

**Environmental Assessment and
Finding of No Significant Impact
for Special Permit Applications from Veolia ES Technical
Solutions, L.L.C., and others,
for Requested Relief of Certain Packaging Requirements for
the Transport of Certain Ebola Contaminated Medical
Waste for Destruction**

**U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration**

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The National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321 *et seq.* (NEPA), requires a Federal agency to consider the environmental impacts of proposed actions in the decision-making process. For those actions where the agency does not anticipate significant environmental impacts, the Council on Environmental Quality (CEQ) regulations implementing NEPA requires a Federal agency to develop an environmental assessment (EA) that includes (1) the need for the proposed action, (2) alternatives to the proposed action as required by 42 U.S.C. § 4332(2)(E), (3) the environmental impacts of the proposed action and alternatives, and (4) a list of the agencies and persons consulted (40 CFR § 1508.9(b)).

CEQ has issued guidance on implementing NEPA in situations involving immediate threats to human health or safety. See Memorandum for Heads of Federal Departments and Agencies on Emergencies and the National Environmental Policy Act, May 12, 2010.¹ In these situations, the guidance states, “[w]hen agencies are considering proposals with less than significant impacts or are uncertain about the significance of impacts, the agency can prepare a concise, focused Environmental Assessment.” As discussed in further detail below, the Ebola virus disease presents an immediate threat to human health and safety. The Federal Government and its partners are taking swift action to identify, contain, and eliminate potentially infectious waste and other Ebola-related hazardous materials in order to stop the spread of this disease. Time is of the essence in dealing with this threat, and the Pipeline and Hazardous Materials Safety Administration (PHMSA) believes that the proposed actions described below will have minimal environmental impacts. Therefore, pursuant to CEQ’s guidance, PHMSA has prepared this concise and focused EA.

PHMSA is responsible for regulating and ensuring the safe and secure movement of hazardous materials (hazmat) by all modes of transportation. To minimize threats to life, property, or the environment due to hazmat related incidents, PHMSA’s Office of Hazardous Materials Safety develops regulations and standards for the classifying, handling, and packaging of shipments of hazmat within the United States. When a shipper of a hazmat is unable to comply with the Hazardous Materials Regulations, 49 CFR parts 171-180 (HMR), it may request a special permit from PHMSA. Typically, PHMSA only issues a special permit when the special permit achieves a level of safety at least equal to that required by the regulation. However, PHMSA may also issue a special permit when doing so is consistent with the public interest (49 U.S.C. § 5117; 49 CFR §107.105(d)). In this case, PHMSA determined that issuing the special permits is in the public interest.

I. Need for Proposal

The 2014 Ebola outbreak is the largest in history and the first Ebola epidemic the world has ever known—affecting multiple countries in West Africa. On September 30, 2014, the United States Centers for Disease Control and Prevention (CDC) confirmed the first travel-associated case of

¹ Available at https://ceq.doe.gov/ceq_regulations/Emergencies_and_NEPA_Memorandum_12May2010.pdf.

Ebola diagnosed in the United States. Since that time, two healthcare workers have also been diagnosed with the disease after treating the infected patient. Also, several American health care workers have been transported to the United States for treatment. This special permit would apply to waste from their treatment as well.

PHMSA regulates materials known or reasonably expected to contain a pathogen, such as the Ebola virus, in a form capable of causing permanent disability or life threatening or fatal disease, as “Category A infectious substances.” Because of the hazards posed by Category A infectious substances, these materials have more stringent packaging requirements than other hazardous materials, including regulated medical waste.² The transport of medical equipment, sharps, certain linens, and used health care products (such as soiled absorbent pads or dressings, kidney-shaped emesis pans, portable toilets, used Personal Protection Equipment (gowns, masks, gloves, goggles, face shields, respirators, booties, etc.) or byproducts of cleaning) contaminated or suspected of being contaminated with a Category A infectious substance must comply with the packaging requirements for infectious substances in 49 CFR § 173.196. PHMSA regulates the design, manufacture, and certification of packagings used to contain and transport hazardous materials safely. The HMR classifies hazardous materials according to the nature and severity of the hazard they present. Higher risk hazardous materials must be transported in packagings that satisfy a higher design standard and are tested to prove they can withstand the stresses of transportation. Packagings made to hold infectious substances are tested to a higher standard than others—they are designed to withstand a drop from a height of 30 feet, exposure to heavy rain, freezing temperatures, and a three foot drop onto an eight-inch rod.³

On October 8, 2014, PHMSA received a request for emergency processing of a special permit application⁴ from Veolia ES Technical Solutions, L.L.C. (Veolia) to allow transportation of Category A infectious substance waste to incineration facilities, in order to prevent significant health risk to the general public through transmission of the deadly Ebola virus. Several other companies subsequently filed applications for party status to the proposed special permit, including Triumvirate Environmental, Inc., Smith Systems Transportation, Inc., Advanced Environmental Options, Inc., Clean Harbors Environmental Services, Inc., Daniels Sharpsmart,

² See Department of Transportation Guidance for Transporting Ebola Contaminated Items, a Category A Infectious Substance, available online at: <http://phmsa.dot.gov/portal/site/PHMSA/menuitem.6f23687cf7b00b0f22e4c6962d9c8789/?vgnextoid=4d1800e36b978410VgnVCM100000d2c97898RCRD&vgnnextchannel=d248724dd7d6c010VgnVCM10000080e8a8c0RCRD&vgnnext>.

³ See 49 CFR § 178.609 regarding test requirements for packagings for infectious substances.

⁴ PHMSA’s emergency waiver authority can be found in 49 U.S.C. 5117(e), and the regulatory requirements related to emergency processing of special permits can be found at 49 CFR § 107.117. Emergency processing is available when it is necessary either (1) to prevent significant injury to persons or property that could not be prevented if the application were processed on a routine basis, or (2) for immediate national security purposes or to prevent significant economic loss that could not be prevented if the application were processed on a routine basis.

Inc., Medsharps, LLC, Approved Storage & Waste Hauling, Inc., Stericycle, Terrabella Environmental Services, Inc., and Advantra Group. Stericycle had previously applied for site-specific special permits on October 1 and 7, 2014, to allow transportation of Category A infectious substance waste away from healthcare and residential facilities to incineration facilities, in order to “prevent significant health risk to the general public” through transmission of the Ebola virus. PHMSA considered those special permits in a separate environmental analysis.⁵

Veolia requested authorization to use alternative packaging to transport Ebola-related hazardous materials. The alternative packagings were similar to those normally used to transport regulated medical waste, but included additional inner packaging, the use of a disinfectant on the inner and/or outer packagings, and sealed outer packagings. In addition, these packagings were tested and certified to withstand drops, stacking, and vibration.⁶ However, the alternative proposed packagings have not undergone the testing prescribed by § 178.609 and do not conform to the packaging criteria for Category A infectious substances prescribed in § 173.196.

According to Veolia’s application, state and local authorities have directed that Ebola contaminated medical waste and related contaminated articles be transported for destruction at a hazardous waste incineration facility. In addition to “traditional” patient care medical wastes, examples of contaminated articles/debris that may require transportation and disposal include:

- Articles of clothing
- Furniture
- Floor coverings
- Consumer electronics
- Dishware and cooking utensils
- Toiletry articles
- Wall coverings, curtains, hanging blinds etc.
- Decorative articles
- Pantry items, foodstuffs, and pet-foods

⁵ PHMSA’s Environmental Analysis and Finding of No Significant Impact for Special Permits 16266 and 16278 are available online:

http://phmsa.dot.gov/pv_obj_cache/pv_obj_id_7AC56A3F7BAE97A97BDE9604C25012AF6E12AD00/filename/E_A_for_Ebola_Special_Permits_16266_and_16278.pdf

⁶ See 49 CFR §§ 178.603, 178.606, and 178.608 for the testing standards.

- “Home-Health Care” wastes including toweling, bedding, diapers, wipes, sponges, medical devices such as blood pressure cuffs, etc.

The packaging currently authorized in the hazardous materials regulations for Category A medical waste is not practical given these larger sizes and volumes requiring disposal. Category A infectious substances are normally transported in small quantities, and so the packagings that have been tested and certified to hold them are too small to deal with the types of waste outlined above. The alternative packagings proposed in the special permit application would allow transportation of these larger items for destruction by incineration. In addition, the time it would take to design, test, and manufacture packagings that would comply with the Category A infectious substance standards would be substantial, and could create unreasonable risks by delaying destruction of the Ebola-related hazardous materials. Therefore, Veolia and other hazardous waste disposal companies requested a special permit to provide an alternate packaging to allow for the safe transportation and disposal of Category A, Ebola contaminated medical waste as well as common non-patient care related articles that may have been exposed to patients, or body fluids, and may be contaminated with active Ebola Virus.

PHMSA issued Special Permit 16279 (DOT-SP 16279) to expedite the destruction of Ebola-related hazardous materials by allowing immediate transportation to destruction facilities where the waste would be incinerated. Given the immediate threat to human health and safety posed by the Ebola outbreak, and risks of infection related to storing and handling Ebola-related hazardous materials, PHMSA issued DOT-SP 16279 prior to completing and publishing this environmental assessment and finding of no significant impact.

II. Alternatives as required by NEPA section 102(2)(E)

PHMSA issued a special permit for transporting Ebola-related hazardous materials in these alternative packagings, subject to additional safety measures and operational controls. The other alternative that PHMSA considered was the No Action Alternative (Alternative 1).

Alternative 1: No action. Do not issue special permits.

If PHMSA had declined to issue special permits, then offering⁷ and transporting the Category A infectious substances in commerce in the manner proposed would have been illegal. If a company chooses to offer and/or transport the hazmat in violation of the HMR, both the offeror and the transporter would be subject to civil penalties and possibly to criminal prosecution. Further, as a result of past rulemaking actions⁸ by the Environmental Protection Agency (EPA),

⁷ “Offering” in this context means (i) performing any pre-transportation function required by PHMSA’s regulations for transportation of the hazardous material in commerce, or (ii) tendering or making the hazardous material available to a carrier for transportation in commerce. See 49 CFR § 171.8.

⁸ 62 FR 48347, September 15, 1997.

very few medical waste facilities had their own incinerators. Most were closed because they could not meet emission standards the EPA determined were necessary to maintain public health. The EPA determined the pollution from pathological and biological medical waste in addition to chemicals that were released during the incineration of plastics and other medical waste materials from medical waste incinerators did not meet the standards of the Clean Air Act and therefore, needed to be permitted and have air pollution controls.⁹ PHMSA also learned during discussions with several hospital employees responsible for managing infectious wastes, and State officials responsible for overseeing the management of medical waste in their States, that many health care facilities voluntarily closed their autoclave¹⁰ facilities several years ago, preferring to send all these materials off site through the use of contracted carriers. These employees also reported patients treated with the Ebola virus typically generated approximately 40 bags of medical waste a day. For those facilities with no way of destroying the Ebola-virus contaminated waste on site, the absence of HMR approved prescribed packagings of adequate size and availability resulted in hospital employees reporting that Category A wastes were accumulating at their facilities in large amounts.

However, this was not PHMSA's preferred alternative because PHMSA believed that expediting the destruction of the Ebola-related hazardous materials was in the public interest. PHMSA also believes it is important to require compliance with the terms of special permits because the safety measures and operational controls prescribed therein are intended to increase safety by limiting the number of people who come into contact with the hazmat, ensuring that those who do come into contact have appropriate personal protective equipment (PPE), adding inner packaging to better contain the hazmat, requiring proper closure, and using additional hazard markings to clearly communicate the risks associated with the packages.

Alternative 2: Issue a special permit.

PHMSA granted Veolia a special permit to allow transportation of Ebola-related hazardous materials in outer packaging tested to withstand drops, stacking, and vibration, and certified for the transportation of regulated medical waste, subject to additional packaging and operational controls, and the safety measures described below. PHMSA required the following safety measures, operational controls, and attendance requirements:

GENERAL SAFETY MEASURES

- Inner packagings must be placed into the outer packagings in such a manner as to minimize the risk of damage to the packagings.

⁹ §§ 111 and 129 of the Clean Air Act (CAA), as amended in 1990, Title 42, Chapter 85, of the United States Code.

¹⁰ An autoclave is a pressure chamber used to sterilize equipment and supplies by subjecting them to high pressure saturated steam at 121 °C (249°F) for around 15–20 minutes depending on the size of the load and the contents.

- A current copy of the special permit must be maintained at each facility where the package is offered for transportation.
- A current copy of the special permit must be carried aboard each motor vehicle used to transport packages covered by the special permit. The carrier must use hazardous materials routes where designated and practicable.
- Each "hazmat employee," as defined in 49 CFR § 171.8, who performs a function subject to the special permit, must receive training on the requirements and conditions of the special permit in addition to the training required by 49 CFR §§ 172.700 through 172.704.

PACKAGING SAFETY MEASURES

Pursuant to the special permit, packaging for waste contaminated with or suspected of being contaminated with a Category A infectious substance must be packaged according to the method described below unless the permit holder documents and notifies PHMSA that using this packaging method is not possible due to the waste articles being of a larger size than is capable of being placed into a 55 gallon packaging.

Default Packaging Safety Measures (Section 7(b)(1) of DOT-SP 16279)

(A) Outer Packaging

(I) A rigid UN Standard or DOT Approved non-bulk packaging with a maximum capacity of 55 gallons. The packaging must be tested and certified at a minimum to the PG II level for solids or liquids. The packaging must be certified to a maximum gross mass greater than or equal to the mass of the packaged waste.

(II) If the outer packaging is fabricated from corrugated fiberboard, it must be a minimum of triple wall corrugated fiberboard and contain a polyethylene liner with a minimum thickness of 6 mils (0.006 inch). The liner must be sealed and securely closed in accordance with the manufacturer's instructions to prevent the release of any material from the bag if inverted. Fiberboard outer packaging may not be reused.

(B) Inner Plastic Film Bags—a minimum of two bags are required.

(I) All inner bags must be marked and certified by its manufacturer as having passed:

- (1) The tests prescribed for tear resistance in ASTM D 1922,¹¹
"Standard Test Method for Propagation Tear Resistance of Plastic Film

¹¹ More information regarding ASTM D 1922 is available online at: <http://www.astm.org/Standards/D1922.htm>

and Thin Sheeting by Pendulum Method”. The film bag must meet a tearing resistance of 480 grams in both the parallel and perpendicular planes with respect to the length of the bag; and

(2) The tests prescribed for impact resistance in ASTM D 1709, “Standard Test Methods for Impact Resistance of Plastic Film by the Free-Falling Dart Method”. The film bag must meet an impact resistance of 165 grams.

(II) Each plastic film bag must be sealed and securely closed in accordance with the manufacturer’s instructions or if instructions are not provided by balloon tying, or with tape, or with zip ties to prevent the release of any material from the bag if inverted. The closure method must not tear, puncture or otherwise damage the bags.

(C) Sharps waste must be packaged in an FDA-cleared sharps disposal container that is securely closed in accordance with the manufacturer’s instructions to prevent leaks and punctures and placed inside the inner bags.

(D) Optional Outer Salvage Drum—A UN1H2 salvage drum with a maximum capacity of 95 gallons tested and certified at a minimum to the PG II performance level may be used as an additional outer packaging. If used, the drum must be tested and certified to a maximum gross mass greater than or equal to the mass of the filled inner package(s).

(E) Prior to closing the primary bag, add an EPA-registered hospital disinfectant with a label claim for a non-enveloped virus that is recommended by the CDC for use as a disinfectant for the Ebola virus.

(F) After the primary bag is sealed, the exterior surface of the bag must be disinfected with an EPA-registered hospital disinfectant with a label claim for a non-enveloped virus that is recommended by the CDC for use as a disinfectant for the Ebola virus.

(G) The primary bag must be placed into a secondary bag and the secondary bag must be sealed. After the second bag is sealed, the exterior surface of the bag must be disinfected with an EPA-registered hospital disinfectant with a label claim for a non-enveloped virus that is recommended by the CDC for use as a disinfectant for the Ebola virus.

(H) A quantity of absorbent material sufficient to absorb all free liquid (if any) in case of an inner packaging breach must be placed in the bottom of the outer packaging or within the liner of the fiberboard packaging, whichever is applicable.

(I) The sealed plastic bags must then be placed into the outer packaging or outer packaging and liner, if required.

(J) The sealed outer packaging must be treated with an EPA-registered hospital disinfectant with a label claim for a non-enveloped virus that is recommended by the CDC for use as a disinfectant for the Ebola virus.

(K) **Optional Packaging.** If the optional outer drum is used the following requirements must be met.

(I) The outer packaging(s) must be placed into the UN1H2 salvage drum with a maximum capacity of 95 gallons tested and certified at a minimum to the PG II performance level. After it is filled, the drum must be sealed and securely closed in accordance with the manufacturer's instructions. After closing, the drum must have tape applied to secure the lid and to prevent tampering.

(II) The outer UN1H2 drum must remain closed except when being filled with inner packagings containing the material authorized by the special permit.

(III) The outer 95 gallon drum must not enter into the Ebola contaminated area. If it enters the area or is suspected of being contaminated by other means, the exterior of the 95 gallon drum must be disinfected with an EPA-registered hospital disinfectant with a label claim for a non-enveloped virus that is recommended by the CDC for use as a disinfectant for the Ebola virus.

Packaging for Larger Articles (Section 7(b)(2) of DOT-SP 16279):

The special permit requires the following packaging system for all Category A Ebola contaminated waste that is not capable of being packaged in accordance with the requirements described above due to the waste articles being of a larger size than is capable of being placed into a 55 gallon packaging. Category A Ebola contaminated waste must be packaged according to this packaging scenario only if it can be documented that packaging per the requirements described above is not possible. The special permit holder must notify PHMSA if this packaging method is to be used.

(A) Disinfect the entire surface of the article with an EPA-registered hospital disinfectant with a label claim for a non-enveloped virus that is recommended by the CDC for use as a disinfectant for the Ebola virus.

(B) Double bag the article in inner bags meeting the requirements above for inner bags and fill and seal the bags as described above, or enclose the item in two layers of plastic sheet meeting the following requirements.

(I) All sheets must be marked and certified by its manufacturer as having passed:

(1) The tests prescribed for tear resistance in ASTM D 1922, “Standard Test Method for Propagation Tear Resistance of Plastic Film and Thin Sheeting by Pendulum Method.” The film bag must meet a tearing resistance of 480 grams in both the parallel and perpendicular planes with respect to the length of the bag; and

(2) The tests prescribed for impact resistance in ASTM D 1709, “Standard Test Methods for Impact Resistance of Plastic Film by the Free-Falling Dart Method.” The film bag must meet an impact resistance of 165 grams.

(II) The article must be sealed inside the first sheet with the openings (ends) twisted closed. All seams must be sealed with at least two wraps of duct tape. All other openings must be sealed with at least two wraps of duct tape or two zip-ties to insure closure of the wrap. The outer surface of the wrapped article must be disinfected with an EPA-registered hospital disinfectant with a label claim for a non-enveloped virus that is recommended by the CDC for use as a disinfectant for the Ebola virus.

(III) The wrapped article must be enclosed in the second sheet with the openings (ends) twisted closed. All seams must be sealed with at least two wraps of duct tape. All other openings must be sealed with at least two wraps of duct tape or two zip-ties to insure closure of the wrap. Disinfect the outer surface of the wrapped article with an EPA-registered hospital disinfectant with a label claim for a non-enveloped virus that is recommended by the CDC for use as a disinfectant for the Ebola virus.

(C) If practicable, the bagged or wrapped article must be packaged into the 95 gallon salvage drum in accordance with the requirements described above; or

(D) If the item is too large to package in a 95 gallon salvage drum, the wrapped article must be sealed in a 6 mil polyethylene sheet and completely enclose the item. All seams must be securely sealed with tape so material cannot escape and the outer surface of the sheet must be disinfected with an EPA-registered hospital disinfectant with a label claim for a non-enveloped virus that is recommended by the CDC for use as a disinfectant for the Ebola virus. Repeat this process with a second sheet.

As noted above, 49 CFR § 173.196(a) requires all packaging used for infectious materials affecting humans to be certified to the test standards of 49 CFR § 178.609. These standards include a 30-foot drop test, a test for rain exposure, temperature variation, and a rod drop test. Packagings must pass these tests without leakage from the primary receptacle. The operational controls listed above limit the loading procedures used for these packages to manual means, which should lower or eliminate the risk of impact to the sides of the packages from fork lifts and other packages, which the 30-foot and rod drop tests are meant to replicate.

The alternative packaging authorized by the special permit are unlikely to survive the impact tests intact, but PHMSA believes that the multiple layers of bags, with their inherent flexibility, as described in the above packaging safety measures, would be able to maintain their integrity to prevent leakage. The use of absorbent material between the secondary packagings and outer packagings will further ensure that no free liquid will escape the package in the unlikely case of a rupture. The HMR requires positive means of closure for inner packagings, such as zip ties or wire ties. Rather than risk ripping or tearing the bags with these rigid, potentially sharp, components, the special permit requires the inner packagings to be closed by knotting. PHMSA believes that this means of closure is unlikely to come loose in transportation.

Finally, the inner packagings permitted under DOT-SP 16279 would be unlikely to pass the 95 kPa pressure differential test. However, because the special permit only authorizes shipment by motor carrier, the alternative packagings are not likely to be exposed to significant variations in pressure. Also, no gaseous materials are being shipped, and there will be little to no free liquid in the inner packagings. As noted above, the CDC states that the Ebola pathogen is not transmitted via airborne means, so only the loss of liquid material is a concern. Additionally, the boxes will be taped around all seams and banded/strapped closed for additional assurance that they do not open during transportation. Given these various levels of material, it is extremely unlikely that these packages will release any material to the environment.

OPERATIONAL CONTROLS (Section 7(c) of DOT-SP 16279):

- (1) Only vehicles operated by the special permit holder may be used to transport materials under the terms of the special permit.
- (2) The carrier must meet the criteria for the issuance of a Hazardous Materials Safety Permit (HMSP) pursuant to 49 CFR 385.407 (a) and (b) or be specifically reviewed and authorized for transportation by the Federal Motor Carrier Safety Administration.
- (3) Prior to each shipment of materials under the terms of the special permit, the carrier must provide PHMSA via email to specialpermits@dot.gov, the following information:
 - The proposed date and time of pick-up;
 - The location of each pick-up;
 - The location of any transloading site (if necessary);

- The location of any storage incident to transportation; and
 - The final destination of the shipment.
- (4) Before loading the package into a transport vehicle, the special permit holder must ensure that the package is closed and sealed to prevent the release of any material during transportation.
- (5) Loading and unloading the vehicle must be performed using manual means to the maximum extent practicable. Fork trucks or other mechanical means may not be used for loading or unloading the vehicle unless no other option exists. When fork trucks or other mechanical means are used, extreme care must be taken to prevent puncture and/or rupture of the package. PHMSA must be notified prior to use of mechanical means to load or unload the vehicle.
- (6) While in transportation, the doors to the cargo area of the motor vehicle being used to transport the material must be closed and locked except when the vehicle is being loaded or unloaded.
- (7) Prior to transportation, the carrier must perform an external visual inspection of the transport vehicle to determine that it is closed and free of leakage.
- (8) The carrier may only transport the vehicle loaded with the material to a destination, for overpacking, treatment or disposal of such materials, without unnecessary delay from the time the carrier's motor vehicle leaves the site of origin. The special permit authorizes storage incident to transportation provided that all of the provisions of the special permit are met, and the sealed packages are not opened or repackaged.
- (9) The carrier must have a written spill response plan that includes provisions for the decontamination of spilled materials and for personal protective equipment to be carried on the vehicle and used to protect its employees from contact with infectious materials in any form.
- (10) The carrier must respond to any release or suspected release from a package that occurs during transportation. The response must include complete removal of any spilled material and decontamination of the release site, vehicle surfaces and external surfaces of the package involved.
- (11) Each motor vehicle used under the terms of this permit must be decontaminated after each shipment in accordance with applicable Federal, state and local laws.
- (12) Each commercial motor vehicle and driver involved in this operation must be made available for a CVSA Level I hazardous materials inspection prior to transport. Should any violations of the CVSA North American Standard Out-of-Service Criteria (2014 edition) be discovered during the inspection, the violation(s) must be corrected prior to transporting hazardous materials.

(13) All contractors preparing Ebola Wastes for transportation shall comply with the OSHA Bloodborne Pathogen Standard (29 CFR § 1910.1030), and follow the most current precautions prescribed by the CDC, excluding the recommendation that Category A waste be transported as Category B regulated medical waste and the use of universal precautions. The interim guidance and procedures for the management of patient care articles and medical wastes prescribed by the most updated procedures available on the CDC Ebola Virus Disease Webpage : (<http://www.cdc.gov/vhf/ebola/index.html>) must be implemented for all waste packaging and handling activities to the extent that they comply with the provisions of the special permit.

(14) Transportation may only be made to the nearest appropriate disposal facility available at the time the material is offered for transportation. Provided all of the provisions of the special permit are met, the special permit authorizes multiple shipper locations for one vehicle. Offloading of the vehicle is only authorized at the final destination or at a secure facility when transloading is necessary for operational considerations.

ATTENDANCE REQUIREMENTS (Section 8(b) of DOT-SP 16279)

(1) A transport vehicle operating under the terms of the special permit must be attended at all times by its driver or a qualified representative of the motor carrier that operates it unless:

- (A) The vehicle is located on the property of the motor carrier, on the property of the shipper or consignee;
- (B) The person in possession of the hazardous materials is aware of the nature of the hazardous materials the vehicle contains and has been instructed in the procedures that must be followed in emergencies; and
- (C) The vehicle is within the person's unobstructed field of view.

(2) For purposes of the special permit:

(A) A transport vehicle is attended when the person in charge of the vehicle is on the vehicle, awake, and not in a sleeper berth, or is within 100 feet of the vehicle and has it within his/her unobstructed field of view.

(B) A qualified representative of a motor carrier is a person who

- (I) Has been designated by the carrier to attend the vehicle;
- (II) Is aware of the nature of the hazardous materials contained in the vehicle he/she attends;
- (III) Has been instructed in the procedures he/she must follow in emergencies; and

(IV) Is authorized to move the vehicle and has the means and ability to do so.

III. Environmental Impacts of the Proposed Action and Alternatives

PHMSA anticipates that any environmental impacts related to an accidental release of the Category A infectious substances would impact human health and safety. PHMSA does not anticipate any potential environmental effects to water resources, plant or animal species, or other resource categories.¹² According to the CDC, Ebola is not spread through the air or by water. Instead, Ebola is spread through direct contact (through broken skin or mucous membranes in, for example, the eyes, nose, or mouth) with blood or body fluids of an infected and symptomatic person, or objects (like needles and syringes) that have been contaminated with the virus.¹³

PHMSA estimates that the most likely risk posed by this transportation is the potential exposure of a person handling a package that has ruptured during loading or unloading of the materials, or following a traffic incident during transportation. In the event of such a rupture, it is unlikely that the Category A infectious substances would spread far from the ruptured package, as the disease is not spread through the air.

Some of these materials will be incinerated, and so there will be a certain amount of greenhouse gas and other emissions related to the selection of the preferred alternative. PHMSA does not have an estimate related to these emissions. It is likely that the materials would have been incinerated even if the special permit was not issued.

The materials will be transported on public highways by motor vehicles. The materials must be taken to the “nearest appropriate disposal facility available at the time the material is offered.” PHMSA does not have routing information related to this transportation, and so cannot determine whether this transportation will impact minority or low income populations.

PHMSA is incorporating by reference Veolia’s special permit application, which outlined proposed operational controls and safety measures to ensure that the Ebola-related hazardous materials would be transported safely.¹⁴

Alternative 1: No action.

12 While animals such as dogs can carry Ebola, they do not become sickened with the virus. It is not known whether they can transmit the disease to humans. In any event, the likelihood that an animal could become exposed to the virus during an incident related to the proposed special permits is even more remote than a human being exposed. See <http://www.cnn.com/2014/10/14/health/ebola-pets/>.

13 CDC, Ebola (Ebola Virus Disease): Transmission (last accessed Oct. 2, 2014) available at: <http://www.cdc.gov/vhf/ebola/transmission/index.html>.

14 The special permit application and appendices are available at <http://phmsa.dot.gov/hazmat/transporting-infectious-substances>.

If PHMSA had denied Veolia's special permit application, the likely result would have been that the Ebola-related hazardous materials would remain at the facilities where they were generated because, as noted above, packaging for Category A substances are not practical for the variety of materials potentially contaminated and requiring transport for destruction. Depending on the storage and security arrangements in place at these facilities, the prolonged storage of the vast amount of Ebola-related hazardous materials could increase the likelihood of human exposure, infection, and spread of the virus through human error or through the efforts of bad actors.

The other possibility is that the materials would have been transported in a manner similar to other hospital waste not suspected of being tainted with the Ebola virus. However, if this were to be done it would be in violation of the 49 CFR § 173.196 for the transportation of Category A infectious substances.

Alternative 2: Issue special permits.

Allowing transportation of Ebola-related hazardous materials for destruction, pursuant to special permits, will help mitigate risks associated with long-term storage of the materials, and will impose requirements to ensure the use of personal protective equipment and proper handling of the material.

The CDC recognizes the risks to healthcare workers and to family members caring for loved ones in close quarters, and advocates the use of personal protective equipment and disposal of infected materials to avoid virus transmission:¹⁵

Healthcare providers caring for Ebola patients and the family and friends in close contact with Ebola patients are at the highest risk of getting sick because they may come in contact with infected blood or body fluids of sick patients.

During outbreaks of Ebola, the disease can spread quickly within healthcare settings (such as a clinic or hospital). Exposure to Ebola can occur in healthcare settings where hospital staff are not wearing appropriate protective equipment, including masks, gowns, and gloves and eye protection.

Dedicated medical equipment (preferable disposable, when possible) should be used by healthcare personnel providing patient care. Proper cleaning and disposal of instruments, such as needles and syringes, is also important. If instruments are not disposable,

¹⁵ CDC, Ebola (Ebola Virus Disease): Transmission (last accessed Oct. 2, 2014) available at: <http://www.cdc.gov/vhf/ebola/transmission/index.html>

they must be sterilized before being used again. Without adequate sterilization of the instruments, virus transmission can continue and amplify an outbreak.

As noted above, the most likely danger posed by this material is potential human exposure incident to a package rupture during loading or unloading, or a traffic incident involving a vehicle carrying the material. Based on the safety measures and operational controls incorporated in the special permits, PHMSA believes that any leaks associated with ruptures during loading, unloading, or a traffic incident would be limited to the immediate vicinity of the rupture, if not mitigated entirely by the absorbent material and several layers of packaging contemplated by the special permits. Since there is only a small amount of free liquid (if any) in the inner package and the inner packagings (two bags) are placed into an outer packaging containing an amount of absorbent that is capable of containing all of the free liquid (if any), PHMSA believes that it is highly unlikely that any event that could be deemed “normally incident to transportation” could cause a release that would cause the HAZMAT to be anywhere other than in the immediate vicinity of the packaging. Veolia will be required to prepare written response plans and to respond to any suspected release of the material

IV. Agencies and Persons Consulted

PHMSA has been in discussion with various Federal agencies throughout the course of the planning of this action, including:

Department of Health and Human Services, Centers for Disease Control and Prevention

Department of Transportation, Federal Motor Carrier Safety Administration

In order to notify and inform the affected public, PHMSA has published the special permits related to Ebola on its website. PHMSA intends to publish this environmental assessment, finding of no significant impact, and related materials, online at <http://phmsa.dot.gov/hazmat/transporting-infectious-substances>.

VI. Conclusion

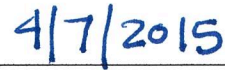
PHMSA does not believe that there are significant environmental impacts associated with the granting of the special permits to Veolia because the likelihood of release is minimal and the safety measures and operational controls will minimize the impacts of any release, and require immediate response and clean-up by the special permit holder.

Finding of No Significant Impact

PHMSA has considered the analysis of the alternatives and their potential environmental impacts as described in the attached EA, the special permit application submitted by Veolia ES Technical Solutions, L.L.C., and the information provided by the agencies consulted, and selects Alternative 2, "issue special permits." Based on the information contained in these documents, PHMSA has determined that issuance of special permits granting relief from certain provisions of the HMR will not have a significant impact on the human environment, because the risk of a release is extremely low and the special permits will require certain operational controls to further reduce the likelihood of a release as well as provide safeguards in the unlikely event of a release. Therefore, PHMSA has determined that the preparation of an environmental impact statement is not required pursuant to 40 CFR § 1508.13. Further, PHMSA has determined that the public interest will be best served by the implementation of the proposed action.



Dr. Magdy El-Sibaie
Associate Administrator for Hazardous Materials Safety
Pipeline and Hazardous Materials Safety Administration



Date