
Federal Container Containment Regulations & Assessments in Virginia

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*Virginia Department of Agriculture and
Consumer Services*

Containment Assessments



- ❑ In the fall of 2008, with pesticide containment rule less than a year away from implementation and no in-depth training and/or outreach material available it was decided that VDACS would develop the necessary materials.

- ❑ Liza Fleeson (Program Manager), Doug Edwards (Enforcement Supervisor), and Robert Christian (Investigator) worked together to create training & inspection materials, outreach documents, and established on-site training for staff.



Containment Assessments

- An establishment inspection form along with a “Pesticide Containment Regulations: What you need to Know” outreach brochure was developed by the VDACS enforcement staff.

Pesticide Containment Regulations:

What You Need to Know

On August 17, 2009, certain agricultural pesticide containment structures in Virginia must comply with EPA's Pesticide Container Containment Rule. These requirements were developed to protect the environment from agricultural pesticide releases at bulk storage sites and also from agricultural pesticide spills and leaks resulting from pesticide refilling and dispensing operations. This protection is achieved by the construction and maintenance of secondary containment units and/or pads.

This brochure is provided to help identify which facilities are subject to the containment regulations and to provide information regarding the specific requirements of those regulations.

What two conditions will result in you having to comply with the pesticide containment requirements set forth in EPA's Pesticide Container - Containment Rule?

First, if you own or operate one of the following:

- An agricultural pesticide refilling establishment that repackages such pesticides and whose main business is retail sale (i.e., greater than 50% of total annual revenue generated from retail sales).
- An agricultural pesticide custom blending operation.
- A business which applies agricultural pesticides for compensation (commercial pesticide applicator).

And

Second, you engage in either or both of the following:

- The storage of agricultural pesticides in stationary containers designed to hold undivided quantities of 500 gallons or more of liquid or 4,000 pounds or more of dry agricultural pesticide for any purpose, including refilling or emptying for cleaning

What pesticide dispensing areas are subject to the requirements set forth in the containment regulations?

- Areas in which refillable containers of agricultural pesticides are emptied, cleaned or rinsed
- Areas in which agricultural pesticides are dispensed from a stationary pesticide container designed to hold undivided quantities of 500 gallons or more of liquid or 4,000 pounds or more of dry agricultural pesticide for any purpose, including refilling or emptying for cleaning

According to this rule, what constitutes a stationary pesticide container?

- One that is fixed at a single facility or establishment.
- One which, if not fixed, remains at a single facility or establishment for at least 30 consecutive days, and that holds pesticide during that entire time.

What pesticide dispensing areas are exempt from the containment regulations?

- Areas where agricultural pesticides are dispensed from any other container for refilling a refillable container for sale or distribution.

What pesticide dispensing areas are exempt from the containment regulations?

- A pesticide dispensing area in which the only pesticides present would be gaseous, when released at atmospheric temperature and pressure.
- A pesticide dispensing area in which the only pesticide containers refilled or emptied are stationary pesticide containers that are already protected by an appropriate secondary containment unit.
- A pesticide dispensing area which is used solely for dispensing pesticide from a tail cat, which does not remain at a facility long enough (30 days) to meet the definition of a stationary pesticide container.

For the containment regulations, what qualifies as an existing versus a new containment structure? (Note: Containment structures include secondary containment units and containment pads?)

- An existing containment structure is one for which installation began on or before November 16, 2008.
- A new containment structure is one for which installation began after November 16, 2008, and for which certain conditions regarding permits, construction and contracts are met.

What construction materials must be used in the case of existing containment structures and new containment structures?

- In both cases, the containment structure must be constructed of slab, reinforced concrete or other rigid material capable of withstanding the full hydrostatic head, fluid head and impact of any pesticides, precipitation, other substances, equipment and appurtenances placed within the structure. The structure must be liquid-tight with cracks, seams and joints appropriately sealed.

What are the general design requirements common to existing and new containment structures? How requirements differ?

- In both cases, all appurtenances (e.g., central fittings, plumbing valves, gauges, pumps, etc. devices, etc.) and pesticide containers must be protected against damage from operating and moving equipment. Such means of protection include, but are not limited to, supports to pre-sagging, flexible connections, the use of guard barriers and protective cages.
- In both cases, the containment structure must be constructed with sufficient freeboard to contain precipitation and prevent water and other liquid seeping into or flowing onto it from adjacent structures.
- In both cases, multiple stationary pesticide containers must be protected within a single secondary containment unit.
- In the case of an existing containment structure, appurtenances, discharge outlets and gravity must be sealed, except for direct interconnection between adjacent containment structures that requirements of the containment regulations.
- In the case of a new containment structure, appurtenances, discharge outlets or gravity must not be configured through the base or wall of containment structure, except for direct interconnection between adjacent containment structures that requirements of the containment regulations. Appurtenances must be configured in such a way that spills or leaks are easy to see.

What are the specific design requirements for new existing stationary liquid pesticide containment structures?

- Each stationary liquid pesticide container must be anchored or elevated to prevent flotation in the event the secondary containment unit fills with liquid.

VIRGINIA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES
OFFICE OF PESTICIDE SERVICES
PESTICIDE CONTAINER CONTAINMENT ASSESSMENT

INSPECTOR NO. _____ DATE AND TIME OF VISIT : ____ : ____ AM/PM EPA ESTABLISHMENT NO. _____
☐ AG RETAILER
☐ AG COMMERCIAL APPLICATOR
☐ AG CUSTOM BLENDER

ESTABLISHMENT NAME: _____ ADDRESS (including Street, City, State, and ZIP Code): _____
 PHONE: _____

I. Scope and Applicability of Containment Standards

Scope: form of business (include § 165.80(d)) _____ YES NO N/A
☐ YES ☐ NO ☐ N/A

1. Does the facility meet all of the following criteria? _____
 If yes, the facility is subject to the containment requirements. Continue to question #2. If not, the facility is not subject to the containment requirements.

A. Does the facility handle (repackage, store, apply or blend) agricultural pesticides? _____
☐ YES ☐ NO ☐ N/A

B. Is the facility classified as at least one of the following kinds of business? _____
☐ YES ☐ NO ☐ N/A

☐ Refilling establishment that repackages agricultural pesticides and whose principal business is retail sale (more than 50% of total annual revenue comes from retail operations);
☐ Custom blender of agricultural pesticides; or
☐ Commercial applicator of agricultural pesticides.

C. Is compliance required yet? _____
☐ YES ☐ NO ☐ N/A

By August 17, 2009, all secondary containment structures and containment pads at these facilities must be in compliance with the containment standards.
The containment requirements addressed in this checklist apply only to agricultural pesticides.

Scope: containers that must be in secondary containment (include § 165.81(b)) _____ YES NO N/A
☐ YES ☐ NO ☐ N/A

2. Are the containers required to be in a secondary containment unit? _____
 If a container meets both criteria, the container must be in a secondary containment unit. See questions #4 - 16. In addition, the operational, inspection, maintenance and recordkeeping requirements in questions #25 - 28 apply.)

A. Is the refillable container a stationary pesticide container? _____
 In other words, is it a refillable container that is fixed at a single facility or, if not fixed, a refillable container which remains at the facility for at least 30 days and holds pesticide during the entire time?

B. Is the capacity of the refillable container equal to or greater than 500 gallons (1,890 liters) for liquid pesticides or 4,000 pounds (1,818 kilograms) for dry pesticides? _____
☐ YES ☐ NO ☐ N/A

There are some exemptions in § 165.81(b). The following containers are not required to be in a secondary containment unit even if they meet the criteria in (A) and (B) above: (1) empty containers; (2) containers that hold only rinsate or wash water and are labeled as such; (3) containers that hold pesticides which are gaseous when released at atmospheric temperature and pressure; and (4) containers dedicated to non-pesticide use and so labeled.

Scope: when a containment pad is required (include § 165.82(a)) _____ YES NO N/A
☐ YES ☐ NO ☐ N/A

3. Is a containment pad required? _____
 If both criteria are met, the pesticide dispensing area must have a containment pad. See questions #17 - 24. In addition, the operational, inspection, maintenance and recordkeeping requirements in questions #25 - 28 apply.)

A. Is there a pesticide dispensing area? _____
 In other words, is there an area in which pesticide is transferred out of or into a container?

Original - OHS • Yellow - Investigator • Blue - Establishment
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 VDACS 00000 (12/08)

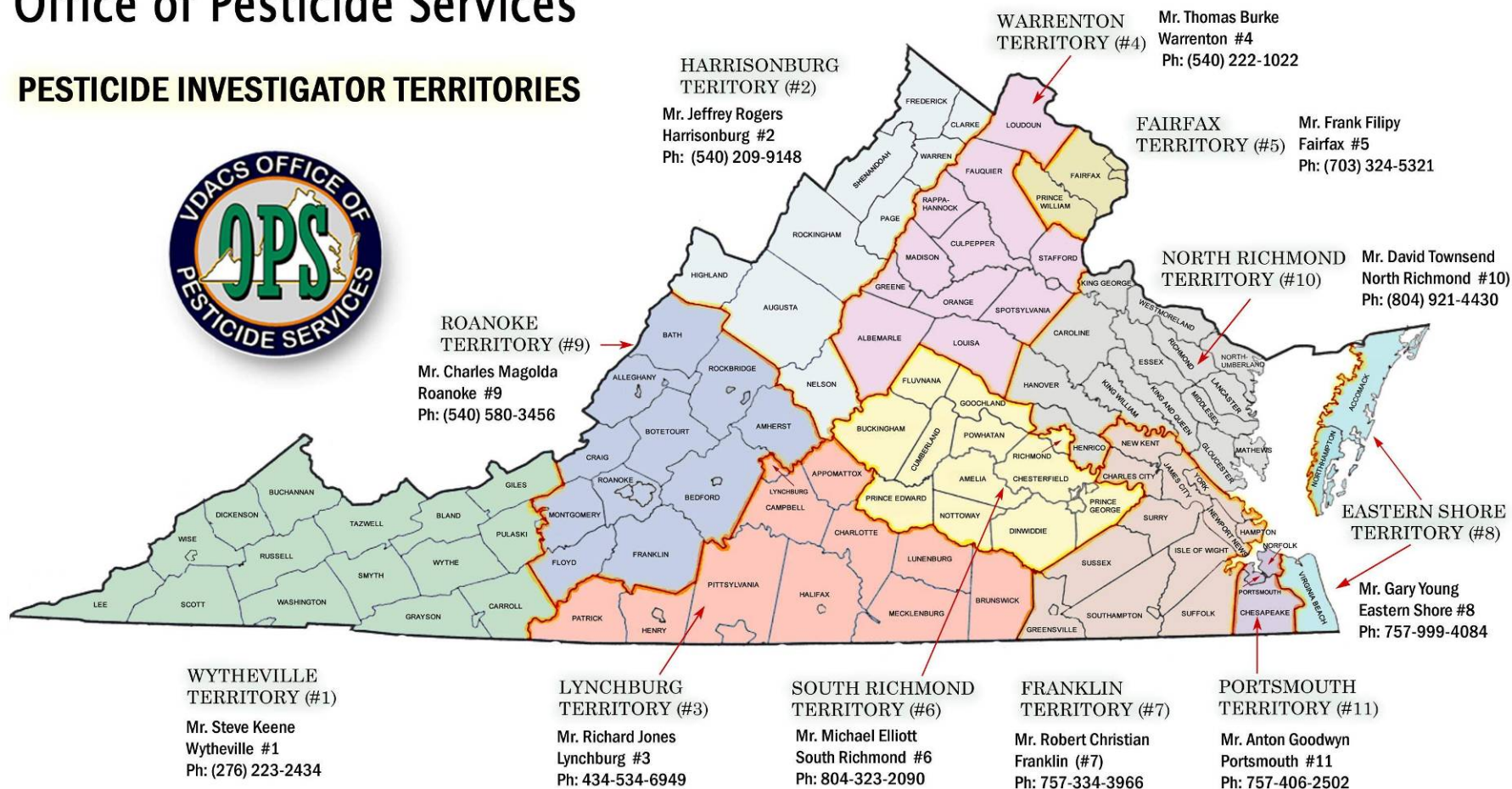
- Investigators attended an intense, in-house two day training session w/ hands-on field components.



Virginia Department of Agriculture and Consumer Services

Office of Pesticide Services

PESTICIDE INVESTIGATOR TERRITORIES



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Containment Assessments

- ❑ All facilities potentially affected were identified.
 - ❑ Facilities were sent letters/brochures prior to assessments explaining the purpose of the proposed site assessment visits and following the actual assessment visits to advise of any necessary modifications which would need to be made by August 17, 2009.
 - ❑ All facilities which were contacted consented to containment assessments.
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Containment Assessments

- Information was gathered and reviewed by the Investigator and the Enforcement Supervisor, then shared with the firm.

Vertical Tank Calculations

Tank No.	Circumference	Diameter	Radius	Height	Cone Height	Cone below wall	Cylinder below wall	Tank Capacity	Gallons Displaced
1	18.50	5.89	2.95	12.21	5.06	0.00	0.00	2833.52	0.00
2	20.66	6.58	3.29	9.50	0.83	0.00	0.00	2486.39	0.00
3	20.66	6.58	3.29	9.50	0.83	0.00	0.00	2486.39	0.00
4	19.00	6.05	3.03	10.00	0.00	0.00	0.00	2150.71	0.00
5	25.00	7.96	3.98	18.00	0.42	0.00	0.00	6754.48	0.00
6	20.66	6.58	3.29	9.50	0.83	0.00	0.00	2486.39	0.00
7	20.66	6.58	3.29	9.50	0.83	0.00	0.00	2486.39	0.00
8	25.00	7.96	3.98	11.08	14.75	0.00	0.00	5956.30	0.00
9	18.83	6.00	3.00	12.00	0.58	0.00	0.00	2575.71	0.00
10	11.00	3.50	1.75	3.00	0.00	0.00	1.00	216.26	72.09
Gallons Displaced									72.09

Dimensions: Containment Pad: 1*

Length (ft) 77.67
Width (ft) 18.90
Height (ft) 0.30
Total
Volume(gal) 1,098 gallons

* CENTER SUMP DESIGN

Containment 3,418
Displacement 72
Net Cont. 3,346

Dimensions: Containment Pad: 2*

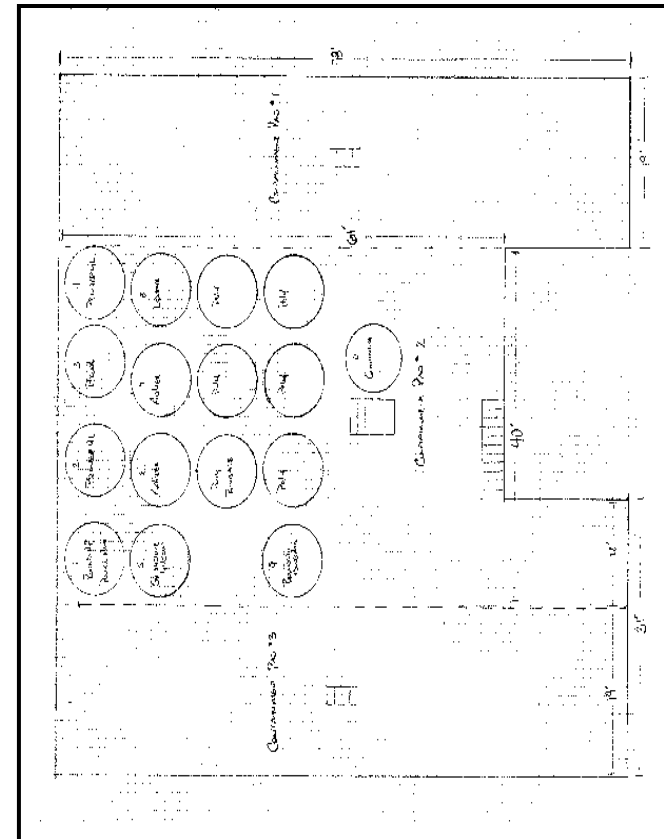
Length (ft) 61.02
Width (ft) 40.00
Height (ft) 0.23
Total
Volume(gal) 1,400 gallons

Largest tank 6754 gallons
Contained = 50%

Dimensions: Containment Pad: 3*

Length (ft) 77.67
Width (ft) 19.00
Height (ft) 0.25
Total
Volume(gal) 920 gallons

ALL FIGURES ARE APPROXIMATE



CONTAINMENT ASSESSMENTS IN VIRGINIA: BY THE NUMBERS

APPLICABLE FACILITIES INSPECTED – 53

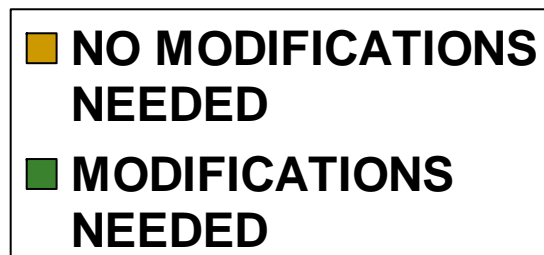
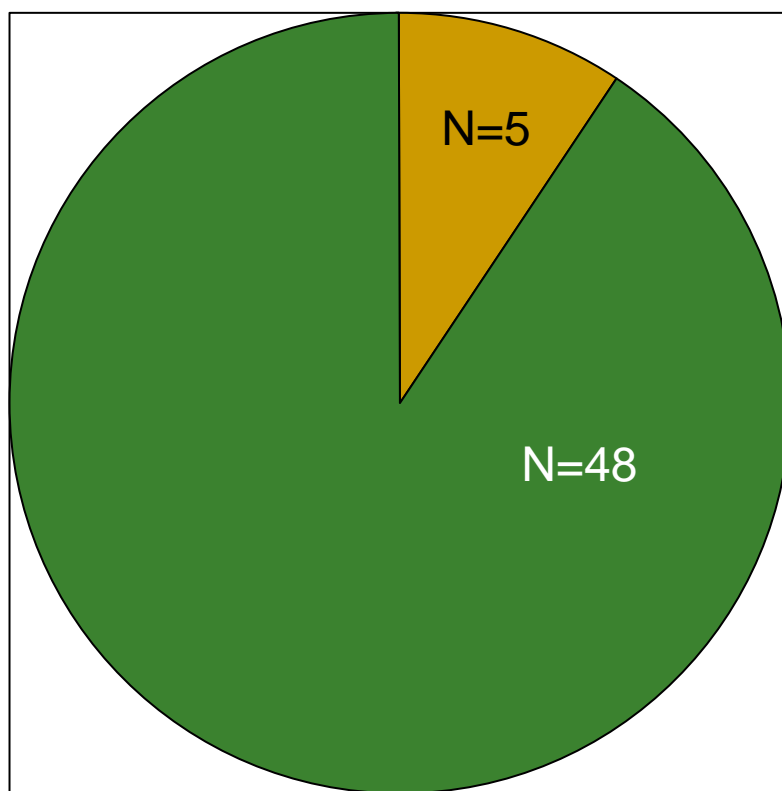
- ❑ REFILLERS/REPACKAGERS – 43
- ❑ CUSTOM BLENDEES – 4
- ❑ COMMERCIAL APPLICATORS – 36

FACILITIES WITH NEW CONTAINMENT STRUCTURES - 0

FACILITIES WITH EXISTING CONTAINMENT STRUCTURES – 53

STATIONARY PESTICIDE CONTAINERS – 201 (ALL LIQUID)

FACILITIES AND CONTAINMENT ASSESSMENT FINDINGS

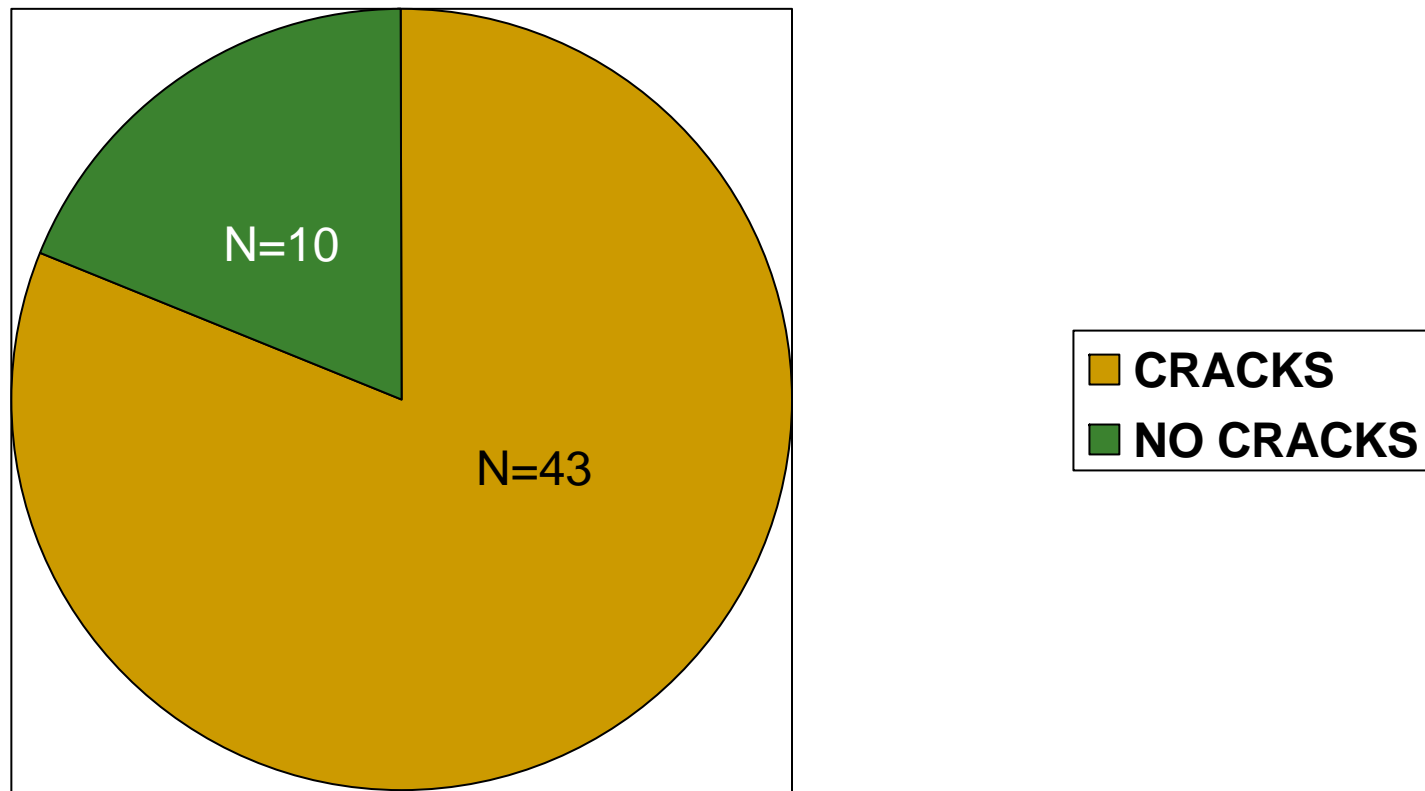


FACILITIES AND STRUCTURAL INTEGRITY



These cracks patched with polyurethane sealant then painted over with a concrete and Lucite mix.

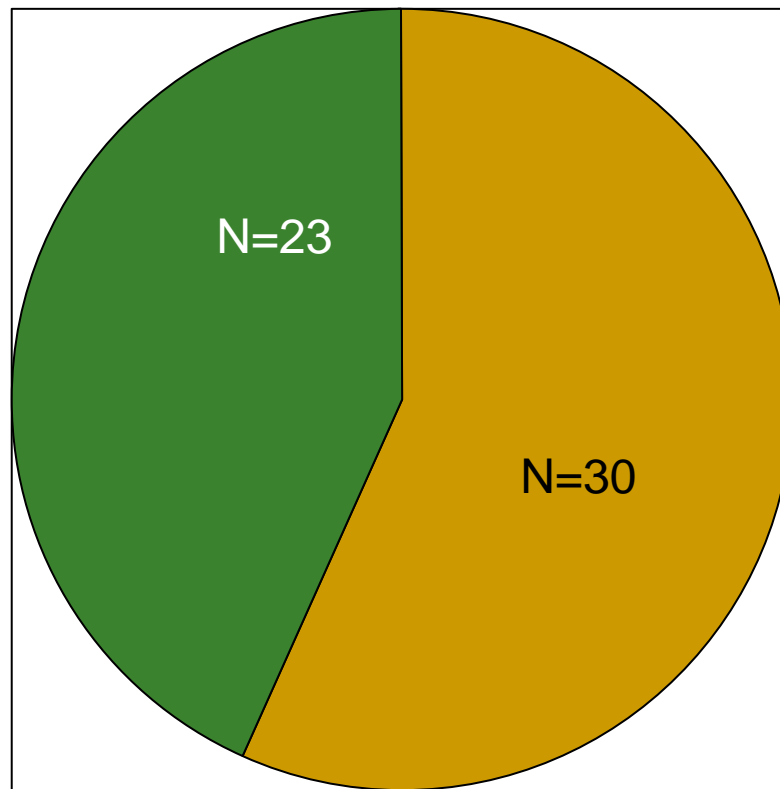
FACILITIES AND STRUCTURAL INTEGRITY



FACILITIES AND CONTAINMENT PADS



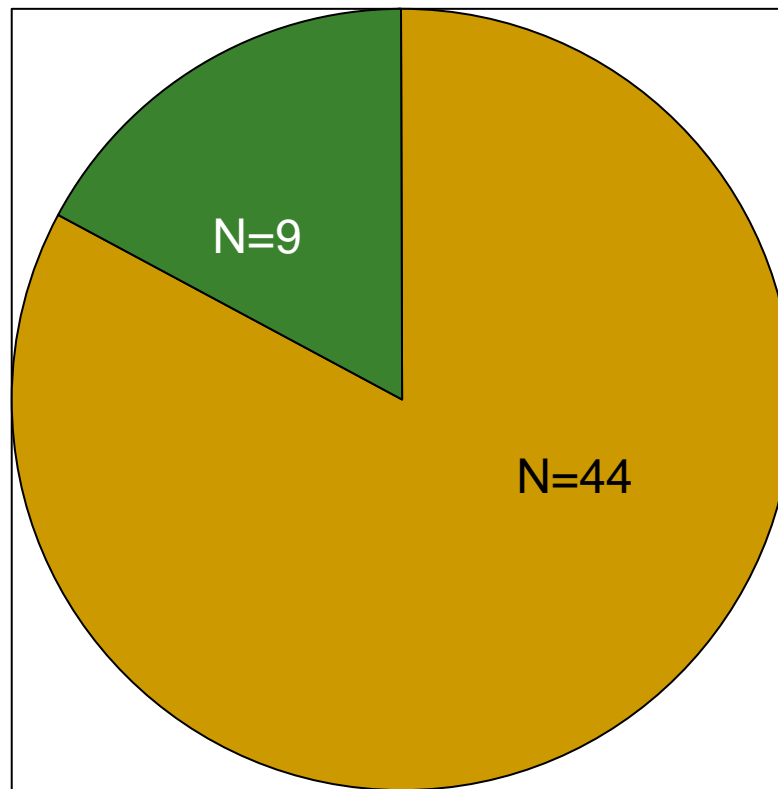
FACILITIES AND CONTAINMENT PADS



FACILITIES AND ACCEPTABILITY OF STRUCTURAL MATERIALS



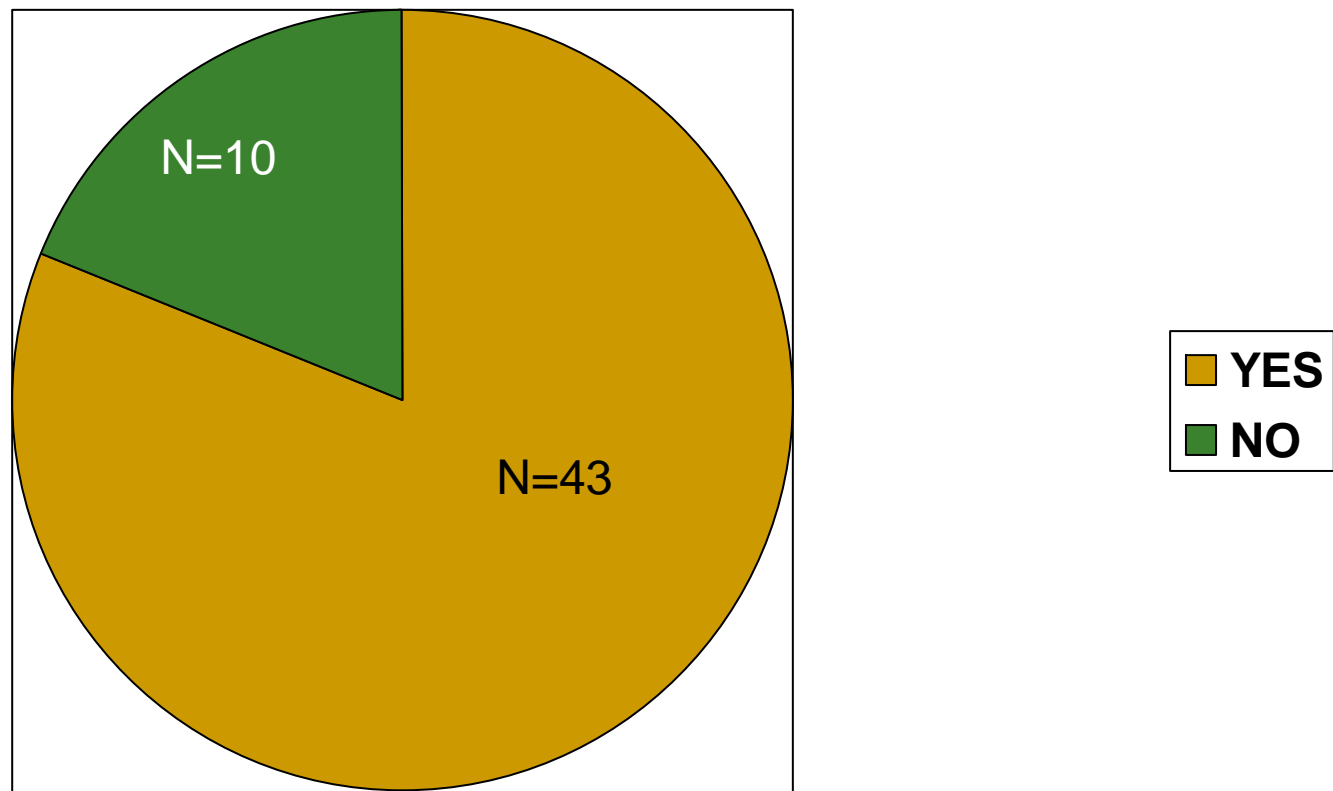
FACILITIES AND ACCEPTABILITY OF STRUCTURAL MATERIALS



FACILITIES AND STATIONARY CONTAINERS ANCHORED OR ELEVATED



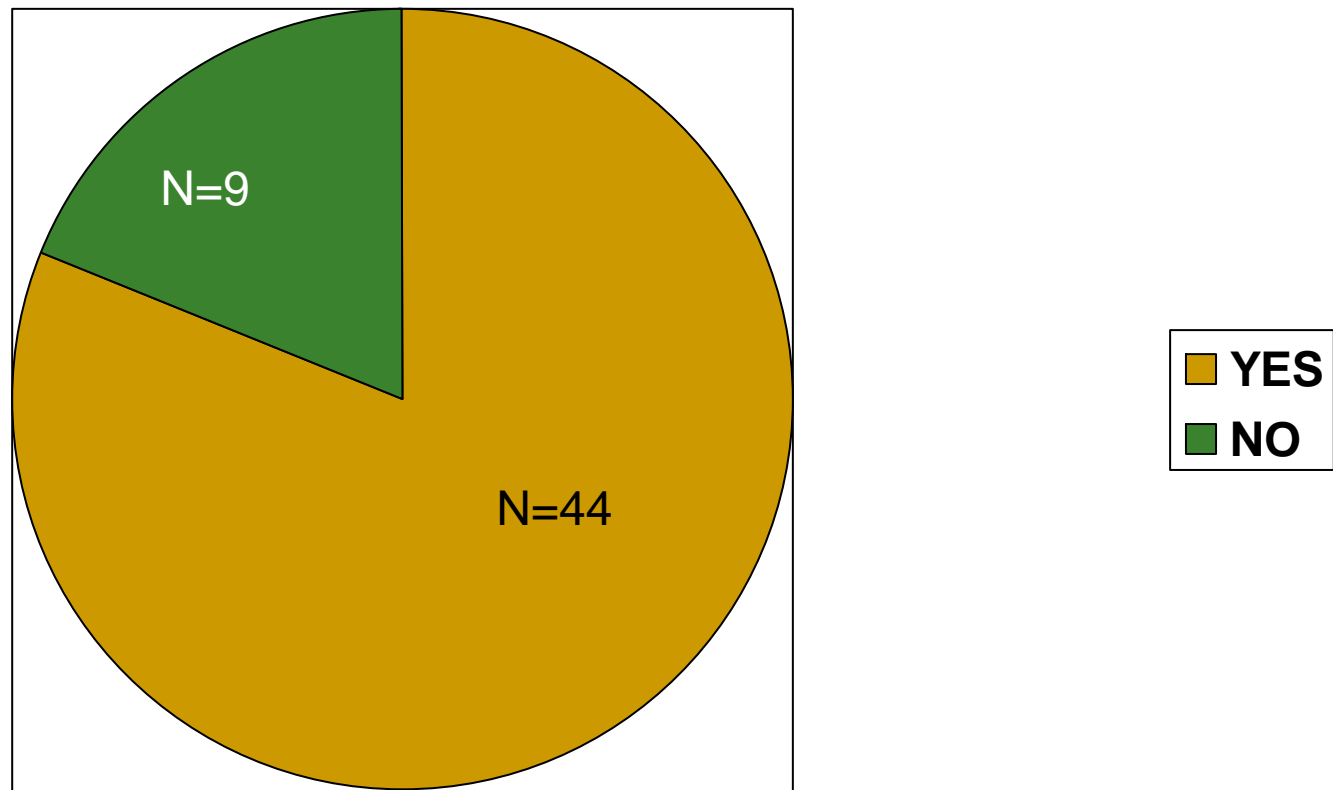
FACILITIES AND STATIONARY CONTAINERS ANCHORED OR ELEVATED



FACILITIES WITH SUFFICIENT CONTAINMENT UNIT CAPACITIES



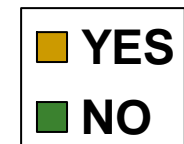
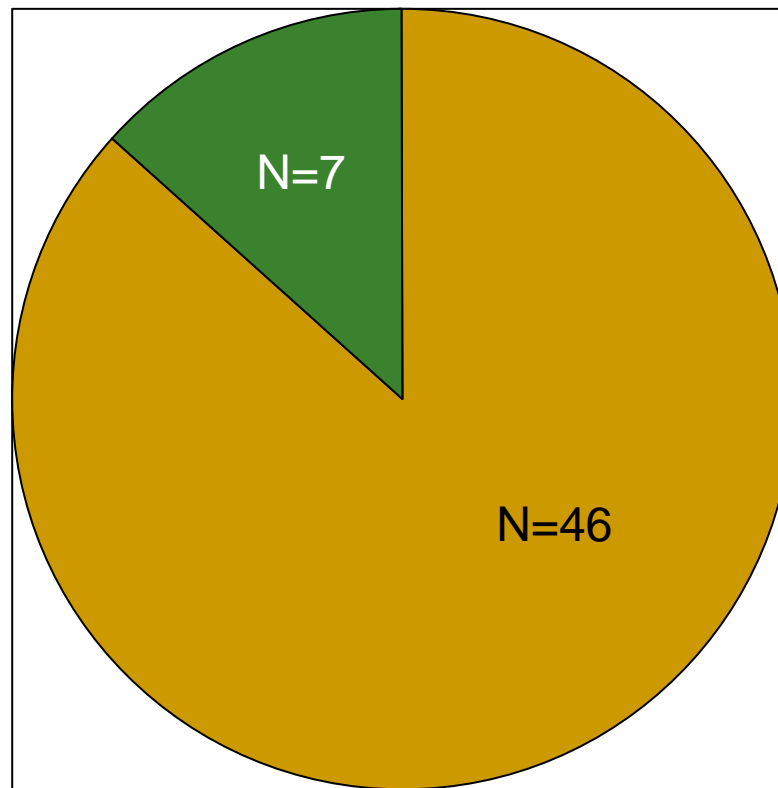
FACILITIES WITH SUFFICIENT CONTAINMENT UNIT CAPACITIES



FACILITIES WITH ADEQUATE TRANSFER EQUIPMENT PROTECTION MEANS



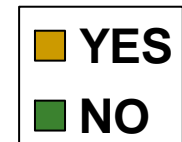
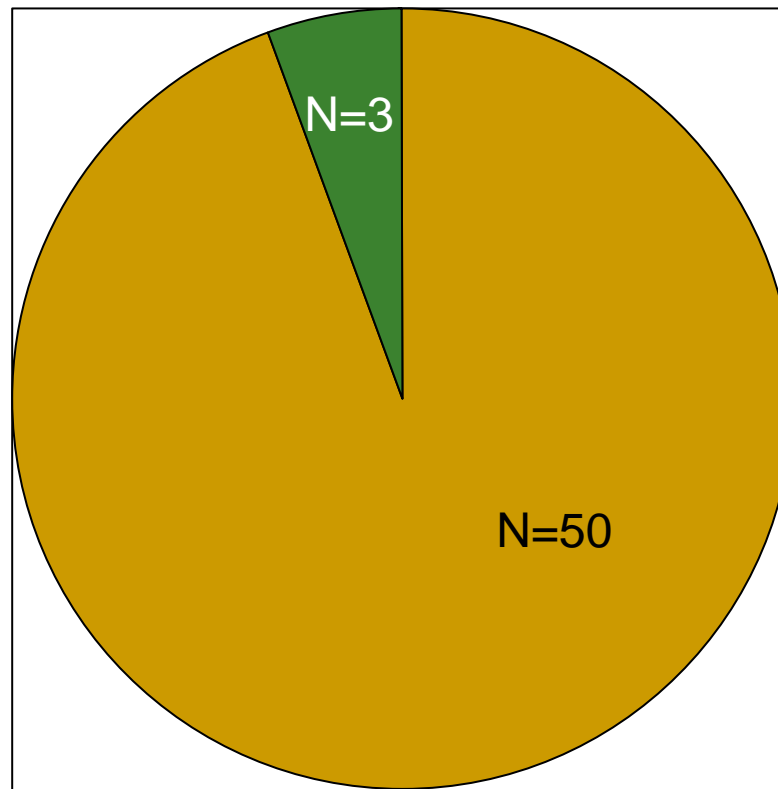
FACILITIES WITH ADEQUATE TRANSFER EQUIPMENT PROTECTION MEANS



FACILITIES WITH SUFFICIENT FREEBOARD



FACILITIES WITH SUFFICIENT FREEBOARD



Containment Assessments

- ❑ What we are doing now:
 - The container and containment regulations have been and are still being discussed with the agrichemical industry in Virginia at numerous meetings.
 - We conduct re-inspections at the facility's request to verify corrections to deficiencies and to answer any question that arise as the repairs are being made.
 - VDACS is currently in the process of adopting the Containment portion of the rule into our regulations.
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Additional Information

- Environmental Protection Agency

www.epa.gov/pesticides/regulating/containers.htm
