


MEMORANDUM

January 24, 2019

TO: Public Safety Committee

FROM: Susan J. Farag, Legislative Analyst 

SUBJECT: Repeal of Executive Regulation No. 65-89, *First Response for Trench Rescue Incidents*

PURPOSE: To recommend action on repeal of Regulation #65-89

Today the Committee will consider the Executive's request to repeal Executive Regulation No. 65-89, *First Response for Trench Rescue Incidents*.¹

The Executive transmitted the request for repeal on November 20, 2018. The regulation is adopted under Method (2) requirements and has been in effect since April 12, 1990. The Council must review the repeal of the regulation under method (2) of Section 2A-15 of the County Code. Under method (2), if the Council does not approve or disapprove a regulation within 60 calendar days after the Council receives the regulation, the regulation automatically takes effect.

Code Section 2A-15 allows the Council to extend the deadline for action on a regulation under method (2). On December 11, 2018, the Council introduced and approved a resolution to extend the time for action until June 30, 2019.

The Executive's transmittal memorandum says that the proposed repeal of the regulation was advertised in the June 2018 issue of the *Montgomery County Register* and no comments were submitted.

The regulation is being repealed because it no longer meets the criteria for modern day trench rescue incidents. A new trench rescue incident policy has been created and is now included in Incident Response Policy Appendix J, *Initial Actions for Technical Rescue Incidents*, Policy Number 24-01. This new policy became effective on January 2, 2019.

¹ Key words: #MoCoFireRescueRegs, plus search terms Cave-In Team, Trench Rescue, Regulation Repeal.

CHANGES

Regulation No. 65-89 addresses a Standard Operating Procedure under which fire and rescue personnel respond to trench collapse incidents before the Cave-In Team Operational Specialty Team arrives on the scene. The regulation specifies first arriving unit requirements, including staging area, information gathering, and identifying the number of victims as well as their location.

The new Policy and Procedure “Incident Response Policy Appendix J” addresses the MCFRS operational approach to technical rescue incidents and combines elements of this regulation No. 65-89 as well as Regulation No. 66-89, *Cave-in Team Responses* (the repeal of which is also being considered by the Committee). The new policy is not a Standard Operational Guideline and it does not prescribe how members of the Technical Rescue Team (TRT) will operate. Instead, it addresses the general approach to be taken at the scene, including the need to assess, control, rescue, and evacuate. It also provides for risk assessment and risk mitigation. This policy became effective January 1, 2019.

Council staff recommends repeal of Regulation No. 65-89.

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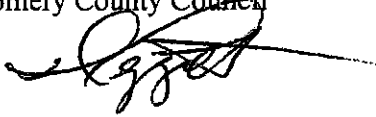
OFFICE OF THE COUNTY EXECUTIVE
ROCKVILLE, MARYLAND 20850

Isiah Leggett
County Executive

MEMORANDUM

November 20, 2018

TO: Hans Riemer, President, Montgomery County Council

FROM: Isiah Leggett, County Executive 

SUBJECT: Repeal Executive Regulation #9-18, *First Response For Trench Rescue Incidents*

At the request of Fire Chief Scott Goldstein, I am recommending that the Council repeal ER #9-16, *First Response For Trench Rescue Incidents*. This regulation, adopted under Method (2) requirements, has been in effect since April 12, 1990. It established an operational plan directing the activities of Montgomery County Fire and Rescue Service (MCFRS) personnel during periods of public emergency caused by trench collapse incidents.

This Executive Regulation is being repealed because it no longer meets the criteria for modern day trench collapse incidents. A new trench rescue incident policy has been created and will contain updated content and procedures and included in Policy 24-01, Incident Response Policy.

The intended repeal of ER #9-18 was published in the *Register*, June 2018, and no comments were submitted. The Fire and Emergency Services Commission has approved its repeal. If additional information is needed, please call Fire Chief Goldstein on Ext. 7-2464.

Attachment

SG:gg

Fiscal Impact Statement
Executive Regulation 65-89 First Response for Trench Collapse Incidents

1. Executive Regulation Summary

Montgomery County Fire and Rescue Commission Executive Regulation No. 65-89 is being repealed and the updated content will be included in the Incident Response Policy No. 24-01. This Regulation was implemented on April 12, 1990 and no longer meets the criteria for modern day trench collapse requirements.

2. An estimate of changes in County revenues and expenditures regardless of whether the revenues or expenditures are assumed in the recommended or approved budget. Includes source of information, assumptions, and methodologies used.

There are no anticipated changes in County revenues or expenditures for the next six fiscal years associated with the repeal of Executive Regulation 65-89.

3. Revenue and expenditure estimates covering at least the next 6 fiscal years.

There are no anticipated changes in County revenues or expenditures associated with the repeal of Executive Regulation 65-89.

4. An actuarial analysis through the entire amortization period for each regulation that would affect retiree pension or group insurance costs.

Not applicable.

5. Later actions that may affect future revenue and expenditures if the regulation authorizes future spending.

Repeal of Executive Regulation 65-89 does not authorize future spending.

6. An estimate of the staff time needed to implement the regulation.

None.

7. An explanation of how the addition of new staff responsibilities would affect other duties.

Not applicable.

8. An estimate of costs when an additional appropriation is needed.

There is no additional appropriation needed as a result of the repeal of Executive Regulation 65-89.

9. A description of any variable that could affect revenue and cost estimates.

Not applicable.

10. Ranges of revenue or expenditures that are uncertain or difficult to project.

Not applicable.

11. If a regulation is likely to have no fiscal impact, why that is the case.

There is no fiscal impact because Executive Regulation 65-89 is being repealed to incorporate an updated policy in the Incident Response Policy 24-01. This action has no fiscal impact on expenditures or revenues.


12. Other fiscal impacts or comments.

None.

13. The following contributed to and concurred with this analysis

Dominic Del Pozzo, MCFRS

Rachel Silberman, OMB



Jennifer A. Hughes, Director
Office of Management and Budget

10/19/18
Date



MONTGOMERY COUNTY EXECUTIVE REGULATION

Offices of the County Executive • 101 Monroe Street • Rockville, Maryland 20850

Subject Repeal of Executive Regulation #65-89 - First Response for Trench Collapse Incidents

Number 9-18

Originating Department

Montgomery County Fire and Rescue Service

Effective Date

Montgomery County Regulation on:

REPEAL OF EXECUTIVE REGULATION #65-89, FIRST RESPONSE FOR TRENCH COLLAPSE INCIDENTS

Issued by: County Executive
Regulation No. 9-18

Authority: Montgomery County Code, Section 21-3
Council Review: Method (2) under Code Section 2A-15
Montgomery County Register Volume 35, Issue 6

Comment Deadline: June 30, 2018
Effective Date:

SUMMARY:

Montgomery County Fire and Rescue Commission Executive Regulation No. 65-89 is being repealed and the updated content and procedures will be included in the Incident Response Policy No. 24-01. This regulation was implemented on April 12, 1990 and no longer meets the criteria for modern day Cave-In Team requirements.

ADDRESS: Montgomery County Fire and Rescue Service
100 Edison Park Drive, 2nd Floor
Gaithersburg, Maryland 20878

STAFF CONTACT: George Giebel, Office of the Fire Chief
240-777-2408

BACKGROUND: Standard Operating Procedures provide for safe and efficient fire and rescue operations. This SOP outlines the procedure to be followed by fire and rescue personnel who respond to trench collapse incidents before the Cave-In Team Operational Specialty Team arrives on the scene. The guidelines in the SOP are intended to promote the safety of responding personnel as well as to prevent further injury to any victims entrapped.



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Subject Repeal of Executive Regulation #65-89 - First Response for Trench Collapse Incidents

Number 9-18

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Montgomery County Fire and Rescue Service

Effective Date

[Sec. 1. Purpose.

These guidelines are established to direct the activities of responding units at the scene of trench collapse incidents, prior to the arrival of the Cave-In Team, and to ensure the safety of fire and rescue personnel as well as the entrapped victim(s).

Sec. 2. Applicability.

This regulation applies to all corporations, the Department of Fire and Rescue Services, and to all fire, rescue, and emergency medical service personnel.

Sec. 3. Definitions.

- (a) Apparatus. Fire and rescue vehicles, including engines, ladder trucks, rescue squads, extrication units, brush trucks, tank wagons, ambulances, Mobile Intensive Care Units (MICUs), and special units.
- (b) Personnel. All on-duty fire, rescue, and emergency medical service personnel, including career, volunteer, and County Merit System employees.
- (c) Unit. Specific apparatus staffed by personnel responding to an emergency incident.

Sec. 4. Policy.

- (a) Policy Statement. It is the policy of the Fire and Rescue Commission to ensure that safe and efficient procedures are followed by fire and rescue personnel on all emergency incidents.



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Subject Repeal of Executive Regulation #65-89 - First Response for Trench Collapse Incidents

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Sec. 5. Procedure.

(a) The first arriving unit will:

- (1) establish initial command in accordance with the Integrated Emergency Command System;
- (2) position their unit at least 250 feet away from the scene and walk to the site;
- (3) establish an off-site staging area for other responding apparatus (while responding, if possible); and,
- (4) turn off the apparatus, if possible.

(b) First responding personnel will perform an outer circle check as follows:

- (1) Eliminate sources of vibration for a distance of 500 feet;
 - (A) stop and turn off construction equipment; and,
 - (B) stop traffic.
- (2) Identify witnesses to the incident.
- (3) Identify the job foreman.
- (4) Send an individual to the site foreman's trailer to determine when the accident occurred and to gather pertinent information, e.g., cut sheets and profile sheets.
- (5) Consider using the foreman's trailer as a possible Command Post.
- (6) Begin establishing an incident perimeter, minimum 100 feet.



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- (c) Perform an inner circle check as follows:
 - (1) Approach the site from one end.
 - (2) Identify the victim's location.
 - (3) Identify the number of victims.
 - (4) Establish the victim's condition, if possible.
 - (5) Determine how the victim is trapped and whether this is a rescue or a recovery.
 - (A) Is the victim completely buried?
 - (B) To what depth is the victim buried?
 - (C) Is the victim trapped by utilities?
 - (6) Personnel may enter a trench more than 4 feet deep only if it has been adequately shored.
 - (7) Request non-entrapped individuals who are out of the trench (e.g., construction workers) to assist at ground level, gather lumber, or perform other duties as required.
 - (8) If the depth of the trench exceeds 15 feet, contact the engineer through a resource list.
 - (9) Establish a command structure in accordance with the Integrated Emergency Command Structure.
 - (10) Finish physical 100 foot perimeter and tape area.
 - (11) Establish and maintain contact with the victim(s).
 - (12) Confirm notification of the appropriate utilities.



MONTGOMERY COUNTY EXECUTIVE REGULATION

Offices of the County Executive • 101 Monroe Street • Rockville, Maryland 20850

Subject	First Response for Trench Collapse Incidents	Number	9-18
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(13) Request that personnel from the staging area leave their apparatus in the staging area and help clear the site for ground pads.

- (A) Personnel must not walk around the trench site unless ground pads are in place.
- (B) To protect the victim, temporary, emergency sheeting and shoring may be placed if appropriate supplies (approved by MOSH) are available on the site.

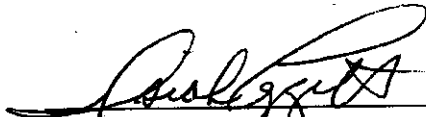
Sec. 6. Severability.

If a court of final appeal holds that any part of this regulation is invalid, that ruling does not affect the validity of other parts of the regulation.

Sec. 7. Effective Date.

This regulation is effective 30 days after Council adoption or 90 days after Council receipt if the Council takes no action within 60 days of its receipt.]

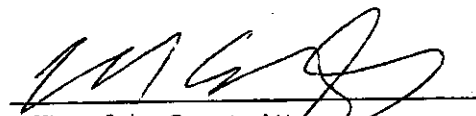
Attest:



 Isiah Leggett, County Executive

Date: 9/20/2018

Approved as to form and legality:



 Office of the County Attorney

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**MONTGOMERY COUNTY
FIRE AND RESCUE SERVICE**

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**Incident Response Policy Appendix J
Initial Actions for Technical Rescue Incidents**

January 1, 2019

Issued by: Fire Chief Scott E. Goldstein

Policy Number: 24-01

Authority: Montgomery County Code Section 21-3 (b)

Supersedes: Executive Regulation 66-89, *Cave-In Team Responses*, 04/12/1990. Executive Regulation 65-89, *First Response for Trench Collapse Incidents*, 04/12/1990

Effective Date: January 1, 2019

SECTION 1. Purpose:

To provide direction for first responding personnel during technical rescue incidents.

SECTION 2. Applicability:

This appendix is applicable to all MCFRS personnel and personnel from other organizations operating on incidents in Montgomery County.

SECTION 3. Background:

Technical rescue incidents cover a wide range of incidents that are beyond the scope of practice for most fire/rescue personnel. However, first responders to technical rescue incidents can still provide critical assistance to people in danger and can speed the process of intervention by the Technical Rescue Team (TRT).

This Appendix describes the MCFRS operational approach to technical rescue incidents. It is drawn from the experience of our personnel, lessons learned from similar events in Montgomery County, and from national best practices.

Position Statement

The intent of this appendix is to:

- a. Provide personnel with a general framework for approaching technical rescue incidents;
- b. Provide a framework for a risk/benefit analysis and;
- c. To reduce the time frame from when technical rescue assets arrive and when they enter to execute the rescue.

This appendix is **not** a standard operational guideline for technical rescue personnel, nor does it prescribe how members of the TRT will operate on technical rescue incidents.



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There are multiple characteristics of technical rescue incidents that increase their relative risk:

- a. They are low frequency events and because of their low frequency personnel do not have a large set of experiences to draw on.
- b. Technical rescue operations often involve great heights, great depths, and/or complex machinery.
- c. Complex mechanical systems may react to input in non-linear ways, where cause and effect are not obvious.

Technical rescue incidents can be roughly divided into four basic types: trench, confined space, rope, and structural collapse. In many cases these basic categories will contain elements of the other categories. For example, most confined space incidents also require the use of rope systems.

The general approach to each of the technical rescue types follows the same basic framework, and like all fire/rescue incidents, all actions for technical rescue incidents must be based on clear objectives and an ongoing risk analysis.

Personnel must remember that these incidents are high risk/low frequency incidents and will place initial responders under stress, which will have an impact on their decision making. However, it is imperative that the rescuers, not the victim(s), dictate the terms and tempo of the rescue using a rational risk-based approach.

General Approach

There are four objectives common to all technical rescue incidents. Personnel must consider these objectives as a starting point and adjust as the situation demands. They are based on the ACRE mnemonic:

- a. **Assess:** Assess the scene, determine the most appropriate travel routes and staging areas, identify hazards and conduct a risk analysis.
- b. **Control:** Control hazards, isolate, remove any bystanders and deny entry, identify hazards, and establish Isolation Zones.
- c. **Rescue:** Use appropriate methods and equipment to separate people from hazards.
- d. **Evacuate:** Remove victim(s) to safety.

There are general principles that govern all technical rescue incidents:

- a. Personnel must do no harm or further complicate the rescue.
- b. Time spent in scene preparation and hazard control is rarely wasted.



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- c. Whenever it is safe to do so, personnel should make visual and/or verbal contact with the victim(s) in an effort to calm and reassure them.
- d. Whenever possible personnel should support victim(s) self-rescue. For example, lowering a ladder into a trench or confined space so the victim(s) can climb out on their own.

Risk Assessment

An effective risk assessment for technical rescue incidents must consider the hazards the victim(s) are exposed to, the ability of fire/rescue personnel to control hazards, the likelihood that the hazards will cause harm or death, and the expected benefit of intervention. There are some critical points that must be factored into the risk assessment for technical rescue incidents.

- a. The standard fire/rescue three-gas meter configuration is insufficient for technical rescue incidents but can be used in initial operations.
- b. The fastest way to rescue and/or evacuate the victim(s) may not be the safest way to do so.
- c. Some structural and trench collapses involve physical forces large enough to require custom engineering solutions.
- d. Structural and trench collapses may involve physical forces that stress normal fire/rescue equipment beyond their designed ratings.

Risk Mitigation

For technical rescue incidents, MCFRS uses the following general methods to reduce and mitigate risk for first responding units and people in danger:

- a. Establishment of an Incident Commander.
- b. Identification and marking of Isolation Zones.
- c. Development and communication of Incident Objectives.
- d. Hazard identification and control.

SECTION 4. Definitions:

See Appendix Q.

SECTION 5. Policy:

- a. Personnel must not perform tasks above their current level of certification.
- b. Where a checklist exists for a given incident type, personnel must use the checklist.
- c. The technical rescue incident checklists may be updated periodically at the discretion of the Fire Chief.

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d. Control zones will be established as follows:

1. Trench

- A. Hot zone 100' from trench.
- B. Warm zone 100'-250' from trench.
- C. Cold zone beyond 250' from trench.
- D. In general, apparatus will be staged in the cold zone.

2. Rope

- A. Varies based on initial assessment, consider
 - i. Fall hazards,
 - ii. Potential for falling debris,
 - iii. Potential to complicate rescue, and
 - iv. Other hazards.
- B. In general apparatus will be staged in the cold zone

3. Confined Space

- A. Varies based on initial assessment, consider
 - i. Fall hazards,
 - ii. Potential for falling debris,
 - iii. Potential to complicate rescue, and
 - iv. Other hazards.
 - v. Apparatus will be staged in the cold zone.

4. Structural Collapse

- A. The minimum hot zone for a structural collapse involving a structure four stories or greater will be 500' in all directions, however,
- B. Isolation Zones will vary based on initial assessment, consider
 - i. Fall hazards,
 - ii. Secondary collapses,
 - iii. Uncontrolled utilities,
 - iv. Potential for hazardous materials,

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- v. Potential for falling debris,
 - vi. Potential to complicate rescue, and
 - vii. Other hazards.
 - viii. Apparatus will be staged in the cold zone.
- e. First responders may approach a trench to conduct reconnaissance and/or to make contact with victim(s). When they do the following guidance applies:
- 1. Personnel should approach from the narrow end of the trench.
 - 2. The number of personnel near the trench must be limited to only those absolutely necessary.
 - 3. Personnel may lower ladders into the trench to support self-evacuation.
- f. First responder personnel may enter a trench when:
- 1. Protective systems (such as shoring or trench boxes) are in place;
 - 2. The reason for the emergency does not involve failure of those protective systems;
 - 3. The atmosphere of the trench has been checked at multiple elevations using the Fire Rescue issued multi-gas meter and no sensors are in alarm; and
 - 4. The victim's condition requires immediate evacuation.
- g. First responder personnel may execute rescues, limited to low angles (generally less than 45-degree angles), using rope systems and standardized stokes basket evolutions as established in the *Stokes Basket Operations Using Aerial Devices* document and the PSTA Driver Training Program.
- h. Only aerial tower apparatus may be used for a rope system intended for a two-person load.
- i. Rope systems must be designed to reduce the risk of applying shock load to aerial apparatus.
- j. The TRT must be present on scene anytime personnel must use rope systems for steep or high angle rescues.
- k. Rappelling from any component of an aerial apparatus, including the tip or bucket is prohibited.
- l. Travel restriction or fall arresting systems must be in place for anyone operating within 10' of an exposed area with a fall risk greater than 6 feet.
- m. First responder personnel may not enter collapsed structures until the structure has been evaluated by TRT personnel.
- n. **Initial Actions**



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1. The first arriving Primary Unit Officer will provide the Initial On-Scene report (IOSR).
2. The first arriving Primary Unit Officer will then:
 - A. Assess the entire scene.
 - B. Gather information about the circumstances of the event preferably from direct witnesses.
 - C. Provide a Situation Update Report (SUR) containing the information gathered during the scene assessment:
 - i. **Location.** Update and/or confirm location of incident.
 - ii. **Conditions.** Type of technical rescue involved, a description of the situation, the number of people in danger, description of hazards found.
 - iii. **Actions.** What actions you have already taken, and which do you intend to take.
 - iv. **Needs.** Announcement of what resources will be needed to execute the rescue.
 - v. The SUR report contains the command choice (Tactical or Stationary).
- p. For confined space rescue, personnel must wait for TRT resources to make the rescue.
 1. Personnel should take action to make known hazards safe including utilities and moving/moveable equipment.
 2. Personnel must use caution and consider consulting with the TRT officer before ventilating confined spaces. Forced air ventilation may create hazards (e.g., introduce additional oxygen, or reduce air temperatures, or increase convective heat loss for victims).
 3. The presence of known chemical hazards requires a call for the appropriate hazmat response.

SECTION 6. Responsibility:

Personnel are responsible for knowing their current certification level and not acting in a capacity that exceeds their current certification.

SECTION 7. Procedure:

- a. The first arriving Primary Unit Officer must:
 1. **[Provide an ISOR].**
 2. Assess the scene.
 3. **[Provide SUR].**
 4. **[Announce best access for additional units].**

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5. **[Announce staging location for units].**
6. Use the appropriate TRT checklists
- b. Engine
 1. Will generally act as Incident Commander (in compliance with the Incident Command Appendix).
- c. Aerial
 1. Establish and maintain Isolation Zones.
 2. Control utilities as necessary
 - A. Lockout/tagout as necessary.
 3. Crew may assist with gathering equipment as necessary to support rescue plan.
 4. Control other hazards as necessary.
- d. Rescue Squad
 1. Make access to the victim(s) and, if it is safe to do so, calm and reassure the victim(s).
 2. Create and communicate an action plan with an initial focus on stabilizing the situation.
- e. EMS Units: Stage as directed
- f. Other Units: Stage as directed

SECTION 8. Cancellation:

Executive Regulation 66-89, *Cave-In Team Responses*, 04/12/1990.

Executive Regulation 65-89, *First Response for Trench Collapse Incidents*, 04/12/1990

SECTION 9. Attachments:

- A. First Response to Trench Checklist
- B. First Response to Rope Checklist
- C. First Response to Collapse Checklist
- D. First Response to Confined Spaces Checklist

Approved:

Fire Chief

January 1, 2019

Date

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