

Army Regulation 70–12

Research, Development, and Acquisition

**Fuels and
Lubricants
Standardization
Policy for
Equipment Design,
Operation, and
Logistics Support**

**Headquarters
Department of the Army
Washington, DC
19 July 2012**

UNCLASSIFIED

SUMMARY of CHANGE

AR 70-12

Fuels and Lubricants Standardization Policy for Equipment Design, Operation, and Logistics Support

This major revision, dated 19 July 2012--

- o Identifies the standardization policy on using liquid hydrocarbon fuels, lubricants, and associated products (para 2-2).
- o Updates policy for fuels used in Army materiel (table 2-1).
- o Identifies the policy governing use of fuel and lubricant additives (paras 3-2 and 3-5).
- o Adds an Internal Control Evaluation (app B).

Research, Development, and Acquisition

Fuels and Lubricants Standardization Policy for Equipment Design, Operation, and Logistics Support

By Order of the Secretary of the Army: Guard/Army National Guard of the United States, and the United States Army Reserve, unless otherwise stated.

RAYMOND T. ODIERNO
General, United States Army
Chief of Staff

Official:


JOYCE E. MORROW
Administrative Assistant to the
Secretary of the Army

Proponent and exception authority. The proponent of this regulation is the Assistant Secretary of the Army (Acquisition, Logistics and Technology). The proponent has the authority to approve exceptions or waivers to this regulation that are consistent with controlling law and regulations. The proponent may delegate this approval authority, in writing, to a division chief within the proponent agency or its direct reporting unit or field operating agency, in the grade of colonel or the civilian equivalent. Activities may request a waiver to this regulation by providing justification that includes a full analysis of the expected benefits and must include formal review by the activity's senior legal officer. All waiver requests will be endorsed by the commander or senior leader of the requesting activity and forwarded through their higher headquarters to the policy proponent. Refer to AR 25–30 for specific guidance.

Army internal control process. This regulation contains internal control provisions and provides an Internal Control Evaluation for use in evaluating key internal controls (see appendix B).

Supplementation. Supplementation of this regulation and establishment of command and local forms are prohibited without prior approval from the Assistant Secretary of the Army (Acquisition, Logistics and Technology) (SAAL–ZL), 103 Army Pentagon, Washington, DC 20310–0103.

Suggested improvements. Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to the Assistant Secretary of the Army (Acquisition, Logistics and Technology) (SAAL–ZL), 103 Army Pentagon, Washington, DC 20310–0103.

Distribution. This publication is available in electronic media only and is intended for command levels C, D, and E for the Active Army, the Army National Guard/Army National Guard of the United States, and the U.S. Army Reserve.

History. This publication is a major revision.

Summary. This regulation covers the policies and responsibilities for use of liquid hydrocarbon fuels, lubricants, and associated products in research, development, procurement, and operation. It also covers testing and evaluation of military and commercial equipment and materiel for use by the Army. It implements DODD 4140.25, hereafter known as the Single Fuel Policy, which directs that a single fuel (jet propulsion-8) be used within all theaters.

Applicability. This regulation applies to the Active Army, the Army National

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Glossary

Chapter 1 Introduction

1–1. Purpose

This regulation prescribes policy for the use of liquid hydrocarbon fuels, lubricants, and associated products used by the Army in the research, development, procurement, operation, modification, testing, and evaluation of military and commercial equipment and materiel. This policy implements DODD 4140.25. The goals of DODD 4140.25 are to minimize the number of liquid hydrocarbon fuels, lubricants, and associated products required to operate equipment and materiel and to enhance fuel availability with the implementation of the Single Fuel Policy (SFP).

1–2. References

Required and related publications and prescribed and referenced forms are listed in appendix A.

1–3. Explanation of abbreviations and terms

Abbreviations and special terms used in this regulation are explained in the glossary.

1–4. Responsibilities

a. The Army Acquisition Executive (AAE) will determine if acquisition of exempted materiel and commercial off-the-shelf materiel is essential. Department of the Army General Order (DAGO) 2012–01 designates the Assistant Secretary of the Army (Acquisition, Logistics and Technology) (ASA (ALT)) as the AAE.

b. The ASA (ALT) will—

- (1) Serve as the AAE.
- (2) Establish policy for fuels and lubricants standardization.
- (3) Ensure that new materiel development complies with the SFP as prescribed in DODD 4140.25.
- (4) Perform the national maintenance point functions for petroleum distribution systems and equipment.

c. The Deputy Chief of Staff, G–4 will—

(1) Develop policies concerning distribution, storage, use, and conservation of liquid hydrocarbon fuels, lubricants, and associated products.

(2) Provide concurrence and/or nonconcurrence to the Under Secretary of Defense for Logistics and Materiel Readiness for inclusion of new fuels in the Army Logistics System.

d. The Army Chief of Staff for Installation Management, in conjunction with the Chief of Engineers and Commanding General of the Corps of Engineers, will ensure fixed facilities and installations that use liquid fuels for heating and electrical generation are designed and operated with commercial heating and burner fuels.

e. The Commanding General, U.S. Army Materiel Command will—

(1) Manage the life cycle research, development, test and evaluation, and standardization as they apply to equipment and materiel that consumes liquid hydrocarbon fuel, lubricants, and associated products.

(2) Ensure that approved items incorporate international rationalization, standardization, and interoperability objectives as required by AR 34–1.

(3) Serve as the service control point responsible for all service item control center functions pertaining to liquid hydrocarbon fuels, lubricants, and associated products.

f. The U.S. Army Tank Automotive Research, Development and Engineering Center (TARDEC) will—

(1) Approve all lubrication orders and other lubrication instructions.

(2) Concur or nonconcur with acquisitions of excepted materiel and commercial off-the-shelf materiel (see paras 2–2*g* and 2–2*h*).

(3) Serve as the Army representation to North Atlantic Treaty Organization (NATO) and petroleum, oil, and lubricates working parties related to petroleum storage, distribution and dispensing systems, and equipment.

g. Materiel developer (MATDEV) will—

(1) Design new materiel to comply with the SFP as prescribed in DODD 4140.25.

(2) Request approval from the AAE for acquisition of exempted materiel and commercial off-the-shelf materiel.

Chapter 2 Design Requirements

2–1. Background

In April 2004, DODD 4140.25 directed the Services to standardize fuel usage, thereby minimizing the types of fuels required in Joint operations. DODD 4140.25 prescribes that jet propulsion–8 (JP–8), a kerosene-based jet fuel, be designated as the primary fuel for land-based air and ground forces in all theaters of operation including outside

continental United States (OCONUS) and continental United States (CONUS) locations. Fuel type JP-8 is designated as the SFP fuel.

2-2. New materiel

MATDEVs will coordinate the use of liquid hydrocarbon fuels, lubricants, and associated products during the technology development phase and the engineering and manufacturing development phase of the acquisition framework life cycle. Early coordination during design phases will ensure materiel is compliant with the SFP. The SFP fuel (JP-8) will be used during the research, development, testing, and evaluation of materiel. This applies to Army activities that design, develop, operate, modify, test, or evaluate materiel and includes fuel storage and distribution equipment that will be used in tactical and combat operations. Testing will include the ability to successfully operate using alternate and emergency fuels, as identified in table 2-1, to ensure operating capability when the SFP fuel (JP-8) is not available.

a. New weapon systems, support equipment, vehicles, and fuel consuming materiel will be designed to allow full performance using the SFP fuel (JP-8) and will achieve acceptable operational performance using other alternate or emergency fuels as identified in table 2-1 when the SFP fuel (JP-8) is not available.

b. New materiel will be designed to ensure maximum implementation of this regulation and compliance with the SFP, as prescribed in DODD 4140.25.

c. Turbine-powered aircraft will be designed to operate on fuel type JP-8. Acceptable operational performance will also be achieved using both fuels described in military detail (MIL-DTL)-5624 (fuel type JP-4 is classified as inactive for new design. No new equipment should be certified or tested to fuel type JP-4).

d. Aircraft support equipment will be designed to perform acceptably using the same kerosene-type fuels as those used by the supported aircraft. Fuel type JP-4 is not an acceptable fuel for compression-ignition engines.

e. Stationary boilers, power plants, and industrial and residential heating equipment that use liquid hydrocarbon fuels will be designed to operate on commercial heating and burner fuels.

f. Commercial off-the-shelf materiel—

(1) MATDEVs will ensure that materiel procured as commercial off-the-shelf will operate on fuel type JP-8.

(2) MATDEVs will submit request for waivers to this policy to the AAE (see para 2-2h).

g. MATDEVs will not acquire, design, or develop new tactical or combat equipment to use gasoline-type fuels. Exceptions to this policy include the following:

(1) Nontactical equipment not intended for direct support to tactical and/or combat operations.

(2) Equipment exclusively used at OCONUS installations under international agreements, as applicable.

h. The AAE will determine if acquisitions for exempted materiel and commercial off-the-shelf materiel are essential. Prior to the AAE granting an exception the MATDEV will—

(1) Justify why the exception is necessary.

(2) Determine the fully burdened cost of delivered energy as prescribed in DODI 5000.02.

(3) Develop a specific fuel logistics plan as part of the acquisition strategy.

(4) Delineate detailed support within the life cycle sustainment plan and the materiel fielding plan.

(5) Coordinate with the U.S. Army Research and Development Engineering Command (RDECOM)-TARDEC (RDTA-DP (MS110)), 6501 E. 11 Mile Road, Warren, MI 48397-5000. Coordination is mandatory before bringing it to the attention of the AAE.

**Table 2-1
Fuels used in Army materiel**

Item	Primary fuel	Alternate fuel	Emergency fuel
Ground materiel:			
Gasoline consuming:			
OCONUS environments (excluding Hawaii and Alaska):	EN228 (unleaded gasoline)	Fuel (F)-67 (gasoline)	
CONUS environments (including Hawaii and Alaska):	American Society for Testing and Materials (ASTM)-D4814 (spark ignition (S-I) fuel) (see note 1) A-A-52530 (gasohol)		
Diesel consuming:			

**Table 2-1
Fuels used in Army materiel—Continued**

Item	Primary fuel	Alternate fuel	Emergency fuel
OCONUS environments (excluding Hawaii and Alaska):	MIL-DTL-83133 (JP-8), F-34 (see note 2) Standard (STAN) 91-87 (F-34)	F-54 (diesel) MIL-DTL-5624 (JP-5), F-44 MIL-DTL-16884, F-76 (see note 3) F-75 (naval distillate) (see note 3) ASTM-D1655 (Jet A-1) (see note 4) EN590 (diesel) Defenes (DEF) STAN 91-91 (F-35)	Gear Oil Scuff Test (GOST) 10227 (TS-1, RT-1) (see notes 8 and 9)
CONUS environments (including Hawaii and Alaska) (see note 5):			
Tactical equipment:	MIL-DTL-83133 (JP-8), F-34 (see notes 2 and 5)	ASTM-D1655 (Jet A/A-1 with additives) ASTM-D396 (FO1 and FO2) ASTM D975 (1-D and 2-D) MIL-DTL-16884, F-76 (see note 3) F-75 (naval distillate) (see note 3) MIL-DTL-5624, (JP-5) F-44	MIL-DTL-5264, (JP-4) F-40
Nontactical equipment:	ASTM-D975	ASTM-D1655 (Jet A-1) ASTM-D396 (FO1 and FO2)	
Aviation materiel:			
Gasoline consuming	ASTM-D910 (aviation gasoline (AVGAS)), F-18 DEF STAN 91-90 (AVGAS)		ASTM-D4814 (S-I fuel) (see note 6)

**Table 2-1
Fuels used in Army materiel—Continued**

Item	Primary fuel	Alternate fuel	Emergency fuel
Turbine fuel consuming	MIL-DTL-83133 (JP-8), F-34	ASTM-D1655 (JET A/A-1) MIL-DTL-5624 (JP-5), F-44 GOST 10227 (TS-1, RT-1) DEF STAN 91-91 (F-35) DEF STAN 91-87 (F-34)	ASTM-DD6615 Jet B (see note 7) MIL-DTL-5624 (JP-4), F-40 (see note 7)

Notes:

- ¹ ASTM-D4814 is a S-I fuel that allows use of oxygenates for enhancement of antiknock quality and reduction of carbon monoxide emissions.
- ² The primary operation fuel, MIL-DTL-83133 (JP-8) will be used in all theaters in support of the single fuel on the battlefield policy. MIL-DTL-5624 (JP-5) can be used, as appropriate, in accordance with DODD 4140.25 and U.S. ratification of standardization agreement (STANAG) 4362.
- ³ Environmental conditions may limit use of certain alternate fuels.
- ⁴ Jet A-1, F-35 is only acceptable for continuous operations provided the fuel is treated with additive military performance specification (MIL-PRF)-25017 when JP-8 fuel cannot be obtained.
- ⁵ Although all commercial diesel and/or distillate type fuels intended for on-highway vehicle use must not contain more than 15 parts per million weight percentage sulfur in accordance with the Clean Air Act Amendment regulations, tactical equipment have an approved National Security Exemption that allows operation with JP-8 fuel.
- ⁶ Refer to applicable aircraft operators manual.
- ⁷ Applicable only in Alaska.
- ⁸ RT=Russian Military Grade Aviation Fuel.
- ⁹ TS=Russian Commercial Grade Aviation Fuel.

Chapter 3 Fuel, Lubricant, and Additives Usage

3-1. Exclusions

This chapter describes the various types of fuels predominantly found in most theaters of operation. While there are several different fuels currently available across all theaters of operation, it would be impossible for this regulation to address them all. A listing of NATO fuel designations and U.S. equivalent specifications and standards are listed in table 3-1.

3-2. Fuel types

a. JP-8—

- (1) In accordance with DODD 4140.25, the primary fuel in all theaters will be fuel type JP-8.
- (2) DODD 4140.25 permits usage of commercially available diesel fuels to support ground forces when supplying kerosene-based jet fuel is not practical or cost effective.
- (3) Fuel type JP-5 may be substituted for fuel type JP-8 in OCONUS theaters where predominant fuel requirements support the Navy. Fuel type JP-5 has a higher flash point requirement for ship safety reasons and its performance is equivalent to fuel type JP-8.
- (4) Fuel type JP-8 is the primary fuel to be used in all Army turbine engine powered aircraft and all compression-ignition and turbine engine powered mobile and stationary ground materiel.

b. Fuel oil, diesel (ASTM-D975) will be used as the primary fuel for all mobile and stationary compression ignition and turbine engine powered ground materiel in theaters of operation that cannot implement the SFP.

c. Gasoline, automotive, unleaded ASTM-D4814, or EN228 vehicles and equipment currently in use and powered by S-I engines will operate on unleaded automotive gasoline having a minimum antiknock index of 87.

d. Other fuels—

- (1) Contracts that include contractor-provided nontactical equipment and/or vehicles in support of tactical or combat operations will require such equipment to operate on the single fuel in use in the theater of operations.
- (2) Gasoline, AVGAS, ASTM-D910 will be used as the primary fuel for all remaining reciprocating engine powered aircraft.
- (3) Other alternate and emergency ground fuels available with NATO are listed in the STANAG 1135.

3-3. Nonstandard fuels

Introducing new fuels that are not specified in paragraph 3-2, must have prior approval of the Deputy Chief of Staff,

G-4 (DALO-ZA), with final approval authority resting with the Under Secretary of Defense for Logistics and Materiel Readiness.

3-4. Lubrication orders

Before publication and distribution of new or revised lubrication orders or other lubrication instructions for Army materiel that specify application of lubricants, fluids, and associated products, the responsible activity or agency will furnish a draft copy of the lubrication order or document to RDECOM-TARDEC (RDTA-DP (MS110)), 6501 E. 11 Mile Road, Warren, MI 48397-5000 for technical approval.

3-5. Additives

a. Any new fuel or lubricant additives will be introduced only if there is a proven need and justification is fully supported by adequate testing and evaluation. ASTM-D4054 provides the process for the qualification and approval of fuel and additive products. Although ASTM-D4054 refers to aviation products, the Army uses this process for both ground and aviation materiel.

b. Aftermarket additives primarily intended for maintenance and facility personnel to use in the field environment are not to be procured, tested, evaluated, or used by any elements of the Active Army, the Army National Guard, or the U.S. Army Reserve. Requests for aftermarket additives must be forwarded to RDECOM-TARDEC (RDTA-DP (MS110)), 6501 E. 11 Mile Road, Warren, MI 48397-5000 for validation and approval.

**Table 3-1
North Atlantic Treaty Organization fuel designation and U.S. equivalent specification and standards**

NATO code number	NATO title	Military and/or federal specification	Industry equivalent
F-18	Gasoline, aviation grade 100/130	ASTM-D910 AVGAS	ASTM-D910 AVGAS
F-34	Turbine fuel, aviation, and kerosene with fuel system icing inhibitor (FSII) (S-1745)	MIL-DTL-83133 turbine fuel, aviation grade JP-8	
F-35	Turbine fuel, aviation, and kerosene without FSII	MIL-DTL-83133 turbine fuel, aviation grade JP-8	ASTM-D1655 aviation turbine fuel, Jet A-1
F-40	Turbine fuel, aviation wide-cut type with FSII (S-1745)	MIL-DTL-5624 turbine fuel, aviation grade JP-4	ASTM-D6615 Jet B wide-cut aviation turbine fuel, Jet B
F-44	Turbine fuel aviation high flash type with FSII (S-1745)	MIL-DTL-5624 turbine fuel, aviation grade JP-5	
F-54	Diesel fuel, military	ASTM-D975, grade number 2	Comité Européen de Normalisation (CEN) 590 grade number 2
F-67	Gasoline, automotive unleaded (Research Octane Number 95)	ASTM-D4814 S-I engine fuel A-A-52530 (gasohol)	CEN 228 ASTM-D4814 S-I engine fuel
F-75	Fuel, naval distillate, and low pour point	MIL-DTL-16884 fuel, naval distillate	
F-76	Fuel and naval distillate	MIL-DTL-16884 fuel, naval distillate	
S-1745	FSII high flash point type	MIL-DTL-85470, FSII high flash point type	

Appendix A References

Section I Required Publications

AR 34-1

Multinational Force Compatibility (Cited in para 1-4e(2).)

DODD 4140.25

DOD Management Policy for Energy Commodities and Related Services (Cited in paras 1-1, 1-4b(3), 1-4g(1), table 2-1, note 2, 2-2b, 3-2a(1), and 3-2a(2).) (Available at <http://www.dtic.mil/whs/directives>.)

DODI 5000.02

Operation of the Defense Acquisition System (Cited in para 2-2h(2).) (Available at <http://www.dtic.mil/whs/directives>.)

Section II Related Publications

A related publication is a source of additional information. The user does not have to read it to understand this regulation. ASTMs are available at 100 Barr Harbor Drive West, Coshohocken, PA 19428-2959 or <http://www.astm.org/>. MIL-DTLs, MIL-HDBKs, and MIL-PRFs are available at <https://assist.daps.dla.mil/quicksearch>. STANAGs are available at <http://nsa.nato.int/nsa>.

A-A-52530

Gasohol, Automotive, Unleaded (Available at http://www.everyspec.com/COMML_ITEM_DESC/A-A-52000_A-A-52999/A-A-52530_NOTIC E-1_29770/.)

AR 11-2

Managers' Internal Control Program

AR 25-30

The Army Publishing Program

ASME Y14.100

Engineering Drawing Practices (Available at <http://www.asme.org/>.)

ASTM-D396

Standard Specification for Fuel Oils

ASTM-D910

Standard Specification for Aviation Gasoline

ASTM-D975

Standard Specification for Diesel Fuel Oils

ASTM-D1655

Standard Specification for Aviation Turbine Fuels

ASTM-D4054

Standard Practice for Qualification and Approval of New Aviation Turbine Fuels and Fuel Additives

ASTM-D4814

Standard Specification for Automotive Spark-Ignition Engine Fuel

DAGO 2012-01

Assignment of Functions and Responsibilities within Headquarters, Department of the Army

MIL-DTL-5624

Turbine Fuel, Aviation, Grades JP-4 and JP-5

MIL-DTL-16884

Fuel, Navy Distillate

MIL-DTL-83133

Turbine Fuel, Aviation, Kerosene Type, JP-8 (NATO F-34), NATO F-35, and JP-8+100 (NATO F-37)

MIL-DTL-85470

Inhibitor, Icing, Fuel System, High Flash NATO Code Number S-1745

MIL-PRF-25017

Inhibitor, Corrosion/Lubricity Improver, Fuel Soluble (NATO S-1747)

MIL-HDBK-113C

Guide for the Selection of Lubricants, Functional Fluids, Preservatives and Specialty Products for Use in Ground Equipment Systems

MIL-HDBK-275A

Guide for Selection of Lubricants, Fluids and Compounds for Use in Flight Vehicles and Components

MIL-HDBK-838

Lubrication of Military Equipment

STANAG 1135

Interchangeability of Fuels, Lubricants, and Associated Products Used by the Armed Forces of the North Atlantic Treaty Nations

STANAG 4362

Fuels for Future Ground Equipments Using Compression Ignition or Turbine Engines

STANAG 7090

Guide Specifications for NATO Ground Fuels

STANAG 7091

Guide Specifications for NATO Land System Oils for Engines and Transmissions

STANAG 7093

Guide Specifications for NATO Land System Automotive Fluids

Section III

Prescribed Forms

This section contains no entries.

Section IV

Referenced Forms

Unless otherwise indicated below, DA Forms are available on the APD Web site (<http://www.apd.army.mil>).

DA Form 11-2

Internal Control Evaluation Certification

DA Form 2028

Recommended Changes to Publications and Blank Forms

Appendix B

Internal Control Evaluation

B-1. Function

This checklist addresses the compliance of the MATDEV and others with management and oversight of fuels and lubricants for equipment design, operation, and logistics support.

B-2. Purpose

The purpose of this checklist is to assist the MATDEV and others with coordination of liquid hydrocarbon fuels, lubricants, and associated products during materiel design and to facilitate compliance with the SFP. It is not intended to cover all controls.

B-3. Instructions

Answers must be based upon the actual testing of controls (for example, document analysis, direct observation, sampling, simulation, and/or others). Answers that indicate deficiencies must be explained and the corrective action indicated in the supporting documentation. These management controls must be evaluated at least once every 5 years. Certification that this evaluation has been conducted must be accomplished on DA Form 11-2 (Internal Control Evaluation Certification).

B-4. Test questions

- a.* Was the SFP considered in the design of new equipment and/or materiel?
- b.* Was the SFP used during the research, development, testing, and evaluation of materiel?
- c.* Was the aviation support equipment designed to use the same kerosene-based type fuel as those used by the system they support?
- d.* Was a nonstandard fuel introduced? If yes, was approval obtained from the DCS, G-4 and the Under Secretary of Defense for Logistics and Materiel Readiness?
- e.* Were approved liquid hydrocarbon fuels, lubricants, and associated products incorporated with international rationalization, standardization, and interoperability objectives?
- f.* Is the new equipment and/or materiel a commercial off-the-shelf acquisition or is the new equipment and/or materiel designed to operate on gasoline type fuels? If yes—
 - (1) Was a specific petroleum logistics plan developed?
 - (2) Was support within the life cycle sustainment plan documented?
 - (3) Was support within the materiel fielding plan documented?
 - (4) Was concurrence obtained from RDECOM-TARDEC prior to submittal to the AAE?
 - (5) Was concurrence obtained from the AAE?
- g.* Was any new fuel or lubricant additives introduced? If yes, was the new fuel or lubricant additive tested, evaluated, and qualified?
- h.* Were new or revised lubrication orders or other lubrication instructions approved by U.S. Army Materiel Command?

B-5. Supersession

Not applicable.

B-6. Comments

Help make this a better tool for evaluating internal controls. Submit comments to the Assistant Secretary of the Army (Acquisition, Logistics and Technology) (SAAL-LP), 103 Army Pentagon, Washington, DC 20310-0103.

Glossary

Section I Abbreviations

AAE

Army Acquisition Executive

ASTM

American Society for Testing and Materials

AVGAS

aviation gasoline

CONUS

continental United States

FSII

fuel system icing inhibitor

JP

jet propulsion

MATDEV

materiel developer

MIL-DTL

military detail

MIL-PRF

military performance specification

NATO

North Atlantic Treaty Organization

OCONUS

outside continental United States

RDECOM

Research and Development Engineering Command

STANAG

standardization agreement

Section II

Terms

Acceptable product

One that may be used in place of another for extended periods of use.

Acceptable operational performance

The level of performance that meets the minimum requirements as defined in the vehicle or equipment specification.

Alternate fuel

A fuel that provides acceptable operational performance, but may be a restricted item of supply in tactical areas or has environmental limitations. Performance will not degrade below the vehicle or equipment minimum specification requirements. No degradation in reliability or durability will occur.

Associated product

A product of petroleum or chemical origin used as a hydraulic fluid, corrosion preventative, coolant, or specialized product and required for the operation, maintenance, and storage of military materiel.

Comité Européen de Normalisation

The CEN is a major provider of European standards and technical specifications.

Emergency fuel

A fuel used when the primary or alternate is not available. The use of an emergency fuel will not materially degrade the design operating life of the vehicle or equipment. However, severe performance degradation is permissible when an emergency fuel is used.

Fuel system icing inhibitor

A fuel additive used to prevent the formation of ice crystals when water is present.

North Atlantic Treaty Organization code number

An identifying code number designation allocated to a product when it meets a specification which has been accepted under a NATO standardization agreement (such as STANAG 1135).

Packaged petroleum product

A petroleum product (generally a lubricant, oil, grease, or specialty item) normally packaged by a manufacturer and procured, stored, transported, and issued in containers having a fill capacity of 55 gallons or less.

Primary fuel

A fuel that permits full design performance.

Research octane number

A number indicating the octane number obtained under specified operating conditions used to assess motor gasoline.

Single Fuel Policy

The SFP minimizes the number of liquid hydrocarbon fuels, lubricants, and associated products required to operate materiel and enhances fuel availability.

Standardization product

A product that conforms to specifications resulting from the same or equivalent technical requirements.

Section III**Special Abbreviations and Terms****CEN**

Comité Européen de Normalisation

DEF

Defense

F

fuel

GOST

Gear Oil Scuff Test

S-I

spark ignition

SFP

Single Fuel Policy

STAN
Standard

TARDEC
Tank Automotive Research, Development and Engineering Center

UNCLASSIFIED

PIN 070213-000