

University of Arizona's Recommendations for
Inspecting Properties with Cesspools
(Developed by Kitt Farrell-Poe & Jake Garrett)

Cesspools are excavations that receive wastewater directly from the house. They are essentially outhouses receiving running water. Since there is little or no treatment, cesspools can contaminate groundwater. Also, cesspools often have no lids covering the opening causing safety concerns. Both situations are the reason that cesspools have not been approved for use in Arizona since 1976. In fact, current Arizona Department of Environmental Quality (ADEQ) regulations on cesspools specifically prohibit their use for sewage disposal [see backside for exact wording of the two codes that ban/prohibit the use of cesspools for receiving household wastewater: R18-9-A309(A)(4) and R18-5-408(D)].

Inspector's Responsibilities

So, what do you do if, while you are inspecting a property for the Transfer of Ownership program, you discover that the property has a cesspool as its only waste disposal system? The University of Arizona's Onsite Wastewater Education Program recommends taking the following steps:

1. Once you have discovered that the property has a cesspool for its waste disposal, your inspection becomes one of full disclosure to the buyer and no longer qualifies as an inspection for the Transfer of Ownership program because ADEQ does not recognize cesspools as legitimate onsite wastewater treatment facilities.
2. Fill out the first page of the Report of Inspection and answer "Yes" to the question "Is a cesspool serving the property?"
3. Draw a diagonal line through the entire page for pages 2-4 and the top half of page 5. You can also add in large, bold, red letters "CESSPOOL" to those pages.
4. On page 5, write in your observations on the hydraulic and structural soundness of the cesspool in "Inspector Comments."
 - a. Because the amount of information you may be providing may exceed the three lines offered on page 5, provide your comments in a separate attachment. If you do, you need to state "**see attachment(s)**" or "**see attached letter.**"
 - b. Fully describe your findings including how the cesspool was installed (timber, concrete block, car body, etc.).
 - c. If possible, include/attach pictures of the inside of the cesspool to give visual support of your findings.
 - d. Include/attach the two ADEQ rule citations supporting your reasoning for not continuing with the Transfer of Ownership inspection. The back page contains the official code language.
 - e. Include/attach any county ordinances, policies, etc.
 - f. You may want to include a copy of the 2008 letter from ADEQ on their position on cesspools.
5. On page 5 under the Inspector Comments, DO NOT sign unless you a) cross-out the words "on-site wastewater treatment facility" and b) replace those words with "cesspool."

Real Estate Agent's Responsibilities:

If you find that your client has a cesspool as their wastewater disposal system, it is important to provide full disclosure to potential buyers. There are qualified inspectors for the Transfer of Ownership inspection program, and you can find them by going to the ADEQ website

[<http://www.azdeq.gov/environ/water/engineering/not.html>]. Under no circumstances should you *ever* engage a non-qualified inspector for transfer of ownership inspections.

Arizona Administrative Code Prohibiting Use of Cesspools

R18-9-A309(A)(4).

A person shall not use a cesspool for sewage disposal.

R18-5-408(D).

The use of cesspools is prohibited.

**INSTRUCTIONS FOR PREPARING A
REPORT OF INSPECTION**
FOR AN ON-SITE WASTEWATER TREATMENT FACILITY

INSTRUCTIONS

Any person selling or transferring ownership of a property served by an on-site wastewater treatment facility (including a conventional septic tank system or and alternative on-site wastewater treatment facility) must retain a qualified Inspector to inspect the facility within six months prior to transferring ownership of the property (Arizona Administrative Code, A.A.C. R18-9-A316). See Figure 1.

An inspector that is qualified under A.A.C. R18-9-A316, must complete the attached *Report of Inspection* form, and provide it to the seller as required. If there is more than one on-site system in use on the property, the Inspector completes a *Report of Inspection* form for each system.

Before the transfer date (closing date) of the property, the seller provides the buyer with the completed *Report of Inspection* form and any other documents in their possession that relate to the permitting or operation and maintenance of the septic tanks systems or alternative on-site wastewater treatment facility. **DO NOT submit this *Report of Inspection* form to ADEQ or the local county permitting agency. The Buyer retains this form after receiving it from the Seller.**

Within 15 calendar days after the date of property transfer, the Buyer submits a complete *Notice of Transfer* form for the change of ownership, and files it with the applicable agency indicated in the *Notice of Transfer* instructions. Information from this *Report of Inspection* form is needed to fill out the Notice of Transfer that must be submitted by the Buyer. **Effective Feb. 2, 2007, you can file your *Notice of Transfer* online. Visit the ADEQ website at https://static.azdeq.gov/forms/onsite_not.pdf for more information.**

Qualified inspectors are required to completely and accurately fill out this form to the best of their knowledge. The form has been updated to include:

Section 1 — Facility Information

Section 2 — General Treatment and Disposal Works

Section 3 — Design Flow and Septic Tank Sizing

Section 4 — Septic Tank Inspection and Plumbing: Complete this section if the site is served by a conventional system (septic tank to leachfield - 4.02 general permit) or if the septic tank is used with an alternative system.

Section 5 — Alternative System: Complete this section only if an alternative system is used at the site (4.03 – 4.22 general permit). This section can be combined with Section 4 if a septic tank is used.

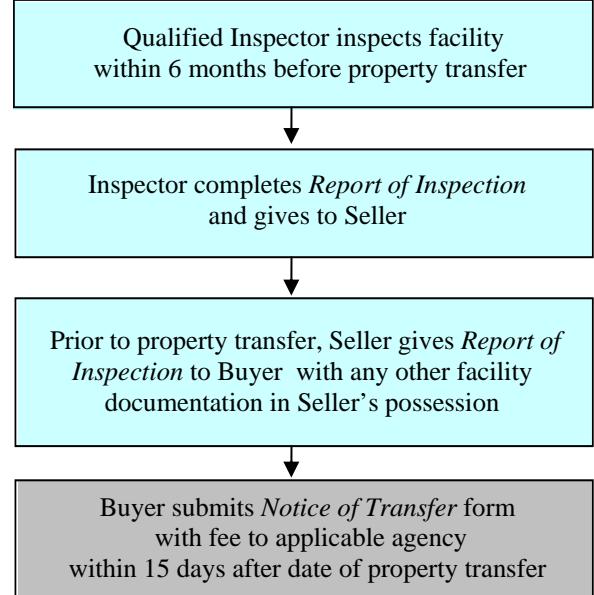


Figure 1. Flowchart of Notice of Transfer Process

PROPERTY TRANSFER INSPECTION FORM

Arizona Administrative Code R18-9-A303.B, -A304.A & C, -A309A, and -A316

Note: While this document is approved by ADEQ, it is intended to be used by contractors. ADEQ staff does not facilitate or perform property transfer inspections.

Property Name: _____
 Property Address: _____ City: _____ County: _____
 Seller/Transferor Name: _____
 Seller/Transferor Address: _____ City: _____ State: _____ ZIP Code: _____

Inspector Information

Inspector Name: _____
 Company Address: _____ City: _____ State: _____ ZIP Code: _____
 Company Name: _____

Inspector qualifications and proof of training:

Check all that apply and provide answers as needed.

ADEQ-Recognized Course: _____ Date Completed: _____

Professional Engineer Registered Sanitarian Wastewater Treatment Plant Operator
 (Expiration date: _____) (Expiration date: _____) (Grade: _____)

Arizona Licensed Contractor for License Category: _____

Owner of pumper truck and ADEQ Truck Registration No: _____

Employee Name Performing Inspection: _____

Records Obtained by Inspector

Were there facility permit, construction and/or operational records available for the inspection? Yes No

Check all that apply:

Discharge Authorization (or Verification) issued on or after January 1, 2001, pursuant to R18-9-A301(D)(2)(c)
 Permit No. _____

Approval of Construction, or other official permitting documents issued by ADEQ or its delegated county agency before
 January 1, 2001, Permit No. _____

Site plan, plot plan, "as-built" drawings, or similar documents

Documents relating to operation and/or maintenance (alternative systems)

Other: _____

Cesspool

Is a cesspool serving the property? Yes No

Use of a cesspool is VIOLATION OF A.A.C. R18-9-A309. A.4. A cesspool shall not be used for sewage disposal.

If a cesspool is found on a property subject to the Transfer Inspection, per R18-9-A316, the Inspector shall:

Disclose to the Buyer that the inspection no longer qualifies as an inspection for the Transfer of Ownership program and that ADEQ does not recognize a cesspool as a legitimate on-site wastewater treatment facility.

SIGNATURE OF INSPECTOR: _____ DATE: _____

Summary of Inspection

On-Site Wastewater Treatment Facility Inspection Overview

On-Site Wastewater Treatment Facility Serves (check all that apply):

Residence/Dwelling Single family Multi- family/Shared Commercial
 Other (Explain): _____

Type of Facility (check all that apply):

Conventional System Alternative System Gray Water System Observed

Number of On-Site Wastewater Systems on the property: _____

Note: A separate Report of Inspection is required for each On-Site Wastewater System.

Age of inspected On-Site Wastewater Treatment Facility: _____ years

If estimated, explain how it was determined: _____

On-site Wastewater Treatment Facility

Septic Tank Condition: Operational Operational with concerns Not Operational
 (for details, see Sections 3 and 4)

Disposal Works Condition: Operational Operational with concerns Not Operational
 (for details, see Sections 4.1)

Alternative System - On-Site System Condition: Operational Operational with concerns Not Operational
 (for details, see Section 5)

Alternative Disposal Works Condition: Operational Operational with concerns Not Operational
 (for details, see Section 5.1)

For any operational concerns see page 7 in the comments section.

1. Facility Information

A) Domestic Water Source:

Hauled Water Municipal System Private Water Company Shared Private Well Private Well

If a well is nearby, state the distance from Well to Wastewater System: _____

B) Type of Wastewater Source:

Residential Commercial Other: _____

C) Occupancy/Use: Full Time Seasonal/Part Time Vacant Unknown

2. General Treatment and Disposal Works

This system consists of the following systems and technology:

<input type="checkbox"/> GP 4.02 Conventional Septic Tank/ Disposal System	<input type="checkbox"/> GP 4.05 Gravelless Trench
<input type="checkbox"/> Septic Tank	<input type="checkbox"/> GP 4.06 Natural Seal Evapotranspiration Bed
<input type="checkbox"/> Disposal Trench	<input type="checkbox"/> GP 4.07 Lined Evapotranspiration Bed
<input type="checkbox"/> Disposal Bed	<input type="checkbox"/> GP 4.08 Wisconsin Mound
<input type="checkbox"/> Disposal by Chamber Technology	<input type="checkbox"/> GP 4.09 Engineered Pad System
<input type="checkbox"/> Disposal by Seepage Pit	<input type="checkbox"/> GP 4.10 Intermittent Sand Filter
<input type="checkbox"/> GP 4.03 Composting Toilet	<input type="checkbox"/> GP 4.11 Peat Filter
<input type="checkbox"/> GP 4.04 Pressure Distribution System	<input type="checkbox"/> GP 4.12 Textile Filter

<input type="checkbox"/> GP 4.13 Denitrifying System Using Separated Wastewater Streams	<input type="checkbox"/> GP 4.20 Disinfection Device	
<input type="checkbox"/> GP 4.14 Sewage Vault	<input type="checkbox"/> GP 4.21 Surface Disposal	
<input type="checkbox"/> GP 4.15 Aerobic System	<input type="checkbox"/> GP 4.22 Subsurface Drip Irrigation Disposal	
<input type="checkbox"/> GP 4.16 Nitrate-Reactive Media Filter	<input type="checkbox"/> GP 4.23 Design flow from 3,000 to less than 24,000 Gallons Per Day (4.23 GP)	
<input type="checkbox"/> GP 4.17 Cap System	Is there a current Performance Assurance Plan?	
<input type="checkbox"/> GP 4.18 Constructed Wetland	Yes	No
<input type="checkbox"/> GP 4.19 Sand-Lined Trench		

3. Design Flow and Septic Tank Sizing

A) Estimated Design Flow: _____ gallons per day Unknown

B) Basis for design flow:

Designated in permitting documents
 Calculated or estimated based on (check all that apply):
 Number of bedrooms for a dwelling: _____
 Fixture count for a dwelling: _____
 If not a dwelling: _____ gallons per day

C) Evaluation of actual flow versus the design flow (determined in 1A):
 Actual flow did not appear to exceed design flow
 Actual flow may exceed design flow
 Unknown

D) Inspector Comments: _____

4. Septic Tank Inspection and Pumping

A) How many septic tanks are associated with this facility? 1 2 or more

B) Septic tank liquid level measured before pumping (measured in inches from the bottom of the tank)
 Primary (inlet) chamber: Scum thickness _____ inches, Sludge thickness _____ inches
 Secondary (outlet) chamber: Scum thickness _____ inches, Sludge thickness _____ inches
 Liquid level not determined

C) Was each septic tank or other wastewater treatment container on the property pumped or otherwise serviced to remove, to the maximum extent possible, solid, floating and liquid waste accumulations? Yes No

If yes, what is the name of the septic hauler company? _____

License number issued by ADEQ: _____

If no, select one of the following reasons pumping was not performed:

A Discharge Authorization for the on-site wastewater treatment facility was issued and the facility was put into service within 12 months before the transfer of ownership inspection,
 Pumping or servicing was not necessary at the time of the inspection based on the manufacturer's written operation and maintenance instructions, or
 No accumulation of floating or settled waste was present in the septic tank or wastewater treatment container.

D) Indicate the date the inspection was performed. _____

E) The Capacity of the septic tank is _____ gallons, based on: Measurement/dimensions of tank: _____
 Volume Pumped Estimate Permit Document
 Capacity not determined (Explain): _____

F) Septic tank material: Pre-cast concrete Fiberglass Plastic Steel Cast-in-place concrete
 Other (Describe): _____

G) Access openings in septic tank: One Two Three Other (Describe): _____

H) Septic tank lids & risers: Present Not Present

If present, was the lid(s) securely fastened Yes No

Note: Risers aide on-going system maintenance - minimum 20" diameter

I) Number of compartments in septic tank: One Two Other (Describe): _____

J) Was there evidence of a compromised tank (infiltration) or (exfiltration) of the septic tank? Yes No

K) Was there evidence of a septic tank deficiency? (Check all applicable deficiencies observed. Describe extent and location in comment section)

<input type="checkbox"/> Root invasion	<input type="checkbox"/> Exposed rebar
<input type="checkbox"/> Cracks in tank	<input type="checkbox"/> Damaged inlet pipe
<input type="checkbox"/> Damaged lids or risers	<input type="checkbox"/> Damaged outlet pipe
<input type="checkbox"/> Deteriorating concrete	<input type="checkbox"/> Other concerns (Describe in Inspector comments)

L) Baffle/sanitary "T" material:

Pre-cast concrete Fiberglass Plastic Clay Could not be determined (explain in comments)

Condition of baffles and sanitary "Ts":

Inlet baffle or "T": Present Operational Not operational Not present Not determined

Outlet baffle or "T": Present Operational Not operational Not present Not determined

Interior baffle: Present Operational Not operational Not present Not determined

M) Effluent filter (screen): Present Not Present Serviced Not serviced

Note: as of January 2001, effluent filters (screens) are required on all new septic tanks.

Routine work recommended to maintain the system (Some work may require a Construction Authorization from your local agency or ADEQ. Refer to A.A.C. R-18 A309 A.9.1 and b and local codes as applicable).

Inspector comments, including necessary routine work:

4.1. Disposal Works

Was the location of the disposal works determined?

Yes (see sketch on last page) No (explain why): _____

Disposal works please indicate type:

Trench Bed Chamber Seepage pit Other: _____

Method of distribution

Diversion valve Drop box Distribution box Manifold Serial loading
 Pressurized Unknown

Was the distribution component inspected? Yes _____ No _____

What type of material is the supply line made of: PVC Orangeburg Tile Other _____

Were inspection ports present in disposal works? Present _____ Not present _____

If inspection ports are present:

i) Number of ports: _____

ii) Indicate depth (in inches) of liquid in each port (point of reference would be grade):

_____ Port 1 _____ Port 2 _____ Port 3 _____ Port 4

_____ Port 5 _____ Port 6 _____ Port 7 _____ Port 8

Was an operational (hydraulic) test performed on the disposal works? Yes _____ No _____

Was there evidence of a disposal works deficiency? _____

(check all applicable deficiencies observed; describe in comment section).

- Crushed outlet pipe
- Root invasion
- High water lines in tank indicating previous backups
- D-box or valve not functioning properly
- Surfacing over disposal works or from inspection ports
- Unusually lush vegetation over disposal works
- Erosion over disposal works unusual settling
- Ponding water in the distribution media
- Animal intrusion
- Operational (water loading) test failure
- Could Not Determine

Were repairs or other maintenance recommended to disposal works as part of this inspection? Yes _____ No _____

Inspector Comments:

Put your comments here. If possible, include photos and description and refer to notes located after page 7

I have inspected the physical and operational condition of the on-site wastewater treatment facility serving this property on the date indicated below. I have completed this Report of Inspection to the best of my knowledge, and have based the information contained in this form on observations and work performed at the time of inspection. However, this Report of Inspection does not imply nor guarantee any future performance of this facility in any way. By signing this form, I hereby verify that I have completed an ADEQ approved course and that I have personally witnessed and conducted the inspection of this property.

Signature: _____

Date: _____

Printed name: _____

5. Alternative System

Alternative System should be evaluated by a qualified Inspector (A.A.C. R18-9 A316.B.1 through B.3) that possesses sufficient knowledge or has been trained by the product manufacturer to allow access to their systems without voiding the warranties.

Qualified Inspector: _____

Name of Manufacturer: _____

Model/Capacity: _____

Alternative System Information:

Type of Treatment Equipment Present: _____

Aerator is working properly? Yes N/A No (explain in comments)

System appears to have been properly maintained? Yes No (explain in comments)

Pump Systems Yes No

Functionality:

Is pump operating properly?	Yes	No
High Level Alarm Works?	Yes	No
Alarms and pumps on separate circuits?	Yes	No
Is pump wiring protected?	Yes	No
Both Audible and visual alarm present?	Yes	No
Pump Cycle operating as designed?	Yes	No
Is there a riser to grade with secure lid?	Yes	No
Is tank watertight and structurally sound?	Yes	No
Is there a Check Valve & Purge/Vent Hole	Yes	No

Inspectors comments:

5.1. Alternative System Disposal Works

Was the location of the disposal works determined?

Yes (see location _____ which found on page _____)

No Explain: _____

Disposal works please indicate type:

<input type="checkbox"/> Trench	<input type="checkbox"/> Bed	<input type="checkbox"/> Chamber	<input type="checkbox"/> Seepage pit
<input type="checkbox"/> Drip	<input type="checkbox"/> Low Pressure Pipe		

Method of distribution

<input type="checkbox"/> Diversion valve	<input type="checkbox"/> Drop box	<input type="checkbox"/> Distribution box	<input type="checkbox"/> Manifold	<input type="checkbox"/> Serial loading
<input type="checkbox"/> Pressurized	<input type="checkbox"/> Unknown	<input type="checkbox"/> Other		

If other than operational, (Explain): _____

i) Was the distribution component inspected?

Yes, describe method used: _____

No (Explain): _____

ii) Operational status of component: Operational Operational with concerns Not Operational

Could not be determined (Explain): _____

What type of material is the supply line made of:

<input type="checkbox"/> PVC	<input type="checkbox"/> Orangeburg	<input type="checkbox"/> Tile	<input type="checkbox"/> Other _____
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Were inspection ports present in disposal works? Present Not present

If inspection ports are present:

i) Number of ports: _____

ii) Indicate depth (in inches) of liquid in each port (point of reference would be grade):

_____ Port 1 _____ Port 2 _____ Port 3 _____ Port 4
 _____ Port 5 _____ Port 6 _____ Port 7 _____ Port 8

Was an operational (water loading) test performed on the disposal works?

Yes No (Explain): _____

Was there evidence of a disposal works deficiency? Yes No

(check all applicable deficiencies observed, describe all in Comment section.)

- Crushed outlet pipe
- Root invasion
- High water lines in tank indicating previous backups
- D-box or valve not functioning properly
- Surfacing over disposal works (soil treatment area) or around inspection ports
- Unusually lush vegetation over disposal works (soil treatment area)
- Erosion over disposal works (soil treatment area) or unusual sediment
- Ponding water in the distribution media
- Animal intrusion
- Operational (water loading) test failure
- Other problems (describe): _____
- Could not determine (Explain): _____

Were repairs or other maintenance done to disposal works as part of this inspection? Yes No

Physical and operational condition of the disposal works, at time of inspection, appeared to be:

Operational

Operational with Concerns

Not Operational

Note: some repairs may require Construction Authorization from your local agency or ADEQ.

Describe the problems found and other inspector comments:

I have inspected the physical and operational condition of the on-site wastewater treatment facility serving this property on the date indicated below. I have completed this Report of Inspection to the best of my knowledge, and have based the information contained in this form on observations and work performed at the time of inspection. However, this Report of Inspection does not imply nor guarantee any future performance of this facility in any way. By signing this form, I hereby verify that I have completed an ADEQ approved course and that I have personally witnessed and conducted the inspection of this property.

Signature: _____

Date: _____

Printed name: _____

Alternative System Inspector:

Organization Responsible for Completing Inspection: _____

Contact Name: _____ Phone: _____

Email: _____

Signature: _____ Date: _____

REQUIRED SKETCH OF ON-SITE WASTEWATER TREATMENT FACILITY:

For reproducible results, show dimensions from structures that will not change, such as corners of the house. Triangulation may be used. Include measurements from property lines. All labeling must be legible. Show details, such as the road and North arrow, in relation to building corners to get the correct orientation. Show all located components. **An acceptable As Built or Record Drawing can be substituted.**

Be sure to include where on the property you found the cesspool. Many people do not recognize what a cesspool looks like.