

**NATURAL RESOURCES CONSERVATION SERVICE
CONSTRUCTION SPECIFICATION**

COMPOSTING FACILITY

(No.)
Code 317

SCOPE

Furnish the material for constructing a composting facility to lines, grades, elevations, and dimensions as shown on the drawings and in accordance with these specifications.

SITE PREPARATION

All the composting building area shall be cleared of trees, brush, roots, sod, and soil contacting excess amounts of organic matter, and other objectionable materials and disposed of at sites away from the area of work.

Clearing and disposal methods shall be in accordance with applicable state and local laws with due regard to the safety of persons, animals or property.

The facility must have an adequate access, landing and loading area.

Foundation areas shall be kept free of standing water when fill or concrete is being placed. The area shall be shaped, graded, and filled, if necessary, to provide a slope away from building for drainage. Any fill material used shall be free from all sod, roots, stones over 6 inches in diameter, and other objectionable material. Fill material shall be compacted with at least one pass of construction equipment over entire surface of layer placed. Layers should be less than 8 inches thick.

BUILDING MATERIALS

All metal used in the structure shall be galvanized or otherwise protected from corrosion.

CONCRETE

Concrete slab design shall consider the required performance and critical applied loads along with both the subgrade material and material resistance of the concrete slab. Where applied point loads are minimal and

the subgrade is uniform and dense, the minimum slab thickness shall be 4 inches with a maximum joint spacing of 15 feet. Joint spacing can be increased if steel reinforcing is added based on subgrade drag theory, as discussed in industry guidelines such as American Concrete Institute, "Design of Slabs on Grade, ACI 360." Construction of reinforced concrete shall conform to the requirement of the American Concrete Institute, "Building Code Requirements for Reinforced Concrete, ACI 318."

MASONRY

Construction of masonry installations shall conform to the requirements of the American Concrete Institute, "Building Code Requirements for Masonry Structures, ACI 530".

STEEL REINFORCEMENT

Reinforcement steel and welded wire fabric shall be new, clean, and free of oil, grease, paints, and flaky rust. Steel bars for concrete reinforcement shall be deformed billet-steel bars, conforming to, ASTM Specification A 615, Grade 40 to 60. Welded wire fabric shall conform to the requirements of ASTM Specification A-185.

Reinforcement steel and welded wire fabrics shall be suspended off the ground and other concrete contact surfaces by using scotches of concrete bricks, concrete blocks or pieces of blocks, wire stands, or other approved method prior to the placing of concrete, Scotches of stones, wood materials, earth and earth clods, clay bricks, scrap metal and unapproved materials are not acceptable. During concrete placement, welded wire reinforcement shall be pulled into the middle of the concrete. Welded wire fabric shall be spliced by overlapping a minimum of one full mesh plus 2 inches or 6 inches whichever is greater. A plastic sheet with a minimum thickness of 6 millimeters shall be placed below the reinforcement steel.

WOOD AND TIMBER

All material shall be full section sound wood, free from decay, and of new quality. Good quality, used, pressure-treated lumber may be utilized for walls. All timber beams shall be dense, structural quality, and graded in accordance with the Standard Grading Rules.

All structural timber, posts, poles and lumber, except roof girders, rafters, purling, trusses, knee braces, and attic bracing shall be pressure treated. Treated timber and lumber shall be impregnated with the specified type and quantity of preservative and conform to Federal Specification TT-W-571.

The roof shall be designed for applicable wind and dead loads for agricultural buildings, according to local building codes. Post and beam design shall be in accordance with procedures described in the National Forest Products Association's "National Design Specification for Wood Construction." Post embedment design shall be in accordance with ASAE practice standard ASAE EP486.1, "Shallow Post Foundation Design." All lumber in contact with the ground or compost shall be pressure-treated in accordance with ASTM D 1760.

Roofs truss design and support shall be in accordance with local government codes and follow manufacturer's standard dimensions. Roof truss shall be securely attached to the support posts.

Posts and poles shall be set plumb and to the depths shown on the drawings. Backfill around post/poles shall be concrete as shown on the drawings or shall be hand tamped earth if allowed on the drawings. Posts/poles shall be temporarily braced until girders, plates or other members are installed to maintain plumb alignment.

VEGETATION

A protective cover of vegetation shall be established on all the disturbed area. The planting of vegetative materials shall conform to the requirements of Conservation Practice Critical Area Planting 342.

BASIS OF ACCEPTANCE

The acceptability of this practice shall be determined by inspections to insure compliance with all the provisions of this specification and the drawings.

WORKMANSHIP

The construction and plantings shall be performed in a workmanlike manner, and the job site shall have a neat appearance when finished.

All disturbed areas not paved or graveled, will be vegetated to control erosion.

CONSTRUCTION OPERATIONS

Construction operations shall be carried out in such a manner and sequence that erosion and air and water pollution are minimized and held with legal limits.

The owner, operator, contractor or other persons will conduct all work and operations in accordance with OSHA safety codes for the type of construction being performed with due regards to the safety of all persons and property.

SPECIAL SAFETY CONSIDERATIONS

Landowner, contractor, operator and sponsoring organization shall be liable for damage to utilities and damage resulting from disruption of service caused by construction activities. NRCS makes no representation on the existence or non-existence of any utilities, Absence of utilities on the drawings is not assurance that the utilities are present at the site.

It is the responsibility of the landowner, contractor, operator or sponsoring organization to determine if there are buried or overhead utilities in the vicinity of the proposed work. They must take proper procedures to insure that the utilities shall not be jeopardized and that equipment operators and others will not be injured during construction operations.