THE SANITARY VAULT PRIVY

Minimum Requirements for the Location, Design, Construction, Operation and Maintenance of Sanitary Vault Privies

Indiana Department of Health

Bulletin S.E. 11

2021

Disclaimer: Unless adopted by reference into a county ordinance, this bulletin shall only be used as best practice guidance until formally incorporated in Rules 410 IAC 6-8.3 and 410 IAC 6-10.1.
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I. General Conditions and Scope

A. The purpose of this bulletin is to establish minimum standards for the sanitary features of vault privies and provide requirements for their location, design, construction, operation and maintenance. This bulletin is not intended to provide fully detailed construction drawings, and the information contained herein should be considered only as minimum requirements for the design and construction of the sanitary vault privy.

B. Privies must be of the sanitary vault type. Pit privies are prohibited.

C. The installation of sanitary vault privies should be considered only where special circumstances warrant such an installation and where sanitary sewer or an on-site sewage system are not available.
   1. Locations, dwellings, or structures where a water carriage sewage disposal system is not possible because of:
      a. Lack of a water supply to transport waste to sanitary sewers or to an on-site sewage system;
      b. Rugged terrain, steep slopes, or other site conditions which prevent the installation of sanitary sewers or on-site sewage systems; or
      c. Soil conditions which do not permit the installation of, or would be detrimental to the use of, on-site sewage systems.
      d. Lack of interior plumbing in the dwelling or structure.
   2. Recreational areas or campgrounds where it is not possible to install modern conveniences, or it is desirable to install sanitary privies to provide an opportunity for temporary outdoor primitive recreation.
   3. Places or special events which are open on a temporary or seasonal basis only and which serve a limited number of persons.

D. Many proposed locations and installations of sanitary privies may not be approved because of:
   1. Inadequate horizontal separation distances;
   2. High groundwater;
   3. The area being subject to flooding;
   4. Watershed sanitation considerations;
   5. Requirements of local zoning, building, or health ordinances; or
   6. Other health, sanitation, or safety considerations.

E. Installation of a sanitary vault privy does not negate the need for a properly sized and located on-site sewage system, if the home or structure has interior plumbing.

F. Under no circumstances should a privy be located where it could create or maintain a condition which could result in or cause a potential health or safety hazard. A sanitary vault privy must be located, constructed, operated, and maintained so that:
   1. Users do not contact waste matter deposited in the vault;
   2. Flies, insects, vermin, and other animals cannot gain access to the privy interior or vault;
   3. Surface or ground water cannot enter the vault;
4. The waste material in the privy vault cannot contaminate a water supply, stream, or body of water;
5. The waste material in the privy cannot be discharged onto the ground surface or otherwise be exposed to human or animal contact or create a health hazard; and
6. Odors are minimized inside and outside the privy structure.

G. Definitions used in this bulletin
1. Commercial Sanitary Vault Privy – A privy designed to serve anything other than a dwelling or a residential outbuilding.
2. Indiana Department of Health (IDOH) Regulated Facility – Commercial facilities that are regulated by IDOH pursuant to Rules 410 IAC 6-6, 410 IAC 6-7.1, Rule 410 IAC 6-7.2, and 410 IAC 6-9. IDOH regulated facilities include: recreational campgrounds, agricultural labor camps, youth camps, and mobile home communities.
3. Residential Sanitary Vault Privy – A privy designed to serve a dwelling or a residential outbuilding as defined in Rule 410 IAC 6-8.3-34.

II. Plan Preparation, Submittal, and Approval
A. Complete plans and specifications for sanitary vault privies to serve IDOH regulated facilities must be submitted to the Indiana Department of Health for approval prior to construction.
B. Review and approval of sanitary vault privies to serve commercial facilities, other than IDOH regulated facilities, is delegated to local health departments.
C. Complete plans and specifications for sanitary vault privies to serve private homes and commercial facilities, other than IDOH regulated facilities, must be submitted to the local health department of the county in which the structure is to be constructed.
D. Prior to the construction of any sanitary vault privy, a written construction permit shall be obtained from the local health department in the county in which the privy is located. Properties owned by the State of Indiana and those operated by the Indiana Department of Natural Resources are exempt from obtaining local permits for sanitary vault privies.
E. The application for a construction permit for a sanitary vault privy shall contain, or include as attachments, the following:
   1. Information on the following:
      a. The name and address of the property owner;
      b. The location of the property;
      c. The number of bedrooms and occupants in a private dwelling;
      d. For all proposed sanitary vault privies other than those to serve a private home:
         i. The number of persons of each sex projected to be using the sanitary privy, at both normal and peak usage times; and
         ii. Type of users to be serviced by the sanitary privy, both permanent employees and transients.
2. A written construction plan for the sanitary privy showing and/or providing information on:
   a. Topography of the site;
   b. Property lines;
   c. Roads and driveways;
   d. Lakes, streams, ditches, and other water bodies;
   e. Drainage tiles;
   f. All water supply sources and water lines within two hundred (200) feet of the proposed sanitary vault privy;
   g. All houses, buildings, or other structures on the property;
   h. All houses, buildings, or other structures on adjacent property that are within one hundred (100) feet of the sanitary vault privy;
   i. Information on all structures providing food service within one hundred (100) feet of the sanitary vault privy;
   j. Location of any existing sanitary sewers or sewage treatment facilities within five hundred (500) feet of the proposed sanitary vault privy;
   k. Location and description of land uses on the site including campsites, picnic areas, and playgrounds;
   l. For pre-cast vaults, the vault manufacturer, construction material, and construction details;
   m. For site built vaults, IDOH approved plans which will be used for the vault construction;
   n. Details of the floor slab and sill construction;
   o. The privy risers, type and number of seats, type of seat lids, and vault vent pipe;
   p. Detail of the privy housing structure, including how it will be ventilated;
   q. Detail of how the privy housing will be maintained fly-tight and rodent-proof;
   r. Detail showing the privy features which will be installed to ensure privacy; and
   s. Any other information deemed necessary by IDOH or the local health officer.

III. Location
   A. The location of the sanitary vault privy must protect water supplies, prevent disease transmission, reduce odors and other nuisances, and preserve the environment.
   B. Table I provides the minimum separation distances for sanitary privies designed to serve residential sites and commercial facilities, including IDOH regulated facilities.
   C. The sanitary vault privy should be located downgrade or downstream from the water supply well or other water source, if possible.
   D. The sanitary vault privy must not be located in areas subject to flooding.
   E. The sanitary vault privy shall be situated on a site which is easily accessible for maintenance.
<table>
<thead>
<tr>
<th>Structure or Feature</th>
<th>Commercial Facilities</th>
<th>Residential Sites</th>
</tr>
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<tbody>
<tr>
<td>Public Water Supply Wells, Lakes(^2) or Reservoirs(^{1,2})</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Commercial Water Supply or geothermal well(^1)</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Private Water Supply Well or geothermal well (^1)</td>
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<td>50</td>
</tr>
<tr>
<td>River, Stream, Other Lake, Ditch, Pond, Other Reservoir, Retention Pond(^2)</td>
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<tr>
<td>Property Lines</td>
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<tr>
<td>Dwelling, bunkhouse, dormitory, or structure served by the privy</td>
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<tr>
<td>Other Dwelling, Place of Business, or Occupied Building (General Use) not served by the privy</td>
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<tr>
<td>Drainage tiles</td>
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<td>Commercial Kitchen or Food Service Area</td>
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<td>Other Buildings (storage, etc.)</td>
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<td>15</td>
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<tr>
<td>Suction water line</td>
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<tr>
<td>Water lines continually under pressure</td>
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\(^1\)The distances enumerated shall be doubled for sanitary vault privies installed in fissured or creviced water-bearing formations.

\(^2\)Measured from the normal or ordinary high water mark.

IV. General Design and Construction Requirements
A. A sanitary vault privy, regardless of size or seating capacity, must incorporate the minimum features described in this bulletin.

B. Design of Privy Housing
1. The privy structure must be constructed of substantial material and be of sound design.
   The housing may be constructed of concrete blocks or a wood frame with wood, fiberglass, or metal siding. The resultant structure must be completely enclosed, and all joints must be sealed.
2. The privy structure must be framed with nothing less than 2 x 4-inch boards if a wood frame is used.
3. Wooden siding shall be painted with at least two coats of paint to prevent weathering.
4. The frame to floor or curb junction must be tight to prevent the access of vermin and be well secured to support the structure.
   a. The privy housing may be installed on cast-in-place concrete curbing or on concrete blocks with tight mortar joints set on top of the floor slab.
b. If the wood housing frame is anchored directly to the concrete floor, a non-absorbent covering should be installed along the wood frame to floor junction.

c. The design of the wood frame to floor or curb junction should protect the wood frame from moisture and enhance interior cleaning and floor maintenance.

5. The privy structure must be inaccessible to rodents and insects and constructed in such a way as to be fly-tight. The enclosing walls and roof must have all openings and cracks sealed or screened. The screening must have no less than sixteen (16) meshes to the inch. Hardware cloth with four (4) meshes to the inch is often installed over the sixteen (16) mesh screening to provide support and to prevent damage to the vent screening.

6. The privy structure should afford reasonable privacy and shelter to the occupants.

   a. Privacy barriers must be erected outside the privy structure to prevent a direct view of the interior where screen doors and/or windows are used and for multi-seat facilities.

   b. Sanitary vault privies with only one seat or single-seat compartments may provide an interior lock on a solid door in place of the privacy barrier. A screen door is not a substitute for a privacy barrier.

   c. Within the privy housing, privacy partitions, made of a smooth surfaced, non-absorbent, easily cleaned material, should be installed if two or more seats are provided.

7. Ventilation

   a. The privy structure and the privy vault must be adequately ventilated.

   b. All vents, windows, or openings must be completely screened. The screening must have no less than sixteen (16) meshes to the inch. Hardware cloth with four (4) meshes to the inch is often installed over the sixteen (16) mesh screening to provide support and to prevent damage to the vent screening.

   c. Screened windows, doors and/or vents shall be installed to allow adequate ventilation of the privy structure. Ventilation is often provided by omitting the wall siding immediately beneath the roof soffit and just above the floor slab. This area must be screened if the wall siding is omitted.

   d. If screened windows or doors are provided, care must be taken to ensure privacy.

   e. Vault venting

      i. A vertical pipe or enclosed moisture-proof vent duct must extend from the privy vault to a point at least two (2) feet above the peak of the roof and must be fitted with a screened elbow, or equivalent venting apparatus, to divert precipitation and to prevent vermin access.

      ii. The vent stack for a single seat privy must be at least 4 inches in diameter. Privies housing two or more seats must have at least a 6-inch diameter vent pipe.

      iii. Vent flashing should be installed where the vent pipe passes through the roof.

      iv. Where electricity is available, an exhaust fan may be installed in the vault vent pipe. This will greatly reduce privy odors. The fan can be wired to turn on with the light.
8. The roof serving the structure shall:
   a. Be constructed of impervious material and have an adequate slope, a minimum of 1 to 4, to permit proper drainage;
   b. Be sized to provide at least a 12-inch overhang on all sides to divert water away from the privy structure and the surrounding earthen mound; and
   c. Prevent ponding of water and leakage into the structure.
9. If a pitched roof is used, a ridge beam of not less than 2 x 4-inches should be installed.
10. Composition roofing or shingles on solid sheathing, or metal roofing on open sheathing, may be used.
11. Adequate illumination of the privy interior from natural or artificial sources is required. To allow better illumination in the privy structure, high light transmission translucent fiberglass sheets may be used as roofing. Where electricity is reasonably available, artificial lighting should be provided. Artificial lighting in the privy is required in campgrounds that have electricity.
12. The privy door must be of durable construction, tight fitting, and equipped with a self-closing device. The door must open outward and may be screened if additional ventilation is needed and adequate privacy barriers are provided.
13. Receptacles for toilet paper must be installed and conveniently located to each privy seat.
14. Grab bars may be installed in the privy structure to assist users, if desired or necessary. When grab bars are installed, they should be placed thirty-three (33) inches from the floor.
15. All interior surfaces shall be painted or covered with moisture-resistant, easily cleanable material.
16. Soil must be thoroughly tamped and mounded around the floor slab to divert surface water away from the vault. The earth mound shall extend out a distance of 2 feet from the floor slab before tapering off to the original ground surface.

C. Privy Sizing

1. The size and design of the sanitary vault privy is dependent on the number of risers, seats, and urinals to be provided.
   a. A minimum of sixteen (16) square feet of floor space must be provided for a single seat sanitary privy.
   b. Multiple-seat privies must provide a minimum of twelve (12) square feet of floor space for each seat or urinal to be installed.
   c. In multiple-seat privies, the seats must have a center-to-center separation of not less than two and one-half (2.5) feet.
2. Sanitary vault privies designed to serve other than private dwellings must provide separate facilities for men and women. If the facilities for each sex are to be located in the same building, they must be separated by solid walls or partitions extending from the
floor slab to the ceiling.

3. Sanitary vault privies to serve private dwellings may be unisex as long as an interior door locking mechanism is installed in the unisex privy.

4. Sanitary privies for commercial or IDOH regulated facilities must provide an adequate number of seats to serve the number of visitors and the type of activity at the site.
   a. A minimum of one privy seat for each 15 visitors, with a minimum of one unit for each sex, shall be provided.
   b. If the anticipated number of total users is less than fifteen (15) per day, a unisex privy may be utilized as long as an interior door locking mechanism is installed in the unisex privy.
   c. Sanitary privies designed to serve agricultural labor camps or campgrounds must comply with the more specific sanitary facility ratios required by the rules governing those establishments.

5. Urinals may be substituted for men's privy seats on the basis of one urinal for one toilet seat up to a maximum of one-third of the required toilet seats.

D. The Privy Vault

1. Privy vaults shall be:
   a. Watertight and constructed of reinforced concrete; and
   b. Protected from corrosion.

2. Pre-cast vaults are preferred; however, site built concrete vaults may be constructed with vault plans approved by IDOH. Concrete block, wood and metal privy vaults are prohibited.

3. Reinforced concrete privy vaults shall be constructed of concrete with a compressive strength of four thousand (4,000) pounds per square inch or greater.

4. Concrete privy vault walls and bottoms shall be at least two and one-half (2½) inches or greater in thickness and reinforced with steel or welded wire fabric. The design must allow at least one (1) inch cover over reinforcing steel or welded wire fabric.

5. Concrete privy vault tops shall be a minimum of four (4) inches in thickness and reinforced with three-eighths (3/8) inch reinforcing rods in a twelve (12) inch grid or equivalent.

6. Type III fibers are permitted only as a secondary reinforcing material. Fiber additions will be considered only for the purpose of resisting temperature and shrinkage efforts, and not as primary reinforcing material.

7. Prefabricated privy vaults constructed of materials other than concrete may be approved by IDOH on a case by case basis.

8. The minimum vault size for any sanitary privy is 1000 gallons. The vault must be of sufficient capacity to serve the daily and long-term needs of users. The capacity must be adequate for at least one year for the number and frequency of use.
   a. For a residential dwelling, the minimum vault capacity shall be the greater of:
i. 1000 gallons,
ii. Equal to the number of bedrooms in the home multiplied by 150 gallons, or
iii. Equal to the number of occupants in the home multiplied by 75 gallons.

b. For privies serving commercial facilities and IDOH Regulated Facilities, the minimum vault capacity shall be the greater of:
   i. 1000 gallons, or
   ii. Equal to at least 50 gallons per anticipated user per year. The total vault capacity required would be calculated by multiplying the anticipated number of users per year by 50 gallons.
   iii. IDOH Commercial Plan review staff will determine minimum sizing for IDOH Regulated Facilities.
   iv. Staff of the local health department where the project is located will determine minimum sizing for all other commercial projects.

E. Floor Slab or Vault Lid
   1. The privy housing or superstructure shall be erected on a concrete slab floor, base, or vault lid. Wood floors are prohibited. The floor must be able to withstand the weight of the privy housing and the weight of the users.
   2. All risers in the sanitary vault privy shall be located directly over the privy vault with the hole to the vault directly under the riser.
   3. The attached lid of a pre-cast vault may serve as the floor slab of the privy. In the case of multiple-seat privies, it may be necessary to utilize more than one privy vault to provide sufficient floor space for the privy interior. In other designs, it may be possible to pour additional floor slab to increase the space available for construction of the privy housing, while still locating the risers directly over the vault area.
   4. Provision for the installation of privy risers, urinal drains, and a vault vent must be made during the process of forming and pouring the floor slab to serve the privy structure. The manufacturer must ensure that the structural integrity of the vault lid is not compromised due to the hole sizes and locations.
      a. A hole shall be formed in the privy floor slab for each privy riser.
         i. The privy seat hole may be round or oval and shall begin approximately two and one-half (2½) inches from the front of the riser seat.
         ii. The hole dimensions for an oval seat hole are ten (10) inches long and eight (8) inches wide, as measured through the center of the oval hole. If a round hole is used, the minimum diameter must be at least eight (8) inches.
      b. A hole two (2) inches in diameter shall be formed in the privy floor slab for use as a drain for each urinal to be installed.
      c. A four (4) or six (6) inch diameter hole shall be formed in the privy floor slab to
accommodate the required vent pipe size from the privy vault. The vent pipe may extend up from the rear of a riser. Each separate vault or compartment must have its own vent pipe to the atmosphere.

5. If a concrete slab will be poured for the privy floor, eyebolts may be cast into each end of the slab as hitching points for moving the floor slab. The eyebolts must be cut off once the slab has been positioned.

6. The concrete slab floor or vault lid shall have a non-skid surface.

7. The floor slab or vault lid shall slope toward the door to allow for ease of cleaning the privy interior.

8. A curb may be cast as part of the floor slab perimeter to use as the base for the housing structure.

9. The floor slab shall be sealed to the perimeter of the concrete sill with butyl sealant meeting ASTM C 990-90 to provide a watertight seal.

F. Risers

1. Risers to support the privy seats must:
   a. Be incorporated into the floor slab or vault lid;
   b. Extend directly from the concrete base, or slab floor;
   c. Be constructed of impervious material; and
   d. Extend at least 13 inches, but no more than 18 inches, above the privy floor slab.

2. If the risers are to be constructed of reinforced concrete:
   a. The riser forms shall be constructed from 1 x 4-inch boards;
   b. The reinforcing rods or wire from the floor slab must extend into the concrete riser at least four (4) inches;
   c. The top of concrete risers must be carefully troweled and leveled; and
   d. The top of the riser must be coated with a sealing compound to eliminate any possible openings between the riser and the seat.

3. Prefabricated risers of stainless steel or porcelain are preferred, the bases of which are designed to be attached to the concrete floor slab.

4. Risers made of other materials must be non-absorbent and capable of attaching to the privy floor to make a watertight seal. Wood risers are prohibited.

G. Riser Seats and Lids

1. Each riser must be fitted with a comfortable seat and a tight-fitting lid that completely covers the privy seat hole when not in use.

2. Seats and lids shall be constructed of non-absorbent, smooth finished, durable material.

3. The privy seat and lid, if of wood construction, should be finished with at least two coats of clear, waterproof varnish or white enamel to provide a smooth, easily cleaned surface.
4. The use of a standard water closet seat and lid is not acceptable, as these seats and lids are not tight-fitting and would allow vermin and insects access to the vault interior.

5. Riser Seats
   a. The seat may or may not be hinged, but must cover the top of the riser completely and fit tightly around the edges.
   b. Cleats should be installed on the underside of the seat to provide additional support.
   c. A separate seat may be provided with a smaller opening for use by young children. This seat need not be permanently attached to the riser but may be placed on top of the standard seat when needed.

6. Lids
   a. The privy seat hole must be completely covered by a tight-fitting, hinged lid.
   b. The lid shall remain closed when not in use. Self-closing lids are preferable.
   c. The lid should project one-half (½) inch beyond the seat at the front, or else incorporate a handle to allow opening of the lid for use.

H. Urinals
   1. Urinals must be constructed of stainless steel, galvanized iron, tin, porcelain, or other smooth surfaced, non-absorbent material.
      a. Rain gutters are not acceptable due to inadequate depth of the guttering.
      b. Wooden urinal troughs are absorbent and are prohibited.
      c. Prefabricated "waterless" urinals which meet these requirements are acceptable for use.
   2. Where urinals are to be installed, they must discharge through a metal or rigid plastic drainpipe, with a minimum diameter of one and one-half (1½) inches, directly into the vault.
   3. Waterproof splash plates should be installed adjacent to the urinal fixtures.
   4. The bottom of the urinal should slope evenly to the drain.
   5. The urinal drain must be covered with a proper fly-tight drain cover or be fitted with 16 mesh copper or bronze screening.
   6. If water under pressure is available at the site, a very low flow, quick shut-off valve may be installed to flush the urinal. This should add very little water to the vault and will substantially reduce odors from the urinal.

I. Clean-outs
   1. All vaults designed to serve sanitary privies must be equipped with at least one (1) clean-out or access port, accessible from the ground surface, for the removal of accumulated waste.
   2. The privy structure must be designed so that access to the vault clean-out is from outside the privy housing.
3. The clean-out port(s) must be equipped with a safely secured, water-tight and gas-tight lid or cover.

4. A properly installed secondary childproof safety lid or plug is required under all clean-out or access port lids.

5. The clean-out opening shall be eighteen (18) inches in minimum dimension to allow for the efficient and sanitary removal of the waste.

J. Excavation for the privy vault
   1. A pit of sufficient length and width must be excavated to accommodate the vault and to allow setting of the vault. The bottom of the excavation must be level prior to setting the vault, and the excavation must be prepared to the specification of the vault manufacturer.
   2. The depth of the pit shall be such that the vault will extend at least four (4) inches above the ground surface. Place the excavated dirt away from the edge of the pit and uniformly around it.
   3. In areas with a seasonal high groundwater, a perimeter drain may have to be installed around the base of the vault to prevent the vault from floating when empty.
      a. The drain must be installed deeper than the bottom of the vault and located at least ten (10) feet from the privy vault and extend around the entire perimeter of the vault.
      b. The drain tile must have at least two tenths (0.2) percent positive slope and flow by gravity to the outlet.
      c. Tile outlets shall be provided with rodent guards.

V. Operation and Maintenance of the Sanitary Vault Privy
   A. Without routine maintenance, properly constructed and located privies will soon become unsanitary. The following measures are required to maintain a sanitary privy and prolong its life:
      1. The vault must be kept fly-tight by keeping the seat lid(s) closed. Ensure that the hinges are in good condition and the lid is tight-fitting.
      2. The vault shall remain watertight at all times.
      3. Burrows or nests in the surrounding earthen mound shall be filled in or removed.
      4. Seal completely any openings or cracks in the privy wall structure.
      5. Repair any torn or loose screening at the privy vents, windows, or door.
      6. Ensure that the door remains tight-fitting, and that the self-closing device is operational.
      7. Keep the privy seat and lid, the floor, the walls, and the grounds adjacent to the building clean.
      8. Provide a waste receptacle for the deposit of articles not to be thrown into the vault.
      9. Replace the toilet paper when needed.
     10. If flies get into the vault or housing, spray an insecticide into the vault and in and around the building, or suspend a no-pest strip. Repeat applications at necessary intervals, especially during warm weather.
11. Paint the interior and exterior of the building as needed.
12. If excessive odors develop, add a deodorant such as chlorinated lime, pine oil, or activated carbon to the vault.

B. Removal of Accumulated Waste
   1. When the vault is filled within 18 inches of the floor slab, the accumulated waste shall be removed from the vault.
   2. The accumulated waste should be removed by a licensed wastewater management business (septic tank cleaner).
   3. All waste must be disposed of in compliance with the regulations of the Environmental Rules Board, as provided for in IC 13-13-8.
   4. The disposition of the accumulated waste shall not create or maintain a public health hazard, pursuant to IC 16-20-1-25(a).

VI. Privy abandonment
   A. All privies that utilize a pit or something other than a sanitary vault, shall be properly abandoned.
   B. When the use of a sanitary vault privy is discontinued, the privy must be properly abandoned.
   C. The following procedure must be followed for privy vault or pit abandonment.
      1. Any electrical service to the privy must be disconnected at the source. All above ground electrical lines that will not be used for other purposes must be removed.
      2. The privy structure must be torn down. Any usable materials from the structure torn down may be used for other purposes.
      3. All waste shall then be removed from the vault or pit and the waste disposed of in accordance with section V. B. 2. through 4. of this bulletin.
      4. If the waste was accumulated in a vault, the vault must be:
         a. Removed; or
         b. The lids crushed into the vault and the holes or tanks backfilled with debris-free sand or other granular material, concrete or soil material that is compacted to prevent settling; or
         c. Filled with flowable fill.
      5. If the waste was accumulated in a pit or other structure, the pit must be backfilled with debris-free sand or other granular material, concrete or soil material that is compacted to prevent settling.
      6. The area must be properly graded, and vegetative cover established.
Sanitary Vault Privy Features

- Elbow with Screen
- Vent Pipe
- Screened Vents
- Adequate Overhang
- Wall to Roof
- Junctions Sealed
- Separate Facilities for Each Sex. Rigid Partition extends to the ceiling line.
- Grade Level
- Vault(s) of Adequate Size
- Cleanouts in Rear
- Vault Inaccessible to insects and vermin.
- Window Screen 16 Mesh
- Frame or Block Structure
- Earthen Mound
- Concrete Slab Floor
- Waterless Toilets
- Rear Vault Cleanouts with Safely Secured Lids and Secondary Plugs
- Tight Fitting Riser Lid
- Non-Absorbent Interior Surfaces
- Urinal
- Non-Absorbent Partitions
- Anchor Bolts for Housing
- Privacy Barrier
- Fly Tight Structure
- Stack Flashing
- Vent Stack Flushing
- Elbow with Screen
- Non-Absorbent Interior Surfaces
- Anchor Bolts for Housing
Lid and Seat Details

2" X 4" Hinge Seat

1" X 4" Board

1" X 3" Cleat on underside of seat

Countersink Bolt Holes

Details of Seat with Hinged Lid

Cleat
Toilet Stool Detail

Urinal Detail

- 3/4" Exterior Plywood Mounting Board
- 1/2" X 5" Lag Screws
- Waterless Urinal
- Plastic Tray Plug Adapter with Rubber Gasket
- 2" Plastic Pipe Thru Floor and into Vault
- Screened Vent
- 1 1/2" Spacer
- 1' 4" Height
- 1' 8 3/16" Width
- 1' 0" Length
Two Seat Style Sanitary Vault Privy, Side View

- Roof Vent (Screened)
- Insect Screen and Hardware Cloth
- 6" Plastic Pipe 10' Long
- Grab Bar
- Min. 18" diameter access port with watertight secure lid
- Wire Mesh in Floor Slab
- Secondary childproof plug
- Pre-Cast Concrete Vault
- Roof Panel
- Slope Floor 1" Back to Front
- 33" ±
Two Seat Style Sanitary Vault Privy, Front View

- Screened Vent
- Building
- Roof Panel
- Screen Door
- ¼" X 2½" Trim
- Screen Door
- 1/8" Exterior Plywood
- Push Plate
- Waterless Toilet
- 1" X 4" Trim
- Push Plate
- Grab Bars
- Partition Panel
- 4' X 4' Post
- Privacy Wall
- Access for cleanout in back
- 6' X 6' 10/10 Welded Steel Wire Mesh Reinforcement in Entire Floor Slab, Exterior Platforms and Ramps
- Pre-Cast Concrete Vault
- 5' 6" Grade
- 3' Min.
Four Seat Multiple Use Sanitary Vault Privy

- Screened Vent
- Central 6" Vent Pipe Enclosed by 1" X 10" Boards
- Self-Closing Door
- Vent
- Concrete Base
- Seat Riser Box
- Wood Partition (Floor to Ceiling)
- Vents
- Door
- 8'
Four Fixture Style Sanitary Vault Privy, Floor Plan
Four Fixture Style Sanitary Vault Privy, Cross Section