National Veterinary Stockpile Planning Guide for Federal, State, Tribe, and Territory Officials

April 2013

Executive Summary

An outbreak of foot-and-mouth or other damaging animal disease could devastate American animal agriculture, harm the economy, and, for zoonotic diseases, threaten the public's health. Having enough veterinary resources and the ability to distribute them quickly are crucial to mount an effective response.

States and industry hold inventories of response items, but a catastrophic outbreak may quickly deplete them. Manufacturers and distributors maintain inventory, but only enough to satisfy routine demand. Unaffected States might help, provided they retain a means of responding if the threat entered their borders.

The National Veterinary Stockpile (NVS) provides States, Tribes, and Territories the resources they need to respond to a damaging animal disease outbreak. The NVS program within the U.S. Department of Agriculture Animal and Plant Health Inspection Service Veterinary Services (USDA APHIS VS) maintains large quantities of veterinary countermeasures (including supplies, equipment, and animal vaccines) ready to deploy within 24 hours. The program also maintains partnerships with all-hazards response companies that can arrive quickly and furnish large numbers of trained personnel with equipment to help when a State does not have enough of its own personnel to depopulate, dispose, and decontaminate.

To ensure responders get help quickly, the NVS program works with States before an outbreak to help them plan a logistics response to request, receive, process, and distribute the resources needed for a large outbreak. Those resources may come from the NVS, other Federal and State agencies, industry, other States, or the private sector. States must have a plan to manage these resources to ensure responders get what they need.

This guide provides officials the information and direction they need to plan, train, and exercise for acquiring, processing, and using large quantities of resources to support the logistical response to damaging animal disease outbreaks. The latest version of the guide is posted on the restricted NVS website for NVS planners at http://nvs.aphis.usda.gov.

If you have questions about or suggestions for the guide, e-mail them to nvs@aphis.usda.gov. To request NVS countermeasures in the event of an emergency, call the National Center for Animal Health Emergency Management 24/7 hotline at 1-800-940-6524.

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Section 1
Introduction

The National Veterinary Stockpile (NVS) within the U.S. Department of Agriculture (USDA) Animal and Plant Health Inspection Service Veterinary Services (APHIS VS) is the nation's repository of veterinary countermeasures (supplies, equipment, animal vaccines, human antiviral medications, and response support services) for responding to damaging animal disease outbreaks. When States, Tribes, Territories, and industry have depleted their inventories; when manufacturers and distributors are unable to support surge requirements; and when neighboring States help, but only to the extent they can respond if the threat crosses their borders; the NVS offers States the supplemental resources needed to continue a response.

Purpose

This guide informs government officials and others about the logistics functions necessary to quickly to request NVS support, receive and store NVS countermeasures, and distribute resources to responders; and recommends how States should plan, train, and exercise to build preparedness capabilities.

States need a logistics plan that identifies governing authorities, rules, and guidelines; defines agency roles and responsibilities; and describes the processes and procedures for conducting logistics operations in support of field responders. They need to train individuals and teams to perform the logistics support functions and then exercise to test the effectiveness of their plan and the readiness of their personnel.

Audience

This guide informs those who must plan and manage the flow of resources to responders in a complex logistics environment. Logistically planning, training, and exercising for catastrophic events, including an agroterror attack, is critical to avoid severe resource constraints that impair the nation's response.

This guide is for stakeholders—including Federal, State, and other organizations—that must be ready to support a logistics response during a damaging animal disease outbreak:

1. *State personnel*, such as State animal health officials (SAHOs), commissioners, secretaries, and directors of departments of agriculture, directors of departments of emergency management, the National Guard, and perhaps governors
2. *Federal personnel*, such as APHIS VS area veterinarians in charge (AVICs), area emergency coordinators, APHIS VS personnel in the Eastern and Western Regional Offices, personnel in APHIS VS emergency operations centers (EOCs), and staff members in the APHIS VS National Center for Animal Health Emergency Management (NCAHEM), other APHIS programs, and USDA as a whole

3. *Other supporting organizations*, such as industry and academia; and
4. *Response personnel*, such as members of Incident Command and general staff, logistics warehouse and inventory managers, incident management teams, EOC staff members, and members of local jurisdictional support agencies.

Organization

The guide has seven sections:

Section 1 introduces the guide's purpose, audience, organization, and use.

Section 2 discusses factors States should consider before writing the plan.

Section 3 discusses warehouse and planning considerations for receiving, storing, and distributing physical resources.

Section 4 guides animal health officials through the process of requesting an NVS deployment.

Section 5 describes the processes involved in operating a warehouse, from activation to the return of inventory.

Section 6 provides guidance on managing temperature-sensitive items, such as animal vaccines and human antiviral medications.

Section 7 recommends State training for individual responders and teams that perform the logistics functions, and State exercises for testing readiness for using the NVS and other resources.

How to Use the Guide

Use the guide with other planning tools on the NVS website, http://nvs.aphis.usda.gov, to create your State plan. Helpful planning documents include the *National Veterinary Stockpile State Plan Template*, which provides a convenient format and much of the technical content for your plan, and the *NVS Questions and Answers.*

For More Information

The NVS website, http://nvs.aphis.usda.gov, maintains the latest information on the NVS program, including our mission, purpose, goals, NVS news, presentations, and fact sheets. More information is available for NVS planners on the NVS restricted website, including reports, NVS planning tools, State NVS plans, training materials, and the *NVS Logistics Catalog*. Planners can contact nvs@aphis.usda.gov to request the password.

Terms

The guide uses the following terms for brevity or clarity:

1. "State" denotes all jurisdictions, including Tribes and Territories that may request the NVS and thus should plan for logistics readiness. Throughout this guide, the term State includes Tribes and Territories.

2. “Industry” denotes those in the business of animal agriculture.
3. “Private sector” denotes manufacturers, distributors, and other private organizations that may provide personnel, facilities, supplies, or equipment to respond to disease outbreaks.
4. “Container” denotes a tri-wall, pallet, box, or individual equipment item.

Section 2
State Planning Considerations

This section discusses the planning of logistics resources and infrastructure that Incident Command requires to give responders the resources they need. It discusses specific warehouse requirements and general planning factors the State should consider.

State NVS planning teams should collaborate with their State Strategic National Stockpile (SNS) coordinator, who may have worked on SNS planning for several years and can help plan for an NVS deployment. Planning teams should also download the *NVS State Plan Template* from the password-protected portion of the NVS website http://nvs.aphis.usda.gov and use it to create the State plan. Although this guide suggests considerations for planning, the template furnishes technical details and structure for the written plan. In most places, it offers text that can be adopted verbatim.

Developing the State Plan

Multiple agencies should engage in the process of developing the State plan. The primary agencies are those that have preparedness and response authority and responsibility for a damaging animal disease outbreak within the State's boundaries. The primary State agency is typically named in the State's Emergency Support Function 11 (ESF 11) agriculture and natural resources plan. Examples include the

1. board of animal health,
2. cooperative extension,
3. department of agriculture,
4. livestock health commission, and
5. State veterinarian's office.

The APHIS VS area office—which has responsibility for animal health emergencies under the Animal Health Protection Act—is the primary Federal agency that should be named in the plan. The APHIS VS AVIC typically serves with the State veterinarian in a unified command during a response.

If tribal lands are within the State's borders, tribal animal health officials should have a prominent role on the State NVS planning team. Tribes should be included in the State's NVS plan or have a plan of their own.

Support agencies are organizations or businesses you may need to coordinate and execute your plan:

1. State and local emergency management and homeland security agencies—to ensure your plan integrates with their plans and contracts or memorandums of agreement for all hazards

2. State departments of transportation and local public works—for delivery vehicles, drivers, dispatchers, fuel, repair, and movement of animal carcasses and other biological waste
3. State universities with veterinary and extension programs—for potential surge personnel or facilities
4. State and local public health—to support the response to zoonotic disease outbreaks and dispensing of prophylactic antivirals to responders during an outbreak of highly pathogenic avian influenza (HPAI)
5. State and local law enforcement—to expedite the movement of inbound NVS trucks through traffic from the State line or nearest airport to your warehouses, to facilitate the movement of delivery trucks to responders in the field, and (perhaps) to protect the warehouse staff, equipment, and inventory
6. The National Guard—to provide warehouses, trucks, drivers, and warehouse personnel
7. Federal and State departments of environmental protection—for biomedical waste disposal policy
8. ESF 11 coordinators in the Federal Emergency Management Agency (FEMA) system—to ensure the actions in your plan are consistent with the National Response Framework (NRF) and the National Incident Management System (NIMS)
9. Other government, private-sector, and non-governmental organizations—to provide facilities, personnel, equipment, and supplies. We recommend that you
    a. identify the agencies, organizations, and businesses whose help you need and with which you need to coordinate;
    b. meet with them to discuss the help and coordination;
    c. get them committed to provide the help and coordination; and
    d. establish memorandums of agreement with government agencies and contingency contracts with private-sector organizations to formally agree upon and document their support actions.

Many people and organizations must coordinate to respond to a damaging animal disease outbreak. The State plan needs to detail coordination, participants, and processes and include answers to the following questions:

1. Do the SAHO and AVIC understand the process for requesting NVS assistance?
2. Who in your State needs to concur with the SAHO and AVIC before a request for NVS assistance is made?
3. How do you contact the NVS in the event of an emergency? What phone number should you call to request deployment? (1-800-940-6524)
4. How does Incident Command work with the primary and support agencies listed in the State NVS plan to provide facilities, material-handling equipment (MHE), vehicles, fuel, repair, and other support for distributing resources?

5. Have you identified your pre-event contracts and memorandums of understanding to support logistics requirements?
6. Who provides warehouses? Should pre-identified warehouses or designated staging areas be used to store the resources? Are they located near major hubs or truck routes and livestock or poultry populations?
7. What role do the State and local EOCs play in resource management and how do they coordinate with Incident Command?
8. Is law enforcement necessary to protect your inventory, warehouses, staff, and equipment? What about escorting vehicles through traffic? If so, who in Incident Command provides the coordination and what are the procedures?
9. How are the private-sector and non-governmental organizations involved in logistics support?
10. Does the National Guard assist? What documentation is required to activate and pay for the Guard?
11. Who provides logistics personnel?
12. Who provides and delivers the supplies and equipment?
13. Who provides storage for temperature-sensitive items?
14. How does the communications unit support your supply unit functions?
15. Does your plan accommodate both a push and pull distribution system (for example, pushing supplies to field responders rather than having responders pick up supplies)?
16. How are resources managed if multiple outbreaks occur within the State?
17. How does the logistics plan for the NVS and other resources integrate with State and local plans (such as the foreign animal disease response plan, ESF 11 plan, and natural disaster plan) for responding to agricultural events? All hazards?

The State needs to answer these and many other questions to ensure you have considered every action, process, and participant.

Risk-Based Planning

The planning process should also include identifying resource needs on the basis of threats and vulnerabilities and developing alternative strategies to obtain needed resources. A number of methods can be used for identifying risks, but all should achieve the following:

1. Identify possible kinds of incidents and their related threats, risks, or negative consequences. (Is this a zoonotic or non-zoonotic disease?)
2. Quantify the likelihood of an occurrence of any given incidents. (How likely is it to spread?)
3. Assess the most likely magnitude of any given incident. (How far is the disease likely to spread?)

4. Assess the percentage of the population at risk from any given incident. (How many animals could be exposed?)
5. Assess the severity of impact or potential negative consequences of any given incident. (What is the impact on the economy? What is the impact on human health?)
6. On the basis of the responses, identify the resource requirements, sources, and potential gaps for a logistical response.

This analysis results in a picture of the most likely incidents, their potential consequences, and needed resources.

Identifying Available Resources in the State

Consider the current capability and inventory within the State's borders. These resources include personnel, equipment, and supplies from Federal, State, or local agencies, non-governmental organizations, or the private sector. During an incident, the State must anticipate exhausting readily available resources before approaching the NVS program for assistance.

Consider readily available resources from a variety of sources:

1. Those already owned by your agency and suitable for use in emergencies
2. Supplies your agency usually warehouses
3. Governmental support agencies
4. Volunteer non-governmental organizations, such as Volunteers Active in Disasters and other entities
5. Private-sector partners through contracts
6. Donated goods
7. Trained and experienced logistics personnel
8. Access to a consolidated inventory of all available supplies and equipment in the State.

Also, consider mutual aid and assistance through memorandums of understandings or the Emergency Management Assistance Compact. Analysis of personnel should include not only their job-related training, skills, and experience, but additional experience, hobbies, or part-time job skills that might be useful.

Ensure your procedures address the following resource management questions to quickly obtain available resources in the State:

1. What support organizations can provide facilities to serve as the State's NVS warehouse?
2. What support organizations can provide personnel to manage the State's NVS warehouse? Do any have logistics response training or experience, particularly in the supply unit?
3. What emergency declarations or legal frameworks must first be activated or invoked?
4. Do you have access to the necessary phone numbers and addresses?

5. How do you get resources in the middle of the night or on a weekend when the owner or supervisor is out of town?
6. What resources require State reimbursement? By what means is that funded? If payment is required, what is the rate? Are additional costs associated with emergency use or after-hours activation? What documentation is required?
7. Is purchasing authority delegated to the appropriate personnel in sufficient amounts to meet emergency needs?

Emergency Personnel

The number of emergency personnel required depends on the size and complexity of the outbreak. Depending on the operational period assigned by Incident Command, the staff is needed on each shift to manage

1. warehousing and supply unit personnel,
2. receiving and storage (including management of temperature-sensitive items),
3. ordering and inventory management,
4. staging and distribution (either by delivery or pick-up),
5. communications (including information technology), and
6. safety and security.

The *NVS State Plan Template* includes appendixes with job responsibilities by Incident Command position and process diagrams by warehouse function.

Maintaining resource inventories is time-consuming work. Time and attention must be devoted to ensuring all information is accurate and up to date, but few things are more frustrating than discovering you do not have an after-hours source for a critical item. Primary agencies should regularly update the inventory of both human and physical resources in the State that can be available to respond to a damaging animal disease outbreak.

Multiple Outbreaks in the State

When outbreaks occur in multiple locations throughout the State, the management of resources for supporting the response becomes considerably more complex. In such situations, State plans need to identify how to staff multiple facilities that support each outbreak site.

Section 3
Warehouse Considerations

For large-scale outbreaks, effective operation of warehouses is imperative to support responders in the field.

Location

Pre-identifying and selecting potential warehouses is a critical first step in securing available resources in the State. Identify warehouses in proximity to livestock and poultry populations in the State to minimize the time between responder requests for support and its arrival. To the extent possible, they should be near major routes, hubs, or airports. Response to a widespread outbreak may require multiple warehouses in various regions of the State.

First, consider State-owned, leased, or contracted structures, such as receiving, staging, and storing (RSS) facilities for the SNS program, emergency management warehouses, agriculture markets, or exhibit halls. Local jurisdictions may also provide suitable facilities, such as emergency operation centers or livestock exhibition facilities. Federal warehouses may also be available through FEMA or General Services Administration State and local government programs. Explore the possibility of State contracts with third-party logistics (3PL) providers. Also consider the possibility of tents, out-buildings, or other non-traditional warehouse structures that may be needed in remote areas. Warehouses or other storage facilities should have the ability to accommodate temperature-sensitive items, such as animal vaccines.

Prudent planning dictates that States pre-identify contingent warehouses in the event a primary facility in a particular region cannot be used or more than one location is needed. Each warehouse should have multiple access routes to minimize the possibility that sabotage or other actions could prevent trucks from reaching or leaving the facilities.

Size

Many factors influence how much space warehouse facilities should have. The State NVS planning team should consider the following in selecting warehouses:

1. *Size of affected animal populations*. The response to outbreaks in larger animal populations requires larger quantities of material and equipment.
2. *Affected species*. The response to outbreaks in larger food animals (such as beef or dairy cattle) requires larger equipment for depopulation, disposal, and perhaps disinfection. Local environmental conditions may be conducive to storing some equipment outside, reducing the covered warehouse space needed but requiring sufficient adjacent open space and acceptable security.
3. *Amount of resources*. The warehouse space needed to receive, store, issue, and stage resources depends on the scale and complexity of an outbreak. The response to a catastrophic outbreak in multiple locations requires massive quantities of resources over an extended period. Initial shipments from the NVS program and other sources may

still be in the warehouse when additional shipments arrive. State-identified warehouses need sufficient space—covered and open—to receive and store multiple shipments and stage multiple deliveries (see "Warehouse Floor Space").

Other factors affect the size of needed warehouses and outside storage:

1. The number of 24 Hour Push Packs varies depending on the animal disease, number of responders, and species.
2. The size of the trucks NVS uses to ship NVS countermeasures varies by the amount of material and equipment deployed. Countermeasures typically arrive in 53-foot tractor trailers. The warehouse should have a space of at least 100 feet in front of its offload doors so delivery trucks can easily maneuver.
3. The area where warehouse personnel stage responder orders by delivery location varies by the number of locations to which delivery is required. Items needing covered storage require a covered staging area; others may be staged outside.
4. The warehouse should include office space, nearby restrooms, and Internet access so managers can coordinate their efforts.
5. Upon request, the NVS program may deploy CO_2 carts or foam equipment and supplies to depopulate poultry. One CO_2 cart occupies one pallet space. The trailer-mounted Kifco AviFoam Guard should be stored under a tarp or other cover. The North Carolina foam unit is self-contained in two heavy-gauge, 4- by 4-foot wire cages and occupies two pallet spaces.
6. If an outbreak affects livestock, the NVS program may deploy large-animal-handling equipment such as squeeze chutes, head gates, panels, and mobile corrals. This equipment does not require covered storage, but occupies considerable space outside.
7. Upon request, the NVS program may deploy mobile refrigeration units for temporary vaccine storage. These trailer-mounted units come in two sizes, 8 by 12 feet or 8 by 20 feet. The equipment may be operated using 220-volt electricity or diesel fuel. It does not require covered storage, but does require ample space for the refrigeration unit and trailer.

Planning to Receive, Process, and Distribute NVS and Other Resources

The NVS 24 Hour Push Packs may arrive in much less than 24 hours depending on the distance between the NVS logistics center and State warehouse. Incident Command, therefore, needs a well-developed plan that prepares the warehouse quickly for initial receipts.

Warehouse Layout

Planning the warehouse layout before an event is a critical activity for the State NVS planning team. Ideally, warehouses should have hydraulic loading and offloading ramps or loading docks for rapid offload of incoming shipments and onload of outgoing deliveries. Otherwise, the offloading and loading of cargo is considerably slower.

The warehouse should have location identifiers, typically a system of rows identified by letters and numbers (such as A1, A2, B1, B2) used by the inventory management system (IMS) to keep track of where materials are stored. Location identifiers can be marked on the floor with tape or chalk if permanent fixtures are not available. The location identifiers should be determined during the planning phase and clearly articulated in the warehouse diagram.

The NVS 24 Hour Push Pack arrives in 40- by 48-inch tri-wall containers, 45 or 52 inches in height and designated as modules. The floor plan should allow for additional space (2 to 6 inches) between pallets so they can be easily maneuvered. Consider developing a standard storage footprint for each location, such as 4 by 4 feet, to enable easy setup and layout of the warehouse. A 4- by 4-foot storage footprint allows 4 inches of extra space on two sides of each tri-wall.

When planning the layout of the warehouse, include enough aisle space to safely accommodate pallet jacks, forklifts, and other MHE. Warehouse personnel should use pallet jacks or forklifts to offload the 24 Hour Push Pack modules or other tri-walls and place them in the warehouse. When responders order material and equipment, warehouse personnel pick the ordered items, place them on empty pallets or carts, and place the shipment in the staging area for a quality control check.

When planning for the facility, remember that a large-scale event involves many shipments from multiple sources, which may arrive faster than personnel can process and deliver them. When orders cannot be processed and distributed fast enough, try the following:

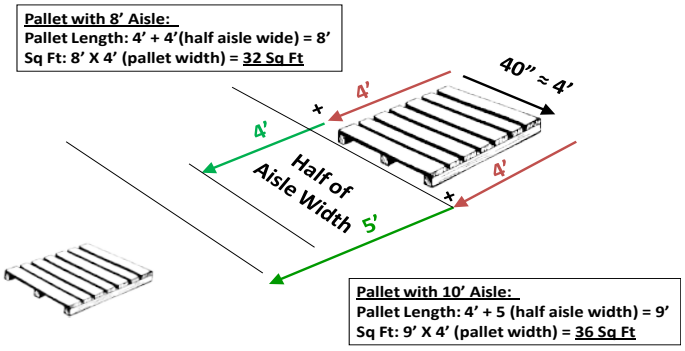
1. Leave space on the warehouse floor next to items for which more receipts are expected.
2. Coordinate a drop shipment with drivers who can deliver shipments, drop their trailers, and return later to get those that cannot be offloaded immediately.
3. Arrange with local trucking companies to deliver empty trailers (temperature-controlled, if applicable) for additional covered space.
4. Rent large tents or portable storage containers (both temperature-controlled, if necessary) to expand your capacity to store temperature-sensitive items.
5. Consider safety and security plans for items stored away from the primary warehouse.
6. Have the ground support unit arrange transportation from temporary storage locations to the warehouse.
7. Arrange for additional MHE at temporary storage sites and the means (such as a semi-tractor or smaller trucks) to move stored material and trailers to the warehouse.
8. Ensure that the ordering manager (ORDM) identifies the locations of items in the system so the warehouse staff knows where to find them. This is particularly important if items are stored in locations other than the primary warehouse.

Warehouse Floor Space

Other warehouse size requirements include the following:

1. A single 24 Hour Push Pack (single-stacked) requires a minimum of 2,000 square feet of floor space to receive, store, and stage material for distribution, in addition to other warehouse functions (MHE storage, office space, personnel support amenities, refrigeration space, secure storage, etc.).
2. Each additional 24 Hour Push Pack requires an additional 64 square feet (standard protection) or 80 square feet (high protection) of floor space (if single-stacked). A single module footprint is 40 by 48 inches; however, for planning purposes we recommend a planning factor of 16 square feet (4 by 4 feet). You also need additional spacing between modules and, if required, additional aisle space (Figure 3-1). As the number of 24 Hour Push Packs increases, you need to increase the floor space requirement for receiving, MHE, and material to support distribution activities (boxes, packing material, stretch wrap, additional pallets, etc.).

Figure 3-1. Example of Aisle Spacing



Source: Division of Strategic National Stockpile, CDC

3. Tri-walls can be stacked on top of each other to reduce the amount of required floor space. The Safety Officer determines the number of tri-walls that can be safely stacked according to warehouse conditions.
4. MHE movement requires aisles 8 to 10 feet wide in the storage area of the warehouse.
5. Allot a minimum of 200 square feet to MHE charging and fueling.
6. Receiving and staging/shipping areas should have adequate space to hold at least 10 pallets and to accommodate MHE and warehouse teams moving in the area.
7. To stage and ship orders, the warehouse needs approximately 100 square feet to store a supply of empty pallets and stretch wrap or other types of material to secure the pallet. Biosecurity measures may prevent the return of wooden pallets to the warehouse, so be prepared to order more.

8. A covered facility of 10,000 square feet should hold and process all of the material for a Type 1 or Type 2 event.

Operations that involve animal vaccine, human antiviral medications, or other temperature-sensitive items require adequate temperature-controlled storage space (see Section 6, "Managing Temperature-Sensitive Items").

Warehouse Supplies and Equipment

Warehouses identified by the State need general supplies and equipment to operate. These items should be stored before an event in the warehouses or delivered quickly when the facilities are activated. If possible, pre-event contracts should be developed. Suggested supplies and equipment include the following:

1. *Uninterruptible electrical power*. Each warehouse should have an emergency generator, a minimum of 3 days of fuel for the generator, and a maintenance contract that services the generator regularly to ensure it functions properly.
2. *MHE and trained, certified operators:*
    a. *Forklifts.* Plan to have at least two 3,000- to 5,000-pound-capacity forklifts for offloading shipments, staging responder orders, and loading delivery trucks. Forklifts that operate inside the warehouse should run on propane or electricity to minimize noxious emissions, and those that operate outside on rough terrain should be all-terrain capable. Forklifts must be operated by trained and certified operators in accordance with occupational safety and health standards.
    b. *Pallet jacks.* The warehouse should have five or six pallet jacks if forklifts are not available. Two or three pallet jacks are still useful inside the warehouse for moving pallets to staging, even if forklifts are used to offload delivery trucks.
    c. *Fuel for forklifts.* Units that use propane require a tank of fuel every 8 to 12 hours. Electric units require battery charging every 8 to 12 hours and a charging station. Check with your forklift provider for information on fueling the forklifts.
3. *Office equipment and software:*
    a. *Office supplies.* The ORDM, receiving and distribution manager (RCDM), and supply unit leader (SPUL) need access to computers, printers, staplers, staples, copiers, facsimile machines, megaphones, paper, pens, colored poster board (for signage), file folders, scissors, tape, clipboards, printer cartridges, tables, chairs, and in/out boxes to manage the warehouse and inventory, and print pick sheets for the warehouse.
    b. *Software*. Office products (such as Microsoft Word, Excel, and Outlook), the State inventory management software, backup software copies, and emergency management connectivity are needed.
    c. *Separate storage medium.* A portable hard drive or memory stick on which to back up the inventory data every shift is needed.

d. *Internet access.* Using e-mail and connecting to other emergency management efforts require Internet access.

4. *Pallets.* The warehouse needs a readily available supply of wood or plastic pallets on which warehouse teams place receipts and stage and distribute supplies. Because biosecurity measures at responder locations may prevent the return of the pallets, a continuing supply should be available to support operations and responder deliveries. While the warehouse is in operation, the ORDM should track the on-hand balance of empty pallets and order more when needed.
5. *Packing materials:*
    a. *Stretch wrap.* Stretch wrap is similar to the cellophane covering on commercial products. It allows personnel to stack a variety of material on a pallet and hold everything in place during staging and transit. Warehouse supply companies are good sources for stretch wrap. Start with several rolls and two handles for manually wrapping a pallet if the warehouse does not have an automated wrapping machine.
    b. *Packing slip envelopes.* Packing slip envelopes are used for outbound shipments. The complexity of the incident dictates how many the warehouse requires.
    c. *Packing material and tape.* Packing materials, such as bubble wrap and packing tape, are important for outbound shipments; you should have at least one roll of bubble wrap and six rolls of packing tape in the warehouse.
    d. *Empty boxes.* Keep a small amount of empty boxes on hand to consolidate loose items for transport to response locations.
    e. *Insulated shipping containers.* Keep small coolers or other insulated shipping containers on hand for use in transporting vaccine from the refrigerated warehouse space to the response sites. Cold packs should also be stored to maintain proper temperature once items are placed into coolers.
6. *Warehouse team equipment:*
    a. *Gloves.* Order enough gloves with sufficient grips, such as cotton with rubber tips or leather, to supply the warehouse staff with at least one pair per shift.
    b. *Hard hats and hearing protection.* Order enough hearing protection and hard hats to supply each forklift operator and others as needed with one pair per shift.
    c. *Box cutters.* Order enough box cutters so that each warehouse team has at least one.
    d. *Wire cutters.* Inbound shipments may have a metal seal that requires cutting to open. Each warehouse should have a wire cutter to cut this type of seal.
7. *Vests.* Order enough vests to supply each warehouse team member with at least one vest per shift.
8. *First-aid kit.* Order at least one kit with bandages, pain medication, eye cleaner, etc., for each warehouse. Ensure access to an automated external defibrillator in the ware-

house. Module 1 of the NVS 24 Hour Push Pack also contains one ten-person first-aid kit.

9. *Traffic cones.* Traffic cones can be used inside and outside the warehouse to designate or close off certain areas. Each warehouse should have 12 cones on hand.
10. *Staff support supplies.* Stock food, bottled water, paper towels, toilet paper, etc.

Example of Warehouse Floor Diagrams

Warehouse layouts vary depending on the scale of outbreak. A warehouse floor diagram is a vital tool for instructing warehouse teams on the proper storage location for all material. The diagram is more important for containerized material than large equipment easily recognized at a distance. Warehouse teams use the diagram as a "road map" for storing materials and later picking specific items that responders have requested through resource orders.

Warehouse diagrams take time to construct correctly, and they should be prepared for each pre-identified warehouse with the help of the warehouse facility liaison before an incident and placed in the State NVS plan. Teams must work quickly to develop diagrams for facilities identified immediately prior to use.

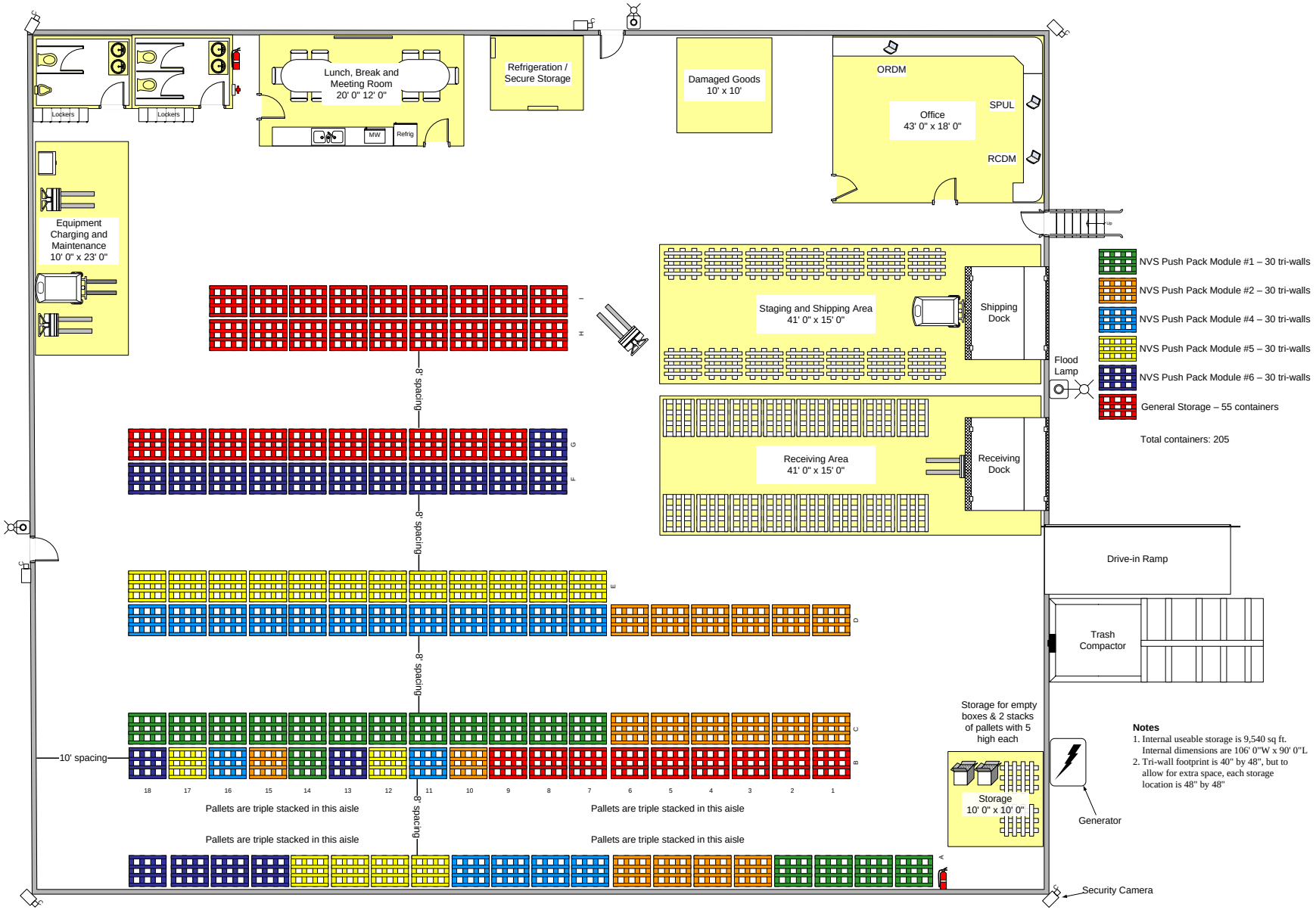
Figure 3-2 shows a large (9,540-square-foot) warehouse for extensive, complex incidents. The facility is capable of holding many containers and allows efficient picking operations. This warehouse diagram shows a total of 205 containers, including 30 high protection 24 Hour Push Packs of 150 modules and 55 general storage containers; additional containers can be stored by stacking pallets.

The aisles between container rows are 8 feet wide, meeting the minimum aisle space suggested. The container rows are labeled A through I, and numbers indicate the pallet position within the row. For instance, location A1 indicates the bottom-right-most pallet. The combination of letters and numbers allows warehouse team members to quickly find pallet positions during the picking and staging process.

Items in rows A and B are stacked for long-term storage; all other rows are not stacked and are used by the warehouse team to pick or store new material. (A larger warehouse would reduce the need to stack containers.) Fast-moving items (those picked more often) should be placed by the staging and shipping area for quicker picking and staging. Storage, refrigerated or secure storage, damaged goods, and equipment charging and maintenance areas are included. Personnel amenities, such as bathrooms and lockers for storing personal belongings, are also located in the warehouse. This layout has a separate office area by the loading docks for managers, enabling a quieter work environment. This setup also includes a separate lunch, break, and meeting room area for the warehouse workers. The warehouse includes a drive-in ramp to allow MHE to be driven into the warehouse.

The warehouse has a shipping dock, allowing incoming and outgoing shipments to be quickly loaded or unloaded. After shipment arrival or before departure, the warehouse team places items in the receiving or staging and shipping areas.

Figure 3-2. Example of Type 1 & 2 Incident Warehouse Floor Diagram



The warehouse also has doors throughout and includes security cameras to monitor the exterior. If security cameras are unavailable, the warehouse can be secured with appropriate locks and personnel.

Also included is a generator in case of a power outage and a trash compactor for trash and empty boxes. The warehouse is assumed to have proper overhead lighting throughout. The use of additional lighting may be required if proper lighting is not installed. External lighting is present to allow for outside operations at night.

Figure 3-3 shows a sample layout for a small (6,500-square-foot) warehouse for moderate-sized incidents. The facility is not capable of storing all containers in an easily accessible manner due to space limitations. This layout best uses the available warehouse space by placing the different modules in blocks, resulting in the inability to access the interior containers. Although not ideal, this layout does allow for an ample number of pick faces (areas where the warehouse team can pick from a container) and allows long-term storage within the interior pallets. This layout can store a total of 64 single-stacked containers (15 standard protection 24 Hour Push Packs and 4 general storage containers). Additional containers can be stored by stacking the internal containers.

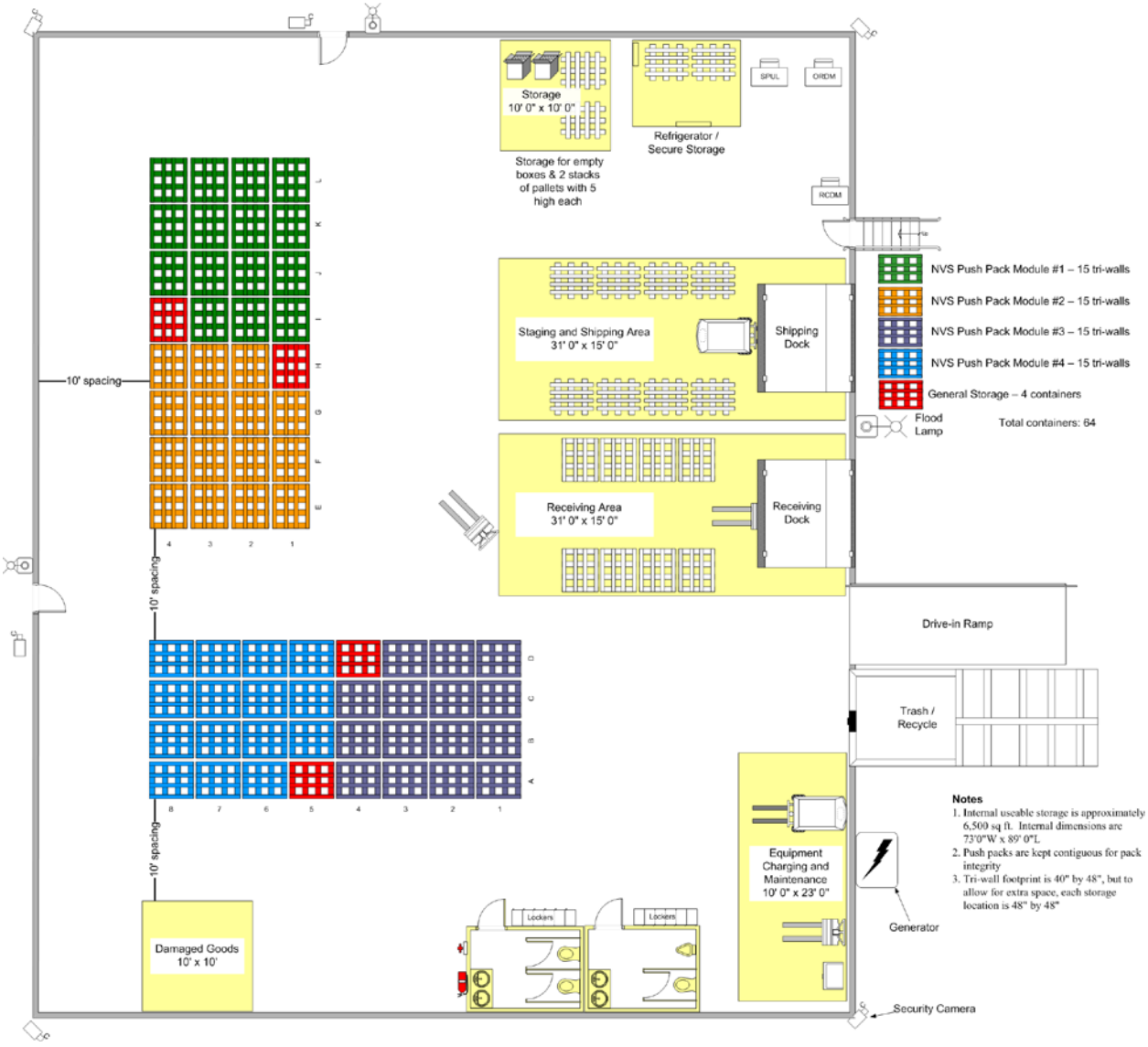
The aisles are 10 feet wide. Each container row is labeled A through L, and numbers indicate the pallet position within the row. For instance, location A1 indicates the bottom-right-most pallet. The combination of letters and numbers allows warehouse team members to quickly find pallet positions during the storing and picking process.

The warehouse includes a shipping dock, allowing quick unloading of incoming shipments and loading of outgoing shipments. In some cases, the lack of elevated loading docks slows loading and unloading operations and requires the use of additional forklifts or pallet jacks to load or unload containers. This also increases the time required to load and unload trucks. After shipment arrival or before departure, the warehouse team places items in the receiving, staging, and shipping areas.

Storage, refrigerated or secure storage, damaged goods, and equipment charging and maintenance areas are included. Personnel amenities, such as bathrooms and lockers for storing personal belongings, are also located in the warehouse. The ORDM, RCDM, and SPUL desks are near the loading docks for easy accessibility, though noise in the warehouse could impact their ability to converse. The warehouse also has doors throughout and includes security cameras to monitor the exterior. If security cameras are not available, the warehouse can be secured with appropriate personnel. The warehouse includes a drive-in ramp to allow MHE to be driven into the warehouse.

Also included is a generator in case of a power outage and a trash compactor for trash and empty boxes. The warehouse is assumed to have proper overhead lighting throughout. The use of additional lighting may be required if proper lighting is not installed. External lighting is present to allow for outside operations at night.

Figure 3-3. Example of Type 3 Incident Warehouse Floor Diagram



Each warehouse is unique; these diagrams show basic warehouse functionality. Some warehouses contain permanent pallet racks, do not allow container stacking, have columns, lack loading docks or lighting, or involve other factors influencing planning. Warehouse planners should consider all factors when developing a warehouse floor diagram.

Inventory Management Considerations

The State should identify an IMS to manage the massive resources that flow through the warehouse. The IMS should be able to track receipts, on-hand balances, and orders. Many times the State's emergency management agency or SNS program has systems that can be made available to State animal health agencies. Backup methods, including Microsoft Excel spreadsheets, Microsoft Access databases, and simple pen and paper, should be identified and developed in case the primary system fails.

The inventory management tool or system selected should have the capability to

1. record the item stock number, item description, pallet or module, on-hand quantity, receipt unit of measure, cost, issue unit of measure, package description, lot number, expiration date, and warehouse location of each receipt;
2. adjust on-hand balances for each item from each source for receipts, issues, and adjustments (receipts increase on-hand balances, issues decrease them, and adjustments decrease or increase them on the basis of counts of physical inventory on the warehouse floor);
3. retain a record of the customer for each issue to support situational awareness and the return of items to the NVS or other sources;
4. flag items for reorder when on-hand balances drop to their reorder level;
5. track outstanding orders to ensure they arrive when expected;
6. generate pick sheets; and
7. generate reports, such as discrepancy, zero balance, or issue cost summary reports.

Distribution Considerations

Incident Command may deliver to an incident much of what responders need by placing resources in designated staging areas while awaiting a tactical assignment. Operations section personnel could designate potential staging areas, perhaps by county, before an event to allow easy activation during an emergency. County fairgrounds, local group campgrounds, or other large gathering areas that can be secured for a week or more are good options.

Several options are available for delivering equipment and supplies to responders. One is to ship the resources directly from the NVS logistics center to the incident site. This option might work during smaller-scale outbreaks if responders can use the material quickly and not store it where weather and temperature could cause damage. For larger-scale outbreaks, however, coordinating the on-time arrival of multiple shipments to multiple destinations from afar poses challenges, and offloading and storing multiple pallets of material outdoors (when facilities are lacking) could damage them.

For response support in large-scale outbreaks, a warehouse that temporarily stores resources near responders is more realistic. It eliminates coordination of on-time arrival of many smaller shipments from multiple sources. Its proximity to responders allows quick deliveries of smaller shipments that responders can potentially offload by hand and use immediately without the need to offload and store on site.

Distribution to field responders can be performed in two ways—by delivery or pickup. The RCDM may coordinate shipments to staging areas, incident sites, or other locations, or arrange for responders to pick up materials at the warehouse. The State NVS Plan should include both distribution methods.

Planning for Warehouse Communications

Effective communications within Incident Command—including supply unit personnel and field responders who need support—is essential. Responders need communications support for their resource requests. The ORDM, RCDM, and warehouse teams need to coordinate their picking, staging, and distribution. Incident Command needs to monitor the logistics status and correct problems quickly.

The communication plan developed by the communications unit leader can use voice, data, or a combination for tactical communications. It can rely on paper, radio, phone (landline), facsimile, cell phone, e-mail, or satellite phone. Responders' radios or cell phones may not be reliable at some remote outbreak sites because of their distance from transmission towers. Responders may need to use an existing radio network that has repeater stations for transmission over long distances or use satellite phones and the Internet to ensure adequate communications. All responders should have contact information for those with whom they must communicate regardless of the chosen tactical communication methods.

The communication plan—which should be developed before an event and regularly reviewed—should also address functional communications (who talks to whom and when). Section 5, "Supply Unit Concept of Operations" in the *NVS State Plan Template* contains more information on communications planning.

Planning for Safety and Security

Of primary importance is the safety of the warehouse setting for all personnel. The State plan should lay out the warehouse safety processes and procedures to provide a safe working environment and minimize the risk of injury.

During an outbreak response, curious or concerned members of the public may attempt to interfere with warehouse operations and deliveries. Incident Command should anticipate such interference and develop a security plan before an event.

The State plan should provide security for warehouse inventory, staff, facilities, equipment, and operations. It should also provide security for drivers and vehicles while en route. All warehouse and delivery staff members should have badges that identify their access to warehouses and delivery locations.

The State should consider several security-related actions to ensure the warehouses and other parts of the logistics organization operate without interruption:

1. Install perimeter fencing or barrier material to keep unauthorized people away from the warehouses.
2. Lock warehouse doors to prevent unauthorized entry.
3. Ensure the warehouse has adequate or additional lighting.

The *NVS State Plan Template* (Section 5, "Supply Unit Concept of Operations," and Appendix P, "Warehouse Safety and Security Checklist") contains more information on security planning.

Section 4
Requesting NVS Countermeasures

During an incident, getting the right resources, to the right place, at the right time, is crucial for an effective response. The NIMS establishes a standardized approach for managing resources before, during, and after an incident. Resources include facilities, equipment, supplies, and personnel. This section guides animal health officials through the process of activating the State NVS plan and requesting deployment of NVS resources, including physical countermeasures and depopulation, disposal, and decontamination (3D) response support services (contract personnel). It also guides the Operations Section on how to assign and oversee 3D personnel. Appendix B of this guide details the processes to request NVS countermeasures.

Activating the State NVS Plan

The State NVS plan and related contracts and memorandums of understanding should be activated to gain access to warehouses, and get them up and running as soon as possible, certainly within 24 hours, to receive NVS shipments.

The following actions should be included in the State NVS plan (the *NVS State Plan Template* contains a comprehensive list):

1. Establish Incident Command for supply unit functions and support from facilities, grounds support, and communication units, and other components of the Incident Command organization.
2. Recall key or critical personnel according to the State NVS plan. Have them report and check into the incident.
3. Identify and activate facilities, including the delivery of MHE, supplies, spare pallets, and other materiel and equipment to support operations.
4. Activate law enforcement agencies if security is necessary to escort inbound shipments through traffic or protect the warehouse staff, facilities, equipment, inventory, and operations.
5. Have your safety officer and security manager ensure safe and secure working conditions before starting operations.
6. Assemble and brief arriving warehouse personnel on situational awareness and the incident action plan.
7. Activate your inventory system to manage the receipt, issue, and reorder of the supplies and equipment that arrive.
8. Establish and test communications with all functional logistics teams, other components, and the organizations that support logistics operations.
9. Monitor inbound shipments, including their estimated time of arrival.
10. Manage receive, store, stage, and distribution activities.

11. Assemble and brief delivery personnel. Ensure drivers have maps, communication devices, procedures, adequate fuel, and straps and tarps to protect cargo.

Requesting NVS Physical Countermeasures

The request for NVS countermeasures typically begins when a SAHO and an AVIC conclude that they need resources in the State to respond to a damaging animal disease and the APHIS VS regional director concurs (see Appendix B).

Requesting and Overseeing 3D Response Support Services

The process to initiate a request for 3D response support services for a damaging animal disease is similar to that for physical countermeasures: a request from the SAHO and AVIC or from Incident Command if response operations are well underway. Incident Command must complete the NVS Countermeasures Request and statement of work (SOW) forms and submit them to the NVS deployment management team (DMT) at APHIS VS headquarters, nvs@aphis.usda.gov, describing the type, location, and expected duration of help needed (see Appendix B).

The DMT selects the most appropriate and available contractor for the job and coordinates with the NVS director, who approves the selection of the 3D contractor and notifies the APHIS contracting officer. Processing the request and developing the contract for NVS 3D response support services take very little time, provided the information is sufficient and accepted.

These 3D contractors can support depopulation of poultry, disposal of livestock and poultry carcasses, and decontamination of equipment and affected premises. Assistance may include equipment and personnel to bury or compost carcasses on site or transport them to an off-site disposal center (rendering or landfill, for example). Assistance with decontamination may include equipment, supplies, and personnel to clean and disinfect premises, such as barns, poultry houses, animal containment areas, and equipment.

Incident Command should assign 3D contractors to the operations section. The 3D operates as a self-contained task force with diverse resources to accomplish the specified tasks. Incident command assigns a supervisor to oversee and manage 3D response support services on site in accordance with the contract. Each 3D company is instructed to check in and check out daily with the supervisor, and will log their time on their company's time sheet. The supervisor validates the hours worked, sign the 3D contractors' daily time sheets, and submit them to the NVS DMT by email nvs@aphis.usda.gov or fax 301-734-7817. The NVS DMT in turn submits copies to the APHIS contracting officer's technical representative (certifying official).

Section 5
Warehouse Operations

Warehouse Activation

Each warehouse should provide a safe, secure, and productive working environment. The type of activation depends on the way it is used. If it functions routinely as a warehouse, it probably has

1. loading docks,
2. MHE,
3. goods it processes,
4. equipment and motor transport used for other purposes, and
5. personnel support services and supplies.

If a facility is not used as a warehouse, logistics personnel need to plan the delivery of MHE, fuel, operational support items, personnel, and perhaps the provision of light, heat, air conditioning, ventilation, electricity, Internet access, phones, and radios.

Receiving and Storing NVS Countermeasures

Once the NVS program receives approval to deploy, the DMT coordinates with the Incident Command point of contact for delivery of NVS physical assets. The DMT reports the status of the shipments and e-mails a shipment file, which details the items shipped, including costs.

An RCDM should be assigned to oversee receiving and storage of warehouse inventory, which involves offloading trucks and moving containers to designated receiving and storage areas. Items requiring refrigeration must be handled as a priority and in accordance with cold-chain management procedures.

To store NVS equipment and supplies, Incident Command should

1. ensure adequate storage for multiple 24 Hour Push Packs and other physical assets, considering outside storage for large equipment, such as large animal-handling and depopulation equipment;
2. develop a warehouse diagram and locator system before the event;
3. decide how the 24 Hour Push Pack modules will be stored. Will the modules be stacked on top of each other or placed in a commercial rack system or another storage system? Will module contents be removed and placed on shelves or remain inside this tri-wall or other container?

4. plan to store temperature-sensitive items, including animal vaccines, which require refrigeration, and antiviral medications, which require controlled room temperature storage.

Picking and Staging NVS Countermeasures

To pick NVS equipment and supplies, the RCDM should identify and properly train warehouse team members in a warehouse setting, including lifting heavy boxes or objects. A separate quality control person should ensure that picked items match the pick sheet and that the pick sheet is correctly marked to reflect shortages, replacements, back orders, etc.

The RCDM should ensure that a staging area is properly identified in the warehouse and equipped with supplies to box, wrap, label, and move shipments to the loading dock for transport.

Managing and Ordering NVS Inventory

Each shift should have an ORDM to manage the current inventory and order replenishments when needed. The ORDM records receipts, processes responder orders, produces pick sheets and packing slips for the warehouse teams, monitors on-hand balances, and adjusts balances on the basis of physical counts of items in the warehouse. The ORDM should make sure that computers, printers, copiers, faxes, and the inventory management system are operational before material arrives at the warehouse and that all State supplies are entered into the system before the NVS arrives.

The ORDM—the single point of resource ordering for the entire incident—maintains a list of sources from which resources may be needed, locates requested resources, and orders resources by quantity, kind, and type. The ORDM should establish reorder points, such as when the on-hand balance of an item drops to less than 50 percent or other level based on demand history. Where and how the ORDM acquires more material depend on the item source of supply. The ORDM works directly with the finance and procurement units and coordinates with the NVS mobile logistics team (MLT), if one is on site, or the DMT for follow-on requests from the NVS program. Orders may be placed with the private sector and State agencies or from the NVS program if material is not available elsewhere.

Distributing NVS Countermeasures to Responders

Typically, the SPUL—in coordination with the logistics and operations section chiefs—determines the best process for warehouse distribution, which can be by delivery or pickup at the warehouse.

For deliveries, support agencies may be able to provide vehicles, drivers, dispatchers, fuel, maintenance, security, and communication equipment. Examples of support include:

1. Local law enforcement agencies for security (shipment protection and traffic control)
2. Local departments of public works and transportation for vehicles, drivers, dispatchers, fuel, and repair

3. Other local departments that have fleets of vehicles and drivers, such as departments of parks and recreation or education
4. The National Guard for trucks, aircraft, personnel, and transport management.

For responder pickup, arrangements should be made to clearly mark the pickup location, along with the personnel assigned to manage the distribution line. Responder pickup locations should be in an area that is biosecure and does not disrupt warehouse activities.

Recovering and Returning Inventory

After an event, an operations section cleaning and disinfection team should ensure that NVS returnable items are cleaned, disinfected, and returned to the warehouse. Unused and unopened items in the field should also be returned. These items are consolidated with other unused, unopened, and NVS returnable items remaining in the warehouse for repackaging and transport back to an NVS logistics center. Examples of returnable items include depopulation equipment, such as foam units and CO_2 carts, powered air-purifying respirators, mobile and portable refrigeration equipment, self-refilling syringes, empty NVS tri-walls, and unopened cases of personal protective equipment.

Recovery Process

The ORDM produces a list of all returnable items both in the warehouse and issued. The ODRM then gives a copy of the list to the RCDM, who is responsible for ensuring all returnable items are quickly returned to the warehouse. If on site, the MLT examines unopened NVS supplies in the warehouse and works with the staff to package them for return shipment.

Return Process

The warehouse staff prepares the shipment for transport back to an NVS logistics center. The MLT, if on site, coordinates with the DMT to arrange pickup of the shipment; otherwise, the RCDM should coordinate the return directly with the DMT.

Section 6
Managing Temperature-Sensitive Items

This section discusses the various aspects of managing temperature-sensitive items that may be required to respond to a damaging animal disease outbreak. The two primary temperature-sensitive items in the NVS are animal vaccines and human antiviral medications. States should consider the following in their plans when these items are requested and received.

Planning to use Animal Vaccines and Human Antiviral Medications

When developing your written plan, consider that animal vaccines and human antiviral medications should be tightly managed under controlled conditions and at a limited number of locations. The State should first identify acceptable vaccine and antiviral storage locations in the event either is required. The State may elect to store vaccines and antivirals— separate from other materials—in a location more suitable for biological and pharmaceutical products. Consider the following types of storage locations: a State logistics warehouse, State laboratory not conducting animal disease diagnostics, commercial laboratory, commercial refrigerated site or other 3PL facility under contract, or State SNS RSS facilities. Plan to store antiviral medications under a controlled room temperature.

Plan to store vaccines under refrigeration. A small commercial refrigerator suffices for small quantities of vaccine. If large quantities are anticipated, consider large commercial refrigerators or a refrigerated truck. The State plan should include procedures for acquiring additional refrigerated space (for example, renting a reefer van) if needed. Household, dormitory-style, or other refrigerators with a frost-thaw cycle should not be used because they do not maintain consistent temperatures. If a diluent comes with the vaccine, it should be stored as indicated on the label.

Vaccines arrive in varying box sizes depending on factors such as vaccine type, bottle size, and packaging; therefore, you should plan to accommodate various configurations. Bottles vary in diameter, for example 33 to 66 mm, and height, 57 to 128 mm, and are packed in boxes and cartons, which also vary in size. Refrigeration units with moveable or removable shelves offer more flexibility to accommodate a range of sizes. When planning for storage requirements, you should also plan for space between boxes to allow adequate air circulation.

Managing Animal Vaccine

Requesting Delivery of Animal Vaccine

If vaccine is required to respond to a damaging animal disease outbreak, State, Tribe, or Territory animal health officials provide APHIS VS with a vaccination plan. Following the APHIS VS approval to vaccinate, the animal health officials request vaccine by submitting the NVS Countermeasures Request Form. NVS then arranges delivery of the vaccine to the site designated by Incident Command. The State also requests vaccine ancillary supplies, if needed.

Vaccines can be shipped from multiple locations because the NVS may or may not store the requested vaccine. The locations from which a vaccine is shipped depend on the type and strain of vaccine that APHIS VS management approves. The time in which it arrives also varies by the type of vaccine.

Handling Animal Vaccines

Delivery

If the NVS holds the vaccine, it coordinates with Incident Command for delivery from the NVS storage site to the location specified by Incident Command. For other vaccines not held by the NVS, the NVS coordinates with Incident Command and the designated manufacturer to arrange delivery of the vaccine to the specified Incident Command destination.

Packaging

All vaccines from the NVS arrive in insulated shipping containers with temperature-monitoring devices. Vaccine may be packaged in plastic or glass bottles. Bottles are packaged in boxes and may further be packaged in cartons. The packages are placed on a pallet, pallet shipper, or other form of shipping device that contains packing materials to ensure the vaccine maintains the proper temperature during transit.

Temperature Monitoring Devices

Vaccines must be maintained at the proper refrigeration temperature at all times, including during transit. The NVS or vaccine manufacturer typically places some type of temperature monitoring device, such as a data logger or chemical indicator, into the package to track the vaccine temperature while in transit. Plan for temperature monitoring devices to monitor the vaccine once it is received, and in storage, and while en route to incident sites. Devices Incident Command may consider include thermometers and chemical indicators.

Receipt

Upon arrival of the vaccine, logistics personnel receipt for, immediately offload, and inventory the shipment to verify the quantity shipped matches the packing slip, ensure proper temperature was maintained, and check for any damage. All vaccine shipments require initial offloading via forklift, hand truck, or other MHE.

If there are no discrepancies, the vaccine is stored and maintained until it is distributed to the incident sites. Incident Command may be asked to collect and ship vaccine samples. If so, obtain collection and shipment instructions from the APHIS VS Center for Veterinary Biologics (CVB), 1920 Dayton Avenue, P.O. Box 844, Ames, IA 50010, phone 515-337-6100, fax 515-337-6120, or e-mail cvb@aphis.usda.gov, during normal business hours.

Shipment discrepancies at the time of delivery, such as shipment quantity, damage, or temperature excursions, should be noted and reported immediately to the NVS. If a temperature excursion occurs, logistics personnel should store the vaccine within its proper temperature spec-

ifications, complete a Temperature Excursion Action Sheet (contained in the *NVS State Plan Template*), and contact APHIS VS CVB for instructions. Contact APHIS VS CVB for all other vaccine-related questions.

Storage

All vaccines are perishable biological products and must be stored, maintained, and transported at refrigeration temperatures of 2°C to 8°C (35°F to 46°F) until they are administered into the animal. Freezing, excessive or prolonged heat, sunlight, or immersion in liquid may destroy the products. Maintaining the proper temperature until the vaccine is administered is imperative. Actual temperatures should be monitored and recorded at regular intervals (typically once per operational period). Use of a temperature monitoring log, such as the one in the *NVS State Plan Template,* helps document vaccine temperature from receipt until distribution.

Storage space requirements vary according to the amount of vaccine received and used over time. All refrigerated storage devices should be chilled before the vaccine arrives. Keep vaccines in their original boxes, if possible. Vaccine diluents should be stored as indicated on the label because some may require refrigeration, while others should be stored at room temperature.

Distribution

Vaccine may be delivered to an incident site, or a field responder may be designated to pick up the vaccine required for that site or that day's operations. Vaccine distribution considerations include keeping the vaccine refrigerated as long as possible and picking it immediately before issue (staged separately from other items); packing it in insulated shipping containers (boxes, coolers, or other containers with ice packs); using a refrigerated shipping device to maintain the proper temperature; and including a thermometer to verify the temperature while in transit and at the incident site.

More Information

NVS planners may access more information about specific NVS vaccines on the password-protected website, http://nvs.aphis.usda.gov. For additional guidance on managing vaccines, see the *USDA APHIS Foreign Animal Disease Preparedness and Response Plan, National Animal Health Emergency Management System (FAD PReP NAHEMS) Guidelines on Vaccination for Contagious Diseases*, November 2010, at http://www.aphis.usda.gov/animal_health/emergency_management/nahems_guidelines.shtml and the Centers for Disease Control and Prevention (CDC) Vaccine Storage and Handling Toolkit at http://www2a.cdc.gov/vaccines/ed/shtoolkit.

Managing Human Antiviral Medication

Requesting Human Antiviral Medication

NVS holds oseltamivir (Tamiflu) and zanamivir (Relenza) antiviral medications to protect agriculture response personnel against notifiable avian influenza viruses (H5, H7). Tamiflu is an oral

medication and Relenza is an inhalation powder. Both are used prophylactically to prevent agriculture responders from becoming infected with avian influenza virus. The same medications are held in the CDC SNS.

The NVS provides antiviral medications for responders that are checked into Incident Command as official agriculture responders. NVS does not provide antiviral medications for other populations, including farmers, the general public, and healthcare workers.

Both Tamiflu and Relenza are medical countermeasures and must be managed as prescribed pharmaceuticals in accordance with Federal and State regulations. Because State pharmacy regulations vary from State to State, NVS planners in each State should consult their State pharmacy boards when writing their plan. Requirements vary for receipt, storage, prescribing, dispensing, chain of custody, security, etc.

Incident Command may not necessarily request antiviral medications at the onset of an avian influenza outbreak and at the same time as 24 Hour Push Packs. It may take time for the medical unit personnel and the safety officer to determine who should receive them and refine their procedures for prescribing and dispensing. A person qualified to oversee human prescription medications is required to submit the request for antiviral medication using the NVS Countermeasures Request Form. The request should specify the type of medication (Tamiflu or Relenza) and the number of boxes. Tamiflu is shipped in boxes containing 48 bottles of 75 mg hard gelatin capsules. Relenza is shipped in boxes containing 16 packets per box. The request form lists the contact information for the medically qualified person submitting the request.

Delivery

The NVS coordinates with Incident Command for delivery of antiviral medication to the medically qualified personnel identified in the NVS Countermeasures Request Form.

Receipt

Medically qualified personnel must receive and assume control of antiviral medications. Upon arrival, personnel receipt for, quickly offload, and inventory the shipment to verify the quantity shipped matches the packing slip and check for any damage. Antiviral medication shipments require initial offloading via forklift, hand truck, or other equipment. Shipment discrepancies at the time of delivery, such as shipment quantity or damage, must be immediately reported to the NVS. If there are no discrepancies, the medication should be stored and maintained until it is distributed.

Storage

Antiviral medications must be stored, maintained, and transported in a controlled environment and under conditions recommended by the manufacturer. Storage should be under a controlled room temperature specified on the product's package insert. In accordance with United States Pharmacopeia 35, "controlled room temperature" is a temperature maintained thermostatically that encompasses the usual and customary working environment of 20°C to 25°C (68°F to 77°F) that results in a mean kinetic temperature calculated at not more than 25°C and that allows for

excursions between 15°C and 30°C (59°F and 86°F). Provided the mean kinetic temperature remains in the allowed range, transient spikes up to 40°C are permitted as long as they do not exceed 24 hours.

Distribution

The medical unit within Incident Command should prescribe and dispense antiviral medications. The Federal government may prescribe and dispense antiviral medication only to Federal employees, including temporary emergency responders in the National Animal Health Reserve Corps. Therefore, States need a plan for prescribing and dispensing antiviral medications to non-Federal responders, if required. Incident Command personnel are likely to have responsibility for identifying responders that require antiviral medication. If 3D contractors are deployed, they are responsible for their own medications. If antiviral medication is transported to the incident site, it should be shipped to maintain the proper temperature while in transit and at the incident site.

More Information

Consult your State pharmacy board for State requirements on managing human antiviral medications. The Food and Drug Administration (FDA) maintains current reviews, label information, and patient package inserts for both medications by searching drug name or active ingredient on their Drugs@FDA website http://www.accessdata.fda.gov/scripts/cder/drugsatfda/index.cfm. Additional guidance is available from the CDC website http://cdc.gov.

Section 7
Training and Exercising

This section discusses State training and exercises for requesting, receiving, storing, and distributing the NVS and other resources. Planning for these resources is one part of preparing to respond to catastrophic damaging animal disease outbreaks. Training ensures individuals and teams know what to do during a response. Exercises test the effectiveness of planning and training, and they identify where the State needs to improve. Training and exercises ensure the workforce remains ready to execute your plan for distributing the NVS and other resources during an emergency.

State Training Program

In response to Presidential Policy Directive 8: National Preparedness, the Department of Homeland Security (DHS) and the FEMA transitioned in September 2011 from the Target Capabilities List to core capabilities. These core capabilities are organized by five mission areas: prevention, protection, mitigation, response, and recovery.

The planning capability calls for "a systematic process engaging the whole community as appropriate in the development of executable strategic, operational, and/or community-based approaches to meet defined objectives." The capability target is to develop operational plans at the Federal level and in the states and territories that adequately identify critical objectives based on the planning requirement, provide a complete and integrated picture of the sequence and scope of the tasks to achieve the objectives, and are implementable within the time frame contemplated in the plan using available resources.

The public and private services and resources capability focuses on providing "essential public and private services and resources to the affected population and surrounding communities." The capability targets are as follows:

1. Mobilize and deliver governmental, nongovernmental, and private sector resources within and outside of the affected area to save lives, sustain lives, meet basic human needs, stabilize the incident, and transition to recovery, to include moving and delivering resources and services to meet the needs of disaster survivors.
2. Enhance public and private resources and services support for an affected area.

Personnel with roles in emergency management and a logistics response should be sufficiently trained to improve these core capabilities and others identified by the State NVS plan primary agencies or DHS. Training provides the logistics response team members with the skills and knowledge needed to perform assigned tasks, coordinate with team members and other teams, and work effectively in the Incident Command System (ICS).

The format for training depends on the skills and capabilities to be acquired and may include self-study, web-based courses, or classroom sessions. Everyone who works with the NVS should understand the NVS program, the countermeasures it provides, the way it deploys, when countermeasures will arrive, and what they look like when they arrive. You may wish

to download information and training materials from the NVS website, http://nvs.aphis.usda.gov.

State Plan for NVS

Stakeholders who have a task associated with acquiring, receiving, storing, managing, picking, staging, distributing, recovering, and returning the NVS and other resources should understand the State's plan for performing these functions and how their task contributes. They should also understand how the plan and their efforts integrate with the State's all-hazards or emergency operations plans. The *NVS State Plan Template* contains job action sheets with roles and responsibilities, which can help train personnel for these positions.

Emergency Response Procedures

Stakeholders who partner with the NVS must also know how to work in the ICS organization to respond to emergencies. The following references can help in training on emergency response procedures:

1. *NRF*. http://www.fema.gov/national-response-framework
2. *ICS*. http://www.fema.gov/incident-command-system

State Exercise Program

Exercises test the effectiveness of planning and training. They identify what will work well when the State responds and improvements needed to respond better. States should follow the guidelines in the Department of Homeland Security Exercise and Evaluation Program (HSEEP) when planning, designing and developing, conducting, and evaluating exercises: https://hseep.dhs.gov. The HSEEP program and project management process, displayed in Figure 7-1, closely aligns with the NIMS and the ICS, uses capability-based standards, and helps you organize and develop your training and exercise program.

Figure 7-1. HSEEP Process

Exercise Planning References

References are available for planning and conducting State NVS exercises and for integrating inventory and distribution functions into larger emergency response exercises:

1. *State emergency management agency*. This organization is a valuable resource for exercise planning. It generally plans and conducts State emergency response exercises that comply with HSEEP guidance.

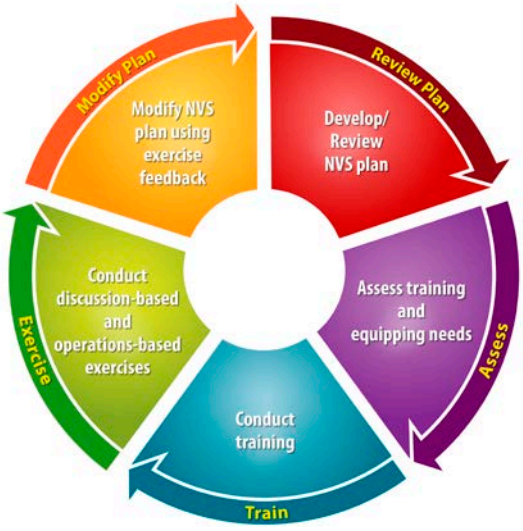
2. *State SNS exercise program.* Talk with the SNS coordinator when creating your NVS plan, who can also help plan and conduct NVS exercises.
3. *Lessons learned*. The DHS lessons learned website, https://www.llis.dhs.gov/content/about-llisgov, is a good resource for reviewing lessons learned from previous exercises and actual responses. You will need a user ID and password to gain access. Procedures on the site explain how to gain access. If you have trouble gaining access, your State emergency management agency should be able to help.
4. *Previous exercises*. They include minutes from planning meetings, situation manuals, after action reports, and improvement plans. We suggest you refer to relevant documents in your NVS plan, perhaps by making them annexes to the plan.
5. *NVS website*. The NVS website, http://nvs.aphis.usda.gov, should be consulted regularly for information that will help the State plan for and exercise the request, receipt, processing, and distribution of the NVS and other resources.
6. *Core capabilities*. The DHS core capabilities identify those that contribute to national preparedness. These capabilities are the means to perform critical tasks well and consistently. They result from the effective combination of planning, organizing, equipping, training, and exercising. The core capabilities support an all-hazards approach for responding to terrorist attacks, natural disasters, health emergencies, and other major events. More information is available on these websites about the national preparedness goal (http://www.fema.gov/pdf/prepared/npg.pdf) and core capabilities (http://www.fema.gov/core-capabilities) that the State may want to include in its exercise program.

When to Exercise

To achieve the maximum benefit from an exercise and accurately test the State's readiness to respond, the State should first have a written NVS plan and trained personnel to perform the tasks. Exercising assesses readiness for an NVS deployment and identifies where improvement is needed. Maintaining State NVS readiness is a continuous cycle (Figure 7-2) of

1. assessing logistics training and resource equipping needs;
2. conducting logistics training;
3. exercising to confirm that personnel and processes act appropriately and effectively to acquire, receive, store, manage, pick, stage, distribute, recover, and return the NVS; and
4. modifying the State NVS plan using exercise feedback and lessons learned.

Figure 7-2. NVS Preparedness Cycle



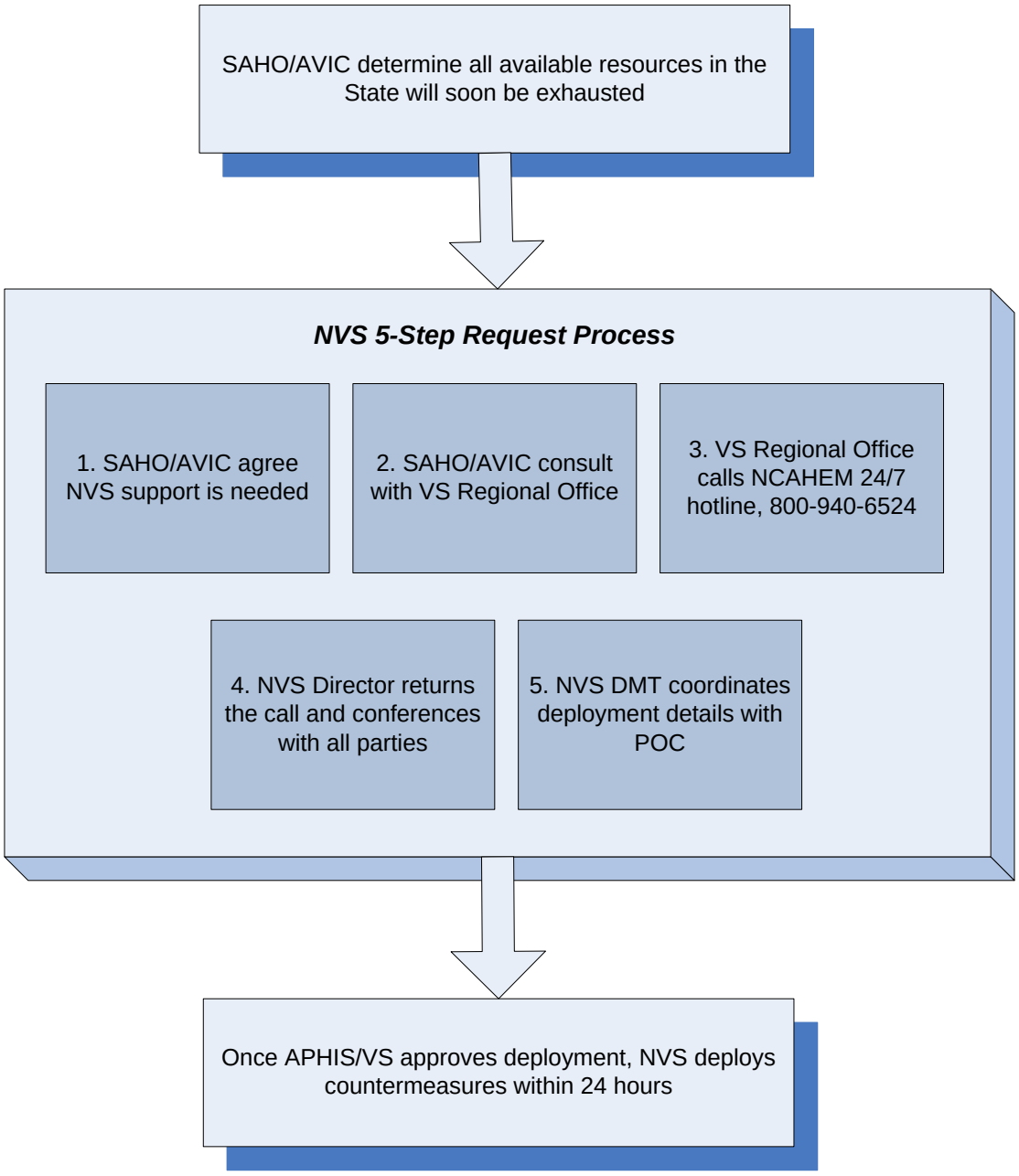
Evaluating State Exercises and Improving NVS Readiness

A critical part of every exercise is the analysis of exercise observations to identify recommendations for the State to improve its NVS plan, training, or exercise design and execution. See https://hseep.dhs.gov/support/VolumeIII.pdf for HSEEP guidance on exercise evaluation and improvement planning. It explains in eight steps how to evaluate your State exercise and use its results to improve your NVS plan.

Appendix A
Abbreviations

3D	depopulation, disposal, and decontamination
APHIS	Animal and Plant Health Inspection Service
AVIC	area veterinarian in charge
BOA	basic ordering agreement
CCC	Commodity Credit Corporation
CDC	Centers for Disease Control and Prevention
CO_2	Carbon Dioxide
DHS	Department of Homeland Security
DMT	deployment management team
EOC	emergency operations center
ESF	Emergency Support Function
FEMA	Federal Emergency Management Agency
HPAI	highly pathogenic avian influenza
HSEEP	Department of Homeland Security's Exercise and Evaluation Program
ICS	Incident Command System
MLT	mobile logistics team
NCAHEM	National Center for Animal Health Emergency Management
NIMS	National Incident Management System
NRF	National Response Framework
NVS	National Veterinary Stockpile
ORDM	ordering manager
POC	point of contact
RCDM	receiving and distribution manager
SAHO	State animal health official
SNS	Strategic National Stockpile
SOW	statement of work
SPUL	supply unit leader
USDA	U.S. Department of Agriculture
VS	Veterinary Services

Appendix B
Process to Request NVS Countermeasures



A. Before Requesting NVS Assistance

The request for assistance from the National Veterinary Stockpile (NVS) is a joint State and USDA APHIS VS decision based on the type and scale of damaging animal disease outbreak and resources available in the State. The request for NVS countermeasures is made before available resources are exhausted.

B. Initial Request for NVS Physical Countermeasures

The State animal health official (SAHO) and USDA APHIS VS Area Veterinarian in Charge (AVIC) or their designees identify the available resources in the State, including local, Tribal, Federal, and private-sector resources, and those it needs to respond to a damaging animal disease. The governor may issue an emergency declaration that releases additional State resources. They justify their request for NVS countermeasures on the basis of their conclusion that available resources will not be enough to support the response to the outbreak.

The SAHO and AVIC consult with their USDA APHIS VS regional office. The VS regional director or designee calls the 24/7 National Center for Animal Health Emergency Management (NCAHEM) hotline (**1-800-940-6524**) and requests NVS assistance from the operator. The NVS director or designee returns the call immediately. State and Federal officials (such as the SAHO, AVIC, VS regional office representative, and other pertinent personnel) who can justify the need for NVS assistance are on the recall. During the call, the NVS staff discusses the situation and requests information about (1) the damaging animal disease, (2) affected species and estimated number of animal populations, (3) number of responders fielded immediately, (4) number of affected premises, and (5) name and contact information for a point of contact in Incident Command with whom the NVS deployment can be coordinated if approved by APHIS VS. Following the call, the SAHO, AVIC, and VS regional director complete the NVS Countermeasures Request Form and submit it to the NVS staff. If deployment is approved, the NVS DMT at APHIS VS Headquarters coordinates with the Incident Command point of contact on deployment details.

Five-Step Process to Request NVS Physical Countermeasures:

1. The SAHO and AVIC conclude that NVS physical countermeasures are needed.
2. The SAHO and AVIC consult with the USDA APHIS VS regional office.
3. The regional office calls the NCAHEM 24/7 emergency hotline (**1-800-940-6524**) and leaves a name and telephone number with the operator.
4. The NVS director returns the call immediately and engages in a conference call with the necessary officials to discuss the NVS Countermeasures Request Form and determine the details of the request, such as
    a. damaging animal disease,
    b. affected species and estimated number of animal populations,
    c. number of responders fielded immediately,
    d. number of affected premises, and

e. Incident Command point of contact information.

5. If deployment is approved, the NVS DMT coordinates deployment details with the point of contact.

NVS Countermeasures Request Form

E-mail to nvs@aphis.usda.gov or fax to 301-734-7817

1. Date: _____ **Time/Time Zone:** _____ **of request.**

2. Point of Contact (POC) for VS Regional Office

a. Name: _____
b. Title: _____
c. Phone number: _____
d. Cell phone number: _____
e. Fax number: _____
f. E-mail address: _____

3. Primary POC for State, Tribe, Territory, or VS Area Office

a. Name: _____
b. Title: _____
c. Phone number: _____
d. Cell phone number: _____
e. Fax number: _____
f. E-mail address: _____

4. Emergency Description

a. City and State nearest the outbreak/other emergency: _____
b. Damaging Animal Disease/other emergency: _____
_____
c. Affected animal species: _____
d. Estimate of affected animal populations: _____
e. Number of responders fielded immediately: _____
f. Federal Emergency Management Agency (FEMA) mission assignment information, if applicable: _____
g. Other: _____

5. Preliminary Countermeasures (See the *NVS Logistics Catalog)*

a. 24 Hour Push Pack (round up to nearest multiple of 10 responders):
   1) Quantity of Standard Protection: _____
   2) Quantity of High Protection: _____
b. Animal handling equipment: _____
c. Response Support Services [attach statement of work (SOW) form]
   1) Depopulation of poultry: _____
   2) Disposal: _____
   _____
   3) Decontamination: _____
   4) Other: _____
d. Vaccine type and number of doses: _____
e. Vaccination ancillary supplies: _____
f. Human antiviral medications type and number of boxes: _____
   1) Name, phone, and e-mail of medically qualified person: _____
g. Other: _____
_____

NVS Countermeasures Request Form

E-mail to nvs@aphis.usda.gov or fax to 301-734-7817

6. Deployment Information

a. Shipment address receiving countermeasures: _____

_____

b. Mark shipment attention to: _____

c. Send status on shipments to e-mail or fax: _____

d. Limitations that could impair movement or offloading at delivery site: _____

e. Address, phone number, cell phone number, fax, or e-mail at incident command post if different from above: _____

_____

f. Does the State, Tribe, or Territory have an NVS plan: ☐ Yes ☐ No

If yes, please e-mail it to nvs@aphis.usda.gov.

g. Special instructions: _____

_____

h. Incident Command points of contact:

Primary contact at incident command	First shift hours of operation:	Second shift hours of operation:
Name:		
Phone:		
Cell:		
Fax:		
E-mail:		
Secondary contact at incident command	**First shift hours of operation:**	**Second shift hours of operation:**
Name:		
Phone:		
Cell:		
Fax:		
E-mail:		

7. For NVS Staff Use:

Deployment ☐ *approved,* ☐ *disapproved, or* ☐ *approved with the following changes:*

_____

By name: _____ Signature: _____

Date: _____ Time: _____

Use the following instructions to complete the National Veterinary Stockpile (NVS) Countermeasures Request Form. When complete, e-mail the form to the NVS staff at nvs@aphis.usda.gov or fax to 301-734-7817.

NVS Countermeasures Request Form

E-mail to nvs@aphis.usda.gov or fax to 301-734-7817

1. **Date and Time.** Provide the date and time that the request is submitted to the NVS staff.

2. **Point of Contact (POC) for VS Regional Office.** Provide contact information for the point of contact in the APHIS VS Regional office (Eastern or Western) that corresponds to the location of the State, Tribe, or Territory requesting assistance.

3. **Primary POC for State, Tribe, Territory, or VS Area Office.** Provide contact information for the State, Tribe, Territory, or APHIS VS Area office animal health official that is requesting assistance. This individual will serve as the primary POC for that jurisdiction.

4. **Emergency Description.** Provide information that describes the type of emergency and helps justify the request for NVS assistance, including the city and State that is closest to the emergency site, the type of damaging animal disease suspected or diagnosed or other type of all hazard emergency event, the animal species that are primarily affected and the estimated animal populations, the number of field responders that may require supplies, the mission assignment information if FEMA is involved, or other pertinent information.

5. **Preliminary Countermeasures.** Provide a description of the countermeasures requested. Note that this information is considered a preliminary request to help the NVS Deployment Management Team (DMT) determine what countermeasures may be approved for delivery immediately. Providing this information in no way guarantees approval of assistance or delivery of the requested countermeasures. Refer to the *NVS Logistics Catalog* posted on the NVS website nvs.aphis.usda.gov for a description of countermeasures.

Note: This is a preliminary request, and information provided in section 5 will help the NVS DMT determine what countermeasures may be approved for immediate delivery.

   a. **24 Hour Push Pack.** Specify the number of 24 Hour Push Packs requested. The number of packs should be rounded up to the nearest multiple of 10 responders. For example, 9 packs should be requested if there are 83 responders in the field. Specify the quantity of standard protection and high protection packs requested.

   b. **Animal handling equipment.** Specify the type of animal handling equipment that is requested, such as panels, gates, and/or mobile chutes for cattle or for swine. The swine equipment is also suitable for handling small ruminants. Mobile corrals for cattle are also available.

   c. **Response support services (attach SOW form to request NVS 3D response support services)**. If response support services are requested for depopulation, disposal, or decontamination (3D), or other services, provide the requirements by attaching the SOW form to request NVS 3D response support services. This form provides details on the type and scope of assistance requested. Refer to Appendix B in the *National Veterinary Stockpile Planning Guide for Federal, State, Tribe, and Territory Officials April 2013* or Appendix B in the *National Veterinary Stockpile State Plan Template April 2013* on the NVS website nvs.aphis.usda.gov for the process to request 3D response support services, including instructions on how to complete the SOW form.

   d. **Vaccine type and number of doses.** Specify the type of animal vaccine and the number of doses requested for a specific damaging animal disease. Note that the APHIS VS Chief Veterinary Officer must first approve the use of vaccine prior to vaccine being delivered.

e. **Vaccination ancillary supplies.** If vaccine will be used, specify if vaccination ancillary supplies are also needed. These supplies include items such as needles, syringes, portable biomedical waste disposal containers, foot-and-mouth disease ear tags, and tag applicators.

f. **Human antiviral medications.** If the disease of concern is notifiable avian influenza (H5, H7), specify the type of human antiviral medication and the number of boxes requested for responders checked into the incident. For more information, see the *NVS Logistics Catalog.* Also list the contact information for the medically qualified person responsible for receiving the antiviral medication.

g. **Other.** Specify any additional countermeasures being requested that are not listed above.

6. **Deployment Information.** Provide information to assist with the transportation, delivery, and communication of an NVS deployment.

   a. **Shipment address receiving countermeasures.** Provide the physical shipping address that will receive the initial shipment of deployed countermeasures.

   b. **Mark shipment attention to.** Specify the name of the person who will receive the shipment.

   c. **Send status on shipments to e-mail or fax.** Specify an e-mail address or fax number to which the NVS DMT may send updates of the shipment status.

   d. **Limitations that could impair movement or offloading at delivery site.** Describe any limitations or restrictions that could negatively impact the transportation or offloading of countermeasures at the delivery site. Examples include security, parking, or dock limitations.

   e. **Address, phone number, cell phone number, e-mail, or fax at Incident Command post if different from above.** Provide the information for the Incident Command post if countermeasures are shipped to a location other than the Incident Command staging area.

   f. **Does the State, Tribe, or Territory have an NVS plan. Indicate if a written NVS plan is available.** If yes, please e-mail the plan to the NVS staff at nvs@aphis.usda.gov.

   g. **Special instructions.** Specify any special instructions that may not be listed above. For example, specify the shipping address for vaccine if it is to be shipped to a different location than other countermeasures.

   h. **Incident Command POCs.** List the contact information for the primary and secondary contacts within the logistics section that will coordinate with the NVS DMT. List the hours of operation of each shift and multiple individuals for multiple shifts, as applicable.

7. **For NVS Staff Use.** The NVS staff will use this section to indicate the decision for the request, the person making the decision, and the date and time it occurred.

C. Request for 3D Response Support Services

Incident Command should use the following guidance to receive 3D response support services from the NVS program. These services include depopulation of poultry, disposal of livestock and poultry carcasses, and cleaning and disinfecting equipment and premises. (For brevity, these services are described as "3D" for depopulation, disposal, and decontamination.) For more information on requesting these services from 3D contractors, visit the NVS website nvs.aphis.usda.gov.

The 3D contractors work in accordance with terms and conditions (rates, liability, etc.) of the NVS contract and in the basic ordering agreement (BOA). To activate 3D contractors for a specific incident, an SOW is required for APHIS contracting to assign a task order.

The sequence of events necessary to activate 3D contractors is as follows:

1. The SAHO and AVIC or Incident Command call the NCAHEM emergency response hotline, **1-800-940-6524**, day or night, weekdays or weekends.
2. The SAHO and AVIC or Incident Command complete the SOW form and submit it to the NVS staff by e-mail at nvs@aphis.usda.gov. The DMT is available to help ensure the correct information is included in the SOW form:
    a. The situation and why 3D contractors are needed
    b. The type of support required (such as 3D services or something else)
    c. The tasks to be performed under the 3D contractor services, estimated start and end dates, number of personnel required, number of labor hours per day that the 3D contractors will be utilized (billable hours are for personnel time actually spent at the job site), type of equipment required, and geographic location of the incident
    d. Funding sources: Commodity Credit Corporation (CCC) funds, State or Tribal funds, APHIS VS program funds, or Stafford Act funds (see Section E, "Funding Sources").
3. The NVS notifies the 3D contractors by phone or e-mail with specifics of the current situation and to assess their capability and availability to participate in the event (training, exercise, deployment of equipment, emergency response services, etc.). The DMT identifies the appropriate 3D contractors for the job by doing the following:
    a. Reviewing and discussing the SOW and funding
    b. Identifying the available 3D contractors most qualified to do the work described in the SOW.
4. Following the call, the NVS provides the 3D contractor the written SOW to develop and submit a cost estimate. All cost estimates are based on terms and conditions of the current United States Coast Guard Basic Ordering Agreement.
5. The 3D contractor develops its cost estimate on the basis of the requirements in the SOW and submits it to the NVS.
6. The NVS forwards the SOW to the APHIS contracting officer and Incident Command to activate the 3D contractor.

7. The Incident Command, DMT, APHIS contracting, and 3D contractor participate in a conference call to discuss the SOW, cost estimates, and when the 3D contractor can be expected to arrive at the incident site:
    a. The 3D contractor may ask questions to clarify the type and scope of services needed. It may provide an initial estimate of its cost based on the SOW presented and how many people it can have on site and when. In some circumstances, however, the 3D contractor may need to travel to the incident site at its expense to better understand the scope of work required for the cost estimate.
    b. The APHIS contracting officer formally requests a written cost estimate from the 3D contractor based on the written SOW before authorizing the work.
8. Following review of the SOW, the APHIS contracting officer typically approves proceeding with the work and defines a "not-to-exceed" funding cap. When it's critical that the support begin immediately, the APHIS contracting officer may authorize 3D contractors, either verbally or in writing, to begin work right away and require an initial cost estimate in 2 or 3 working days.
9. Upon request for 3D support, the DMT asks Incident Command to provide a point of contact or designated representative to supervise or oversee the operation. The POC or designated representative needs to be familiar with the operation and the requirements in the SOW. The POC or representative may also be requested to review and validate the 3D contractor daily log and time and attendance records.
10. As work progresses, APHIS contracting ensures that the charges from the 3D contractors are reflected in the BOA and the actual costs are in the SOW scope. Additional work can be done and the SOWs changed or expanded as the outbreak unfolds, or a new SOW may be developed for different tasks. All requested changes must be approved through the same process by the APHIS contracting officer.
11. The 3D contractors arrive on scene and do the following:
    a. Check in as responders with the planning section resources unit, or elsewhere as instructed, and provide required information, including 3D personnel and equipment for the ICS 211 incident check-in list.
    b. Report to the operations section chief or other section as assigned.
12. The on-site APHIS VS representative in the finance/administration section typically pays for the 3D contractor and reports the costs, unless other arrangements are made.

Statement of Work (SOW) Form to Request National Veterinary Stockpile (NVS) 3D Response Support Services

Incident Command completes this statement of work (SOW) form to request NVS 3D response support services and submits it to NVS Headquarters by e-mail nvs@aphis.usda.gov. Use additional space as required. For more information on how to complete the form, consult the NVS mobile logistics team, if one is on site, or call the National Center for Animal Health Emergency Management (NCAHEM) emergency hotline, **1-800-940-6524.** This form must be attached to the NVS Countermeasures Request Form at the time of submission.

1. Describe the situation and why 3D response support services are needed: _____

2. Check the types of support required:
   - ☐ Depopulation (limited to poultry w/CO_2 carts or foam units)
   - ☐ Disposal (landfill, burial, composting on site, etc.)
   - ☐ Decontamination (cleaning and disinfecting of premises, vehicles, equipment, etc.)
   - ☐ Other—explain: _____

3. Detail the task to be performed by the 3D contractors so that the number of labor hours per day may be determined for each task to completion. (Billable hours are for personnel time spent at the job site.) Include the (1) geographic locations; (2) number of premises; (3) specific job tasks, including species; (4) number of personnel needed (if known); (5) special needs (specialized equipment, certified personnel, etc.); and (6) NVS equipment (animal handling, foam units, CO_2 carts) or other specifications detailing the need: _____

4. Check the funding sources that will pay for the 3D response support services:
   - ☐ Commodity Credit Corporation funds (USDA Secretary emergency funds)
   - ☐ State, Tribal, or Territory funds
   - ☐ APHIS VS program funds
   - ☐ FEMA ESF 11 funding through the Stafford Act

Provide additional comments to help explain the requirements and support the request:

_____

D. Requests for Additional NVS Support

If additional NVS support (animal handling equipment, 3D response support services, animal vaccine, etc.) is required, the supply unit staff works with the NVS MLT, if available on site, or the NVS DMT at APHIS VS Headquarters to request potential deployment of additional support from the NVS program. The *NVS Logistics Catalog*—which lists and illustrates the physical countermeasures—is available from the password-protected NVS website nvs.aphis.usda.gov. Contact nvs@aphis.usda.gov to request the password and check the site frequently for updated information.

E. Funding Sources

Four methods are available to fund NVS 3D response support services:

1. *Commodity Credit Corporation (CCC) funds*. To use these funds, the Secretary must declare an extraordinary emergency, typically for responding to the most damaging animal diseases, such as highly pathogenic avian influenza, foot-and-mouth disease, or exotic Newcastle disease. The APHIS VS AVIC knows the procedures for requesting and using CCC funds.

2. *State or Tribal funds*. A State or Tribe may use its funds to cover the cost of contractor support.

3. *APHIS VS program funds*. An APHIS VS program, such as the low pathogenic avian influenza program, may use its funds to cover contractor costs.

4. *Stafford Act funds*. FEMA may issue a mission assignment to support Emergency Support Function 11 (ESF 11) operations and fund contractor support. The Stafford Act typically funds 75 percent of the cost of a mission assignment, and the State funds the remaining 25 percent.