



DoD INSTRUCTION 4715.19

USE OF OPEN-AIR BURN PITS IN CONTINGENCY OPERATIONS

Originating Component: Office of the Under Secretary of Defense for Acquisition and Sustainment

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Approved by: Ellen M. Lord, Under Secretary of Defense for Acquisition and Sustainment

Purpose: In accordance with the authority in DoD Directives (DoDDs) 5134.01 and 4715.1E, and the July 13, 2018 Deputy Secretary of Defense Memorandum, this issuance establishes policy, assigns responsibilities, and provides procedures regarding the use of open-air burn pits and the prohibition of the disposal of covered waste in open-air burn pits during contingency operations, except in circumstances in which no alternative disposal method is feasible.

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SECTION 1: GENERAL ISSUANCE INFORMATION

1.1. APPLICABILITY. This issuance applies to:

a. OSD, the Military Departments, the Office of the Chairman of the Joint Chiefs of Staff and the Joint Staff, the Combatant Commands (CCMDs), the Office of the Inspector General of the Department of Defense, the Defense Agencies, the DoD Field Activities, and all other organizational entities within the DoD (referred to collectively in this issuance as the “DoD Components”).

b. DoD contracts for managing solid waste disposal.

1.2. POLICY. The DoD:

a. Uses an open-air burn pit as a short-term solution during contingency operations where no alternative is feasible. For the longer term, incinerators, engineered landfills, or other accepted solid waste management practices must be used whenever feasible.

b. Only operates open-air burn pits in a manner that prevents or minimizes risks to the human health and safety of DoD personnel.

c. Prohibits the disposal of covered waste in open-air burn pits during contingency operations, except in circumstances in which no alternative disposal method is feasible, as determined in accordance with the procedures in this issuance.

d. Minimizes the disposal of non-covered waste in open-air burn pits during contingency operations through actions that include reusing materials, reducing waste, recycling, and incineration.

1.3. INFORMATION COLLECTIONS. The determination that no alternative disposal method for covered waste is feasible, referred to in Paragraph 3.4., has been assigned report control symbol DD- A&S(AR)2411 in accordance with the procedures in Volume 1 of DoD Manual 8910.01.

SECTION 2: RESPONSIBILITIES

2.1. UNDER SECRETARY OF DEFENSE FOR ACQUISITION AND SUSTAINMENT (USD(A&S)). The USD(A&S):

- a. Oversees implementation of this issuance.
- b. Promotes logistics and acquisition processes that minimize the waste generated and disposed of at contingency locations.
- c. Ensures the Defense Federal Acquisition Regulation Supplement reflects the requirements outlined in this issuance.

2.2. ASSISTANT SECRETARY OF DEFENSE FOR SUSTAINMENT. Under the authority, direction, and control of the USD(A&S), the Assistant Secretary of Defense for Sustainment:

- a. Provides guidance for implementation of this issuance.
- b. Reviews the following for completeness and submits to the Committees on Armed Services of the Senate and House of Representatives:
 - (1) A determination from a Combatant Commander (CCDR) that no alternative disposal method for covered waste is feasible other than through use of an open-air burn pit. Congress must be notified not later than 30 days after the CCDR makes the determination.
 - (2) A justification for subsequent 180-day periods during which covered waste is disposed of in the open-air burn pit covered by the original notice.
 - (3) A health risk assessment (HRA) report, for those locations with more than 100 attached or assigned personnel in place for more than 90 consecutive days, in accordance with Section 3 no later than 180 days after the initial determination is provided in accordance with Paragraph 2.2.b.(1).

2.3. ASSISTANT SECRETARY OF DEFENSE FOR HEALTH AFFAIRS (ASD(HA)).

Under the authority, direction, and control of the Under Secretary of Defense for Personnel and Readiness, in accordance with DoDD 5136.01, the ASD(HA):

- a. Oversees and provides guidance, in coordination with the USD(A&S), for comprehensive HRAs, including the preliminary hazard assessment and the occupational and environmental health site assessment (OEHSAs).
- b. Recommends policy and requirements for force health protection and health surveillance, including hazards associated with open-air burn pits.

2.4. DIRECTOR, DEFENSE HEALTH AGENCY. In addition to the responsibilities in Paragraph 2.5, and under the authority, direction, and control of the Under Secretary of Defense for Personnel in Readiness, in accordance with DoDD 5136.13, the Director, Defense Health Agency:

- a. Develops and publishes force health protection guidance in locations where open-air burn pits may be considered.
- b. Provides consultative support to the USD(A&S) and ASD(HA) regarding the HRA report portion of open-air burn pit determination packages.

2.5. DOD COMPONENT HEADS. The DoD Component heads:

- a. Implement the policies and procedures in this issuance.
- b. Develop supporting DoD Component procedures to submit timely determination requests to the CCDRs.

2.6. CCDRs. In addition to the responsibilities in Paragraph 2.5, the CCDRs:

- a. Develop and maintain area of responsibility (AOR)-specific guidance and policy identifying responsibilities and procedures for compliance with this issuance.
- b. Develop criteria for determinations that no alternative disposal method for covered waste is feasible in accordance with Paragraph 3.4.
 - (1) Prepare HRA reports for each open-air burn pit location, for those locations with more than 100 attached or assigned personnel in place for more than 90 consecutive days, used for the disposal of covered waste in accordance with Section 3 and Appendix 3A.
 - (2) Provide written justifications for each subsequent 180-day period during which covered waste is disposed of in an open-air burn pit in their AOR in accordance with Paragraph 3.4.
- c. Determine when no alternative disposal method for covered waste is feasible.
- d. Monitor and analyze existing open-air burn pits in their AOR to measure the impacts on mission, health, and funding.
- e. Continuously monitor their AOR to validate the need for open- air burn pits. If the operational environment changes to where other means of covered waste disposal is feasible, discontinue the use of open-air burn pits.
- f. Ensure subordinate operational commanders develop and approve a solid waste management plan (SWMP) for each contingency location.

SECTION 3: PROCEDURES

3.1. GENERAL.

a. Instead of using open-air burn pits, DoD Components must use incinerators, engineered landfills, or other accepted solid waste management practices whenever feasible. When used, open-air burn pits must be operated in a manner that prevents or minimizes risks to human health and safety of DoD personnel. Burning of covered waste in open-air burn pits **is prohibited** unless no alternative disposal method is feasible, as determined in accordance with the procedures in this issuance.

b. DoD contracts that allow for contractor use of open-air burn pits or contracts that authorize and include DoD contractor-operated open-air burn pits must include the requisite terms and conditions to ensure compliance with Paragraph 3.2.

c. For all other owned or operated open-air burn pits over which DoD does not exercise primary control, CCMDs should strive to work with partners and interested parties to meet the purposes of this issuance.

3.2. MINIMUM REQUIREMENTS.

a. For each contingency location, the operational commander must develop and approve an SWMP. The operational commander may adopt a general SWMP for the contingency operation so long as each contingency location is addressed by the SWMP. The use of an open-air burn pit is not allowed unless included within this plan. This plan must:

(1) Address the disposal of any covered wastes, including the provision of supporting resources.

(2) Address the life cycle of solid waste management, including waste stream identification; waste collection; waste segregation before burning, incineration, landfilling, or treatment; waste treatment or disposal procedures; testing and disposition of waste residue (e.g., ash, emissions) for hazardous constituents; and closure procedures.

(3) Be reviewed annually and revised, as appropriate.

(4) Require, for those locations with more than 100 attached or assigned personnel in place for more than 90 consecutive days, a site-specific sampling plan, based on initial and periodic OEHSAs that will be used to identify detailed monitoring requirements, including the priority, frequency, and number of samples routinely required to adequately assess open-air burn pit emissions and monitor ash for hazardous constituents.

b. Open-air burn pits must not be used for burning covered waste unless properly prepared determinations have been submitted and Congress has been notified in accordance with Paragraph 3.4. Open-air burn pits must be:

(1) As security and logistical concerns permit, sited at least 2,000 feet from any living, dining, or work areas to prevent or minimize exposures to personnel, and be downwind of the prevailing wind direction. The siting of each open-air burn pit must be coordinated with the requisite security, safety, and appropriate medical authorities, and when practicable, local or host nation medical or civilian authorities, for the site.

(2) Located where the burning or presence of garbage will not pose an unsafe attraction to birds or other wildlife; in or across the path of aircraft in the air or on the ground; or in any way that affects the ability of air traffic controllers to maintain visual contact with aircraft in the local traffic pattern.

(3) Operated by qualified personnel to ensure the safety of all personnel. Personnel will have adequate training to perform their assigned duties and comply with the requirements of this issuance. The training program must address safe, open-air, burn pit operations, waste identification, safety and emergency procedures, recordkeeping, and security. Personnel, including contractors, will complete training operating an open-air burn pit, and training will be:

(a) Administered by the CCMD personnel who have open-air burn pit experience.

(b) Documented for all personnel assigned duties associated with open-air burn pits.

(c) Provided to DoD contractors, before operating an open-air burn pit, in accordance with CCMD policies and procedures and the terms and conditions of the contract.

(4) Operated in a manner that minimizes the attraction of insects or animals that could pose a direct or indirect (disease vector) risk to human health.

(5) Controlled to prevent unauthorized persons from approaching the site.

(6) Inspected at least weekly for compliance with this issuance and monitored daily for effective operations and compliance with waste stream restrictions by personnel trained in the requirements of this issuance and the applicable SWMP.

(7) Monitored for unacceptable exposures and health risks by qualified occupational and environmental health (OEH) personnel consistent with DoD Instructions (DoDIs) 6055.05 and 6490.03 and Joint Staff Memorandum MCM 0017-12. For those locations with more than 100 attached or assigned personnel in place for more than 90 consecutive days, a site-specific sampling plan, based on initial and periodic OEHSAs, will be used to identify detailed monitoring requirements, including the priority, frequency, and number of samples routinely required to adequately assess open-air burn pit emissions and monitor ash for hazardous constituents.

(8) Properly closed with locations documented and photographed in accordance with DoDI 4715.22.

3.3. PROHIBITED ACTIVITIES.

a. In no case are munitions, explosives, and radioactive material to be disposed of in any open-air burn pits with any other wastes, even if those other open-air burn pits are permitted to exist in accordance with this issuance. DoD guidance on the destruction of munitions and explosives is contained in Volume 6 of DoD Manual 6055.09. Disposal guidance of low-level radioactive waste is provided in DoDI 4715.27.

b. Batteries and parts from any aircraft, vehicle, or vessel will **not** be disposed of in any open-air burn pit, even if those other open-air burn pits are otherwise permitted in accordance with this issuance.

c. The CCDRs must issue specific engineering and medical guidance that maximizes protection of human health and safety for locations where:

- (1) Covered waste is burned because no alternative is feasible; or
- (2) Disposal methods potentially impact human health and safety.

3.4. DETERMINATIONS THAT NO ALTERNATIVE DISPOSAL METHOD FOR DISPOSAL OF COVERED WASTES IS FEASIBLE.

a. CCDR determination packages must include circumstances, reasoning, methodology for the determination and, for those locations with more than 100 attached or assigned personnel in place for more than 90 consecutive days, an initial HRA report in accordance with Appendix 3A. Also, they must arrive at the Office of the Under Secretary of Defense for Acquisition and Sustainment (OUSD(A&S)) within five days of making the determination.

b. The CCDR must provide justification for continued operation to the OUSD(A&S) for each 180-day interval after making the initial determination, so long as covered waste is disposed of in the open-air burn pit. Justification packages must:

- (1) Include an explanation of the continued need and, for the first justification package, the final HRA report.
- (2) Be sent to the OUSD(A&S) 15 days before the end of each 180-day period.

c. The HRA report must include the information outlined in Paragraph 3A.1.d.

APPENDIX 3A: OPEN-AIR BURN PIT HRA REPORT

3A.1. GENERAL.

a. The preparation and submission of an initial HRA report as part of a determination package in accordance with Paragraph 3.4.a. must meet as many of the requirements of this appendix as is feasible given available information. The final HRA report included with the first justification for continued use beyond 180 days must meet all the requirements of this appendix. The findings of the HRA report should inform health surveillance and be included in future OEHSAs conducted in accordance with DoDI 6490.03.

b. The geographic CCDR concerned designates the medical authority for the open-air burn pit HRA report, typically from within the responsible component command surgeon's office or in the lead Military Service that is the base operating support-integrator for the location.

c. The medical authority:

(1) Prepares the initial HRA report and staffs it to the CCDR, through the CCMD surgeon's office.

(2) Prepares the final HRA report and sends it to the CCMD surgeon's office for review and inclusion in the CCDR's first justification for continued operation. OEH monitoring based on the OEHSA will be used to develop the HRA report.

(3) Records the HRA reports in the Defense Occupational and Environmental Health Readiness System – Industrial Hygiene.

d. The HRA report must, at a minimum, include:

(1) An epidemiological description of the short- and long-term health risks posed by open-air burn pit emissions to personnel in the area where the open-air burn pit is, or is to be, located.

(2) The HRA methodology used to prepare the report.

(3) A copy of the assessment of operational and health risks used to determine that no alternative solid waste disposal method is feasible for an open-air burn pit, as described in Paragraph 3.2.

e. Guidance for developing the methodology and technical content of the open-air burn pit HRA report is in DoDIs 6055.05 and 6490.03, Naval tactical reference publication (NTRP) 4-02.9/Air Force tactics, techniques, and procedures (AFTTP) 3-2.82_IP/Army techniques publication (ATP) 4-02.82, and the U.S. Army Public Health Center (USAPHC) Technical Guides (TGs) 230 and 248.

f. The information in these open-air burn pit HRA reports is incorporated in new and updated preliminary hazard assessments, OEHSAs, and, when applicable, in periodic occupational and environmental monitoring summaries.

3A.2. HRA REPORT TEMPLATE. The HRA report may be submitted as a memorandum, from the medical authority to the CCDR, with the following structure:

a. References.

- (1) DoDI 4715.19.
- (2) DoDI 6490.03.
- (3) DoDI 6055.05.
- (4) CCMD-specific regulation(s), including CCMD engineering and medical guidance that maximizes protection of human health and safety at open-air burn pit sites.
- (5) NTRP 4-02.9/AFTTP 3-2.82_IP/ATP 4-02.82.
- (6) USAPHC TG 230.
- (7) USAPHC TG 248.
- (8) DoD Component-specific regulations and guidance.
- (9) OEHSA used in preparing this report or in preparing the HRA included in any justification for continued operation, if operating the open-air burn pit for longer than 180 days.
- (10) Base operating support-integrator (SWMP) for the location.

b. Purpose Statement.

- (1) The purpose statement will include the standard phrase, “To provide a health risk assessment regarding the use of an open-air burn pit at _____ (location, country), as required by DoDI 4715.19.”
- (2) Additional information may be provided, including whether the identified open-air burn pit is a short-term solution pending installation of approved incinerators or other means of solid waste disposal.

c. Background. Provide:

- (1) A brief description of the open-air burn pit, including purpose (e.g., medical waste, covered waste, alone or in combination with other types of waste).
- (2) A summary of sources of information used in the HRA report.

(3) Siting and operational risk mitigation measures, such as location of open-air burn pits with respect to population areas (living, dining, working); open-air burn pit operator training; waste segregation; waste stream content monitoring; open-air burn pit inspection programs; and current and planned routine OEH monitoring and health risk or exposure monitoring.

(4) A copy of the applicable SWMP.

d. Epidemiological Description. Provide a brief summary statement of findings and population-level conclusions regarding potential health outcomes, based on completed exposure pathways.

(1) Sample summary statement for existing open-air burn pits: “Findings indicate that measured exposure levels from open-air burn pit operations at (location, country) do/do not routinely exceed the deployment 1-year military exposure guidelines, and that the levels are/are not likely to cause short- or long-term adverse health effects in the affected population.”

(2) Sample summary for planned open-air burn pits: “Plans for open-air burn pit siting, operation, operator training, monitoring and inspection, and waste stream characterization/monitoring were assessed and potential exposures are/are not expected to exceed military exposure guidelines.”

(3) Additional information, such as any planned OEH monitoring, based on the operational scenario.

e. HRA Report Methodology.

(1) Describe the process of data collection, evaluation, and interpretation used in the HRA report. The methodology used should be systematic, scientifically defensible, and descriptive of potential exposure pathways.

(2) Discuss how the potential completed air emission exposure pathways served as a basis for any OEH monitoring conducted to support the HRA report, including a sampling plan.

(3) Discuss the sources of data and specific chemicals evaluated in the HRA report. Consider hazardous constituents of covered waste disposed at the site, including chemicals identified by the Assistant Secretary of Defense for Sustainment in accordance with DoDI 4715.18, where applicable.

(4) Provide a detailed description of any sampling and sample results used to support the HRA report.

(5) For planned open-air burn pits, air emission plume modeling can assist in the development of a sampling plan. Describe the sampling plan to be used for the planned open-air burn pit. Refer to the NTRP 4-02.9/AFTTP 3-2.82_IP/ATP 4-02.82 and the USAPHC TGs 230 and 248 for guidance on modeling, sampling plans, and HRA reports.

f. Assessment of Health Risks. Indicate the overall risk estimate (e.g., low, medium, high) and describe the assessment of human health risks based on sample results (e.g., particulate

matter, volatile organic chemicals, metals) and other exposure information. Cite applicable reference values (e.g., military exposure guidelines).

g. Points of Contact for Memorandum Contents. Provide key points of contact for individuals involved with preparing the HRA report.

GLOSSARY

G.1. ACRONYMS.

AFTTP	Air Force tactics, techniques, and procedures
AOR	area of responsibility
ASD(HA)	Assistant Secretary of Defense for Health Affairs
ATP	Army techniques publication
CCDR	Combatant Commander
CCMD	Combatant Command
DoDD	DoD directive
DoDI	DoD instruction
HRA	health risk assessment
NTRP	Naval tactical reference publication
OEH	occupational and environmental health
OEHSA	occupational and environmental health site assessment
OUSD(A&S)	Office of the Under Secretary of Defense for Acquisition and Sustainment
SWMP	solid waste management plan
TG	technical guide
USAPHC	U.S. Army Public Health Center
USD(A&S)	Under Secretary of Defense for Acquisition and Sustainment

G.2. DEFINITIONS. Unless otherwise noted, these terms and their definitions are for the purpose of this issuance.

contingency location. Defined in DoD Directive 3000.10.

contingency operation. Defined in Section 101(a)(13) of Title 10, United States Code (U.S.C.).

covered waste.

Hazardous waste, as defined in Section 6903(5) of Title 42, U.S.C.

Medical waste, as defined in Section 6992a(a)(1)-(10) of Title 42, U.S.C.

Tires.

Treated wood.

Batteries.

Plastics, excluding insignificant amounts of plastic remaining following a good-faith effort to remove or recover plastic materials from the solid waste stream.

Munitions and explosives, except when disposed of in compliance with guidance on the destruction of munitions and explosives contained in Volume 6 of DoDM 6055.09.

Compressed gas cylinders, unless empty with valves removed.

Fuel containers, unless completely evacuated of contents.

Aerosol cans.

Polychlorinated biphenyls.

Petroleum, oils, and lubricants products (other than waste fuel for initial combustion).

Asbestos.

Mercury.

Foam tent material.

Any item containing any of the above items.

lead Military Service. The Military Service that ensures the planning, design, coordination of requirements, construction, operation of the location, and provision of base operations support, including medical authority (if designated by the geographic CCDR), to the mission and tenants at a contingency location or other deployment location.

open-air burn pit. An area that is designated for disposing of solid waste by burning in the outdoor air at a contingency.

qualified OEH personnel. Defined in DoDI 6055.05.

treated wood. Wood that has been treated with a chemical preservative (typically arsenic, copper, chromium, borate, or petroleum-based chemical compounds) for the purposes of protecting the wood against attacks from insects, microorganisms, fungi, and other environmental conditions that can lead to decay of the wood, and the chemical preservative is registered pursuant to Section 136a of Title 7, U.S.C., also known as the “Federal Insecticide, Fungicide, and Rodenticide Act.”

unacceptable exposure. Defined in DoDI 6055.05.

REFERENCES

- Defense Federal Acquisition Regulation Supplement, current edition
- Deputy Secretary of Defense Memorandum, “Establishment of the Office of the Under Secretary of Defense for Research Engineering and the Office of the Under Secretary of Defense for Acquisition and Sustainment,” July 13, 2018
- DoD Directive 3000.10, “Contingency Basing Outside the United States,” January 10, 2013, as amended
- DoD Directive 4715.1E, “Environment, Safety, and Occupational Health (ESOH),” March 19, 2005
- DoD Directive 5134.01, “Under Secretary of Defense for Acquisition, Technology, and Logistics (USD(AT&L)),” December 9, 2005, as amended
- DoD Directive 5136.01, “Assistant Secretary of Defense for Health Affairs (ASD(HA)),” September 30, 2013, as amended
- DoD Directive 5136.13, “Defense Health Agency (DHA),” September 30, 2013
- DoD Instruction 4715.18, “Emerging Contaminants (ECs),” June 11, 2009, as amended
- DoD Instruction 4715.22, “Environmental Management Policy for Contingency Locations,” February 18, 2016, as amended
- DoD Instruction 4715.27, “DoD Low-Level Radioactive Waste (LLRW) Program,” July 7, 2017
- DoD Instruction 6055.05, “Occupational and Environmental Health (OEH),” November 11, 2008, as amended
- DoD Instruction 6490.03, “Deployment Health,” August 11, 2006, as amended
- DoD Manual 6055.09, Volume 6, “DoD Ammunitions and Explosives Safety Standards: Contingency Operations, Toxic Chemical Munitions and Agents, and Risk-Based Siting,” February 29, 2008, as amended
- DoD Manual 8910.01, Volume 1, “DoD Information Collections Manual: Procedures for DoD Internal Information Collections,” June 30, 2014, as amended
- Joint Staff Memorandum MCM 0017-12, “Procedures for Deployment Health Surveillance,” December 7, 2012
- NTRP 4-02.9/AFTTP 3-2.82_IP/ATP 4-02.82, “Occupational and Environmental Health Site Assessment,” April 2012
- United States Code, Title 7, Section 136a (also known as the “Federal Insecticide, Fungicide, and Rodenticide Act”)
- United States Code, Title 10, Section 101(a)(13)
- United States Code, Title 42
- U.S. Army Public Health Center Technical Guide 230, “Environmental Health Risk Assessment and Chemical Exposure Guidelines for Deployed Military Personnel,” 2013 Revision
- U.S. Army Public Health Center Technical Guide 248, “Guide for Deployed Preventive Medicine Personnel on Health Risk Management,” August 2001