

FIREARMS MODIFICATION LIST



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

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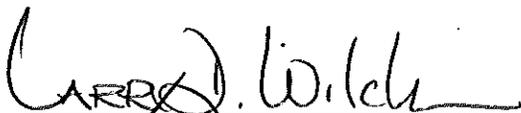
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Local DOE management is responsible for the proper execution of firearms-related programs for DOE entities. Implementation of this document's provisions constitutes only one segment of a comprehensive firearms safety, training, and qualification program 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.

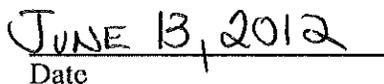


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DOE FIREARMS MODIFICATION LIST

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.