

# **FIREARMS MODIFICATION LIST**

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**U.S. DEPARTMENT OF ENERGY  
Office of Health, Safety and Security**

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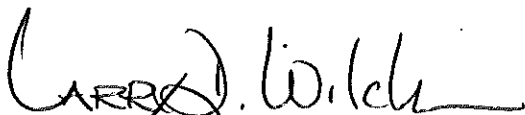
## **Notices**

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Local DOE management is responsible for the proper execution of firearms-related programs for DOE entities. Implementation of this document's provisions constitutes only one segment of a comprehensive firearms safety, training, and qualification program designed to ensure that armed DOE protective force personnel are able to discharge their duties safely, effectively, and professionally. Because firearms-related activities are inherently dangerous, proper use of any equipment, procedures, or techniques etc., identified herein can only reduce, not entirely eliminate, all risk. A complete safety analysis that accounts for all conditions associated with intended applications is required prior to the contents of this document being put into practice.

## CERTIFICATION

This document contains the currently-approved protective force "Firearms Modification List" referred to in Department of Energy Order 473.3, *Protection Program Operations*. This supersedes any previous versions of this document.

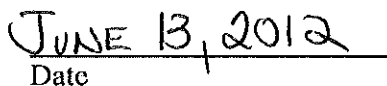


Larry D. Wilcher

Director

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Date

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## DOE FIREARMS MODIFICATION LIST

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1. PURPOSE. This U.S. Department of Energy (DOE) Firearms Modification List (FML) contains those modifications that have been approved for use on live-fire duty and engagement simulation systems (ESS) firearms authorized for use by DOE Protective Forces (PF). This document supersedes DOE Manual 470.4-3 Section B, Appendix B-6 and will be approved and maintained by the Office of Security and Office of Health, Safety and Security (HSS) as a stand-alone document on the HSS website.
  
2. GENERAL.
  - a. Modifications on the DOE FML, as approved by the Office of Security, HSS may be conducted after the DOE cognizant security authority has granted approval.
  - b. Requests for modifications that are not on the FML must be submitted in writing to the Office of Security in accordance with DOE Order 473.3.
  - c. A modification is any alteration of a firearm or firearm component other than those necessary to maintain factory-required tolerances; or the addition of any part not made to the manufacturer or military specifications for a specific firearm.
  - d. Repair and replacement parts manufactured by vendors other than the original firearm manufacturer may be used if those parts meet the firearms manufacturer and military specifications requirements.
  - e. Refinishing a firearm to maintain serviceability is authorized.
  - f. Modifications that alter the safety, reliability and proper functioning of a firearm will not be approved. Modifications that impact the functioning of weapons converted to ESS configurations are excepted.
  - g. If a part or modification is provided by the firearms manufacturer as an optional or available part or modification and this same part/modification is not on the FML, it is an approved modification and does not require a modification approval letter.
  - h. Modifications approved for live-fire weapons (e.g., adding a Picatinny Rail to an M-16 variant weapon) are approved for the same type and variant of ESS weapons except when the modifications interfere with or negate ESS safety modifications.
  
3. LIVE-FIRE FIREARMS.
  - a. Smith & Wesson Revolvers.
    - (1) Replacement grips (e.g., Pachmayr, Hogue), provided the grip or grip screw does not interfere with the functioning of the firearm.

- (2) Front sight insert replacement.
- (3) Tritium sight installation.
- (4) Grip modifications and alterations to facilitate the use of speed loaders.
- (5) Recess cylinder charge holes to facilitate the use of speed loaders.
- (6) Wide or target style triggers.
- (7) Light mounts including mounts, lights, and laser-aiming devices.

b. Semi-Automatic Pistols.

- (1) Replacement grips (e.g., Pachmayr or Hogue, including slip-on styles), provided the grip or grip screw does not interfere with the functioning of the firearm.
- (2) Glock grip modifications involving filling the void in the backstrap, reconfiguring the angle of the grip to better fit smaller hand users, installing slip-on Hogue or Pachmayr grips, or applying grip tape.
- (3) Sight changes to include colored inserts, tritium sights, bars, dots and variations.
- (4) Bevel magazine well to facilitate magazine insertion.
- (5) Cut cocking serrations on slide.
- (6) Checker front and back straps.
- (7) Install extended slide stop lever as available from a reliable manufacturer.
- (8) Install extended magazine release button as available from a reliable manufacturer.
- (9) Light mounts including mounts, lights, and laser-aiming devices.
- (10) Remove trigger serrations.

c. Shotguns.

- (1) Cut stocks for recoil pad installation or length of pull changes.
- (2) Sling swivels.
- (3) Fiberglass or composite stocks.
- (4) Butt cuffs.



- (5) Side saddles.
  - (6) Extended magazine tubes.
  - (7) Cut long forcing cones in barrel.
  - (8) Pistol grips and pistol grip stocks used in tactical breaching guns.
  - (9) Cut and thread barrel for choke tubes and tactical breaching devices.
  - (10) Barrel changes (i.e., length, choking, ribs).
  - (11) Big head safety buttons.
  - (12) Flex-tab conversion.
  - (13) Change followers with high-visibility colors.
  - (14) Drill out butt stock for installation of recoil reducer.
  - (15) Sight changes (e.g., to include colored inserts, tritium sights, ghost ring sights, etc.).
  - (16) Drill and tap for installation of scopes or laser aim devices.
  - (17) Light mounts including mounts, lights, and laser-aiming devices and fore-end light units.
  - (18) Stand-off devices for tactical breaching.
- d. Heckler and Koch (H&K) MP-5 Submachine Gun (SMG) Series.
- (1) Folding or collapsible stocks.
  - (2) Fore end light units.
  - (3) Light mount including mounts, lights, and laser-aiming devices and fore-end light units.
  - (4) Metal block to inhibit trigger travel to eliminate full-automatic fire capabilities.
  - (5) Sight changes to include colored inserts, tritium sights, bars, dots, and variations.
- e. Colt M-16 Family and Variants (all calibers).
- (1) Replace standard upper receiver with flat top design to facilitate the use of scopes or other aiming devices.

- (2) Barrel changes (e.g., caliber, length, weight, etc.).
  - (3) Collapsible stocks.
  - (4) Floating handguards.
  - (5) Convert full-automatic to semi-automatic fire by changing the selector lever to semi-automatic type and removing automatic sear.
  - (6) Light mounts including mounts, lights, and laser-aiming devices.
  - (7) Scope mounts.
  - (8) M-16 conversion to carbine configuration.
  - (9) Replace standard flash suppressor/hider with more effective types, (e.g., Vortex, etc.).
  - (10) Sight changes (e.g., colored inserts, tritium sights, etc.).
  - (11) Installation of rubber “slip pad” on butt stocks.
  - (12) Accessories for various-type slings to include single, double, or triple attachment points.
  - (13) Rail and alternate sighting (RAS) system to include vertical grips.
  - (14) Noise suppressors.
  - (15) Replacement grips.
  - (16) Gas block systems.
- f. H&K Rifles. Remove carrying handle and factory sights and replace with RAS.
- g. Bolt Action Precision Rifles.
- (1) Glass bedding and glass/pillar bedding.
  - (2) Sling swivel installation.
  - (3) Cut stocks for recoil pad installation or length of pull changes.
  - (4) Bi-pod installation.
  - (5) Scope mounts.
  - (6) Light mounts including mounts, lights, and laser-aiming devices.

- (7) Fiberglass or composite stock installation/replacement.
  - (8) Recoil reducers and flash suppressors/hiders.
  - (9) Barrel changes (e.g., fluted, stainless, heavy contour, match, or target styles).
  - (10) Cut and re-crown barrels to enhance accuracy.
  - (11) Change factory recoil lug to heavy-duty type.
  - (12) Convert floor plate style magazine to magazine fed (e.g., Kwik-Klip or M-14 magazine conversions).
  - (13) Cryogenic treatment of barrel and action to extend barrel life and improve accuracy.
  - (14) Replacement of factory trigger guard screws with Allen or torx style headed screws.
  - (15) Installation of match style triggers adjusted to not less than 3.5 pounds trigger pull.
  - (16) Noise suppressors.
- h. Colt M-203 Grenade Launcher/Rifle.
- (1) Mounting M-203 independent of the M-16 by affixing it to its own stock assembly.
  - (2) Sighting devices.
  - (3) Snap on attachments (quick detachable modification).
  - (4) Vertical handgrip.
- i. Machine Guns.
- (1) Flash compensators, noise reducers, or muzzle breaks.
  - (2) Light mounts including mounts, lights, laser-aiming devices, and optics.
  - (3) Vertical grips.
  - (4) Replace/add bipod.

4. ESS FIREARMS.a. Colt M-16 Family and Variants (all calibers).

- (1) Blank fire adaptor.
- (2) Live round inhibitor.
- (3) Modified blank only magazine first, second, and third generations.
- (4) Magazine well block.
- (5) Chamber porting procedure.
- (6) Chamber porting sleeve.
- (7) Selector lever limit plate.

b. Remington Model 870 Shotgun.

- (1) Live round inhibitor.
- (2) Blast deflector.

c. Smith & Wesson Revolver.

- (1) Live round inhibitor.
- (2) Laser tube in barrel.

d. Bolt Action Rifles.

- (1) Live round inhibitor.
- (2) Blast deflector.
- (3) Live round magazine block.
- (4) Single-shot only conversion.
- (5) Honeywell-designed bolt stop.
- (6) Magazine excluder.

e. M-14 Rifle.

- (1) Blank fire adaptor.

- (2) Live round inhibitor.
- (3) Live magazine excluder.
- (4) Blast deflector.
- f. M-82 Barrett.
  - (1) Barrel modifications (cut, thread, and weld).
  - (2) Gas plug installation and threaded sleeve.
  - (3) Gas piston installation.
  - (4) Live round inhibitor.
  - (5) Tap lower receiver for magazine modification.
  - (6) Magazine modifications (shorten follower, install spacer & magazine screw lock).
  - (7) Gas escape holes (drill upper receiver M-82 [old model]).
- g. Machine Guns.
  - (1) Blank fire adaptor.
  - (2) Live round inhibitor.
  - (3) Blank only feed tray.
  - (4) Blast deflector.
  - (5) Chamber porting procedure.
  - (6) Modified feed tray.
  - (7) Magazine well block.
  - (8) Modified feeder/de-linker.
- h. H&K MP-5 SMG Series.
  - (1) Blank fire adaptor.
  - (2) Magazine well blocking pin.
  - (3) Modified Magazine.
  - (4) Chamber insert, Allied Signal barrel.

(5) Modified suppressor.

i. H&K Rifles.

(1) Blank fire adaptor.

(2) Live round magazine block.

(3) Chamber porting procedure.

j. Single-Shot Grenade Launcher.

(1) Live round inhibitor.

(2) Dedicated barrel.

k. Pistols.

(1) Barrel and rail mounted multiple integrated laser engagement system transmitters.

(2) Manufacturer-engineered barrel incorporating live round inhibiting modifications.