & Houglund, 2004).

Although many studies report overall injury rates among suspects and officers decline after CEDs are implemented, there are still risks involved with the use of CEDs.. Findings based on the U.S. Department of Justice "Study of Deaths Following Electro Muscular Disruption: Interim Report" indicate there is a relatively low risk for moderate or severe injury or death related to CED exposure. However, similar to all less-lethal technologies, CEDs have the potential to cause death or serious physical injury as a result of secondary or indirect effects. Additionally, studies which examine the possible effects of extended exposure in humans by CEDs are very limited. It is uncertain if deaths following CED exposure may be associated with continuous or repeated application of the CED.

Ultimately, the law enforcement administrator will find there is a demonstrated and often predictable success in using the CED to end confrontations with the least amount of violent or tumultuous and dangerous interactions between the law enforcement officer and those refusing the commands they make. The administrator's job is to balance that against the unknown aspects that the CED deployment brings.

Meanwhile, as administrators await more comprehensive and definitive research to become available regarding the use of CEDs, they are encouraged to review the following "Guidelines for Consideration." The Municipal Police Training Council believes this guide can best help the law enforcement administrator seek the aforementioned balance. This can assist law enforcement executives when implementing the use of CEDs in their agency. It is intended to help protect suspects, officers and others from possible unforeseen risks associated with the use of CEDs and to better serve the needs of their community.

The guideline is current with the December 2009 meeting of the Municipal Police Training Council.

# **I Recommended Guidelines for the Use of Conducted Energy Devices**

## **II Definitions**

- A. Conducted energy device (hereinafter referred to as CED) – a less lethal weapon primarily designed to disrupt a subject’s nervous system by means of deploying a high voltage, low power current of electrical energy sufficient to cause pain and/or uncontrolled muscle contractions to override an individual’s voluntary motor response.
- B. Direct contact mode – CED is held against a subject’s body causing the electrodes located at the end of the CED to come into contact against a subject.
- C. Probe mode – CED propels two probes which are connected to a main unit by a conductive wire.

## **III CED Training and Certification**

- A. Only trained and qualified department personnel may carry and/or use CED.
- B. CED re-certification should occur annually and consist of familiarity with CED functions, proficiency with use, importance of aiming center mass, and the effective deployment range of the CED.

## **IV CED Deployment**

- A. The CED should be placed within an agency’s Use of Force Policy at the level of introduction of the various less than lethal devices that the officer has been trained to utilize.
- B. In compliance and consistent with the guidelines set forth in:
  - 1. NYS Penal Law Article 35; and
  - 2. Applicable state and federal case law; and
  - 3. Department policy and training.
- C. Uses of CED - officer controlled compliance.
  - 1. Probe mode – Preferred method of CED deployment.

- a. More effective (causes incapacitation).
  - b. Can tactically be used at a safer distance.
  - c. Less chance of injuries to subject and officer.
  - d. Generally requires fewer applications than direct contact mode.
2. Direct contact mode – May be deployed when using the CED in probe mode is not possible, inappropriate, or ineffective.

D. Carry and color of CED.

1. CEDs resemble firearms in their construction. To prevent an officer from mistaking a firearm for a CED and accidentally drawing and/or firing their primary weapon, CEDs should be maintained in a holster on the support side of an officer's duty belt.
2. CEDs should be brightly colored to reduce the risk of being mistaken for a firearm by backup/responding unit(s).
3. Specialized units (e.g., SWAT) may want a leg holster and/or dark-colored CEDs for tactical purposes. If this is desired, a special training plan should be concurrent with any alternate choice made to the support side placement and training standard.

E. Application points.

1. CED should be applied to large muscle groups which are generally easier targets to aim for.
2. When deploying a CED, center of mass on the subject's back should be the primary target when reasonably possible. This will increase the chances of a two probe hit while targeting a large muscle group and minimizing the chances of hitting a subject in the head (eyes), neck (throat), groin and female breasts which may cause serious injuries. Encounters with subjects are often very dynamic in nature and may not permit an officer to gain a suitable position behind a subject. An appropriate alternative aiming point when possible is the subject's lower center of mass (below chest).
3. When using a CED in direct contact mode as a last resort when probe mode is not possible, inappropriate, or ineffective, the user should attempt to avoid the following:

- a. Trachea.
- b. Back of neck.
- c. Cervical portion of spine (neck region).
- d. Pelvic region.
- e. Base of sternum (may cause a contraction of diaphragm and effect breathing).
- f. Head.
- g. Female breasts.

F. Heightened CED application risk factors.

- 1. Under the following conditions the risks of foreseeable direct or secondary injuries are elevated, *thus elevating the level of justification needed on the part of the officer prior to CED application.*
  - a. Running – subject exposed to CED while running may fall at a greater momentum resulting in possible secondary injuries.
  - b. In an elevated position- a fall resulting from a CED application may cause substantial injury or death. Obviously, the higher the elevation the greater the chance of secondary injuries.
  - c. Operating machinery (i.e.: automobiles, trucks, motorcycles, ATVS, bicycles, scooters, etc.) – loss of control of machinery may cause substantial injury or death.
  - d. Positioned in a flammable or explosive environment or reasonably perceived by officers to have come in contact with flammable liquids/fumes (i.e.: natural gas, propane, petroleum) – may result in secondary injuries/burns.
    - (i) Potential for ignitibility may exist if a CED is used on a subject who has been sprayed with an alcohol-based chemical/pepper spray. If alcohol-based spray has been deployed on a subject prior to CED application, the CED user should not deploy the CED and instead use another appropriate force option.

- (ii) In the event other agencies are present at the scene, coordinate to ensure alcohol-based spray has not or will not be used on a subject who may receive a CED application.
  - (iii) Some sprays may say “non-alcohol based” and may still have the potential to ignite when used in conjunction with a CED. Each individual agency should test their own chemical agents and aerosol irritants to determine if their departmentally issued products are flammable.
- e. In or around water – subject could possibly fall into a swimming pool or body of water and may not be able to prevent oneself from drowning as a result of a CED application.
  - f. Other environments that may cause foreseeable direct or secondary injury. (i.e.: grain silo)

G. Elevated risk populations.

- 1. CED deployment on certain populations may increase risk of injury. Because of the lack of independent research which definitively predicts the effects of CED exposure on these groups, added caution should be used when deploying a CED on the below-mentioned persons. Although there are perceived heightened risk factors and societal perceptions which generally assume that many of these individuals are not capable of being an imminent threat, officers should understand individuals from this elevated risk population can potentially be an imminent threat to officers, others, and themselves which may ultimately require the use of a CED.
  - a. Smaller people or children.
  - b. Individuals with known diseased heart.
  - c. Elderly.
  - d. Subject who is obviously pregnant.
  - e. Those who are frail or infirm.
  - f. Individuals with known neuromuscular illness. (i.e.: multiple sclerosis, muscular dystrophy)



- g. Individuals that require more than three applications to gain custody and control.
- h. Individuals exhibiting signs of “excited delirium.” - Excited delirium is not a recognized medical or psychiatric diagnosis but is a term often used to describe a state in which someone presents themselves. The manifestations of excited delirium vary depending on the individual. Usually most of the following characteristics are observed in an individual in the condition often called a state of excited delirium:
  - (i) Violent behavior.
  - (ii) Extreme agitation and restlessness.
  - (iii) Incoherent and rambling speech.
  - (iv) Hallucinations and delusions with paranoid features.
  - (v) Lack of purposeful activity and/or destruction.
  - (vi) Elevated body temperature, profusely sweating.
  - (vii) Little or no clothing.
  - (viii) Lack of response to pain stimuli.
  - (ix) Combativeness and extra ordinary strength.
  - (x) History of stimulant abuse, most commonly cocaine and/or methamphetamine.

H. Verbal commands.

1. When tactically safe, a warning should be given to an individual prior to activating the CED and before any additional application to allow the subject an opportunity to voluntarily comply. Be aware that an announcement of imminent deployment of a CED may cause the subject to attack officers, flee, inflict self-injury or attempt to injure others and/or self and care must be taken to avoid placing others at risk.
2. When applicable, an announcement to other officers that a CED is going to be activated should be made.

I. Multiple CED applications.

1. CED users should be aware that the associated risks with multiple exposures to a CED are unknown and the role of CEDs causing death in these cases is unclear. Caution should be used in using multiple activations to subdue a subject. (See Elevated Risk Populations)
2. Officers are reminded to use only the appropriate force necessary to accomplish the necessary purpose intended. If more than three (3) consecutive cycles are required, officers should reassess the situation and consider transitioning to another applicable force option.
3. Officers should be mindful that direct contact mode creates pain compliance only and may not stop a subject from struggling with an officer and pulling away from the electrodes as the officer attempts to apply the CED in direct contact mode. As a result of the struggle, multiple contact marks may be left on a subject's skin indicative of multiple cycles being applied by an officer as he/she attempts to subdue subject. Downloaded data should be checked to verify the actual number of cycles used during the incident.
4. Generally, only one CED should be used on a subject at a time, absent reasonable appearance that one or more of the devices are malfunctioning.

J. Use of CED on animals.

1. CEDs have been shown to be an effective option on animals by reducing the need for greater more injurious force.
2. Because of uncertain effects on animals, CED use against attacking animals is only recommended as a last resort alternative to lethal force. CED may be deployed on an animal when:
  - a. Animal is threatening (posing active threat) or attacking a person, including officers, another animal or property.
  - b. Animal needs to be immediately captured for reason of nuisance to public peace or safety, and preservation of property.

3. Due to rapid and unpredictable movements of animals, it is more likely unintended areas may be struck. Center mass of animal should be targeted.
4. Animals will most likely be momentarily incapacitated, then quickly leave the scene breaking the wires. When applicable, consider having animal control standby to collar/capture the animal, or in the event the animal's health is in jeopardy and its welfare needs to be provided for.

## **V Post Deployment**

### **A. Medical Evaluation.**

1. Local EMS should be requested to evaluate all persons subjected to a CED application.
2. All decisions for treatment (including probe removal) should be made by EMS until such time the exposed is released by medical personnel, whether post treatment or by a refusal by the exposed for further treatment, as documented by the EMS responders or a physician.
3. All person subjected to a CED application should be medically cleared before beginning post arrest processing procedures.
4. Agencies implementing the use of CEDs should meet with their local EMS and/or Regional Emergency Medical Advisory Committee (REMAC) and seek their advice and opinion to insure local EMS and law enforcement are operating on the same guidelines for treatment and calls for service.

### **B. Detention notification.**

1. It is important that appropriate notification be made to detention/jail personnel that the subject was controlled by use of a CED.
2. "Booking" stations shall similarly be notified of the exposure and need for observation of medical status.

### **C. Collection of evidence.**

1. Any probes that have penetrated a subject's skin and are removed from a subject will be collected as evidence following department guidelines and treated as biohazard material. All universal precautions should be taken when handling probes.

2. When contemplating what evidence is to be collected in a post deployment situation, consider the following:
  - a. Probes(s) removed from subject's skin.
  - b. Probe(s) fired and missing contact with subject's skin.
  - c. Spent cartridge(s).
  - d. Blast doors of cartridge(s).
  - e. Identification markers.
  - f. Wires.
  - g. Color photographs with and without scale of impact sites on subject and any other possible injury related to CED application should be taken as soon as reasonable to do so.

D. Tracking CED use.

1. Tracking CED use can assist in identifying trends, deployment concerns and prevention/deterrence effectiveness.
2. It is strongly recommended that the uses of CEDs are tracked. In doing so, contemplate the following:
  - a. Date, time, description of location, environment conditions, and type of incident/crime.
  - b. Officer(s) involved, any known witnesses.
  - c. Make and model of CED used.
  - d. Descriptive information of subject including:
    - (i) Actions (pre and post deployment).
    - (ii) Membership in at-risk population.
    - (iii) Any weapons possessed by subject.
  - e. Type of CED mode used.
    - (i) Probe mode.

- (ii) Direct contact mode.
  - f. Range at which CED was deployed.
  - g. Number of CED cycles.
    - (i) Duration between cycles.
    - (ii) Duration subject was actually exposed to CED. Information collected from downloaded data may be misleading as there may be a difference between the actual duration of a CED activation on a person and the total time of discharge registered on a CED device.
      - (a) Probes may become dislodged.
      - (b) Electrode contact can be transitory due to the movement of the officer or subject.
  - h. Points of impact on subject.
  - i. Medical care provided to the subject.
  - j. Any injuries to subject.
- 3. Downloading data – Data available on the CED should be downloaded after each use on a subject and filed with CED tracking reports.