



# Florida Department of Environmental Protection

Twin Towers Office Bldg., 2600 Blair Stone Road, Tallahassee, Florida  
32399-2400

DEP Form No: 62-528.900(1)  
Form Title: Application to Construct/  
Operate/Abandon Class I, III,  
or V Injection Well Systems  
Effective Date: \_\_\_\_\_  
DEP Application No.: \_\_\_\_\_  
WACS# \_\_\_\_\_ (Filled in by DEP)

## APPLICATION TO CONSTRUCT/OPERATE/ABANDON CLASS I, III, OR V INJECTION WELL SYSTEMS

### Part I. Directions

- A. All applicable items must be completed in full in order to avoid delay in processing this application. Where attached sheets or other technical documentation are utilized in lieu of the blank space provided, indicate appropriate cross-reference in the space and provide copies to the Department in accordance with C. below. Where certain items do not appear applicable to the project, indicate N/A in the appropriate spaces.
- B. All information is to be typed or printed in ink.
- C. Two (2) copies of this application and two (2) copies of supporting information such as plans, reports, drawings and other documents shall be submitted to the appropriate Department office if submitted as a paper document, or one (1) copy of the application and one (1) copy of the plans, reports, drawings and other documents if the submittal is in an electronic format. An engineering report is also required to be submitted to support this application pursuant to the applicable sections of Rule 62-528, F.A.C. The attached list\* shall be used to determine completeness of supporting data submitted or previously received. A check for the application fee in accordance with Rule 62-4.050, F.A.C., made payable to the Department shall accompany the application.
- D. For projects involving construction, this application is to be accompanied by two (2) sets or one (1) set, in accordance with C. above, of engineering drawings, specifications and design data as prepared by a Professional Engineer registered in Florida, where required by Chapter 471, Florida Statutes.
- E. Attach 8 1/2" x 11" site location map indicating township, range and section and latitude/longitude for the project.

### PART II. General Information

A. Applicant Name \_\_\_\_\_ Title \_\_\_\_\_  
 Address \_\_\_\_\_  
 City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_  
 Telephone Number \_\_\_\_\_ Email \_\_\_\_\_

- B. Project Status:  New  Existing  
 Modification (specify) \_\_\_\_\_

\*"Engineering and Hydrogeologic Data Required for Support of Application to Construct, Operate and Abandon Class I, III, or V Injection Wells"

C. Well Type:  Exploratory Well  Test/Injection Well

D. Type of Permit Application

- Class I Test/Injection Well Construction and Testing Permit
- Class I Well Operation Permit
- Class I Well Operation Repermitting
- Class I Well Plugging and Abandonment Permit
- Class III Well Construction/Operation/Plugging and Abandonment Permit
- Class V Exploratory Well Construction and testing Permit
- Class V Well Construction Permit
- Class V Well Operation Permit
- Class V Well Plugging and Abandonment Permit
- Monitor Well Only

E. Facility Identification:

Name \_\_\_\_\_  
 Facility Location: Street \_\_\_\_\_  
 City \_\_\_\_\_ County \_\_\_\_\_  
 SIC Code(s) \_\_\_\_\_

F. Proposed facility located on Indian Lands: Yes  No

G. Well Identification:

Well No. \_\_\_\_\_ of \_\_\_\_\_ Wells *\*Multiple wells may be noted*  
 (total #)

Purpose (Proposed Use) \_\_\_\_\_

Well Location: Latitude: \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ " Longitude: \_\_\_\_\_ ° \_\_\_\_\_ ' \_\_\_\_\_ "  
 (attach separate sheet(s), if necessary, for multiple wells)

Subpart B. General Project Description:

H. General Project Description: Describe the nature, extent and schedule of the injection well project. Refer to existing and/or future pollution control facilities, expected improvement in performance of the facilities and state whether the project will result in full compliance with the requirements of Chapter 403, F.S., and all rules of the Department. Attach additional sheet(s) if necessary or cross-reference the engineering report.

**PART III. Statement by Applicant and Engineer**

A. Applicant

I, the owner/authorized representative\* of \_\_\_\_\_  
 certify under penalty of law that I have personally examined and am  
 familiar with the information submitted in this document and all  
 attachments and that, based on my inquiry of those individuals immediately  
 responsible for obtaining the information, I believe that the information  
 is true, accurate, and complete. I am aware that there are significant  
 penalties for submitting false information, including the possibility of  
 fine and imprisonment. I understand that this certification also applies  
 to all subsequent reports submitted pursuant to this permit. Where  
 construction is involved, I agree to retain the design engineer, or other  
 professional engineer registered in Florida, to provide inspection of  
 construction in accordance with Rule 62-528.455(1)(c), F.A.C.

_____ Signed	_____ Date
_____ Name and Title (Please Type)	_____ Telephone Number

\*Attach a Letter of Authorization.

B. Professional Engineer Registered in Florida

This is to certify that the engineering features of this injection  
 well have been designed/examined by me and found to be in conformity with  
 modern engineering principles applicable to the disposal of pollutants  
 characterized in the permit application. There is reasonable assurance,  
 in my professional judgement, that the well, when properly maintained and  
 operated, will discharge the effluent in compliance with all applicable  
 statutes of the State of Florida and the rules of the Department. It is  
 also agreed that the undersigned will furnish the applicant a set of  
 instructions for proper maintenance and operation of the well or ensure  
 they have been furnished.

_____ Signed
_____ Name (Please Type)
_____ Company Name (Please Type)
_____ Mailing Address (Please Type)

(Please Affix Seal)

Florida Registration No. \_\_\_\_\_ Date \_\_\_\_\_ Phone No. \_\_\_\_\_  
 Email of P.E.: \_\_\_\_\_

**ENGINEERING AND HYDROLOGIC DATA  
REQUIRED FOR SUPPORT OF APPLICATION  
TO CONSTRUCT, OPERATE, AND ABANDON  
CLASS I, III, OR V INJECTION WELL SYSTEMS**

The following information shall be provided for each type of permit application.

**A. CLASS I TEST/INJECTION WELL CONSTRUCTION AND TESTING PERMIT**

1. A map showing the location of the proposed injection wells of well field area for which a permit is sought and the applicable area of review. Within the area of review, the map must show the number or name, and location of all producing wells, injection wells, abandoned wells, dry holes, surface bodies of water, springs, public water systems, mines (surface and subsurface), quarries, water wells and other pertinent surface features including residences and roads. The map should also show faults, if known or suspected. Only information of public record and pertinent information known to the applicant is required to be included on this map.
2. A tabulation of data on all wells within the area of review which penetrate into the proposed injection zone, confining zone, or proposed monitoring zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of plugging and/or completion, and any additional information the Department may require.
3. Maps and cross sections indicating the general vertical and lateral limits within the area of review of all underground sources of drinking water, their position relative to the injection formation and the direction of water movement, where known, in each underground source of drinking water which may be affected by the proposed injection.
4. Maps and cross sections detailing the hydrology and geologic structures of the local area.
5. Generalized maps and cross sections illustrating the regional geologic setting.
6. Proposed operating data.
  - (a) Average and maximum daily rate and volume of the fluid to be injected;
  - (b) Average and maximum injection pressure; and,
  - (c) Source and an analysis of the chemical, physical, radiological and biological characteristics of injection fluids.
7. Proposed formation testing program to obtain an analysis of the chemical, physical and radiological characteristics of and other information on the injection zone.
8. Proposed stimulation program.
9. Proposed injection procedure.
10. Engineering drawings of the surface and subsurface construction details of the system.

11. Contingency plans to cope with all shut-ins or well failures, so as to protect the quality of the waters of the State as defined in Rule 62-3 and 62-520, F.A.C., including alternate or emergency discharge provisions.
12. Plans (including maps) and proposed monitoring data to be reported for meeting the monitoring requirements in Rule 62-528.425, F.A.C.
13. For wells within the area of review which penetrate the injection zone but are not properly completed or plugged, the corrective action proposed to be taken under Rule 62-528.300(5), F.A.C.
14. Construction procedures including a cementing and casing program, logging procedures, deviation checks, proposed methods for isolating drilling fluids from surficial aquifers, proposed blowout protection (if necessary), and a drilling, testing and coring program.
15. A certification that the applicant has ensured, through a performance bond or other appropriate means, the resources necessary to close, plug or abandon the well as required by Rule 62-528.435(9), F.A.C.

**B. CLASS I INJECTION WELL OPERATION PERMIT**

1. A report shall be submitted with each application for a Class I Well operating permit, which shall include, but not be limited to, the following information:
  - (a) Results of the information obtained under the construction permit described in A. CLASS I TEST/INJECTION WELL CONSTRUCTION AND TESTING PERMIT, including:
    - (1) All available logging and testing program data and construction data on the well or well field;
    - (2) A satisfactory demonstration of mechanical integrity for all new wells pursuant to Rule 62-528.300(6), F.A.C.;
    - (3) The actual operating data, including injection pressures versus pumping rates where feasible, or the anticipated maximum pressure and flow rate at which the permittee will operate, if approved by the Department;
    - (4) The actual injection procedure;
    - (5) The compatibility of injected waste with fluids in the injection zone and minerals in both the injection zone and the confining zone; and,
    - (6) The status of corrective action on defective wells in the area of review.
  - (b) Record drawings, based upon inspections by the engineer or persons under his direct supervision, with all deviations noted;
  - (c) Certification of completion submitted by the engineer of record;
  - (d) If requested by the Department, operation manual including emergency procedures;
  - (e) Proposed monitoring program and data to be submitted;

(f) Proof that the existence of the well has been recorded on the surveyor's plan at the county courthouse; and,

(g) Proposed plugging and abandonment plan pursuant to Rule 62-528.435(2), F.A.C.

### C. CLASS I WELL OPERATION REPERMITTING

1. An updated map showing the location of the injection wells or well field area for which a permit is sought and the applicable area of review. Within the area of review, the map must show the number or name, and location of all producing wells, injection wells, abandoned wells, dry holes, surface bodies of water, springs, public water systems, mines (surface and subsurface), quarries, water wells and other pertinent surface features including residences and roads. The map should also show faults, if known or suspected. Only information of public record and pertinent information known to the applicant is required to be included on this map.
2. A tabulation of data on all wells within the area of review which penetrate into the injection zone, confining zone, or monitoring zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of plugging and/or completion, and any additional information the Department may require.
3. Maps and cross sections indicating the general vertical and lateral limits within the area of review of all underground sources of drinking water, their position relative to the injection formation and the direction of water movement, where known, in each underground source of drinking water which may be affected by the injection.
4. Maps and cross sections detailing the hydrology and geologic structures of the local area.
5. Generalized maps and cross sections illustrating the regional geologic setting.
6. Contingency plans to cope with all shut-ins or well failures, so as to protect the quality of the waters of the State as defined in Rule 62-3 and 62-520, F.A.C., including alternate or emergency discharge provisions.
7. For wells within the area of review which penetrate the injection zone but are not properly completed or plugged, the corrective action proposed to be taken under Rule 62-528.300(5), F.A.C.
8. A certification that the applicant has ensured, through a performance bond or other appropriate means, the resources necessary to close, plug or abandon the well as required by Rule 62-528.435(9), F.A.C.
9. A report shall be submitted with each application for repermitting of Class I Well operation which shall include the following information:
  - (a) All available logging and testing program data and construction data on the well or well field;

- (b) A satisfactory demonstration of mechanical integrity for all wells pursuant to Rule 62-528.300(6), F.A.C.;
- (c) The actual operating data, including injection pressures versus pumping rates where feasible, or the anticipated maximum pressure and flow rate at which the permittee will operate, if approved by the Department;
- (d) The actual injection procedure;
- (e) The compatibility of injected waste with fluids in the injection zone and minerals in both the injection zone and the confining zone;
- (f) The status of corrective actin on defective wells in the area of review;
- (g) Record drawings, based upon inspections by the engineer or persons under his direct supervision, with all deviations noted;
- (h) Certification of completion submitted by the engineer of record;
- (i) An updated operation manual including emergency procedures;
- (j) Proposed revisions to the monitoring program or data to be submitted; and,
- (k) Proposed plugging and abandonment plan pursuant to Rule 62-528.435(2), F.A.C.

**D. CLASS I WELL PLUGGING AND ABANDONMENT PERMIT**

- 1. The reasons for abandonment.
- 2. A proposed plan for plugging and abandonment describing the preferred and alternate methods, and justification for use.
  - (a) The type and number of plugs to be used;
  - (b) The placement of each plug including the elevation of the top and bottom;
  - (c) The type and grade and quantity of cement or any other approved plugging material to be used; and,
  - (d) The method for placement of the plugs.
- 3. The procedure to be used to meet the requirements of Rule 62-528.435, F.A.C.

## E. CLASS III WELLS CONSTRUCTION/OPERATION/PLUGGING AND ABANDONMENT PERMIT

### Construction Phase

1. A map showing the location of the proposed injection wells or well field area for which a permit is sought and the applicable area of review. Within the area of review, the map must show the number or name, and location of all producing wells, injection wells, abandoned wells, dry holes, surface bodies of water, springs, public water system, mines (surface and subsurface), quarries, water wells and other pertinent surface features including residences and roads. The map should also show faults, if known or suspected. Only information of public record and pertinent information known to the applicant is required to be included on this map.
2. A tabulation of data on all wells within the area of review which penetrate into the proposed injection zone, confining zone, or proposed monitoring zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of plugging and/or completion, and any additional information the Department may require.
3. Maps and cross sections indicating the general vertical and lateral limits within the area of review of all underground sources of drinking water, their position relative to the injection formation and the direction of water movement, where known, in each underground source of drinking water which may be affected by the proposed injection.
4. Maps and cross sections detailing the hydrology and geologic structures of the local area.
5. Generalized maps and cross sections illustrating the regional geologic setting.
6. Proposed operating data:
  - (a) Average and maximum daily rate and volume of the fluid to be injected;
  - (b) Average and maximum injection pressure; and,
  - (c) Source and an analysis of the chemical, physical, radiological and biological characteristics of injection fluids, including any additives.
7. Proposed formation testing program to obtain an analysis of the chemical, physical and radiological characteristics of and other information on the injection zone.
8. Proposed stimulation program.
9. Proposed injection procedure.
10. Engineering drawings of the surface and subsurface construction details of the system.



11. Contingency plans to cope with all shut-ins or well failures or catastrophic collapse, so as to protect the quality of the waters of the State as defined in Rule 62-3 and 62-520, F.A.C., including alternate or emergency discharge provisions.
12. Plans (including maps) and proposed monitoring data to be reported for meeting the monitoring requirements in Rule 62-528.425, F.A.C.
13. For wells within the area of review which penetrate the injection zone but are not properly completed or plugged, the corrective action proposed to be taken under Rule 62-528.300(5), F.A.C.
14. Construction procedures including a cementing and casing program, logging procedures, deviation checks, proposed methods for isolating drilling fluids from surficial aquifers, and a drilling, testing and coring program.
15. A certificate that the applicant has ensured, through a performance bond or other appropriate means, the resources necessary to close, plug or abandon the well as required by Rule 62-528.435(9), F.A.C.
16. Expected changes in pressure, native fluid displacement, direction of movement of injection fluid.
17. A proposed monitoring plan, which includes a plan for detecting migration of fluids into underground sources of drinking water, a plan to detect water quality violation in the monitoring wells, and the proposed monitoring data to be submitted.

#### Operation Phase

1. The following information shall be provided to the Department prior to granting approval for the operation of the well or well field:
  - (a) All available logging and testing program data and construction data on the well or well field;
  - (b) A satisfactory demonstration of mechanical integrity for all new wells pursuant to Rule 62-528.300(6), F.A.C.;
  - (c) The actual operating data, including injection pressure versus pumping rate where feasible, or the anticipated maximum pressure and flow rate at which the permittee will operate, if approved by the Department;
  - (d) The results of the formation testing program;
  - (e) The actual injection procedure; and,
  - (f) The status of corrective action on defective wells in the area of review.

#### Plugging and abandonment Phase

1. The justification for abandonment.

2. A proposed plan for plugging and abandonment describing the preferred and alternate methods.
  - (a) The type and number of plugs to be used;
  - (b) The placement of each plug including the elevation of the top and bottom;
  - (c) The type and grade and quantity of cement or any other approved plugging material to be used; and,
  - (d) The method for placement of the plugs.
3. The procedure to be used to meet the requirements of Rule 62-528.435, F.A.C.

**F. EXPLORATORY WELL CONSTRUCTION AND TESTING PERMIT**

1. Conceptual plan of the injection project. Include number of injection wells, proposed injection zone, nature and volume of injection fluid, and proposed monitoring program.
2. Preliminary Area of Review Study. Include the proposed radius of the area of review with justification for that radius. Provide a map showing the location of the proposed injection well or well field area for which a permit is sought and the applicable area of review. Within the area of review, the map must show the number or name, and location of all producing wells, injection wells, abandoned wells, dry holes, surface bodies of water, springs, public water systems, mines (surface and subsurface), quarries, water wells and other pertinent surface features including residences and roads. The map should also show faults, if known or suspected. Only information of public record and pertinent information known to the applicant is required to be included on this map.
3. Proposed other uses of the exploratory well.
4. Drilling and testing plan for the exploratory well. The drilling plan must specify the proposed drilling program, sampling, coring, and testing procedures.
5. Abandonment Plan.

**G. CLASS V WELL CONSTRUCTION PERMIT**

(This form should be used for Class V Wells instead of Form 62-528.900(3), F.A.C., when there is a need for a Technical Advisory Committee and an engineering report.)

1. Type and number of proposed Class V Wells:

- \_\_\_\_\_ Wells Receiving Domestic Waste
- \_\_\_\_\_ Desalination Process Concentrate Wells (Reverse Osmosis, etc.)
- \_\_\_\_\_ Aquifer Storage and Recovery Wells
- \_\_\_\_\_ Aquifer Remediation Wells
- \_\_\_\_\_ Salt-water Intrusion Barrier Wells
- \_\_\_\_\_ Cooling Water Return Flow Wells Open-looped System
- \_\_\_\_\_ Subsidence Control Wells
- \_\_\_\_\_ Aquifer Recharge Wells
- \_\_\_\_\_ Experimental Technology Wells
- \_\_\_\_\_ Wells used to inject spent brine after halogen recovery
- \_\_\_\_\_ Radioactive Waste Disposal Wells\*
- \_\_\_\_\_ Borehole Slurry Mining Wells
- \_\_\_\_\_ Other non-hazardous Industrial or Commercial Disposal Wells  
(explain) \_\_\_\_\_
- \_\_\_\_\_ Other (explain) \_\_\_\_\_

\*Provided the concentrations of the waste do not exceed drinking water standards contained in Chapter 62-550, F.A.C.

2. Project Description:

- (a) Description and use of proposed injection system;
- (b) Nature and volume of injected fluid (the Department may require an analysis including bacteriological analysis) in accordance with Rule 62-528.635(2)(b), F.A.C.; and,
- (c) Proposed pretreatment.

3. Water well contractor's name, title, state license number, address, phone number and signature.

4. Well Design and Construction Details. (For multi-casing configurations or unusual construction provisions, an elevation drawing of the proposed well should be attached.)

(a) Proposed total depth;

(b) Proposed depth and type of casing(s);

(c) Diameter of well;

(d) Cement type, depth, thickness; and,

(e) Injection pumps (if applicable): \_\_\_\_\_ gpm @ \_\_\_\_\_ psi

Controls: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

5. Water Supply Wells - When required by Rule 62-528.635(1), F.A.C., attach a map section showing the locations of all water supply wells within a one-half (1/2) mile radius of the proposed well. The well depths and casing depths should be included. When required by Rule 62-528.635(2), F.A.C., results of bacteriological examinations of water from all water supply wells within one-half (1/2) mile and drilled to approximate depth of proposed well should be attached.

6. Area of review (When required by Rule 62-528.300(4), F.A.C.)

Include the proposed radius of the area of review with justification for that radius. Provide a map showing the location of the proposed injection well or well field area for which a permit is sought and the applicable area of review. Within the area of review, the map must show the number or name, and location of all producing wells, injection wells, abandoned wells, dry holes, surface bodies of water, springs, public water systems, mines (surface and subsurface), quarries, water wells and other pertinent surface features including residences and roads. The map should also show faults, if known or suspected. Only information of public record and pertinent information known to the applicant is required to be included on this map.

**H. CLASS V WELL OPERATION PERMIT**

(Final report of the construction that includes the following information may be submitted with the application to operate.)

1. Permit Number of Class V Construction Permit: \_\_\_\_\_

2. Owner's Name: \_\_\_\_\_

3. Type of Wells: \_\_\_\_\_

4. Construction and Testing Summary:

(a) Actual Dimensions:

Diameter	_____	Well Depth	_____	Casing Depth	_____
	(inches)		(feet)		(feet)
	_____		_____		_____
	_____		_____		_____
	_____		_____		_____
	_____		_____		_____

(b) Result of Initial Testing

5. Proposed Operating Data:

- (a) Injection Rate (GPM);
- (b) Description of injected waste; and,
- (c) Injection pressure and pump controls.

6. Proposed Monitoring Plan (if any):

- (a) Number of monitoring wells;
- (b) Depth(s);
- (c) Parameters;
- (d) Frequency of sampling; and,
- (e) Instrumentation (if applicable) Flow \_\_\_\_\_

Pressure \_\_\_\_\_

**I. CLASS V WELLS PLUGGING AND ABANDONMENT PERMIT**

- 1. Permit number of Class V construction or operating permit.
- 2. Type of well.
- 3. Proposed plugging procedures, plans and specifications.
- 4. Reasons for abandonment.

**J. MONITOR WELL PERMIT**

This section should be used only when application is made for a monitor well only. If a monitor well is to be constructed under a Class I, III, or V injection well permit, it is not necessary to fill in this section.

1. A site map showing the location of the proposed monitor wells for which a permit is sought. The map must be to scale and show the number or name, and location of all producing wells, injection wells, abandoned wells, dry holes, water wells and other pertinent surface features including structures and roads.
2. Maps and cross sections indicating the general vertical and lateral limits within the area of review of all underground sources of drinking water, their position relative to the injection formation and the direction of water movement, where known, in each underground source of drinking water which may be affected by the proposed injection.
3. Maps and cross sections detailing the hydrology and geologic structures of the local area.
4. Generalized maps and cross sections illustrating the regional geologic setting.
5. Proposed formation testing program to obtain an analysis of the chemical, physical and radiological characteristics of and other information on the monitor zone(s).
6. Proposed monitoring procedure.
7. Engineering drawings of the surface and subsurface construction details of the monitoring system.
8. Proposed monitoring data to be reported for meeting the monitoring requirements in Rule 62-528.425, F.A.C.
9. Construction procedures including a cementing and casing program, logging procedures, deviation checks, proposed methods for isolating drilling fluids from surficial aquifers, proposed blowout protection (if necessary), and a drilling, testing and coring program
10. Monitor Well Information:

On-site       Multizone       Single-zone

Regional       Other (specify) \_\_\_\_\_

Proposed Monitoring Interval(s) \_\_\_\_\_

Distance and Direction From Associated Injection Well

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