Operation & Maintenance Plan
Roofs and Covers (Code 367)

Landowner/Operator: Date:

NRCS Service Center: Conservation District:

Practice Location: Tract/Field ID:

(Lat/Long or UTM Coord, or Sec/TS/R)

Expected Lifespan

The minimum expected lifespan of this practice is at least 10 years.

A properly operated and maintained **Roof and Cover System** is an asset to your property. The purpose of this practice is to divert precipitation away from the barnyard and/or waste storage facility. The estimated life span of this practice is 10 years. The life of the practice can be assured and usually extended by developing and carrying out a good operation and maintenance program.

This practice will require you to perform periodic operation and maintenance to maintain satisfactory performance. The following are some requirements to help you develop a good operation and maintenance program.

Operation and Maintenance – All Facilities:

1. If the building is provided by a specific manufacturer, follow the manufacturer's operation and maintenance requirements.
2. Do not overcrowd barnyard. Typical barnyard should occupy no more than 50 Square Feet per Animal Units. Typical bedded pack facility should be no more than 100 Square Feet per Animal Units. Overcrowding could lead to livestock injury and damage to the structure by the livestock.
3. Building foundation:
    a. Bedded pack facilities:
        i. The walls for a bedded pack facility are specifically designed for additional lateral loads exerted on the walls by the "pack". Applying lateral loads to a wall not specifically designed to do so could weaken and compromise the entire structure. Consult a Vermont licensed professional engineer before converting any building into a bedded pack facility.
        ii. Do not allow the manure or "pack" to build up more than 4 feet on the walls.
    b. Inspect timber and/or concrete foundation components at least twice per year.
    c. Repair any damage to lumber and concrete components as soon as possible. Consult a Vermont licensed professional engineer for guidance on how to repair damaged foundation components.
    d. Repair any erosion around the outside of the foundation immediately and take additional measures to divert runoff away and/or stabilize the area to prevent future erosion.
    e. Do not excavation within five feet of the foundation. If excavation is necessary closer than five feet, consult a Vermont licensed professional engineer for guidance.
    f. Periodically apply paint or wood preservative to wood components of the foundation which come in contract with manure, moisture, or livestock.
    g. Periodically apply paint or other protective coating to metal parts of the foundation that show signs of corrosion.
    h. To avoid damage to facility walls and/or foundation, use extreme care when operating equipment immediately next to the facility.

Operation and Maintenance – Truss Type Facilities:

1. Do not attach additional bracing, posts, etc. to timber trusses that was not part of the original

design.

2. Inspect semi-annually:
    a. Trusses for damage and deterioration. Repair or replace in accordance to the manufacturer's specifications or consult a licensed professional engineer.
    b. All posts, headers, knee & wye bracing, lateral bracing for damage and deterioration. Repair or replace in accordance to the manufacturer's specifications or consult a licensed professional engineer.
    c. All gusset plates, fasteners and other metal connections for accelerated corrosion. Remove corrosion and paint or provide a protective barrier over the connections. For excessive corrosion, consult a Vermont licensed professional engineer.

Operation and Maintenance – Fabric Hoop Type Facilities:

Inspect semi-annual or after a high wind event, i.e. 40 mph gust or higher:

1. Verify that all winch and ratchet mounting bolts are tight.
2. Inspect all straps. Replace worn or frayed straps immediately. Evenly tighten all straps with torque wrench in accordance to manufacturer's specification.
3. Inspect the cover for worn or damaged areas. Repair as need in accordance to the manufacturer's specifications.
4. Check anchor system components and fasteners to verify that these are in good repair and tight.
5. Check base plate bolts to ensure that these are tight and in place.
6. Inspect all cable assemblies and tighten turnbuckles, if needed. Verify that cables are not rubbing on the frame or cover. Replace broken or worn cables immediately.
7. Verify that the contents of the building are not touching or rubbing on the main cover. Exclude livestock access to the main cover.
8. Inspect building components for damage resulting from use. Repair or replace damaged components as instructed by the manufacturer.
9. Remove all debris and objects that accumulate on the cover. Be careful not to damage the cover.
10. Clean cover as needed to remove dirt and grime that can damage the cover material. Do not use a "high pressure" system to clean cover, damage could occur to the fabric.
11. Do not climb or stand on the frame or cover at any time.
12. Immediately replace all parts or components which are worn, damaged, deteriorated, or in operable.
13. If possible, only replace parts and components provided by or approved by the building manufacturer.
14. Snow Accumulation:
    - Establish area around the perimeter of the building where snow can safely slide off the cover without damaging the building.
    - To prevent damage to the building and its contents, do not allow snow to buildup along the sides or on the building. Remove snow that accumulates on or around the base or foundation of the building after each significant snow fall. Care should be taken not to damage the foundation or building with snow removal equipment.
15. Do not allow manure to come in contact with the metal frame, hardware, or cover.
16. Lubricate all ratchets, winches, turnbuckles, and fasteners with a film lubricant that protects the parts from moisture, corrosion, and other affects resulting from a harsh environment.
17. Exercise all operable parts. Repair or replace damaged or deteriorated operable parts immediately.

Operation, Maintenance and Inspection Costs

1. It is estimated that the annual time to routinely inspect and make minor repairs to your Roof and

Cover will be:

a. Inspection = 4 hour/year
b. Minor Repairs = 4 hour/month
c. Snow Removal = 10 hour/year
d. Major repairs to damage will require extra time and materials.

2. Most minor repairs can be made by the operator using a ladder and basic hand tools. However, major repairs to damaged trusses, posts, concrete, etc. may require hiring a professional experienced in these repairs and improvements.

Specific Requirements for Your Practice

1. _____
2. _____
3. _____
4. _____
5. _____

Specific Site Requirements

Clear Form