



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

May 10, 2023

1200 New Jersey Avenue, SE
Washington, DC 20590

DOT-SP 15652
(FIFTH REVISION)

EXPIRATION DATE: 2027-04-30

(FOR RENEWAL, SEE 49 CFR 107.109)

1. GRANTEE: Vertical Solutions LLC
Valdez, AK
FAA Certificate Number: 3VSA165N (Part 135);
3VSL165N (Part 133)
2. PURPOSE AND LIMITATION:
 - a. This special permit authorizes the transportation in commerce of certain hazardous materials by cargo-only aircraft, including 14 CFR Part 133 Rotorcraft External Load Operations transporting hazardous materials attached to or suspended from an aircraft, in remote areas of the US only, without being subject to hazard communication requirements, quantity limitations and certain loading and stowage requirements. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein. The most recent revision supersedes all previous revisions.
 - b. The safety analyses performed in the development of this special permit only considered the hazards and risks associated with the transportation in commerce.
 - c. No party status will be granted to this special permit.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR § 172.101 Column (9B), § 172.204(c)(3), § 173.27(b)(2) and § 175.30(a)(1) in that explosives and oily rags are forbidden by cargo aircraft, except as specified herein; § 172.200 in that shipping papers are waived for other than Class 1 materials; § 172.301(c) in that marking the special permit number on each package is waived; Part 173 in that certain specification packaging requirements are waived; and § 175.75 in that alternative stowage is authorized.

Tracking Number: 2022124699

5. BASIS: This special permit is based on the application of Vertical Solutions LLC dated December 14, 2022 submitted in accordance with § 107.109.
6. HAZARDOUS MATERIALS (49 CFR 172.101):

Hazardous Materials Description			
Proper Shipping Name	Hazard Class/ Division	Identificati- on Number	Packing Group
Ammonium nitrate-fuel oil mixture*	1.5D	NA0331	N/A
Acetylene, dissolved	2.1	UN1001	N/A
Aerosols, flammable, (each not exceeding 1 L capacity)	2.1	UN1950	N/A
Air, compressed	2.2	UN1002	N/A
Articles, explosive, n.o.s.*	1.4S	UN0349	N/A
Articles, explosive, n.o.s.(pyrotechnic breaking capsule)*	1.4C	UN0351	N/A
Batteries, wet, filled with acid, electric storage	8	UN2794	N/A
Boosters, without detonator*	1.1D	UN0042	N/A
Butane see also Petroleum gases, liquefied	2.1	UN1011	N/A
Charges, shaped, flexible, linear*	1.1D	UN0288	N/A
Charges, shaped, without detonator*	1.1D	UN0059	N/A
Cord, detonating, flexible*	1.1D	UN0065	N/A
Detonator assemblies, electric*	1.1B	UN0030	N/A
Detonator assemblies, non-electric*	1.1B	UN0360	N/A
Detonator assemblies, non-electric, for blasting*	1.4B	UN0361	N/A
Detonators, electric, for blasting*	1.4B	UN0255	N/A

Hazardous Materials Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Diesel fuel	3	UN1202	III
Engines, internal combustion, flammable gas powered or Engine, fuel cell, flammable gas powered, or Machinery, internal combustion, flammable gas powered, or Machinery, fuel cell, flammable gas powered	9	UN3529	N/A
Engine, internal combustion, flammable liquid powered, or Engine, fuel cell, flammable liquid powered, or Machinery, internal combustion, flammable liquid powered, or Machinery, fuel cell, flammable liquid powered	9	UN3528	N/A
Explosive, blasting, type A*	1.1D	UN0081	N/A
Explosive, blasting, type B or Agent blasting, Type B*	1.5D	UN0331	N/A
Explosive, blasting, type E*	1.1D	UN0241	N/A
Explosive, blasting, type E or Agent blasting, Type E*	1.5D	UN0332	N/A
Flammable liquids, n.o.s.	3	UN1993	II
Fuel, aviation, turbine engine	3	UN1863	I
Fuse, safety*	1.4S	UN0105	N/A
Gasoline	3	UN1203	II
Lighters <i>containing flammable gas</i>	2.1	UN1057	N/A

Hazardous Materials Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Lighter refills <i>containing flammable gas not exceeding 4 fluid ounces (7.22 cubic inches) and 65 grams of flammable gas</i>	2.1	UN1057	N/A
Lithium ion batteries, contained in equipment including lithium ion polymer batteries**	9	UN3481	N/A
Lithium ion batteries, packed with equipment including lithium ion polymer batteries**	9	UN3481	N/A
Lithium metal batteries, contained in equipment including lithium alloy batteries**	9	UN3091	N/A
Lithium metal batteries, packed with equipment including lithium alloy batteries**	9	UN3091	N/A
Methanol	3	UN1230	II
Oxygen, compressed	2.2	UN1072	N/A
Paint related material <i>including paint thinning, drying, removing, or reducing compound</i>	3	UN1263	I
Petroleum distillates, n.o.s. <i>or</i> Petroleum products, n.o.s.	3	UN1268	I
Propane <i>see also</i> Petroleum gases, liquefied	2.1	UN1978	N/A
Rags, oily	4.2	UN1856	III
Trinitrotoluene and Trinitrobenzene mixtures <u>or</u> TNT and trinitrobenzene mixtures <u>or</u> TNT and hexanitrostilbene mixtures <u>or</u> Trinitrotoluene and hexanitrostilbene mixtures*	1.1D	UN0388	N/A
Vehicle, flammable gas powered <i>or</i> Vehicle, fuel cell, flammable gas powered	9	UN3166	N/A

Hazardous Materials Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Vehicle, flammable liquid powered or Vehicle, fuel cell, flammable liquid powered	9	UN3166	N/A
PETN, desensitized with not less than 15% phlegmatizer by mass*	1.1D	UN0150	N/A

* All explosive materials must be approved as required by 49 CFR § 173.56.

**A lithium battery, including those packed with or contained in equipment, with a mass exceeding 35 kg may not be transported under the terms of this special permit unless the offeror (shipper) holds an approval in accordance with § 172.102(c)(2), Special Provision A54.

7. SAFETY CONTROL MEASURES FOR MATERIALS OTHER THAN CLASS 1:

- a. PACKAGING: Prescribed packaging is the manufacturer's original packaging or a packaging of equal or greater strength and integrity. Compatibility and effectiveness of all packaging must, at a minimum, meet the requirements of 49 CFR § 173.24.
- b. Aerosols and compressed gases must be secured in an upright position with protective caps and/or covers to prevent any unwanted discharge and be secured against movement incidental to transportation.
- c. Batteries (Other than Lithium Batteries): All batteries packed in equipment must be packed in a manner that prevents accidental activation or dangerous evolution of heat. Spare batteries or batteries packed with equipment must have their terminals insulated or protected to prevent short circuits and prevent a dangerous evolution of heat.
- d. Liquid fueled or gasoline powered equipment may be filled to not more than 80% of their capacity to allow for expansion due to altitude changes.
- e. Lithium Batteries: All lithium batteries (including those packed with equipment or contained in equipment) must be packed in such a manner as to prevent short circuits, including movement that could lead to short circuits. The batteries must be equipped with an effective means to prevent dangerous reverse current flow (e.g., diodes, fuses) if a battery contains cells or series of cells that are connected in parallel. Spare batteries must be separated from other metallic objects by being packed in a sturdy plastic bag. Battery powered equipment must be packaged in a manner that prevents accidental activation.

Additionally, each lithium cell and battery must be of a type proven to meet the criteria in Part III, sub-section 38.3 of the UN Manual of Tests and Criteria (IBR; see § 171.7).

- f. Propane packaged in DOT 4BW240 cylinders may be transported via approved lifting eyes or in approved netting in accordance with the manufacturer's instructions. Propane packaged in 4B, 4BA, or 4B-240ET approved cylinders may be transported in approved netting in accordance with the manufacturer's instructions. All cylinder(s) must be inspected for leakage, corrosion, denting, bulging, gouging, and fire damage. This inspection shall include the valve, valve protection around and inside the footing for corrosion and foreign materials. If a cylinder fails any part of the visual inspection it may not be transported until repaired or replaced.
 - g. Compressed oxygen must be transported in accordance with § 173.302(f).
 - h. Spontaneously Combustible Materials: Division 4.2 materials must be transported in sealed containers to prevent any spontaneous combustion.
 - i. The requirements for shipping papers are waived.
 - j. Each outer packaging must be labeled for the hazardous materials contained within.
 - k. Compatibility of Cargo: Hazardous material that might react dangerously with one another may not be placed next to each other or in a position that would allow a dangerous interaction in the event of leakage. The Segregation Table in § 175.78 shall be used. Materials transported by external load must comply with the safety controls specified in this section.
 - l. Alternative notification procedures for 49 CFR § 175.33, may be established subject to the written approval of the FAA Office of Hazardous Materials Safety.
8. SAFETY CONTROL MEASURES FOR CLASS 1:
- a. PACKAGING: As prescribed in § 173.62. When metal outer packages are used, a 3-5 foot metal chain or other type of static discharge wick must be fitted to the bottom of the metal box to dissipate the build-up of static electricity.
 - b. Authorized explosives: Explosives authorized in paragraph 6 that are forbidden for transportation aboard aircraft in the HMR, may be accepted and transported in cargo aircraft subject to the conditions stated herein.
 - c. Maximum weight: Not more than 1,000 pounds total net weight of explosives may be carried in, on, or suspended from the aircraft.

d. Advanced Notice to FAA Office of Hazardous Materials Safety: The operator of the aircraft must notify the FAA Office of Hazardous Materials Safety (9-AWA-AXH-SPFlightNotifications@faa.gov) and Certificate Holders assigned Principal Hazardous Material Inspector. This notification must be given at least 72 hours in advance of plans to operate under the special permit, unless prior arrangements have been made with the FAA Office of Hazardous Materials Safety. The notification must include the point of departure, intermediate stops, destination(s), and a loading and departure schedule. If a flight schedule deviates more than four hours from the originally scheduled departure time, the operator of the aircraft must immediately notify 9-AWA-AXH-SPFlightNotifications@faa.gov. Alternative notification procedures may be established subject to the written approval of the FAA Office of Hazardous Materials Safety.

e. Advance permission from airport: The operator of the aircraft must have advance permission from the owner or operator of each manned airport where the material is to be loaded or unloaded or where aircraft is to land while the materials are on board. When the destination is changed after departure because of weather or other unforeseen circumstances, permission from the owner or operator of the alternate airport must be obtained as soon as practicable.

f. Flight plan: The operator of the aircraft must include the following information in the "Remarks" section of each flight plan when the provisions of this special permit are exercised:

- (1) The classification of each hazardous material aboard, attached to or suspended from the aircraft.
- (2) The net weight of each class of hazardous material aboard the aircraft.
- (3) This requirement does not apply to operations where a flight plan cannot be filed (e.g. operating in remote areas or uncontrolled airspace).

g. Loading and unloading: Loading and unloading operations under this special permit must comply with the following:

- (1) The loading and unloading of the aircraft must be conducted at a safe distance from heavily populated areas and from any place of human abode or assembly. However, at an airport where the airport owner or operator or authorized representative thereof has designated a specific location for loading or unloading, the explosives may not be loaded or unloaded at any other location.
- (2) Carriage of explosives under this special permit is subject to the same limitations and conditions specified for their transportation by motor vehicle in § 177.835(g) and § 177.848.

(3) During loading or unloading, no person may smoke an electronic cigarette, smoke or carry a lighted cigarette, cigar or pipe, or operate any device capable of causing an open flame or spark within 50 feet of the aircraft.

(4) No fueling operations of the aircraft may be conducted during loading and unloading of the explosives.

(5) A static discharge procedure must be implemented for Class 1 materials.

h. Requirements during operation of aircraft: Operation of the aircraft during takeoff, en route, and landing must be conducted at a safe distance from heavily populated areas.

(1) Before movement of the aircraft prior to take-off, in an airport traffic area, the pilot of the aircraft must notify the control tower of the class(es) of explosive(s) (including ammunition) on board, and request that this information be released to the appropriate airport officials. This notification must be either communicated by radio transmission or facsimile transmission.

(2) In the event of a diversion from the scheduled route of flight to an airport that was not previously scheduled, the flight crew must notify the control tower during the approach phase of the amount of class of explosives on board and request this information be relayed to the appropriate airport officials. This notification must be either communicated by radio transmission or facsimile transmission. For airports without control towers, this communication must be made to the Flight Service Station nearest the airport of intended landing.

(3) When under radar control during the approach and landing phase, the pilot must request appropriate vectors to avoid heavily populated areas.

(4) Whenever explosives are on board, attached to or suspended from the aircraft, the pilot must ensure that no person on the aircraft may smoke an electronic cigarette, or smoke or carry a lighted cigarette, cigar, or pipe, or operate any device capable of causing an open flame or spark.

i. Pilot requirements: The operator of the aircraft must ensure the following with respect to pilots of aircraft operating under this special permit:

(1) A minimum of two pilots is required aboard any multi-engine aircraft carrying explosives under this special permit.

(2) Each pilot must be provided written instructions outlining any conditions and limitations applicable at each airport of intended use. The name of the official(s) granting the advance permission required by paragraph (g) above must

be included in these instructions, except when a landing permit has been granted by an agency of the Department of Defense for landing at a military installation.

(3) Each pilot of an aircraft being operated under this special permit must have received formal training on the requirements of 49 CFR Parts 171-180 that are applicable to his duties and be thoroughly familiar with the specific requirements of this special permit.

j. Attendance of explosives: Division 1.1 and 1.2 explosives must be attended at all times they are in the possession of the operator (from the time of receipt from consignor until time of receipt by the consignee) unless placed in an explosive storage magazine that is approved by the Federal, State or local authority or at a location on a military installation designated by appropriate military authorities. All persons accompanying Class 1 explosives must be BATF Licensed Employees.

k. A copy of the required security plan must be made available to any DOT inspector upon request.

9. SPECIAL PROVISIONS:

a. The aircraft operator must maintain permanent records of each flight during which explosives are carried under the authority of this special permit. This record must be made available at its principal business office to representatives of the Federal Aviation Administration and submitted to the Associate Administrator for Hazardous Materials Safety (AAHMS) upon request. The record for each flight must include:

- (1) Name of the shipper(s).
- (2) Name of the consignee(s).
- (3) Origin airport(s).
- (4) En route airport(s).
- (5) Destination airport.
- (6) Shipping name and class of each explosive.
- (7) Net weight of each explosive.
- (8) Name of each pilot and any other person aboard the aircraft.
- (9) Registration number of the aircraft.
- (10) Name of the individual representing the owner or operator of each manned airport who granted advance permission for the aircraft to land or take-off while it was being operated under this special permit.

The record required by this paragraph must be maintained current to within 72 hours of each flight under this special permit.

b. This Special Permit does not grant the authority to use foreign controlled airspace or airports outside the United States.

- c. Marking: The marking requirements of 49 CFR § 172.301(c) are waived.
 - d. This Special Permit does not waive any FAA airworthiness requirements or the need to obtain other required FAA authorizations.
10. MODES OF TRANSPORTATION AUTHORIZED: Cargo only aircraft and Rotorcraft External Load Operations.
11. OPERATIONAL REQUIREMENTS: A current copy of this special permit must be carried aboard each aircraft used to transport materials covered by this special permit.
- a. Authorized aircraft: Aircraft used under this special permit must be authorized by a FAA Part 133 or Part 135 Operating Certificate.
 - b. Operations manual: FAA Part 133 or Part 135 operations must be conducted in accordance with conditions and limitations specified in the certificate holder's FAA-approved Rotorcraft Load Combination Flight Manual (RLCFM) and Hazardous Material Safety Mitigation Plan.
 - c. Authorized persons aboard aircraft: No person may be carried on the aircraft other than as authorized by 14 CFR §133.35.
 - d. A current copy of this special permit must be maintained at each facility where the package is offered or reoffered for transportation.
12. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this special permit and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:
- o All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
 - o Persons operating under the terms of this special permit must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
 - o Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this special permit must receive training on the requirements and conditions of this special permit in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this special permit, including display of its number, when this special permit has expired or is otherwise no longer in effect.

Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) — “The Hazardous Materials Safety and Security Reauthorization Act of 2005” (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation law by changing the term “exemption” to “special permit” and authorizes a special permit to be granted up to two years for new special permits and up to four years for renewals.

13. **REPORTING REQUIREMENTS:** Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR §§ 171.15 - Immediate notice of certain hazardous materials incidents, and 171.16 - Detailed hazardous materials incident reports. In addition, the grantee(s) of this special permit must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.:



for William Schoonover
Associate Administrator for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Material Safety Administration, U.S. Department of Transportation, East Building PHH-13, 1200 New Jersey Avenue, Southeast, Washington, D.C. 20590.

Copies of this special permit may be obtained by accessing the Hazardous Materials Safety Homepage at <https://www.phmsa.dot.gov/approvals-and-permits/hazmat/special-permits-search>. Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: Casey Chambers