

**MARITIME HELICOPTERS INC.
ROTORCRAFT EXTERNAL-LOAD
HAZARDOUS MATERIALS
OPERATIONS MANUAL and
TRAINING PROGRAM**

APRIL 2011

Record of Changes

ROTORCRAFT EXTERNAL-LOAD HAZARDOUS MATERIALS OPERATIONS MANUAL AND TRAINING PROGRAM

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ROTORCRAFT EXTERNAL-LOAD HAZARDOUS MATERIALS OPERATIONS MANUAL AND TRAINING PROGRAM

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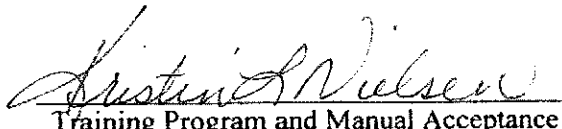
Date

Statement of Intent:

This Hazardous Materials (hazmat) Operations Manual and Training Program must be followed by all employees, agents, and contract employees of Maritime Helicopters, Inc. This manual/program will be continually reviewed to ensure compliance with 14 CFR and 49 CFR.

Will Transport Commercial Hazardous Materials? ☒ YES ☐ NO

Will Transport Own hazmat Company Material (COMAT)? ☒ YES ☐ NO



Training Program and Manual Acceptance
Recommendation

Hazardous Materials Branch Manager

APR 21 2011

Date



Manual Accepted
FAA Principal Operations Inspector

04/19/2011

Date

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ROTORCRAFT EXTERNAL-LOAD HAZARDOUS MATERIALS OPERATIONS MANUAL AND TRAINING PROGRAM

INTRODUCTION:

Notwithstanding the contents of this manual, we are responsible for compliance with all provisions of the Hazardous Material Regulations (HMR), Title 49, Code of Federal Regulations (49 CFR) and the Federal Aviation Regulations, Title 14 CFR.

A current copy of this manual or appropriate portions thereof must be made available to ground personnel, maintenance personnel, and crewmembers when performing any Hazardous Materials (hazmat) duties. A current copy of the hazmat regulations found in 49 CFR Parts 107-185 must be available at each air operator station or to persons who perform or directly supervise the acceptance, handling or transportation of hazmat, for or on behalf of the air operator, wherever such activities are conducted.

This Rotorcraft External-Load Operator Hazmat Operations Manual and Training Program must be followed by each crewmember and any person performing work for or on our behalf, including those who contract with us, who perform or directly supervise any of the following job functions involving any item for transportation on board, i.e. attached to or suspended from, our aircraft:

- Acceptance,
- Rejection,
- Handling,
- Storage incidental to transport,
- Packaging of company material,
- or Loading.

No employee, agent, or contract employee may prepare hazmat for shipment, including Company Material (COMAT), unless trained in this function.

The terms **Dangerous Goods and Hazardous Materials (or hazmat)** are synonymous and may be used interchangeably. Dangerous goods and hazardous materials are sometimes also referred to as regulated materials, restricted articles, and dangerous materials. Definitions of common terms applicable to hazmat are found in 49 CFR §171.8, Definitions and Abbreviations.

We will not use or allow any crewmember or any person performing work for or on our behalf, or who contracts with us to perform or directly supervise any job function listed on the Training Reference Table, unless that person has satisfactorily completed our FAA-approved initial or recurrent hazardous materials program within the past 24 months.

The notice required by 49 CFR 175.26 must be prominently displayed at each air operator facility or site location where cargo is accepted for external loads.

Each person performing work for or on our behalf, or who contracts with us must be notified in writing of our policies pertaining to hazardous materials. This notification requirement applies to all persons performing hazmat related functions regulated by 49 CFR. **(See Appendix E)**

For operations over congested areas we understand that a Congested Area Plan (CAP) may be required, which is separate and apart from this basic Rotorcraft External-Load Operator Hazmat Operations Manual and Training Program. If a CAP is necessary, we will submit our plan to the POI and coordinate the activity with the FSDO having jurisdiction over the area in which the operations will be conducted

We may also be asked to develop a contingency plan (other than a CAP) when transporting hazmat to prevent the area of operations from becoming congested. In preparing such a plan, we will address as many variables as possible, but in all cases we will identify areas for load jettisoning, emergency landings, ingress and egress routes, and all other reasonable means will be used in maintaining a safe environment for our operations.

To the best of our ability, we will conduct our external load operations at an altitude and on a route that will allow a jettisonable load to be released and the rotorcraft landed in an emergency without hazard to persons or property on the surface.

ACCEPTANCE OF HAZMAT IN EXTERNAL LOADS

I. GENERAL GUIDANCE

Operators who will accept, handle and transport hazmat in external loads must provide instruction and procedures on the following basic subjects. These instructions and procedures shall include the following information:

- Items identified as hazmat must be properly packaged, marked and labeled in accordance with 49 CFR or the International Civil Aviation Organization (ICAO) Technical Instructions or as required by a DOT Special Permit or Competent Authority.
- The hazmat must be accompanied by the required shipping papers, DOT PHMSA Special Permit, or Competent Authority, as appropriate.
- The material must be identified by the proper shipping name, hazard class or division, identification number, and packing group, when required.
- The hazmat must be in packaging and in quantities authorized specifically by special permit or competent authority.
- All hazmat shipments must be inspected to ensure there is no damage or leakage prior to being transported, in accordance with 49 CFR § 175.90.
- Emergency response information must accompany the shipment and be available wherever the hazmat is received, stored or handled, in accordance with 49 CFR part 172, § 172.600.
- The operator must provide specific guidance on the storage of hazmat to include specific instructions for Class 8 (corrosive), Class 7 (radioactive), and Class 6, Division 6.1 (poisonous) materials as discussed below:
 - The storage of Class 8 (corrosive) materials next to, or in contact with, Class 4, Division 4.2 or 4.3 (flammable) solids or Class 5, Division 5.1 (oxidizing) materials must be prevented. The segregation prescribed in 49 CFR § 175.78 must be maintained for all packages containing hazmat that might react dangerously when stored in a position that causes or contributes to leakage.
 - The storage of Class 7 (radioactive) materials labeled yellow II and/or yellow III will not exceed a transport index (TI) of 50 in a single storage location. These materials are stored in an area that is isolated from people and does not permit pedestrian traffic or loitering. The minimum separation distances prescribed in 49 CFR § 175.703 should be maintained between radioactive materials labeled yellow II and yellow III and packages of undeveloped film.
 - Packages bearing a Class 6, Division 6.1 poison label will not be stored in the same location as foodstuffs, feeds, or any edible materials intended for consumption by either humans or animals as prescribed in 49 CFR § 175.630.

- The operator must provide specific guidance for loading hazmat to include the following:
 - Loading and carriage of hazmat in cargo-only aircraft or by external-load, in accordance with 49 CFR part 175, subpart B;
 - Loading of radioactive materials in aircraft in accordance with 49 CFR § 175.700 to ensure that TI limitations are in accordance with the provision of 49 CFR § 175.75 and that radioactive packages are transported in accordance with 49 CFR §§ 175.701, 175.702, and 175.703;
- The operator must establish procedures for notifying the Pilot In Command (PIC) when hazmat is carried on board the aircraft in accordance with 49 CFR part 175, § 175.33 or as indicated in the DOT Special Permit or Competent Authority.
- The operator must establish an effective means for reporting hazmat incidents, in compliance with 49 CFR § 171.15 and 171.16, to include procedures for reporting discrepancies, in compliance with 49 CFR § 175.31.
- The operator must develop procedures for handling damaged packages in accordance with 49 CFR § 175.90, radioactive contamination in accordance with 49 CFR § 175.700, and spillage or release of substances in Class 6, Division 6.2 (infectious substances), as found in 49 CFR § 175.630. The information must include a list of telephone numbers and addresses of organizations that can provide technical advice on clean-up techniques and precautions to minimize the possibility of injury to employees and the general public. Appropriate organizations for such advice include the following:
 - CHEMTREC;
 - United States (U.S.) Department of Energy (DOE);
 - A state public health department;
 - A Federal or state office of hazmat regulation; and
 - The Center for Disease Control and Prevention (CDC) of the U.S. Department of Health and Human Services (HHS).
- The operator must establish a Security Plan, when required, to address the security risks when transporting certain types of hazmat in commerce. Operators should refer to 49 CFR part 172, subpart I for the detailed requirements.

II. ACCEPTANCE PROCEDURES

Persons (shippers) offering Hazardous Materials (hazmat) for air transportation are responsible for properly identifying, describing, classifying, packaging, marking, and labeling the materials as required by either 49 CFR or ICAO. They are also responsible for properly completing the communications and packaging requirements prior to offering the shipment for transportation. **Alternative procedures may be authorized by DOT Special Permit or Competent Authority.**

Employees, agents and contract employees who perform work for or on our behalf, may rely on the certification and information provided by the shipper to determine if the hazmat shipment is authorized for air transportation. All employees and agents, and contract employees who perform work for or on our behalf, that are responsible for the acceptance of cargo must be provided a trigger list of indicators of undeclared hazmat to assist them in their review. **(See Appendix A, Hidden Shipment Indicators)**

A process will be used that includes all reasonable steps to ensure that:

- any package containing hazmat which is damaged or leaking must be refused without any further processing;
- the material is properly described on the shipping papers or documentation used to represent the shipment;
- the required certification is on the shipping papers or documentation used to represent the shipment;
- the authorized package is marked and labeled as required;
- the shipment is authorized to be transported by aircraft in the condition offered; and
- emergency response information accompanies the shipment.

(See Appendix F, Acceptance Checklist as one method to ensure proper acceptance)

A. Shipping Documents and Certification

When offered under Title 49 CFR, the proper shipping name for each hazmat is found in 49 CFR §172.101, Hazardous Materials Table (HMT). The basic description must include the proper shipping name [supplemented with the technical name(s), if required] found in Column 2; the hazard class or division prescribed in Column 3 (along with any subsidiary hazard class or division as in Column 6); the identification number prescribed in Column 4; and the packing group in roman numerals prescribed in Column 5. This basic description must be shown in the proper sequence, e.g. **Cyclobutyl chloroformate, 6.1, (8, 3), UN2744, PG II (This sequence may only be used until January 1, 2013),** or with the identification number listed first, e.g. **UN2744, Cyclobutyl chloroformate, 6.1, (8, 3), PG II.**

The total quantity of the material by weight or volume and the type of packaging should listed next, followed by the emergency response telephone number and any additional entries when required. The shipper's certification must appear on the shipping document and be signed by a representative of the shipper. **Alternative procedures may be authorized by DOT Special Permit or Competent Authority.**

B. Marking

The proper shipping name and identification number appearing on the shipping paper must also be marked on the outside of the package, outside container, or overpack. The name and address of either the consignee or consignor must also be marked on each package. Packages containing liquid hazardous materials must be legibly marked/labeled on two opposite

vertical sides of the package with the orientation arrows pointing in the correct upright direction, unless otherwise excepted. Any additional marking requirements specified in 49 CFR required for the package or material being shipped must be met (e.g., specification package marking, overpack marking, limited quantity, etc.). (See 49 CFR Part 172, Subpart D). **Alternative procedures may be authorized by DOT Special Permit or Competent Authority.**

C. Labeling

Prior to offering hazmat for shipment, the package must be properly labeled. Labels are a printed hazard warning. Labels will identify primary and subsidiary hazards specific to the material. They also identify handling instructions.

The labeling requirements are found in 49 CFR Part 172, Subpart E. Acceptance personnel must verify that the outside of the package is labeled with the appropriate label(s) from Column 6 of the HMT. Additional handling labels may be required. The “Cargo Aircraft Only” label will be affixed to packages containing a quantity of hazmat that may be shipped only on cargo aircraft or are forbidden for transport on passenger aircraft but are permitted for transport on cargo only aircraft per Columns 9A and 9B of the HMT in Part 172.

The hazard classes are:

- Class 1- Explosives (See 49 CFR 173.50)
- Class 2- Flammable Gas (See 49 CFR 173.115)
- Class 3- Flammable Liquids (See 49 CFR 173.120)
- Class 4- Flammable Solids (See 49 CFR 173.124)
- Class 5- Oxidizers and Organic Peroxides (See 49 CFR 173.127 and 173.128)
- Class 6- Toxic and Infectious Substances (See 49 CFR 173.132 and 173.134)
- Class 7- Radioactive Materials (See 49 CFR 173.403)
- Class 8- Corrosive Materials (See 49 CFR 173.136)
- Class 9- Miscellaneous (See 49 CFR 173.140)
- ORM-D- Other Regulated Materials (See 49 CFR 173.144)

Markings and labels identifying handling instructions are:

- “Cargo Aircraft Only” label (See 49 CFR 172.402)
- “Magnetized Material” label (See 49 CFR 173.21(d) and the ICAO Dangerous Goods List for magnetized materials)

Unless excepted, orientation markings/labels are required on packages containing liquids (↑↑) (See 49 CFR 172.312).

These markings and labels are depicted on the Hazardous Materials Marking, Labeling & Placarding Guide. (See **Appendix B, DOT Chart**).

Alternative procedures may be authorized by DOT Special Permit or Competent Authority.

D. Placards

When an external load is prepared using a Unit Loading Device (ULD) or freight container over 640 cubic feet in capacity containing hazmat, the device or container must be placarded in accordance with 49 CFR 172.512(a). ULD's/freight containers with less than 640 cubic feet capacity containing hazmat must either be placarded or labeled in accordance with 49 CFR 172.512(b). It is unlikely these provisions will apply.

E. Rejection of Non-Compliant hazmat

Non-compliant hazmat shipments must be rejected and segregated from all other cargo shipments to prevent accidental introduction into the transportation system. Any shipment not in compliance must be properly disposed of or corrected in accordance with the HMR for further transportation.

NOTE: Under circumstances where it is impractical or not possible to comply with one or more of these acceptance requirements, a special permit will be requested from DOT PHMSA. The request will include the justification and any alternative or equivalent safety measures to be used. Where no alternative or equivalent level of safety is available, justification will be provided to assist DOT PHMSA in determining whether transportation under these circumstances is in the public interest.

III. COMPANY MATERIALS (COMAT)

COMAT is an industry term developed and used by certificate holders and is generally used to describe a wide array of company materials including replacement items for installed equipment and consumable materials. (See Appendix C, Hazardous Materials Onboard Aircraft)

A. Shipping / Transporting of COMAT

All COMAT shall be evaluated and identified by its hazardous or non-hazardous classification. All necessary measures to ensure that the hazmat COMAT is transported in full compliance of the Hazardous Material Regulations (HMRs) shall be taken. The offering of hazmat COMAT is a shipper function under the HMRs. Shipper's responsibilities include classifying, documenting, declaring, marking, labeling, and packaging a hazmat shipment. These responsibilities apply to all hazmat COMAT shipments for any mode of transportation. Hazardous Material Waste shipments must be transported in full compliance with the HMRs. Anyone who accepts or carries its own hazmat COMAT is considered a transporter under the HMRs. The offering and acceptance functions should be accomplished by separate employees. Employees, agents, and contractors who prepare and/or offer hazmat shipments for transportation must receive additional function-specific training to satisfy all of the requirements for shippers under 49 CFR Part 172, Subpart H.

Portable Electronic Devices (PED) such as credit card readers, hand-held video units and similar devices containing batteries (e.g. operator owned or supplied used during flight) and any spare batteries, must be transported in accordance with the HMRs.

B. Hazmat COMAT Exceptions (49 CFR 175.8)

There are three exceptions to the transport of hazmat COMAT.

- When an operator transports its own replacement items (spares, COMAT), they can utilize packagings specifically designed for the transport of the aircraft spares and supplies provided that such packagings have at least an equivalent level of protection as required by the HMRs.
- When an operator transports its own replacement items (spares, COMAT), aircraft batteries are not subject to the quantity limitations such as those in 49 CFR 172.101 and 175.75(c).
- Tires that are inflated to a pressure not greater than their rated inflation pressure, are not subject to the requirements of the HMRs. [See 49 CFR 175.8(b)(4)]

All COMAT received from Repair Stations and Parts Suppliers shall be scrutinized to determine if the material is hazmat before introducing it into the transportation system.

C. Storage / Disposal of COMAT (Non-Transport)

Within a facility, all hazardous material aircraft components and consumable materials must be readily identifiable. All of these items such as Chemical Oxygen Generators must be moved, stored and handled in accordance with OSHA and any other regulatory requirements. Disposal of unserviceable aircraft components and consumable materials must be done in accordance with all Federal, State and local requirements.

IV. LOADING / STOWAGE / HANDLING PROCEDURES

No employee, agent, or contract employee, unless trained in this function, may load or transport hazmat aboard our rotorcraft, including items attached to or suspended from the rotorcraft as an external-load, unless the shipment has met acceptance and packaging requirements, and the Pilot-In-Command has been properly notified. (See 49 CFR 175.30 and 175.33).

A. Stowage and Segregation

For stowage on an aircraft, including when part of a rotorcraft external-load or sling load, in a cargo facility, or at any other area designated for the stowage of hazmat, packages containing hazmat which 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. At a minimum, the segregation instructions prescribed in the Segregation Table below **must** be followed to maintain acceptable segregation between packages containing hazmat with different hazards. The Segregation Table instructions apply whether or not the class or division is the primary or subsidiary risk. (See 49 CFR 175.78)

Segregation Table

Hazard Label	Class or Division							
	1	2	3	4.2	4.3	5.1	5.2	8
1	Note 1	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2	Note 2
2	Note 2	----	----	----	----	----	----	----
3	Note 2	----	----	----	----	X	----	----
4.2	Note 2	----	----	----	----	X	----	----
4.3	Note 2	----	----	----	----	----	----	X
5.1	Note 2	----	X	X	----	----	----	----
5.2	Note 2	----	----	----	----	----	----	----
8	Note 2	----	----	----	X	----	----	----

Section 175.78(c) Instructions for using the Segregation Table are as follows:

- (1) The dashes at the intersection of a row and column indicate that no restrictions apply.
- (2) The letter “X” at the intersection of a row and column indicates that packages containing these classes of hazardous materials may not be stowed next to or in contact with each other, or in a position which would allow interaction in the event of leakage of the contents.
- (3) Note 1. “Note 1” at the intersection of a row and column means the following:
 - (i) For explosives in compatibility groups A through K and N –
 - (A) Packages bearing the same compatibility group letter and the same division number may be stowed together.
 - (B) Explosives of the same compatibility group, but different divisions may be stowed together provided the whole shipment is treated as belonging to the division having the smaller number. However, when explosives of Division 1.5 Compatibility Group D, are stowed together with explosives of Division 1.2 Compatibility Group D, the whole shipment must be treated as Division 1.1, Compatibility Group D.
 - (C) Packages bearing different compatibility group letters may not be stowed together whether or not they belong to the same division, except as provided in paragraphs (c)(3)(ii) and (iii) of this section.
 - (ii) Explosives in Compatibility Group L may not be stowed with explosives in other compatibility groups. They may only be stowed with the same type of explosives in Compatibility Group L.
 - (iii) Explosives of Division 1.4, Compatibility Group S, may be stowed with explosives of all compatibility groups except for Compatibility Groups A and L.
 - (iv) Other than explosives of Division 1.4, Compatibility Group S (see paragraph (c)(3)(iii) of this section), and Compatibility Groups C, D and E that may be stowed together, explosives that do not belong in the same compatibility group may not be stowed together.
 - (A) Any combination of substances in Compatibility Groups C and D must be assigned to the most appropriate compatibility group shown in Sec. 172.101 Table of this subchapter.
 - (B) Explosives in Compatibility Group N may be stowed together with explosives in Compatibility Groups C, D or E when the combination is assigned Compatibility Group D.

- (4) Note 2. “Note 2” at the intersection of a row and column means that other than explosives of Division 1.4, Compatibility Group S, explosives may not be stowed together with that class.
- (5) Packages containing hazardous materials with multiple hazards in the class or divisions, which require segregation in accordance with the Segregation Table need not be segregated from other packages bearing the same UN number.
- (6) A package labeled “BLASTING AGENT” may not be stowed next to or in a position that will allow contact with a package of special fireworks or railway torpedoes.

NOTE: Under circumstances where it is impractical or not possible to comply with one or more of these segregation or compatibility requirements, the shipments will either be transported separately or additional relief will be requested in a special permit from DOT PHMSA. The request will include the justification and any alternative or equivalent safety measures to be used. Where no alternative or equivalent level of safety is available, justification will be provided to assist DOT PHMSA in determining whether transportation under these circumstances is in the public interest.

Poisons: Packages bearing the poison/toxic or infectious substance label may not be stowed in a ground facility or transported as an external-load with material known to be foodstuffs, feed, or any other edible material intended for consumption by humans or animals.

Radioactive Materials (RAM): While in transport or storage, no more than 50.0 Transport Index (TI) of RAM may be stored in any one group of packages. Any group of packages containing 50.0 TI must be separated from any other package or group of packages containing RAM by a distance of 20 feet. No package or group of packages may be placed in a position that is closer to that position which may be continuously occupied by people or animals or to undeveloped film than the distances allowed in 49 CFR Parts 175.701, 175.702, and 175.706.

Carbon Dioxide, solid / Dry Ice: May be carried only if the suitable arrangements have been made based on aircraft type, aircraft ventilation rates, the method of packing and stowing, and whether animals will be carried. The operator must ensure ground staff is informed that dry ice is being loaded or is on board. (See 49 CFR 175.900)

B: Pre-Board Inspection

General Inspection - No employee, agent, or contract employee will load any package, outside container, or overpack containing hazmat aboard an aircraft, whether attached as an external-load, placed in a freight container or on a pallet for transportation by air unless immediately before doing so that person has inspected the exterior of the package, outside container, or overpack and determined that it has no holes, leaks or other obvious indications that its integrity has been compromised. The pre-board inspection is not required for shipments of dry ice (CO₂ solid), magnetized materials, or freight containers of ORM-D-AIR materials packaged by, and offered by, a single shipper. (See 49 CFR 175.30)

When a Unit Loading Device (ULD) or freight container is being used to transport hazmat, the device or container must be inspected for damage or leakage prior to being attached as an external-load. (See 49 CFR 175.88) Packages, overpacks, or ULDs containing hazmat must also be inspected after being detached from the aircraft. Any evidence of leakage or damage requires further inspection of the device or container (as applicable) where the hazmat was stowed. (See 49 CFR 175.90)

Radioactive Materials (RAM)

Radioactive Contamination - Aircraft used routinely for the transport of Class 7 (radioactive) materials must be periodically checked for radioactive contamination. If the level of contamination exceeds 0.5 millirem per hour the aircraft must be taken out of service and may not again be placed in service or routinely occupied until the radiation dose rate at any accessible surface is less than 0.5 millirem per hour and there is no significant removable radioactive surface contamination. (49 CFR 175.705)

Cargo-Only Aircraft (including Rotorcraft utilizing external-loads) - In addition to any other requirement, packages requiring a radioactive Yellow II or III labels must meet the following loading requirements:

- 1) No single package carried on a cargo-only aircraft, including attached to or suspended from that aircraft, may exceed a TI of 10.0. The combined TI of all the packages on the aircraft may not exceed 200. The combined critical index of all the packages on the aircraft may not exceed 50 on non-exclusive use cargo aircraft, or 100 on exclusive use cargo aircraft of fissile material (additional instructions must be developed by both shipper and carrier)
- 2) The total TI of all of the packages loaded on the aircraft does not exceed 200.00 and each package is loaded and carried on the aircraft in accordance with the separation distance of 49 CFR 175.702 and be secured so as to prevent any movement in flight which would damage or change the orientation of the package.
- 3) The TI for any group of packages cannot exceed 50.0 and each group must be separated by at least 20 feet from any other as measured from the outer surface of each group. For purposes of this paragraph, the term “group of packages” means packages that are separated from each other in aircraft by a distance of 20 feet or less.

Orientation and Securing of hazmat Packages - A package containing hazmat that is marked or labeled to indicate proper orientation will be loaded and secured in accordance with such markings or labels. Liquid hazmat without such markings will be loaded and secured with closures up. Hazmat packages will be secured to prevent any movement in flight that would result in damage to or change in orientation of the packages. (See 49 CFR 175.88)

C: Emergency Response Information

A hazmat shipment will not be accepted without emergency response information immediately available. Emergency response information means information that can be used in the mitigation of an incident involving hazmat. This information may come in the form of a North American Emergency Response Guidebook (ERG), Material Safety Data Sheet (MSDS), or equivalent information as provided by the shipper. Emergency response information must be immediately available where the hazmat is received, stored, or handled during transportation. Emergency response information must also be immediately available onboard the aircraft while hazmat is being transported. (See 49 CFR 172.600(c) for Exceptions)

An emergency response telephone number must be provided on the shipping document offered with hazmat packages. See 49 CFR 172.604(c) for additional information on when an emergency response telephone number is not required. The ERG can be ordered or downloaded at: <http://hazmat.dot.gov/pubs/erg/guidebook.htm>.

V. PILOT-IN-COMMAND NOTIFICATION

The Pilot-In-Command (PIC) must be given accurate and legibly written information as early as practicable before departure regarding the hazmat proper shipping name, hazard class, identification number, packing group, total packages, and net quantity or gross weight for each hazmat, location aboard as an external-load, confirmation that no damage or leaking packages have been loaded. For RAM, the number of packages, overpacks, or ULDs/freight containers, category, transport index (if applicable), and their location aboard the aircraft are required. (See 49 CFR 175.33)

The date of the flight must be listed and the telephone number of a person not aboard the aircraft from whom the information contained in the notification of the PIC can be obtained must be included on the notification unless the number is in a location in the cockpit that is available and known to the flight crew. (See 49 CFR 175.33(a)(7-8))

A copy of each notification of pilot-in-command must be retained at the point of departure or at the air operator's principal place of business for 90 days. This information must be readily accessible at the point of departure and at the intended point of arrival for external-loads for the duration of the flight leg. The information must be immediately available to any representative of a Federal, State or local government agency who is responding to an incident involving the flight. (See 49 CFR 175.33(c))

If the PIC loads the aircraft, that individual must perform the pre-board inspection required. If someone other than the PIC loads the aircraft and conducts the pre-board inspection, that person must provide the PIC with written notification. A copy of the PIC notification must be readily available to the PIC during flight. Emergency response information concerning hazmat on board must be available to the PIC. (See 49 CFR 172.602 (c)(1)) **Alternative procedures may be authorized by DOT Special Permit or Competent Authority.**

VI. OPERATIONS REQUIRING SPECIAL PERMITS

To comply with any applicable regulations within 49 CFR, we must request a Special Permit from the Department of Transportation (DOT) Pipeline and Hazardous Materials Safety Administration (PHMSA) in coordination with our FAA Principal Operations Inspector (POI) and the regional Hazardous Materials Branch Manager in the region where our certificate is held or where our operations will be conducted.

Flights made under the provisions of a DOT Special Permit must comply with the terms and conditions specified in the Special Permit.

A copy of each Special Permit held will be attached as an Appendix to this manual and be listed in the table of Special Permits in our authorization paragraph A055. **(See Appendix G, Special Permits).**

Information regarding the exception for aerial dispensing or expending of hazmat may be obtained from the FAA POI with coordination from the FAA Hazardous Materials Office. (See 49 CFR §175.9)

VII. HAZMAT EXCEPTIONS FOR PASSENGERS AND CREW MEMBERS

Certain materials that are normally regulated as hazmat are excepted from the HMR. A summary of exceptions are listed in 175.10. A current copy of Title 49 CFR Part 175 or a printout of the applicable sections from the internet will be maintained for reference.

<http://ecfr.gpoaccess.gov> or <http://hazmat.dot.gov>

A. Hazmat Carried by Persons On Board

Personal use items carried by passenger or crew members are allowed under the following conditions:

- 1) Non-radioactive medicinal or toiletry articles (including aerosols) may be carried in checked or carry-on baggage. Release devices on aerosols must be protected by a cap or other suitable means to prevent inadvertent release;
- 2) Any Division 2.2 aerosol with no subsidiary risk and a protective cap (checked baggage only). Release devices on aerosols must be protected by a cap or other suitable means to prevent inadvertent release; and

B. Batteries – All Types

Portable electronic devices containing cells or batteries must be protected from short-circuits and from accidental activation during transport. Each spare battery must be individually protected so as to prevent short circuits and carried in carry-on baggage only. In addition each installed or spare battery must not exceed the following:

- For a lithium metal battery, a lithium content of not more than 2 grams per battery
- For a lithium-ion battery, an aggregate equivalent lithium content of not more than 8 grams per battery, except that up to two batteries with an aggregate equivalent lithium content of more than 8 grams but not more than 25 grams may be carried.

C. Portable Oxygen Concentrators (POC)

Only POCs approved and transported in accordance with FAA Advisory Circular 120-95 may be carried.

VIII. NOTIFICATIONS

Each person under contract with us or performing work on our behalf, must be notified in writing of our policies pertaining to hazardous materials. This includes all persons performing hazmat related functions regulated by 49 CFR 171-180.

Such persons must acknowledge receipt of the above notification. A record of receipt of such acknowledgement will be kept together with the notification.

(See Appendix E)

IX. NOTIFICATION OF HAZMAT INCIDENTS, DISCREPANCIES AND REQUIRED REPORTS

A. Reporting of Incidents (See 49 CFR 171.15)

1) A hazmat incident must be reported, as soon as practical but no later than 12 hours after the occurrence of the incident, by telephone to the National Response Center (NRC) at 800-424-8802 (toll free) or 202-267-2675 or electronically at <http://www.nrc.uscg.mil/>. Notice involving an infectious substance may be given to the Director, Centers for Disease Control and Prevention at 800-232-0124 (toll free) in place of the notice to the NRC. This includes incidents that occur during the course of transportation (including loading, unloading, attaching, unattaching, or temporary storage) in which:

- a) A person is killed; or
- b) A person receives injuries requiring hospitalization; or
- c) An evacuation of the general public occurs lasting one or more hours; or

- d) One or more major transportation arteries or facilities are closed or shut down for one hour or more; or
 - e) The operational flight pattern or routine of an aircraft is altered; or
 - f) Fire, breakage, spillage, or suspected radioactive contamination occurs involving shipment of RAM; or
 - g) Fire, breakage, spillage, or suspected contamination occurs involving shipment of infectious substances (etiologic agents); or
 - h) A situation exists of such a nature (e.g., a continuing danger to life exists at the scene of the incident that, in the judgment of the carrier, it should be reported to the NRC even though it does not meet the criteria of paragraph 1)(a) thru (g) of this section.
 - i) A fire, violent rupture, explosion or dangerous evolution of heat occurs as a direct result of a battery or battery-powered device.
- 2) Radioactive Materials (RAM) - In addition to the notification to the NRC, a notification must be made at the earliest practicable moment to the shipper of the RAM involved in the incident.
- 3) Filing an Incident Report (See 49 CFR 171.16) A report must be submitted on DOT Form F 5800.1 (01-2004), within 30 days of the date of discovery, for each incident that occurs during the course of transportation (including loading, unloading, or storage, incidental thereto) in which any of the circumstances set forth in 49 CFR 171.15(b) occurs, there has been an unintentional release of hazardous materials from a package or quantity of hazardous waste has been discharged during transportation, undeclared hazardous materials are found in cargo, or a fire, violent rupture, explosion or dangerous evolution of heat occurs as a direct result of a battery or battery-powered device.

A copy of DOT Form F 5800.1 (01-2004) will be forwarded to:

- a) Information Systems Manager, PHH-63
Pipeline and Hazardous Materials Safety Administration
Department of Transportation
Washington, DC 20590-0001, or

- b) Completed online at: <http://www.phmsa.dot.gov/hazmat/incident-report>

A copy of Form F 5800.1 must also be sent to the nearest FAA Security Office in the region of discovery.

Instructions for completing DOT Form F 5800.1 (01-2004) are included in **Appendix D**.

B. Reporting of Discrepancies (See 49 CFR 175.31)

- 1) In the event of a discrepancy relative to the shipment of hazardous material following its acceptance for transportation aboard an aircraft, notification to the nearest FAA Security Office, by telephone or electronically, must be made as soon as practicable, and must provide the following information:
 - a. Name and Telephone number of the person reporting the discrepancy.

- b. Name of the aircraft operator.
 - c. Specific location of the shipment concerned.
 - d. Name of the shipper.
 - e. Nature of discrepancy.
 - f. Address of the shipper or person responsible for the discrepancy, if known
- 2) Cargo found to contain hazardous materials subsequent to their being offered and accepted as other than hazardous materials (undeclared) must be reported.
 - 3) Discrepancies involving hazardous materials which are improperly described, certified, labeled, marked, or packaged, in a manner not ascertainable when accepted under 175.30(a), must be reported.

EMERGENCY RESPONSE CONTACT LISTS

National Incident Response Contacts

<u>CONTACT</u>	<u>PHONE NUMBER</u>
National Response Center (NRC) (See Section VIII.A)	(800) 424-8802
Center for Disease Control	(800) 232-0124

In addition to the contacts listed above, current local listing of emergency contacts at each station where operations are conducted will be maintained. At a minimum, the list will contain the following telephonic contact information:

Local Incident Response Contacts

<u>CONTACT</u>	<u>PHONE NUMBER</u>
Local FAA Security & Hazardous Materials Field Office	
FAA Regional Operations Center (24-hour contact)	
FAA Flight Standards District Office (FSDO) (Holding FAA Certificate)	
Airport Police	
Fire Department	
Ambulance/Hospital	
State Department of Emergency Services	
Disposal of Hazardous Materials	

<u>For Radioactive Materials:</u>	
State Radiation Control	

NOTES:

- The North American Emergency Response Guidebook is a valuable resource to have for handling hazmat incidents. <http://www.phmsa.dot.gov/hazmat/library/erg>
- The Emergency Response Telephone number provided on the Dangerous Goods Declaration (shipping papers) should be utilized as a resource in a hazmat incident.

X. SECURITY PLANS

Security Plans will be established, when required, to address the security risks associated with certain types of hazmat when transported in commerce by external-load, as prescribed in 49 CFR part 172, Subpart I. When transporting more than 55 lbs of division 1.1, 1.2 or 1.3 explosives material, which is forbidden in air transportation, we will ensure that we have registered and maintained our registration with DOT PHMSA as required under 49 CFR §107.601, and have certified that no person within the categories listed in Title 18 U.S.C. 842(i) will participate in the transportation of these materials by external-load. We will also ensure that the materials we transport in this manner will comply with the limitations specified for motor vehicles under 49 CFR 177.835(g) and 177.848(f) and (g).

XI. MITIGATION PLANS

Mitigation Plans will be prepared to address the specific external-load operations being conducted and to identify what measures will be taken to mitigate the hazards to persons and property on the surface, as required by 14 CFR part §133.33(d) and (e). The following items will be addressed in our Mitigation Plan (**See Appendix H, Mitigation Plans**):

1. Contact Information
2. External-Load Operation to be Conducted
3. Equipment to be Used
4. Hazmat in External-Load
5. Hazmat Forbidden in Air Transportation
6. Explosives in External-Load
7. Quantity of Explosives
8. Maintaining Records
9. Security Plan
10. Actions to Mitigate the Hazards
11. Ceasing Operations
12. Special Permit from DOT PHMSA
13. FAA Security & Hazmat Office

14. Employee Training
15. Review of References
16. Rotorcraft Load Combination Flight Manual
17. Additional Remarks

The details contained in this Mitigation Plan will be used in our request and justification for a Special Permit from DOT PHMSA. We understand that a Special Permit is required to allow us to transport hazardous materials by air in external-load combinations and configurations. Once granted, the Special Permit will be identified in our Mitigation Plan and listed on our authorization paragraph A055. A copy of the Special Permit and our accepted Mitigation Plan, will be attached to the appropriate Appendices to this manual. **(See Appendix G Special Permits)**

HAZARDOUS MATERIALS TRAINING PROGRAM

I. REQUIREMENTS

No crewmember or person will perform or directly supervise any hazardous material (hazmat) job function to include acceptance, rejection, handling, storage incidental to transport, packaging of company material (COMAT), or loading of cargo as an external-load, or transport under DOT Special Permit or Competent Authority unless that person has satisfactorily completed our FAA-approved initial or recurrent hazardous materials program within the past 24 months.

A record of the satisfactory completion of the initial and recurrent hazmat training for each individual who completed this training within the preceding 3 years must be maintained. These records must be available upon request, and will be maintained for as long as the employee is performing hazmat duties and for 90 days thereafter. Training records for all direct employees, independent contractors, subcontractors, and any other person who performs or directly supervises a hazmat function must be available upon request. Records may be maintained electronically.

The content of the hazmat Training Records must include:

1. The individual's name,
2. The most recent training completion date,
3. A description, copy or reference to training materials used to meet the training requirement,
4. The name and address of the organization providing the training, and
5. A copy of the certification issued when the individual was trained, which shows that a test has been completed satisfactorily.

A new hazmat employee, or a hazmat employee who changes job functions may perform those functions prior to the completion of training provided –

- (1) The employee performs those functions under the direct supervision of a properly trained and knowledgeable hazmat employee, and
- (2) The training is completed within 90 days after employment or a change in job function.

Relevant training received from a previous employer or other source may be used to satisfy the requirements of this subpart provided a current record of training is obtained from the original training source.

II. TRAINING CURRICULUM & REFERENCE TABLE

All materials and regulations used in our training curriculum must be current and valid at the time of the training.

Our training program will satisfy the requirements in the Training Reference Table and 49 CFR Parts 171 through 180. The training required is based on the functions being performed. Each trained person will be able to recognize items that contain or may contain regulated hazardous materials. A method to answer all questions prior to testing regardless of the method of instruction will be provided. We will certify that each trainee has been satisfactorily tested and verify understanding of the hazmat regulations and our policies.

Training Reference Table 1 will be used to identify the function-specific hazmat training requirements for air operators who **accept** hazmat in external load operations.

TRAINING REFERENCE TABLES (Per 49 CFR 172.700)

TABLE 1:

Air Operators Who <u>Accept</u> Hazardous Materials in External Loads:					
Aspects of transport of hazardous materials by air with which they must be familiar, as a minimum (See Note 1)	Shippers (See Note 2)	Operators and ground-handling agent's staff accepting hazardous materials (See note 3)	Operators and ground-handling agents staff responsible for the handling, storage, and loading of cargo and baggage	Flight crew members and load planners	Crew members (other than flight crew members)
General philosophy	x	x	x	x	x
Limitations	x	x	x	x	x
General requirements for shippers	x	x			
Classification	x	x			
List of hazardous materials	x	x		x	
General Packing requirements	x	x			
Labeling and marking	x	x	x	x	x
Hazardous materials transport document and other relevant documentation	x	x			
Acceptance procedures		x			
Recognition of undeclared hazardous materials	x	x	x	x	x
Storage and loading procedures		x	x	x	
Pilots' notification		x	x	x	
Provisions for passengers and Crew		x	x	x	x
Emergency procedures	x	x	x	x	x

Note 1 – Depending on the responsibilities of the person, the aspects of training to be covered may vary from those shown in the table.

Note 2 – When a person offers a consignment of hazmat, including COMAT, for or on behalf of the certificate holder, then the person must be trained in the certificate holder's training. All shippers of hazmat must be trained under 49 CFR. The shipper functions in 49 CFR mirror the training aspects that must be covered for any shipper, including a non-acceptance certificate holder offering hazmat for transport, with the exception of recognition training. Recognition training is a separate FAA requirement in the certificate holder's training program.

Note 3 – When an operator, its subsidiary, or an agent of the operator is undertaking the responsibilities of acceptance staff, such as the passenger handling staff accepting small parcel cargo, the certificate holder, its subsidiary, or the agent must be trained in the certificate holder's training program and comply with the acceptance staff training requirements.

NOTE: The extent of training varies for each person depending on the job function they perform. The material must be covered in such scope and depth as to provide all persons with sufficient knowledge of applicable hazmat regulations and procedures to safely accomplish their specific duties.

III. ASPECTS OF HAZARDOUS MATERIALS AIR TRANSPORTATION

At a minimum, our hazardous materials training programs will include the following information.

General Philosophy

- Hazmat Training Program ~ 49 CFR 172, Subpart H
- Applicable Regulatory Materials
- Overview of 49 CFR Parts 100-185
- Use of ICAO Technical Instructions ~ 49 CFR 171.22
- Use of IATA Dangerous Goods Regulations
- Definitions Used in Air Transportation of Hazardous Materials ~ 49 CFR 171.8
- General Transportation Requirements ~ 49 CFR 171.2
- Transport by Aircraft ~ 49 CFR Part 175
- Training Requirements and Recordkeeping ~ 49 CFR 172.700
- Enforcement
- Hazardous Materials Security
- Operational Procedures Unique to the Carriage of HAZMAT

Limitations

- Hazardous Materials Forbidden on Aircraft Under any Circumstances
- Hazardous Materials Forbidden Unless Authorized by Special Permit
- Hidden Hazardous Materials
- Hazardous Materials Carried by Passenger or Crew

General Requirements For Shippers

- Shippers Specific Responsibilities and Compliance with Regulations
- Identify and Recognize Hazmat COMAT
 - Hazardous Materials Onboard Aircraft ~ Appendix C
 - Replacement Components
 - Consumable Materials
- Specific hazmat COMAT Exceptions ~ 49 CFR 175.8
- Facility Storage, Safe Movement and Disposal Handling Requirements for Hazmat COMAT

Classification

- Hazardous Materials Classification ~ 49 CFR 172.101, 173.2, and 173.2(a)
- Unacceptable Hazardous Materials ~ 49 CFR 172.101, 173.21, and 175.3

List of Hazardous Materials

- Purpose and Use of the Hazardous Materials Tables ~ 49 CFR 172.101
- Proper Shipping Names ~ 49 CFR 172.101 and 172.202
- Hazard Class (Definitions) ~ 49 CFR 172.101 and 173.50 - 173.144
- UN/ID Numbers ~ 49 CFR 172.101 and 172.202
- Packing Group ~ 49 CFR 172.101 and 172.202

General Packing Requirements

- Shippers Responsibilities ~ 49 CFR 171.2(e) and 171.12
- General Packing Requirements ~ 49 CFR 173.24, 173.24(a), and 173.27
- Packing Instructions and Assignments ~ 49 CFR 172.101 and Part 173
- Small Quantity Exceptions ~ 49 CFR 173.4
- Limited Quantity Exceptions ~ 49 CFR 173.150 – 173.156

Labeling and Marking

- Markings Required on Packages Containing Hazardous Materials ~ 49 CFR 172, Subpart D
- Labels Required on Packages Containing Hazardous Materials ~ 49 CFR 172, Subpart E

Hazardous Materials Transport Document and Other Relevant Documentation

- Shipper's Certification Requirements for Hazardous Materials ~ 49 CFR 172.204
- Shipping Paper Requirements ~ 49 CFR 172.200 and 172.201
- Description of Hazardous Materials Required on Shipping Papers ~ 49 CFR 172.202 and 172.203
- Shipping Papers for Hazardous Materials aboard Aircraft ~ 49 CFR 175.33

Acceptance Procedures

- Acceptance and Rejection Procedures and Requirements for hazmat ~ 49 CFR 171.2(e), 175.3, and 175.30
- Passenger and Cargo Information Signage Requirements ~ 49 CFR 175.25 and 175.26
- Unit Load Device and Package Inspection ~ 49 CFR 175.88

Recognition of Undeclared Hazardous Materials

- Hidden Shipment Indicators ~ Appendix A
- Suspicious Cargo and Baggage Awareness
- Hazardous Materials Discrepancy/Incident Reporting ~ 49 CFR 171.15, 171.16, 175.31, and Appendix D

Storage and Loading Procedures

- Unit Load Device and Package Inspection ~ 49 CFR 175.88
- Quantity Limitations aboard Aircraft ~ 49 CFR 175.75
- Stowage Compatibility ~ 49 CFR 175.78
- Orientation of Packages ~ 49 CFR 175.88
- Securing Packages ~ 49 CFR 175.88
- Location of Packages ~ 49 CFR 175.75
- Damaged Shipments of Hazardous Materials ~ 49 CFR 175.90

Pilots' Notification

- Notification to Pilot-In-Command ~ 49 CFR 175.33
- Emergency Response Information ~ 49 CFR 172, Subpart G

Provisions for Passenger and Crew

- Hazardous Material Exceptions ~ 49 CFR 175.8 through 175.10

Emergency Procedures

- Use of North American Emergency Response Guidebook or

- Use of ICAO Red Book or similar reference
- Emergency Operational Procedures Unique to the Carriage of HAZMAT

APPENDIX A

HIDDEN SHIPMENT INDICATORS

Cargo and baggage that are offered under a general description might have hazards that are not apparent. The Hazardous Materials Table in 49 CFR Part 172 is not complete, and shippers and passengers may not be aware of this. Some of these consignments have caused incidents that could have seriously endangered the safety of the aircraft and/or its passengers.

Please be alert to these possible hazards. Items found containing a hazardous material need to be shipped in accordance with the 49 CFR/ICAO Technical Instructions.

NAME	REMARKS
Aircraft Parts/COMAT	May indicate the presence of chemical oxygen generators, flammable liquids/solids, corrosives, compressed gases, radioactive materials in aircraft parts and accessories, or general company materials.
Automobile Parts (car, motor, motorcycle)	May contain cellulose paints, wet batteries, shocks/struts with nitrogen, air bag inflators/air bag modules, etc.
Breathing Apparatus/SCUBA	May indicate compressed air or oxygen cylinders
Bull (or other animal) Semen	May involve use of refrigerant (e.g., Liquid Nitrogen)
Camping Equipment	May contain flammable liquids, gas, or solids
Chemicals	Often found to be hazardous
Cryogenic (Liquid)	Indicates low temperature, low pressure, or non-pressurized gas such as Argon, Helium, Neon, and Nitrogen
Cylinders	May indicate compressed gas
Dental Apparatus	May contain hazardous chemicals such as resins or solvents
Electrical Equipment	May contain magnetized materials or mercury in switch gear and electron tubes
Electrically Powered	May contain wet batteries apparatus (wheelchairs, lawn mowers, golf carts, etc.)
Frozen Fruits, Vegetables	May be packed in Dry Ice (Solid Carbon Dioxide)
Household Goods	May contain hazardous materials such as paint, aerosols, bleaching powder, etc.
Instruments	May conceal barometers, manometers, mercury switches, rectifier tubes, thermometers containing mercury

Laboratory/Testing	May contain various hazardous chemicals
Machinery Parts	May include hazardous chemicals (adhesives, paints, sealants, solvents, etc.)
Medical Supplies/Equipment (Test Kits)	May contain various hazardous chemicals
Pharmaceuticals	May contain various hazardous chemicals
Photo Supplies	May contain various hazardous chemicals
Refrigerators	May contain various hazardous chemicals
Repair Kits	May contain various hazardous materials (adhesives, solvents, cellulose paints, organic peroxides, etc.)
Samples for Testing	May contain various hazardous materials (including infectious substances)
Swimming Pool Supplies	May contain acid, chlorine
Switches in Electrical Equipment or Instrument	May contain mercury
Tear Gas Dispensers	Contains irritating material or pepper gas which is forbidden on passenger aircraft
Toys	May be made of celluloid or other flammable material
Tool Boxes	May contain Flammable gases, liquids, adhesives, Cleaners, Corrosives, Oxidizers, etc.
Vaccines	May be packed in Dry Ice (Solid Carbon Dioxide)

Note 1: Articles which do not fall within the hazardous materials definitions of 49 CFR and which, in the event of leakage, may cause serious cleanup problems or corrosion to aluminum on a long term basis, must be checked by the shipper to at least ensure that the packaging is adequate to prevent leakage during transportation. These may include brine, powered or liquid dyes, pickled foodstuffs, etc.

Note 2: Magnetized material, as defined in 49 CFR, with a gauss reading of more than 0.00525 is forbidden for air transportation and a package with a reading of 0.00525 or less is not regulated. The ICAO and IATA Regulations regulate magnetized material with a reading between 0.002 gauss and 0.00525 gauss, thus requiring a magnetized material label.

APPENDIX B

DOT CHART

Hazardous Materials Marking, Labeling & Placarding Guide

SEE ATTACHED

This DOT CHART is produced by the Pipeline and Hazardous Materials Safety Administration (PHMSA). It can be purchased individually or obtained for Free in their Outreach Training Folder labeled, “HAZARDOUS MATERIALS SAFETY PACK A.”

The DOT CHARTs and HAZMAT Pack A’s can be ordered on-line at:

https://hazmatonline.phmsa.dot.gov/services/Pub_Sale.aspx

APPENDIX C

Hazardous Materials Onboard Aircraft

Delete this box and utilize this space to add a picture(s) of representative aircraft for your fleet and annotate where the various items listed below are located on the aircraft.

Spaces 18-20 in the list below can be utilized for additional hazmat items applicable to your aircraft that are not already listed.

1.	Batteries, Aircraft		11.	Oxygen Bottles, Crew System, Gaseous
2.	Engine Oil (as hazardous waste)		12.	Oxygen Bottles, Passenger System, Gaseous (Standard)
3.	Escape Slides/Life Rafts		13.	Oxygen Generators (optional: each PSU standard: each attendant station and lavatory)
4.	Fire Bottles (APU, engines, lower cargo compartment, and lavatory waste containers)		14.	Rain Repellant
5.	Fire Extinguishers (attendant stations, closets, galleys, etc.)		15.	Refrigerant (located in each galley)
6.	Fuel		16.	Smoke Hoods
7.	Hydraulic Fluid, Reservoirs (as hazardous waste)		17.	Tritium Radioactive Signs (aisle and emergency exit doors)
8.	Uranium (depleted, counter-balance weights)		18.	
9.	Ordnance Devices (off-wing escape)		19.	
10.	Oxygen Bottles, Portable, Gaseous		20.	

APPENDIX D

Hazardous Materials Incident Report: DOT Form F 5800.1 (01-2004)

Includes Guide for Preparing Hazardous Materials Incidents Reports

SEE ATTACHED

DOT Form F 5800.1 can now be reported on-line to the DOT. The form can then be printed out and faxed, mailed, or emailed to your local FAA hazmat Field Office meeting the requirements of air incidents in 49 CFR 171.16.

For assistance in completing the Incident Report Form 5800.1 or any questions regarding the incident reporting requirements, please call the Hazardous Materials Information Center at 800-467-4922. You may also send your question in by email at:

<http://www.phmsa.dot.gov/phmsa-ext/feedback/hazmatInformationCenterFeedbackForm.jsp>

Online incident reporting and related information may be found at:

<http://www.phmsa.dot.gov/hazmat/incident-report>

APPENDIX E

Notification of Hazardous Material Policies and Authorizations

Date:	
To:	
From:	

_____ is hereby notifying you of our policies and authorizations concerning the transport of hazardous materials.

_____ has an FAA approved **hazmat Program** as follows:

	(certificate holder name) will accept and transport all properly declared and packaged hazardous materials.
	(certificate holder name) will accept and transport properly declared and packaged hazardous materials COMAT only.
	(certificate holder name) will accept and transport all properly declared and packaged hazardous materials with the following exceptions:

APPENDIX F

Non-Radioactive

ACCEPTANCE CHECKLIST Non-Radioactive

**APPENDIX F APPLIES IF THE OPERATOR ELECTS TO
ACCEPT AND TRANSPORT HAZARDOUS MATERIALS
USING THE INTERNATIONAL CIVIL AVIATION
ORGANIZATION'S "TECHNICAL INSTRUCTIONS" IN
ADDITION TO 49 CFR HAZARDOUS MATERIALS
REGULATIONS**

APPENDIX F DANGEROUS GOODS CHECKLIST FOR A NON-RADIOACTIVE SHIPMENT

Is the following information correct for each entry?

	YES	NO*	N/A		YES	NO*	N/A
1. Two copies in English format	☐	☐		18. Overpack			
2. Full name and address of Shipper	☐	☐		- Indication "Overpack used"	☐	☐	☐
3. Full name and address of Consignee	☐	☐		- Compatible	☐	☐	☐
4. Name and telephone number of a person responsible for Division 6.2 Infectious Substance shipment	☐	☐	☐	- Multi-overpack marks and quantity	☐	☐	☐
5. If the Air Waybill is not shown, enter it	☐	☐					
6. The number of pages shown	☐	☐	☐	19. Packing Instruction Number	☐	☐	
7. If full name of Airport or City of Departure or Destination is not shown, enter it	☐	☐					
8. The non-applicable Aircraft Type deleted	☐	☐					
9. The word "Radioactive" deleted	☐	☐					

Identification

10. UN or ID Number, preceded by prefix	☐	☐	
11. Proper Shipping Name and the technical name in parentheses for asterisked entries	☐	☐	
12. Class or Division, and for Class 1, the Compatibility Group	☐	☐	
13. Subsidiary Risk, in parentheses immediately following the Primary	☐	☐	☐
14. Packing Group	☐	☐	☐

Quantity and Type of Packing

15. Number and Type of Packages	☐	☐	
16. Quantity and unit of measure (net or gross, as applicable) per package	☐	☐	☐
17. If different dangerous goods are packed in one outer packaging, are the following rules applied:			
- Compatible (note exception for chemical kits/first aid kits. See packing Instruction 915 and Y915)	☐	☐	☐
- For UN packages containing Division 6.2	☐	☐	☐
- "All packed in one (type of packaging)"	☐	☐	☐
- Calculation of "Q" value	☐	☐	☐

Packing Instructions

19. Packing Instruction Number	☐	☐
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Authorizations

20. Indication of "Limited Quantity" or "Ltd. Qty." if "Y" packing instruction used	☐	☐	☐
21. The Special Provision Number if A1, A2, A51, A81, or A109	☐	☐	☐
22. Indication that governmental authorization is attached, including a copy in English	☐	☐	☐
23. Additional approvals as needed	☐	☐	☐

Additional Handling Information

24. For self-reactive and related substances of Division 4.1 and organic peroxides of Division 5.2, or samples thereof, and for PBE is the mandatory statement shown	☐	☐	☐
25. Shipper's certification for air transport	☐	☐	
26. Name and Title of Signatory, Place and Date indicated	☐	☐	☐
27. Signature of Shipper	☐	☐	☐
28. Amendment or alteration signed by Shipper	☐	☐	☐

Air Waybill

29. The Handling Information box shows: "Dangerous goods as per attached Shipper's Declaration" or Dangerous Goods as per attached DGD"	☐	☐	☐
30. "Cargo Aircraft Only" or "CAO", if applicable	☐	☐	☐

	YES	NO*	N/A		YES	NO*	N/A
Package(s) and Overpacks				43.. The Subsidiary Hazard Label(s), next to Primary Risk Label	☐	☐	☐

31. Packaging conforms with packing instructions and is undamaged ☐ ☐
32. Same number and type of packagings and overpacks delivered as shown on DGD and is undamaged ☐ ☐ ☐

Markings

33. For UN Specification Packaging, are they marked
- Symbol and Specification Code ☐ ☐ ☐
 - X, Y, Z, agreed with Packing Group/ Packing Instruction ☐ ☐ ☐
 - Maximum Gross Weight not exceeded (solids or inner packagings) ☐ ☐ ☐
 - Infectious substance package marking ☐ ☐ ☐
34. The UN or ID Number(s) and Proper Shipping Name(s) including technical name where required ☐ ☐
35. The full name(s) and Address(es) of Shipper and Consignee ☐ ☐
36. The Net Quantity of Explosives and Gross Weight of the package for Class 1 items ☐ ☐ ☐
37. The Name and telephone Number of a person responsible for Division 6.2 Infectious Substances shipment ☐ ☐ ☐
38. The Special Marking requirements shown for Packing Instruction 202 ☐ ☐ ☐
39. In the case of Carbon Dioxide, Solid (Dry Ice), the Net Weight marked on the Package ☐ ☐ ☐
40. For Limited Quantity packagings: "Limited Quantity" or "LTD. QTY." ☐ ☐ ☐
41. For Salvage Packagings: "Salvage" ☐ ☐ ☐

Labeling

42. The Primary Risk Label(s), with Class or Division Number affixed to each package ☐ ☐

Comments:

Checked by:

Place:

Signature:

Date:

Time:

44. Cargo Aircraft Only label, adjacent to Hazard label(s) ☐ ☐ ☐
45. "Orientation" labels ☐ ☐ ☐
46. For Magnetized Material, the Handling label ☐ ☐ ☐
47. "Cryogenic Liquid" labels ☐ ☐ ☐
48. "Keep Away From Heat" label if required ☐ ☐ ☐
49. All above labels correctly affixed and have all irrelevant marks and labels been removed ☐ ☐ ☐

For Overpacks

50. If specification markings are not visible, other authorized indication marked ☐ ☐ ☐
51. Packaging Use markings as required must be clearly visible or reproduced on the outside of the overpack ☐ ☐ ☐
52. If more than one overpack, identification marks and the total quantity of each overpack must be indicated ☐ ☐ ☐
53. "Cargo Aircraft Only" restrictions ☐ ☐ ☐

General

54. State and Operator variations complied with ☐ ☐ ☐
55. For "Cargo Aircraft Only" shipments, a cargo aircraft operates on all sectors ☐ ☐ ☐

*IF ANY QUESTION IS ANSWERED WITH A "NO", DO NOT ACCEPT THE SHIPMENT AND GIVE A DUPLICATE COPY OF THIS COMPLETED FORM TO THE SHIPPER.

ACCEPTANCE CHECKLIST Radioactive

**APPENDIX F APPLIES IF THE OPERATOR ELECTS TO
ACCEPT AND TRANSPORT HAZARDOUS MATERIALS
USING THE INTERNATIONAL CIVIL AVIATION
ORGANIZATION'S "TECHNICAL INSTRUCTIONS" IN
ADDITION TO 49 CFR HAZARDOUS MATERIALS
REGULATIONS**

DANGEROUS GOODS CHECKLIST FOR A RADIOACTIVE SHIPMENT

SHIPPERS DECLARATION FOR DANGEROUS GOODS (DGD)

	YES	NO*	N/A		YES	NO*	N/A
1. Two copies in English format	☐	☐					
2. Full name and address of Shipper	☐	☐					
3. Full name and address of Consignee	☐	☐					
4. If the Air Waybill is not shown, enter it	☐	☐					
5. The number of pages shown	☐	☐					
6. The non-applicable Aircraft Type deleted	☐	☐					
7. If full name of Airport or City of Departure Destination is not shown, enter it	☐	☐					
8. The word "Non-Radioactive" deleted	☐	☐					

Packing Instructions

20. Category of package(s) or overpack	☐	☐	☐
21. Transport Index and dimensions for Category II and Category III only	☐	☐	☐
22. For Fissile Material the Criticality Safety Index	☐	☐	☐
23. "Fissile Excepted"	☐	☐	☐

Authorizations

24. Identification marks shown and a copy of the document in English attached to DGD for the following	☐	☐	☐
- Special Form approval certificate	☐	☐	☐
- Low dispersible material approval certificate	☐	☐	☐
- Type B package design approval certificate	☐	☐	☐
- Type B (M) package shipment approval certificate	☐	☐	☐
- Type C package design and shipment approval	☐	☐	☐
- Fissile material package design and shipment approval certificate	☐	☐	☐
- Special Arrangement shipment approval certificate	☐	☐	☐
25. Additional Handling Information	☐	☐	☐
26. Shipper's certification for air transport	☐	☐	☐
27. Name and Title of Signatory, Place, and Date	☐	☐	☐
28. Signature of Shipper	☐	☐	☐
29. Amendment or alteration signed by	☐	☐	☐

Identification

9. UN Number, preceded by prefix	☐	☐	
10. Proper Shipping Name	☐	☐	
11. Class 7	☐	☐	
12. Subsidiary Risk	☐	☐	☐
13. Packing Group if required for Subsidiary Risk	☐	☐	☐

Quantity and Type of Packing

14. Name or Symbol of Radionuclide(s)	☐	☐	
15. A description of the physical and Chemical form, or Special Form, or low dispersible material	☐	☐	☐
16. The number and type of packages and the activity in Becquerels in each package, or for Fissile Material the total weight in grams or kilograms of fissile material may be shown in place of activity	☐	☐	☐
17. For different individual radionuclides, the activity of each radionuclide and the words "All packed in one"	☐	☐	☐
18. Activity within limits for Type A packages, Type B, or Type C	☐	☐	☐
19. Words "overpack used" shown on DGD	☐	☐	☐

Air Waybill

30. The Handling Information box shows: "Dangerous goods as per attached Shipper's Declaration" or "Dangerous Goods as per attached DGD"	☐	☐	☐
31. Cargo Aircraft Only or CAO if applicable	☐	☐	☐

Package(s) and Overpacks

	YES	NO*	N/A		YES	NO*	N/A
32. Number and type of packagings and overpacks delivered as shown on DGD	☐	☐	☐	44. Two Cargo Aircraft Only labels, if required, adjacent to the Hazards labels to the Radioactive labels completed	☐	☐	☐
33. Unbroken transportation seal and package in proper condition for transport	☐	☐	☐	45. For fissile materials, two correctly completed Criticality Safety Index (CSI) labels on opposite sides	☐	☐	☐
				46. All labels correctly affixed and irrelevant marks and labels removed	☐	☐	☐

Markings

34. The UN Number and Proper Shipping Name	☐	☐	
35. The full Name and Address of the Shipper and Consignee	☐	☐	
36. For Industrial packages, are they marked appropriately	☐	☐	☐
37. For Type A packages are they marked appropriately	☐	☐	☐
38. For Type B packages, are they marked appropriately	☐	☐	☐
39. For Type C packages, are they marked appropriately	☐	☐	☐
40. For Fissile material, are they marked appropriately	☐	☐	☐
41. The permissible gross weight if it exceeds 50 kg	☐	☐	☐

For Overpacks

47. Package markings as required must be clearly visible or reproduced on outside of the overpack	☐	☐	☐
48. If more than one overpack is used, identification marks shown and the total quantity of dangerous goods	☐	☐	☐
49. Packaging markings as required must be clearly visible or reproduced on the outside of the overpack	☐	☐	☐

General

50. State and Operator variations complied with	☐	☐	☐
51. For Cargo Aircraft Only shipments, a cargo aircraft operates on all sectors	☐	☐	☐
52.. For packages containing Cargo Dioxide Solid (dry ice), have the marking, labeling and documentary requirements been applied	☐	☐	☐

Labeling

42. Two correctly completed Radioactive labels on opposite sides	☐	☐
43. Applicable Subsidiary Hazard labels adjacent to the Radioactive label completed	☐	☐

Comments:

Checked by:

Place:

Signature:

Date:

Time:

*IF ANY QUESTION IS ANSWERED WITH A "NO", DO NOT ACCEPT THE SHIPMENT AND GIVE A DUPLICATE COPY OF THIS COMPLETED FORM TO THE SHIPPER.

SPECIAL PERMITS

It has been determined that the transportation of hazardous materials in commerce, especially forbidden hazardous materials, when carried in external-load combinations and configurations, may create a hazard to persons and property on the surface which is not permitted under Title 14 CFR §133.33(d) and (e).

Such transportation of hazardous materials must be conducted in accordance with both Title 14 CFR part 133 and Title 49 CFR parts 100-185. These regulations do not yet provide sufficient guidance to ensure that hazardous materials that are attached to or suspended from a rotorcraft, are afforded the same level of safety as would be provided if the materials were carried in strict compliance with the regulations inside the rotorcraft.

In order to provide an equivalent level of safety, where possible, when transporting hazardous materials in external-load combinations and configurations, the attached Special Permits have been granted by the DOT PHMSA in coordination with the FAA Office of Hazardous Materials (ADG), our FAA Principal Operations Inspector (POI) and the FAA Hazardous Materials Branch Manager (HMBM) in the region where our external-load operations will be conducted.

SEE ATTACHED

Special Permits may be requested on-line with the DOT PHMSA at:

<http://phmsa.dot.gov/hazmat/regs/sp-a>

For assistance in completing the request or any questions regarding the Special permit requirements, please call the Hazardous Materials Information Center at 800-467-4922.

APPENDIX H

MITIGATION PLANS

It has been determined that the transportation of hazardous materials in commerce, especially forbidden hazardous materials, when carried in external-load combinations and configurations, may create a hazard to persons and property on the surface which is not permitted under Title 14 CFR §133.33(d) and (e).

Such transportation of hazardous materials must be conducted in accordance with both Title 14 CFR part 133 and Title 49 CFR parts 100-185. These regulations do not yet provide sufficient guidance to ensure that hazardous materials that are attached to or suspended from a rotorcraft, are afforded the same level of safety as would be provided if the materials were carried in strict compliance with the regulations inside the rotorcraft.

In order to provide an equivalent level of safety, where possible, when transporting hazardous materials in external-load combinations and configurations, the attached Mitigation Plan(s) has/have been reviewed and accepted by the FAA Hazardous Materials Branch Manager (HMBM) in the region where our certificate is held, and the HMBM where our external-load operations will be conducted, in coordination with our FAA Principal Operations Inspector (POI).

SEE ATTACHED