SHIPPING CLASS 6.2
DANGEROUS GOODS,
CLASS 9 MISC.
REVISED 07 OCTOBER 2015

HEATHER BLAIR, ASSISTANT BIOSAFETY OFFICER, RBP, SM(NRCM), CBSP, ARO
6021 CAMPUS DELIVERY; COLORADO STATE UNIVERSITY
FORT COLLINS, CO 80523
DANGEROUS GOODS REGULATIONS - WHO MAKES THEM?

- ICAO – INTERNATIONAL CIVIL AVIATION ORGANIZATION – SPECIALIZED BODY OF UN THAT SETS STANDARDS IN CIVIL AVIATION
- IATA – INTERNATIONAL AIR TRANSPORTATION ASSOCIATION – TRADE ASSOCIATION THAT SETS RULES FOR SAFETY OF PASSENGERS AND CARGO
- US DOT – DEPARTMENT OF TRANSPORTATION - LAW IN U.S. FOR INTRASTATE, INTERSTATE, FOREIGN COMMERCE.
- PHMSA (UNDER DOT) – PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION - RESPONSIBLE FOR AIR, RAIL, HIGHWAY AND WATER
- ICAO/IATA STANDARDS ARE AT THE HIGHEST LEVEL OF SAFETY
DISCLAIMER

• I ONLY TRAIN CLASS 6.2 AND 9 DANGEROUS GOODS!

• FEDEX AND OTHER CARRIERS HAVE ADDITIONAL REGULATIONS
  • CONTACT THEM DIRECTLY FOR SPECIFIC INFORMATION.

• THE INFORMATION PROVIDED HERE COVERS THE IATA/DOT REGULATIONS.
TRAINING

• MANDATORY FOR ANYONE WHO:
  • PREPARES FOR TRANSPORTATION
  • SELECTS PACKAGING OR PACKAGES
  • COMPLETES THE SHIPPER’S DECLARATION OR OTHER PAPERWORK
  • LOADS, UNLOADS OR HANDLES MATERIAL
  • IS RESPONSIBLE FOR SAFETY OF TRANSPORT
  • OPERATES A VEHICLE TO TRANSPORT.

• RECORD OF TRAINING MUST BE RETAINED FOR A MINIMUM OF 36 MONTHS FROM THE MOST RECENT TRAINING DATE
TRAINING

• CSU REQUIRES THIS TRAINING EVERY YEAR!

• REQUIRED EVERY 2 YEARS UNDER ICAO/ IATA AND EVERY 3 YEARS UNDER DOT OR AS OFTEN AS THE REGULATIONS CHANGE
  • NOTE: REGULATIONS CHANGE WITHOUT NOTICE!

• PENALTIES:
  “KNOWING VIOLATION” CIVIL: MAX $75,000
  “KNOWING VIOLATION” CRIMINAL: ~5 YRS. IN PRISON
  “VIOLATION RESULTING IN DEATH OR INJURY” MAX $175,000
  “TRAINING” MIN $450 MAX $75,000
CERTIFIED MAIL — RETURN RECEIPT REQUESTED

September 30, 2016

Colorado State University Clinical Sciences
Campus Delivery
Fort Collins, CO 80523

Warning Notice
File Number: 2016NM720071

Dear [Redacted],

The Federal Aviation Administration (FAA) has completed an investigation into the allegation that Colorado State University [Redacted] offered a hazardous material for transportation in air commerce, in violation of Federal Hazardous Material Regulations, Title 49, Code of Federal Regulations (49 CFR) Section 172.702(a) — Applicability & Responsibility for Training. The investigation and your response confirmed that on February 9, 2016, Colorado State University [Redacted] employee [Redacted] offered a package that contained infectious substances affecting animals, Class 6.2, UN2900, and Dry ice, Class 9, UN1845, PG III, to FedEx Express in Fort Collins, Colorado for transportation to [Redacted]. [Redacted] prepared this shipment without having received current hazardous materials training.

Be advised that failure to meet the Hazardous Materials Training requirements is a violation of the Federal Hazardous Materials Regulations and may subject a violator to a civil penalty of up to $32,500.

After consideration of all the available facts, we have concluded the matter does not warrant further legal enforcement action. In lieu of such action, we are issuing this Warning Notice, which will be made a matter of record. We expect future compliance with the regulations.

If you wish to challenge the circumstances of this incident as presented in this letter, or if you wish to add any information in explanation or mitigation, please write to me at the above address.

Sincerely,

[Signature]
Andrew E. Strickland
Manager, Denver/Salt Lake City
Security and Hazardous Materials
TRAINING

• CENTRAL RECEIVING RECEIVES A COPY OF YOUR TRAINING CERTIFICATION AND WILL ASK FOR ID TO VERIFY TRAINING RECORDS.
WHO IS RESPONSIBLE?

- THE SHIPPER!
  - CLASSIFY
  - PROPER SHIPPING NAME
  - DETERMINE UN NUMBER
  - DETERMINE PACKING INSTRUCTIONS
  - MARK AND LABEL THE PACKAGE
  - COMPLETE DOCUMENTATION
  - KNOW LIMITS ON QUANTITY FOR PASSENGER/CARGO AIRCRAFT
  - KNOW IF SPECIAL PROVISIONS APPLY
  - MAKE ARRANGEMENTS- TALK TO YOUR BIOSAFETY OFFICER

- USE A CHECKLIST!!!
CLASSIFICATION OF DANGEROUS GOODS

• 9 CLASSES OF DANGEROUS GOODS
  • CLASS 6, DIVISION 2 = 6.2 = A MATERIAL THAT IS KNOWN OR REASONABLY EXPECTED TO CONTAIN AN INFECTIOUS SUBSTANCE
  • CLASS 9 – DRY ICE, NON-INFECTIONOUS GMO

**CLASS NUMBER DOES NOT CORRESPOND TO LEVEL OF RISK, I.E., HIGHER NUMBER DOES NOT MEAN A HIGHER LEVEL OF RISK**
DEFINITIONS

• **INFECTIOUS SUBSTANCES**: KNOWN OR REASONABLY EXPECTED TO CONTAIN PATHOGENS.

• **PATHOGENS**: MICRO-ORGANISMS

• **MICRO-ORGANISMS**: INCLUDE BACTERIA, VIRUSES, RICKETTSIA, PARASITES, FUNGI OR OTHER AGENT SUCH AS A PRION, WHICH CAUSE DISEASE IN HUMANS OR ANIMALS.
CLASS 6.2: CATEGORY A

**CATEGORY A, INFECTIOUS SUBSTANCE** - IS IN A FORM THAT CAN CAUSE PERMANENT DISABILITY, LIFE-THREATENING, OR FATAL DISEASE IN OTHERWISE HEALTHY HUMANS OR ANIMALS

- SEE IATA TABLE 3.6.D.; **NOT AN ALL-INCLUSIVE LIST**!
- HUMANS; HUMANS AND ANIMALS – **UN 2814**
- ANIMALS ONLY – **UN 2900**
- MEDICAL WASTE WITH CATEGORY A INFECTIOUS SUBSTANCE
- PATIENT SPECIMENS WITH CATEGORY A AGENT
- ANIMAL CARCASSES WITH CATEGORY A AGENT
- **PI 620**: SHIPPER’S DECLARATION REQUIRED
- TRIPLE PACK
UN NUMBER MARKINGS FOR 2015!

- The marking of the UN number and letters “UN” must be at least 6mm in height for 6.2 Dangerous Goods packages.

- The overpack sticker needs to be at least 12mm in height.

  - Packages that exhibit the overpack marking less than 12mm in height will be permitted until Dec. 31, 2016, after which they will be rejected.
STICKERS AND MARKING UPDATES
OCTOBER 2014

• CARRIERS ARE ACCEPTING BOTH (AT THE MOMENT):

[Image of stickers and markings]
*PROPER SHIPPING NAME*

- **NOTE:** MAY NOT ACCEPT THE NAME OF THE ORGANISM ON THE SHIPPER’S DECLARATION:
  - FOR UN 2814
    - INFECTIOUS SUBSTANCE, AFFECTING HUMANS (SUSPECTED CATEGORY A INFECTIOUS SUBSTANCE)
  - FOR UN 2900
    - INFECTIOUS SUBSTANCE, AFFECTING ANIMALS ONLY (SUSPECTED CATEGORY A INFECTIOUS SUBSTANCE)
(CULTURES ONLY)

• FOUND ON IATA TABLE 3.6.D

• DEFINITION:
  • AN INFECTIOUS SUBSTANCE CONTAINING A PATHOGEN THAT IS INTENTIONALLY PROPAGATED.

• DOES NOT INCLUDE HUMAN OR ANIMAL PATIENT SPECIMENS (I.E. A THROAT SWAB IS A SPECIMEN, NOT A CULTURE)
SHIPPER’S DECLARATION OF DANGEROUS GOODS

• REQUIRED FOR CATEGORY A, INFECTIOUS SUBSTANCE

• MUST HAVE RED STRIPES ON EDGES

• I RECOMMEND PUTTING 4 ON OUTSIDE OF BOX!
**SHIPPER’S DECLARATION OF DANGEROUS GOODS**

- Name and number of Person Responsible
- UN Number
- Proper Shipping Name
- Technical name (genus; species, virus name, etc.) in parentheses
- Class
- Quantity and Type of packaging
- Packing Instructions number
- Special Provisions (place number in Authorization column)

**Additional Handling Information**

**Emergency Telephone No.**

**Put: Infotrac 1-800-535-5053 ext. 103967**

- Signatory = Responsible person or shipper- NEED name and title
AUTHORIZATIONS (SPECIAL PROVISIONS)

• SPECIAL PROVISION A140- “THE TECHNICAL NAME NEED NOT BE SHOWN ON THE OUTER PACKAGE”

• SHIPPING WITHIN THE U.S.: DO NOT WRITE THE GENUS AND SPECIES NAME ON THE BOX

• ACCORDING TO 49 CFR 172.301, A TECHNICAL NAME SHOULD NOT BE MARKED ON THE OUTER PACKAGE OF A DIVISION 6.2 MATERIAL
LIMITS ON QUANTITY PER PACKAGE FOR PASSENGER AND CARGO AIRCRAFT

• CATEGORY A INFECTIONOUS SUBSTANCES, AFFECTING HUMANS OR ANIMALS – 50 ML OR 50G

• BIOLOGICAL SUBSTANCE, CATEGORY B
  • PRIMARY- NOT MORE THAN 1L LIQUID;
  • OUTER PACKAGING- NOT MORE THAN 4 L
  • SOLID OUTER PACKAGING NOT MORE THAN 4 KG

• CLINICAL WASTE, UNSPECIFIED, N.O.S. (CATEGORY B) – NO LIMIT

• DRY ICE – 200 KG
OVERPACK

- LARGE BOXES THAT CONTAIN SEVERAL CORRECT PACKAGE SPECIFICATION INNER BOXES
- ALLOWS YOU TO SEND SEVERAL VIALS OF 50 ML OR 50G
- LABEL SHIPPER’S DECLARATION “PACKED IN ONE OVERPACK FIBREBOARD BOX”
- MUST PLACE “OVERPACK” STICKER ON THE BOX
  - OUTSIDE BOX DOES NOT NEED SPECIFICATION MARKINGS
Category A: UN number, Proper Shipping Name, Net Quantity of Infectious Substance

Shipper: ___________________________________________
__________________________________________________
Phone Number__________

C ons ignee: ____________________________

Person Responsible: ____________________________

Name & Phone number of Person Responsible for the Infectious Substance Shipment

Overpack: SEE PREVIOUS SLIDE for need

UN number & Quantity for Dry Ice

Class 6.2 Infectious Substance Label

Directional signs (1 on each side)

"Class 9 Hazard" Label

Name & Phone number of Person Responsible for the Infectious Substance Shipment
LIMITS ON QUANTITY PER PACKAGE FOR CARGO AIRCRAFT ONLY

- CATEGORY A INFECTIONOUS SUBSTANCES, AFFECTING HUMANS OR ANIMALS – 4L OR 4KG
- BIOLOGICAL SUBSTANCE, CATEGORY B - 4L LIQUID; 4 KG SOLID
- CLINICAL WASTE, UNSPECIFIED, N.O.S. (CATEGORY B) – NO LIMIT
- DRY ICE – 200 KG
- NEED THIS STICKER ON FRONT OF PACKAGE BY OTHER LABELS:
CATEGORY A PACKAGING: PI 620
(SEE 2ND HANDOUT)

✓ GOOD CONDITION
✓ LEAKPROOF PRIMARY
✓ LEAKPROOF SECONDARY
✓ PRESSURE CAPABLE PRIMARY OR SECONDARY
✓ ABSORBENT (FOR LIQUIDS)
✓ MULTIPLE FRAGILE PRIMARIES WRAPPED INDIVIDUALLY
✓ ITEMIZED LIST
✓ RIGID OUTER PACKAGING
✓ 4 IN. MINIMUM
✓ QTY LIMIT 50 ML OR 50 G FOR PASSENGER AIRCRAFT. 4 L OR 4 KG FOR CARGO ONLY AIRCRAFT
✓ NAME AND TELEPHONE # MARKED ON PACKAGE
✓ MUST BE MARKED WITH UN SPECIFICATION

UN 4G/Class 6.2/2010 USA/+AA16324
DOCUMENTATION

• **SHIPPER’S DECLARATION OF DANGEROUS GOODS**
  • 6 COPIES (SHIPPER KEEPS 1 COPY; 4 COPIES TO CARRIER; PLACE ONE COPY IN THE BOX FOR RECIPIENT)
  • LEGAL DOCUMENTS- KEEP FOR AT LEAST 3 YEARS
  • MUST USE FEDEX SOFTWARE FOR FEDEX PACKAGES
  • NO SPELLING ERRORS
  • MUST BE COMPLETED AND “SIGNED” BY SHIPPER
  • ALTERATIONS OR AMENDMENTS ARE ACCEPTABLE ONLY IF THE CHANGE IS SIGNED BY THE SHIPPER WITH THE FULL SIGNATURE THAT IS USED ON THE DECLARATION

• **NEED ITEMIZED LIST OF CONTENTS INSIDE OUTER PACKAGING FOR PACKAGES**
DOCUMENTATION

- KEEP DOCUMENTATION, INCLUDING ANY CHECKLISTS, THAT WERE PROVIDED FROM THE CARRIER AS TO WHY A PACKAGE WAS NOT ACCEPTED, DUE TO AN ERROR OR OMISSION BY THE SHIPPER.
  - RETAIN FOR AT LEAST 3 MONTHS AFTER COMPLETION OF THE ACCEPTED PACKAGE CHECKLIST
Dear Customers

SAF-T-PAK would like to inform you we have made some changes to the "Instructions for Use" for the following Category A products:

• STP – 110  STP – 130  STP – 310

Since the U.S. Department of Transport requires that you follow and retain a copy of the "Instructions for Use" for at least 24 months (49 CFR 173.22 (A) 4), it is necessary for you to remove the previous versions of these instructions from your records and replace them with the new versions.

The new versions of the "Instructions for Use" were revised to provide additional clarity to the closure instructions for these certified Category A packages. The regulations require the manufacturer to provide shippers with detailed instructions enabling the shipper to assemble the package in the exact same manner as the package design was tested (49 CFR 178.2 (C)). The previous version of the “Instructions for Use” indicated the above listed Category A packages needed to be closed with packaging tape; however since there are many different qualities of packing tape on the market, it is important to indicate both the type and dimensions of the packing tape used to ensure the packages are closed in a “consistent” manner. When the SAF-T-PAK package designs were tested, they were closed with 3M TARTAN™ Box Sealing Tape 369. In order for packages to be compliant with the regulations, all shipments of the above listed Category A packages must be closed with this type of packing tape or an equivalent or better quality packing tape. Since the different sized Category A packages have different dimensions, each package requires a different length of tape, so please refer to the information included in the specific package instructions.

All future shipments of these products will include the updated “Instructions for Use”. We have also placed a .PDF version on our website available here

• STP-110: HTTP://WWW.SAFTPاك.COM/IFU/QADOC_051_REV_2_STP-110_PACKING_INSTRUCTIONS.PDF
• STP-130: HTTP://WWW.SAFTPاك.COM/IFU/QADOC_265_REV_3_STP-130_PACKING_INSTRUCTIONS.PDF
• STP-310: HTTP://WWW.SAFTPاك.COM/IFU/QADOC_264_REV_3_STP-310_PACKING_INSTRUCTIONS.PDF

If you have any questions, feel free to contact me.

David Creighton; Regulatory and Training Manager
SAF-T-PAK INC. 1-800-814-7484
FYI FROM CENTRAL RECEIVING

• YOU HAVE TO SIGN UP AND CREATE A PROFILE IN THE FED EX SOFTWARE IF YOU ARE NOT ALREADY A “SENDER” IN THE PROGRAM

• BEST TIME TO COME INTO CENTRAL RECEIVING IS BETWEEN 12:30-2PM
  • NOT AS BUSY AND CAN HELP, IF NEEDED
  • PLENTY OF TIME IF A PROBLEM ARISES

• MAKE SURE TO CHECK THE “PASSENGER AND CARGO” VS. THE “CARGO AIRCRAFT ONLY” AS IT SAVES THE LAST PERSON’S CHOICE!

• NOTE! PLEASE SHARE THIS INFORMATION WITH ANYONE CONNECTED WITH CSU THAT MAY BE USING OUR ACCOUNT WITH INFOTRAC:
  • APPARENTLY THERE HAVE BEEN INSTANCES OF SENDERS USING OUR EMERGENCY CONTACT NUMBER THAT ARE NOT CSU EMPLOYEES.
  • OUTSIDE VENDORS MUST UTILIZE THEIR OWN EMERGENCY CONTACT NUMBER WHEN SENDING DOT REGULATED PACKAGES.
GROUND TRANSPORTATION

• THERE IS NO LIMIT ON QUANTITY FOR GROUND TRANSPORTATION AS LONG AS THE PACKAGE MEETS THE 6.2 DANGEROUS GOODS PACKAGING REQUIREMENTS.
SECURITY PLAN FOR CATEGORY A

- 6.2 INFECTIOUS SUBSTANCES ARE CONSIDERED HIGH CONSEQUENCE DANGEROUS GOODS

- **SHOULD** IMPLEMENT AND COMPLY WITH A SECURITY PLAN THAT ADDRESSES:
  
  - RESPONSIBILITIES
  - RECORDS OF GOODS TRANSPORTED
    - LIST OF MATERIALS YOU HANDLE- WHAT IS VULNERABLE?
    - WHAT CAN POTENTIALLY BE USED AS A WEAPON OR TARGET OF OPPORTUNITY?
  - REVIEW OF OPERATIONS AND ASSESSMENT OF VULNERABILITIES
    - INTER-MODAL TRANSFER
    - HANDLING AND DISTRIBUTION
    - TRAINING POLICIES
      - HIGHER THREAT CONDITIONS
      - OPERATING PRACTICES
      - EQUIPMENT AND RESOURCES USED
  - PROCEDURES FOR REPORTING AND DEALING WITH THREATS, BREACHES, INCIDENTS
    - HOW DO YOU REPORT MISSING INVENTORY?
  - MEASURES TO ENSURE THE SECURITY OF TRANSPORT AND DOCUMENTATION OF TRANSPORT
CLASS 6.2: CATEGORY B

• BIOLOGICAL SUBSTANCE, CATEGORY B – IS AN INFECTIOUS SUBSTANCES THAT DOES NOT MEET THE CRITERIA FOR INCLUSION IN CATEGORY A; THIS INCLUDES SUBSTANCES TRANSPORTED FOR DIAGNOSTIC OR INVESTIGATIONAL PURPOSES –
  • UN 3373; PI 650
    • TRIPLE PACK
  • PATIENT SPECIMENS WITH CATEGORY B AGENT
  • MEDICAL WASTE WITH CATEGORY B INFECTIOUS SUBSTANCE – UN 3291; PI 622
PROPER SHIPPING NAME

• BIOLOGICAL SUBSTANCE, CATEGORY B
  • FOR UN3373

• BIOMEDICAL WASTE, N.O.S., CLINICAL WASTE, UNSPECIFIED, N.O.S. OR MEDICAL WASTE, N.O.S OR REGULATED MEDICAL WASTE, N.O.S
  • FOR UN3291
CATEGORY B

- IF AIRWAY BILL USED: MUST SHOW
  - BIOLOGICAL SUBSTANCE, CATEGORY B
  - UN3373
  - SHIPPER’S DECLARATION NOT REQUIRED
UN number, Proper Shipping Name

Shipper: 

____________________
____________________
Phone Number: 

Consignee: 

Phone Number: 

Directional signs (1 on each side)

Biological Substance, Category B

“Class 9 Hazard” Label

UN3373

UN number & Quantity for Dry Ice

Category B Shipment
CATEGORY B PACKAGING: PI 650
(SEE 2ND HANDOUT)

✓ GOOD QUALITY
✓ LEAKPROOF/SIFTPROOF PRIMARY (1 L MAX)
✓ LEAKPROOF/SIFTPROOF SECONDARY
✓ ABSORBENT
✓ MULTIPLE FRAGILE PRIMARIES WRAPPED INDIVIDUALLY
✓ PRESSURE CAPABLE PRIMARY OR SECONDARY

✓ ITEMIZED LIST
✓ RIGID OUTER PACKAGING
✓ TWO SIDES AT LEAST 4 IN.
✓ QTY. LESS THAN 4L OR 4KG
✓ NO SPEC MARKS BUT 1.2M DROP
PATIENT SPECIMENS

- DEFINITION: HUMAN OR ANIMAL MATERIAL COLLECTED DIRECTLY FROM HUMANS OR ANIMALS, (INCLUDING, BUT NOT LIMITED TO: EXCRETA, SECRETED, BLOOD AND ITS COMPONENTS, TISSUE AND TISSUE FLUID, SWABS, AND BODY PARTS) BEING TRANSPORTED FOR PURPOSES SUCH AS RESEARCH, DIAGNOSIS, INVESTIGATIONAL ACTIVITIES, DISEASE TREATMENT OR PREVENTION.

- SHIP AS ‘CATEGORY A, INFECTIOUS SUBSTANCE’ OR ‘BIOLOGICAL SUBSTANCE, CATEGORY B’ UNLESS

  - THERE IS A MINIMAL LIKELIHOOD OF CONTAINING PATHOGENS
    - IF MINIMAL LIKELIHOOD OF PATHOGENS – PATIENT SPECIMEN IS EXEMPT!!
    - SHIP AS “EXEMPT HUMAN SPECIMEN” OR “EXEMPT ANIMAL SPECIMEN
    - TRIPLE PACK
BIOLOGICAL PRODUCTS AND REGULATED MEDICAL WASTE

• BIOLOGICAL PRODUCTS
  • DOT DEFINITION: PRODUCTS DERIVED FROM LIVING ORGANISMS (VIRUS, THERAPEUTIC SERUM, TOXIN, ANTITOXIN, VACCINE, BLOOD, BLOOD COMPONENT OR DERIVATIVE, ALLERGENIC PRODUCT, OR ANALOGOUS PRODUCT, OR ARSPHENAMINE (OR DERIVATIVE OF) APPLICABLE TO THE PREVENTION, TREATMENT OR CURE OF A DISEASE OR CONDITION OF HUMAN BEINGS OR ANIMALS.
  • NOT REGULATED UNLESS KNOWN OR BELIEVED TO CONTAIN A CATEGORY A OR B INFECTIOUS SUBSTANCE.
  • IATA DEFINITION: PRODUCTS DERIVED FROM LIVING ORGANISM WHICH ARE MANUFACTURED IN ACCORDANCE WITH APPROPRIATE NATIONAL AUTHORITIES (LIKE FDA, USDA) THAT MAY HAVE SPECIAL LICENSING REQUIREMENTS.
  • NOT REGULATED UNLESS KNOWN OR BELIEVED TO CONTAIN A CATEGORY A OR B INFECTIOUS SUBSTANCE.

• REGULATED MEDICAL WASTE
  • A WASTE OR REUSABLE MATERIAL DERIVED FROM THE MEDICAL TREATMENT OF AN ANIMAL OR HUMAN, WHICH INCLUDES DIAGNOSIS AND IMMUNIZATION OR FROM BIOMEDICAL RESEARCH, WHICH INCLUDES THE PRODUCTION AND TESTING OF BIOLOGICAL PRODUCTS
Example of Packing and Marking for Exempt Specimens

Notes:

1. At least one surface of the outer packaging must have a minimum dimension of 100 mm x 100 mm;
2. The outer packaging must be of adequate strength for its capacity, mass and intended use.
SUBSTANCES NOT REGULATED

• DECONTAMINATED MEDICAL WASTE

• ORGANISMS THAT ARE NON-PATHOGENIC TO HUMANS OR ANIMALS (RISK GROUP 1 MICROBES)

• NEUTRALIZED/INACTIVATED MICROORGANISMS

• ENVIRONMENTAL SAMPLES (FOOD AND WATER, ETC.)

• SUBSTANCES WHICH DO NOT CONTAIN INFECTIOUS SUBSTANCES OR SUBSTANCES WHICH ARE UNLIKELY TO CAUSE DISEASE IN HUMANS AND ANIMALS (DNA/ RNA- UNLESS IT CONTAINS AN INFECTIOUS AGENT OR WHOLE GENOME THAT COULD BE REGULATED)

• BLOOD FOR TRANSFUSION, DRIED BLOOD SPOTS, FECAL OCCULT BLOOD SCREENS, TISSUES/ORGANS FOR TRANSPLANTATION

• LAUNDRY AND MEDICAL EQUIPMENT AND USED HEALTH CARE PRODUCTS
CLASS 9
PROPER SHIPPING NAME & UN NUMBER

• GENETICALLY MODIFIED MICRO-ORGANISMS (GMMS) OR GENETICALLY MODIFIED ORGANISMS (GMOS) NOT MEETING THE DEFINITION OF INFECTIOUS SUBSTANCE:
  GENETIC MATERIAL HAS BEEN PURPOSELY ALTERED THROUGH GENETIC ENGINEERING IN A WAY THAT DOES NOT OCCUR NATURALLY

• UN 3245; PACKING INSTRUCTION 959
  • SIZE OF STICKER (AT LEAST 50MM X 50MM)
• CANNOT EXCEED 100ML OR 100G
CLASS 9
PROPER SHIPPING NAME & UN NUMBER

• **DRY ICE = PROPER SHIPPING NAME**

• **UN 1845; PACKING INSTRUCTION 954**

  • **SHIPPER’S DECLARATION REQUIREMENTS ARE ONLY APPLICABLE WHEN THE DRY ICE IS USED AS A REFRIGERANT FOR DANGEROUS GOODS THAT REQUIRE A SHIPPER’S DECLARATION.**

  • **WHEN A SHIPPER’S DECLARATION IS NOT REQUIRED, PUT THE FOLLOWING INFORMATION IN THE “NATURE AND QUANTITY OF GOODS” BOX ON THE AIRWAY BILL OR IN THE APPROPRIATE LOCATION ON ALTERNATE TRANSPORT DOCUMENTS (BILL OF LADING):**

    • **UN1845**
    • **DRY ICE**
    • **NET WEIGHT OF DRY ICE IN PACKAGE(S)**

  • **THE NET WEIGHT OF THE DRY ICE MUST BE MARKED ON THE OUTSIDE OF EACH PACKAGE.**
DRY ICE

- MUST NEVER BE PLACED IN SEALED CONTAINER
- SUBLIMATES TO CO$_2$ – ASPHYXIATION IN AN ENCLOSED SPACE
- REQUIRES DRY ICE SYMBOL ON PACKAGING
- IS IN PACKAGING GROUP III (MUST BE ENTERED ON SHIPPER’S DECLARATION OF DANGEROUS GOODS
PACKING GROUP: FOR CHEMICALS

- 3 GROUPS
  - GROUP I = GREAT DANGER
  - GROUP II = MEDIUM DANGER
  - GROUP III = MINOR DANGER

- PACKING GROUP III USED FOR DRY ICE (IF NEEDED)

- ** PACKING GROUP DESIGNATIONS ARE NOT USED FOR INFECTIOUS SUBSTANCES**
AUTHORIZATIONS (SPECIAL PROVISIONS)

• **SPECIAL PROVISION 805** - DRY ICE MAY BE PLACED DIRECTLY WITHIN AN OVERPACK THAT MEETS THE REQUIREMENTS OF PACKING INSTRUCTION 954 TO COOL OTHER DANGEROUS GOODS
PACKAGING INSTRUCTION/ REQUIREMENTS

• CATEGORY A: PI 620
  • MUST USE PACKAGING WITH A UN SPECIFICATION MARK AS FOLLOWS:

    U  4G/Class 6.2/2006
    N  CAN/8-2 Manufacturer’s name

• CATEGORY B: PI 650

• DRY ICE: PI 954

• PACKAGING STANDARDS FOR GROUND TRANSPORT IN THE U.S. ARE BASICALLY THE SAME AS AIR TRANSPORT
  • 49 CFR 173.196 CATEGORY A
  • 49 CFR 173.199 CATEGORY B

• PACKAGE PARTS MUST COME FROM SAME VENDOR- NO MISMATCHING

• SEE 2ND HANDOUT FOR PACKAGING INSTRUCTIONS
CLASS 6.1

• TOXINS FROM PLANTS, ANIMALS, OR BACTERIA
• NOT COVERED IN THIS COURSE
  • NEED DIFFERENT TRAINING CERTIFICATION FOR SHIPPING TOXINS
LIVE ANIMALS!

• Shipping by air a live animal that has been intentionally infected is forbidden UNLESS
  • The infectious substance cannot be consigned by any other method
    • Need special permits

• DOT Federal Register 173.197:
  • (C) Live animals may not be used to transport infectious substances unless such substances cannot be sent by any other means. An animal containing or contaminated with an infectious substance must be transported under terms and conditions approved by the Associate Administrator for Hazardous Materials Safety.
WHAT DO YOU DO WITH ALL OF THIS INFORMATION?

• FILL OUT DOCUMENTATION - **SHIPPER’S DECLARATION** (IF NEEDED) OR BILL OF LADING
  
  • FED EX SHIPPERS DECLARATIONS HAVE TO BE FILLED OUT USING FED EX SOFTWARE… CENTRAL RECEIVING HAS PURCHASED THIS SOFTWARE FOR YOUR USE. THEY HAVE CONNECTIVITY SET UP AT CENTRAL RECEIVING (PER FX-18).

• CHOOSE CORRECT PACKAGING

• MARK AND LABEL THE PACKAGE CORRECTLY
  
  • MARKED DURABLY AND LEGIBLY
  
  • *IF BOX HAS PICTURES OF STICKERS, CAN USE THEM AND DO NOT NEED TO GET THE ACTUAL STICKERS
HOW DO YOU DETERMINE WHICH CLASSIFICATION TO USE?

- CONSULT CLASSIFICATION GUIDE – GUIDE ONLY
- CONSULT IATA TABLE 3.6.D – GUIDE
- FINAL DECISION – SHIPPER IS RESPONSIBLE
- ERR ON SIDE OF CAUTION
MATERIAL TRANSFER FORM/ BILL OF LADING
~ EHS WEBSITE UNDER BIOSAFETY (FORMS)

- FOR GROUND TRANSPORTATION SHIPMENTS
  - TRAVELING FROM ONE CAMPUS TO ANOTHER

- LIST OF INFORMATION NEEDED:
  - PROPER SHIPPING NAME
  - TECHNICAL NAME
  - HAZARD CLASS
  - UN NUMBER
  - QUANTITY (VOLUME OR WEIGHT)
  - SHIPPER’S CERTIFICATION
  - 24 HR. EMERGENCY NUMBER
  - SIGNATURE

MATERIAL TRANSFER FORM/ BILL OF LADING
(Note: a Shippers Declaration counts as a Material Transfer Form/ Bill of Lading)

Date(s):
Hazard Class: 6.2

Proper Shipping Name (check all that apply) and Technical Name (write in):
- UN 2814 Infectious substance, affecting humans (___, species, any other name with ___)
- UN 2900 Infectious substance, affecting animals (___, species, any other name with ___)
- UN 3373 = Biological substance, Category B
- UN 3291 = Biomedical waste, n.o.s., Clinical waste, unspecified, n.o.s. or Medical waste, n.o.s or Regulated medical waste, n.o.s
- UN 1845 = Dry ice, Carbon Dioxide, solid ___ kg

Quantity (volume or weight): ________________________________
Date of most recent shipping, packaging, receiving training: ____________________________
24 hr. EMERGENCY CONTACT NUMBER: ________________________________
Name of person transporting material: ________________________________
Signature of person transporting material: ________________________________
Principal Investigator: ________________________________
Principal Investigator signature: ________________________________
EHS Office Signature: ________________________________

YOU WILL NEED TO HAVE A COPY OF YOUR TRAINING CERTIFICATION WITH YOU

Have available:
- Immediate hazards to health form (http://www.phac-aspc.gc.ca/mtds-ftsd)
- Immediate precautions in the event of incident or accident
- Immediate methods of handling spills or leaks
- Preliminary first aid measures
- 24 hr. EMERGENCY NUMBER
EMERGENCY RESPONSE INFORMATION

- MUST BE AVAILABLE AND ACCESSIBLE BY THE DRIVER OF THE VEHICLE
  - BASIC DESCRIPTION AND TECHNICAL NAME
  - IMMEDIATE HAZARDS TO HEALTH
  - RISKS OF FIRE OR EXPLOSION
  - IMMEDIATE PRECAUTIONS IN THE EVENT OF AN INCIDENT OR ACCIDENT
  - IMMEDIATE METHODS OF HANDLING SPILLS OR LEAKS
  - PRELIMINARY FIRST AID MEASURES
  - 24 HR. EMERGENCY RESPONSE TELEPHONE NUMBER
SECURITY IN TRANSPORT

• LABEL THE PACKAGE CORRECTLY

• HAVE THE PROPER TRAINING

• SECURE THE SHIPMENT
  • LOCK YOUR DOORS DURING TRANSPORT
  • MAINTAIN CONTACT WITH CARGO AT ALL TIMES

• REPORT SUSPICIOUS ACTIVITY
  • BE AWARE OF YOUR SURROUNDINGS

• AVOID POPULATED AREAS/ ROADWAYS
ROUTE TO USE

• YOU HAVE TO USE THIS ROUTE:

- W Prospect Rd
- Rampart Rd.
- Center
- Overland
- CSU
- CSU South Campus
SAFETY IN TRANSPORT

• FILL OUT MATERIAL TRANSFER FORM/ BILL OF LADING LOCATED ON EHS WEBSITE UNDER BIOSAFETY (FORMS)

• PACKAGE MATERIAL CORRECTLY
  • CONDUCT INSPECTION OF PACKAGE BEFORE, DURING AND AFTER TRANSPORT

• CRACK YOUR WINDOWS IF DRY ICE IS IN PACKAGE

• DO NOT TRANSPORT WITH KIDS/ PETS… IN THE VEHICLE
INCIDENT AND ACCIDENT REPORTING

• REPORT ANY INCIDENT OR ACCIDENT IN REGARDS TO 6.2 DANGEROUS GOOD TO THE BIOSAFETY OFFICE (491-0270)

• REPORT ANY UNDECLARED OR MIS-DECLARED 6.2 DANGEROUS GOOD WHEN DISCOVERED TO THE BIOSAFETY OFFICE (491-0270)
SHIPPING

• **COMMUNICATION IS ESSENTIAL BETWEEN:**
  - SHIPPER
  - RECIPIENT
  - SHIPPING AND RECEIVING DEPARTMENT
  - BIOSAFETY

• REQUEST NECESSARY IMPORT/EXPORT PERMITS

• PREPARE PACKAGE FOR SHIPPING AND INCLUDE PERMITS

• SHIP PACKAGE VIA CARRIER
  - SHIPPER COMMUNICATES TRACKING NUMBER TO ALL PERSONS INVOLVED
  - LET BIOSAFETY KNOW ABOUT INFECTIOUS SUBSTANCE SHIPMENTS
    - BILL OF LADING
SHIPPING/ RECEIVING SELECT AGENTS AND SELECT TOXINS

- **COMMUNICATION IS ESSENTIAL BETWEEN:**
  - SHIPPER
  - RECIPIENT
  - SHIPPER ENTITY RESPONSIBLE OFFICIAL (A BIOSAFETY OFFICER FOR CSU)
  - RECIPIENT ENTITY RESPONSIBLE OFFICIAL (A BIOSAFETY OFFICER FOR CSU)
  - CDC/ USDA
- COMPLETE FORM 2
- REQUEST CDC APPROVAL OF FORM 2
- FAX FORM 2 TO CDC/USDA
- PREPARE PACKAGE FOR SHIPPING AND INCLUDE FORM 2 AND PERMITS
- RESPONSIBLE OFFICIAL COMMUNICATES AND TRACKS SHIPMENT
- RESPONSIBLE OFFICIAL CONFIRMS SHIPMENT, COMMUNICATES WITH INVOLVED PERSONS AND NOTIFIES CDC BY FAXING FORM 2 WITHIN 2 BUSINESS DAYS OF RECEIPT
SUMMARY

• USE A CHECKLIST
• NOT ALL CARRIERS SHIP DANGEROUS GOODS
• COMPARE YOUR PACKAGING AND DOCUMENTATION WITH THE CARRIER’S CHECKLIST
• IF SHIPPING A SELECT AGENT, COMMUNICATE WITH BIOSAFETY OFFICER
• SEND TRACKING NUMBER TO ALL INDIVIDUALS INVOLVED IN SHIPPING AND RECEIVING OF PACKAGE
• CAN ORDER IATA DANGEROUS GOODS REGULATIONS MANUAL
• WWW.IATAONLINE.COM/STORE/PRODUCTS
OTHER

• A QUANTITY OF 30ML OR LESS OF DANGEROUS GOODS IN CLASS 3, 8 AND 9 MAY BE PACKED IN EACH PRIMARY RECEPTACLE FOR AIR PROVIDED THEY MEET THE REQUIREMENTS (SECTION 2.6)
  • CLASS 3: FLAMMABLE LIQUIDS
  • CLASS 8: CORROSIVES
  • CLASS 9: MISCELLANEOUS
  • SEE ME IF YOU NEED TO SEE SECTION 2.6 REQUIREMENTS- TRAINING IS REQUIRED

• SEE ME IF YOU WILL BE TRANSPORTING INFECTIOUS SUBSTANCE IN INTERSTATE TRAFFIC.
  • SOME INFECTIOUS SUBSTANCES NEED TO BE SHIPPED IN ACCORDANCE WITH REQUIREMENTS REGARDING ETIOLOGIC AGENTS.
OTHER

• PACKAGING MUST BE DISINFECTED OR STERILIZED BEFORE REUSING OR RETURNING PACKAGING THAT CONTAINED INFECTIOUS SUBSTANCE.

• MARKINGS MUST BE REMOVED/ COVERED.
• DOT MATERIAL OF TRADE EXCEPTIONS 49 CFR 173.6-
GOOGLE IT!

• DOES NOT INCLUDE CATEGORY A

• WHEN TRANSPORTED BY MOTOR VEHICLE IN CONFORMANCE WITH THIS
SECTION, A MATERIAL OF TRADE (SEE 49 CFR 171.8) IS NOT SUBJECT TO ANY
OTHER REQUIREMENTS OF THIS SUBCHAPTER BESIDES THOSE SET FORTH OR
REFERENCED IN THIS SECTION.

• INFO ON DIVISION 6.2 MATERIAL, OTHER THAN A RISK GROUP 4 MATERIAL, THAT
IS A DIAGNOSTIC SPECIMEN, BIOLOGICAL PRODUCT, OR REGULATED MEDICAL
WASTE.
FINAL THOUGHT... FOR SHIPPING

PACKAGE INFECTIOUS SUBSTANCES AS IF YOU OR YOUR FAMILY WOULD BE SEATED NEXT TO THEM DURING TRANSPORT.
RECEIVING

- LOOK TO SEE IF THERE ARE ANY LEAKS
  - LEAKS
    - PLACE IN GARBAGE BAG OR AUTOCLAVE BAG AND SEAL IF THERE IS NO BSC AVAILABLE
    - CONTACT BIOSAFETY IMMEDIATELY
    - BIOSAFETY CONTACTS CDC AND FILLS OUT FORM 3

- REMOVE PAPERWORK AND TRIPLE PACKAGE FROM CARDBOARD BOX

- PLACE IN BSC AND MAKE SURE WHAT WAS SENT IS WHAT IS ON THE ITEMIZED LIST.

- ADD TO YOUR INVENTORY AND CONTACT SHIPPER

- *FOR SELECT AGENT- FORM 2 FILLED OUT AND SENT TO CDC AND SHIPPER
# REFERENCES

www.Eduwhere.com  
http://www.eduwhere.com/dotsecurity/flash/player.html  
http://phmsa.dot.gov/hazmat/security

<table>
<thead>
<tr>
<th>DOT</th>
<th>IATA</th>
</tr>
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<tbody>
<tr>
<td>1. Identify/classify the material (173.22(a)(1))</td>
<td>Section 3</td>
</tr>
<tr>
<td>2. Select a proper shipping name (172.101-Table)</td>
<td>Section 4</td>
</tr>
<tr>
<td>3. Choose an authorized package (173.22(a)(2))</td>
<td>Section 5</td>
</tr>
<tr>
<td>4. Apply the required markings (172.300)</td>
<td>Section 7.1</td>
</tr>
<tr>
<td>5. Apply the required labels (172.400)</td>
<td>Section 7.2</td>
</tr>
<tr>
<td>6. Prepare a shipping paper/manifest (172.200)</td>
<td>Section 8</td>
</tr>
<tr>
<td>7. Emergency response information (172.600)</td>
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