Agenda Report



2725 Judge Fran Jamieson Way Viera, FL 32940

Consent

F.5. 2/25/2025

Subject:

Request permission to execute Certification of Financial Responsibility for Local Government required by the Florida Department of Environmental Protection (FDEP) for a New Deep Injection Well Permit Application at the South Brevard Water and Wastewater Treatment Facilities (District 3).

Fiscal Impact:

\$900,000 is estimated for permit application purposes only for both wells proposed.

Dept/Office:

Utility Services

Requested Action:

It is requested that the Board authorize the County Manager to sign on behalf of Brevard County the Certificate of Financial Responsibility for Local Government associated with the permitting of two (2) deep injection wells at the proposed South Brevard Water and Wastewater Treatment facility (see Attachment A for location map of the facility).

Summary Explanation and Background:

Brevard County Utility Services Department is in the process of designing a new South Brevard Water and Wastewater Treatment Facility with two deep injection wells that are required for disposal method. Two deep injection wells (DIWs) will provide additional disposal capacity to accommodate our needs during high peak hour events and compliance deadline, to eliminate nonbeneficial surface water discharge, per FS 403.064 by January 1, 2032. As part of the permit application to add the DIWs, the FDEP requires that a Certificate of Financial Responsibility for Local Government be included in the submittal. The purpose of this certificate is to assure the FDEP that any time the DIWs needs to be closed, plugged, and abandoned, the local government has sufficient funds to do so. The engineer of record for this project estimates the cost to be \$900,000. This requirement is stated in FAC 62-528.435. Requirements on who is authorized sign this form is included in FAC 62-528.340.

Attachment A - Location Map of South Brevard Water and Wastewater Treatment Facilities

Attachment B - Certificate of Financial Responsibility for Local Government

Attachment C - Hazen cost estimate to close plug, and abandon a DIW

Attachment D - FAC 62-528.435 - Plugging and Abandonment Criteria and Procedures for Class I and II Wells.

Attachment E - FAC 62-528.340 - Signatories to Permit Applications and Reports for Underground Injection

2/25/2025 F.5.

Control

Clerk to the Board Instructions:

E-mail the Clerk memo to karina.perez@brevardfl.gov and mail the original to the Utility Services Department



FLORIDA'S SPACE COAST

Kimberly Powell, Clerk to the Board, 400 South Street • P.O. Box 999, Titusville, Florida 32781-0999

Telephone: (321) 637-2001 Fax: (321) 264-6972 Kimberly.Powell@brevardclerk.us



February 26, 2025

MEMORANDUM

TO: Edward Fontanin, Utility Services Director

RE: Item F.5., Request to Execute Certification of Financial Responsibility for Local Government required by the Florida Department of Environmental Protection (FDEP) for a New Deep Injection Well Permit Application at the South Brevard Water and Wastewater Treatment Facilities

The Board of County Commissioners, in regular session on February 25, 2025, authorized the County Manager to sign on behalf of Brevard County the Certificate of Financial Responsibility for Local Government associated with the permitting of two deep injection wells at the proposed South Brevard Water and Wastewater Treatment Facility.

Your continued cooperation is always appreciated.

Sincerely,

BOARD OF COUNTY COMMISSIONERS RACHEL M. SADOFF, CLERK

/kl

cc: County Manager

Finance Budget

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Existing Wastewater Treatment Facility

Existing Water Treatment Facility

Proposed Wastewater and Water Treatment Facility Location

CERTIFICATION OF FINANCIAL RESPONSIBILITY FOR LOCAL GOVERNMENT

Brevard County , a unit of local government of
the State of Florida, hereby certifies that it has unconditionally obligated itself to have the financial resources necessary to close, plug, and abandon its underground injection well(s) and related monitoring wells, as required by Chapter 62-528, Florida Administrative Code. It is further understood that the cost estimate to conduct plugging and abandonment, established on January 17, 2025, shall be updated thirty (30) months after the date of permit issuance and this obligation shall incorporate accumulated inflation costs. An increase exceeding 10 percent compared with the amount stated below shall require submission of an updated certification form. Injection Wells and Monitoring Wells Covered By This Agreement:
(attach additional sheet if necessary) Facility Name: South Brevard County WTP and WRF
Facility Name:
Facility Address:
Facility Contact: Edward Fontanin
Phone Number: (321) 633-2091
Latitude/Longitude of Injection Well(s) See attachment
Current Permit Number: NA
Current Plugging and Ab. John Pstimate: \$900,000 (total for all injection and mc. Sring wells)
It is hereby understog a that the concellation of this certification may not take place without the prior written consect of the Scoretary of the Florida Department of Environmental Protection.
(Signature) NOTARY: See Next Page
(Print Name)
(Title)
(Date)

Notary Form

State of Florida
County of:
Sworn to (or affirmed) and subscribed before me this day of,
by
(Name of person making statement)
Personally known to me
OR
Produced the following identification
Notary Signature
Print, Type, or Stamp Commissioned Name of Newry Public
Apply Seal of Notary F. lic below State of Florida



January 23, 2025

Edward Fontanin Utility Services Director 2725 Judge Fran Jamieson Way, A-213 Viera, FL 32940 Edward.Fontanin@brevardfl.gov

RE: South Brevard County Water Treatment Plant and Water Reclamation Facility Injection Wells IW-1 and IW-2 Construction and Testing Permit Application Local Government Guarantee

Dear Mr. Fontanin:

In accordance with Florida Administrative Code Rule 62-528.435(9), the County is required to unconditionally certify the obligation to have the financial resources necessary to plug and abandon the injection wells IW-1 and IW-2, and associated monitoring well MW-1. The plugging and abandonment plan includes an estimated probable cost to plug and abandon the proposed injection well system. The costs associated with implementing the plugging and abandonment plan include a 20-percent contingency and an estimated 8-percent engineering fee. The total cost estimate of \$900,000 is in January 2025 U.S. dollars. Conceptual diagrams are included as reference.

The Certification of Financial Responsibility allows for a cost increase of 10 percent within 30 months of certification without submittal of an updated certification form. The County is required to perform annual cost estimates and issue new financial responsibility certificates upon renewal of permits or during the application for operation if the annual review reveals a cost increase of greater than 10 percent.

Additionally, the local government must submit a letter from its attorney attesting to the permittee meeting the definition of a local government as defined in Florida Statutes Chapter 218, Financial Matters Pertaining to Political Subdivisions Part V Financial Emergencies. For your reference the requirements of the Local Government Guarantee and Chapter 218, Part V, are attached.

As a requirement of the Underground Injection Control Construction and Testing Permit Application for Class I injection wells, please provide the letter from the County attorney, as described above, and prepare the Certification of Financial Responsibility for Local Government, attached herein.

Sincerely, Hazen and Sawyer,

Gerrit Bulman, P.G. (License No. 2697) Associate Vice President



Attachments:

- 1. Plugging and Abandonment Procedures and Cost Estimate
- 2. Figure 1 IW-1 and IW-2 Conceptual Abandonment Diagram
- 3. Figure 2 MW-1 Conceptual Abandonment Diagram
- 4. Certification of Financial Responsibility for Local Government
- 5. Local Government Guarantee
- 6. Chapter 218 Financial Matters Pertaining to Political Subdivisions Part V Financial Emergencies
- Latest Fiscal Year (2023) Financial Statement, Available Online: <u>02461A458CC0D469F9E760D9A7E5CAF2.brevard-county-annual-comprehensive-financial-report-fy-2023.pdf</u>

Copy:

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Hazen File 40003-006 / South Brevard WTP and WWRF Injection Well Permit Renewal



Plugging and Abandonment Plan and Cost Estimate

In the event that an injection well or monitoring well must be abandoned, the well must be effectively sealed (or plugged) to prevent upward migration of the injection zone fluid or the interchange of formation water through the borehole or along the casing. The plugging and abandonment of injection wells IW-1 and IW-2, and dual-zone monitoring well MW-1 will require the services of a State of Florida licensed water well drilling contractor. The costs associated with implementing the plugging and abandonment program include a 20% contingency cost. An estimated 8% engineering fee is included with the estimated cost. The opinion of probable cost is in January 2025 US Dollars.

Prior to plugging and abandoning the injection well and monitoring well, the Florida Department of Environmental Protection (FDEP) Underground Injection Control (UIC) Program must be notified of and grant permission for the work to proceed. The following plugging and abandonment plans for IW-1, IW-2, and MW-1 both include five (5) major tasks. Proposed casing and borehole depths and diameters as presented in the permit application are presented in this plan. Actual depths and diameters will be revised upon construction and submitted as a formal plan for FDEP approval.

The proposed wells to be plugged and abandoned are located at the following coordinates:

Well Identification	Latitude	Longitude
IW-1	TBD	TBD
IW-2	TBD	TBD
MW-1	TBD	TBD

The following procedures would be followed to abandon an injection well:

Task l	Includes all work associated with mobilization, formation water containment and disposal, and supporting equipment for the work. This item also includes the work required to "kill" artesian flow from the well with brine solution to lower the hydrostatic head below pad level (bpl) to facilitate the removal of the wellhead.
Task 2	Conduct a caliper log of the nominal 16-inch outside diameter (OD) (nominal 14.48-inch inside diameter [ID]) final fiberglass reinforced plastic (FRP) casing and nominal 25-inch diameter open borehole injection interval to 3,000 feet below pad level (bpl).
Task 3	Install limestone gravel down the well to fill the open borehole from 3,000 feet bpl up to a depth of approximately 2,120 feet bpl, approximately 20 feet below the base of the nominal 16-inch OD final FRP casing, for a total of 2,600 cubic feet.
Task 4	Pump ASTM C150 Type I/II or API Class B or ASTM C595 Type 1L neat cement, via tremie, from 2,210 feet bpl, approximately 20 feet below the base of the nominal 16-inch OD final FRP casing, to pad level, for a total of 2,500 cubic feet.
Task 5	Demolish the well pad, cut all steel casings and FRP casing four (4) feet below grade, and set a survey monument. This task includes all work associated with demobilizing the drilling rig and supporting equipment. Upon completion of demobilization, the contractor shall restore the site.

The following procedures would be followed to abandon a dual zone monitor well:



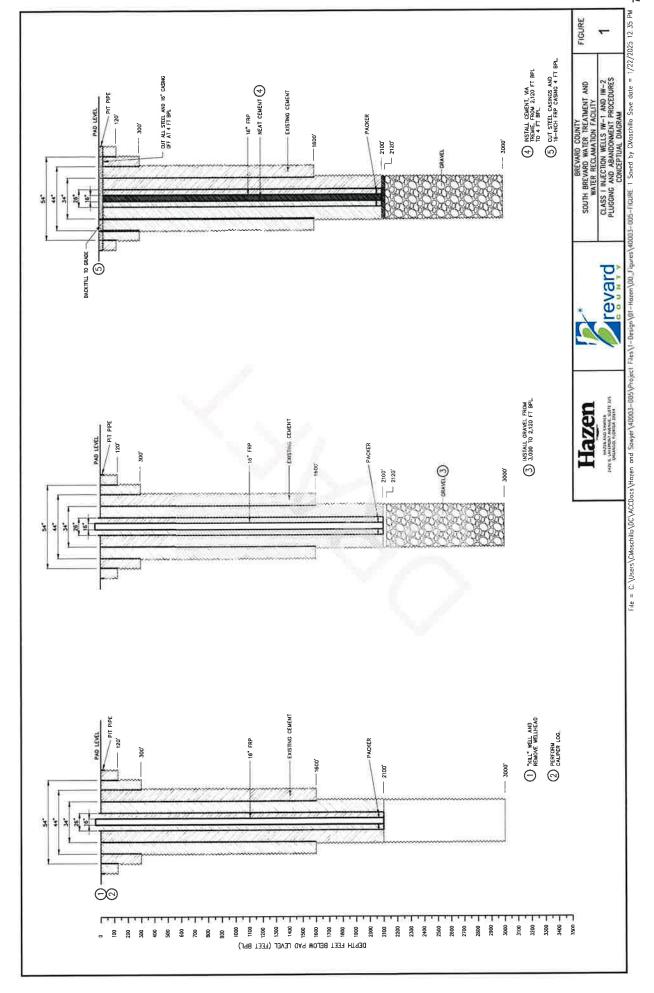
Includes all work associated with mobilization, this item also includes the work Task 1 required to "kill" artesian flow from the well with brine solution to lower the hydrostatic head bpl to facilitate the removal of the wellhead. Conduct a caliper log in the lower monitoring zone (LMZ) from 1,150 feet to 1,000 Task 2 feet bpl and within the 6.625-inch OD (5.43-inch ID) FRP tubing to pad level. Pump ASTM C150 Type I/II or API Class B or ASTM C595 Type 1L neat cement, Task 3 via tremie, in the LMZ, from 1,150 feet bpl to 1,000 feet bpl and the 6.625-inch OD (5.43-inch ID) FRP tubing to pad level, for a total of 200 cubic feet. Pump ASTM C150 Type I/II or API Class B or ASTM C595 Type 1L neat cement, Task 4 via tremie, in the UMZ, from 850 feet bpl to 800 feet bpl and the annulus between the 12.75-inch OD (11.75-inch ID) steel casing and 6.625-inch OD (5.43-inch ID) FRP tubing to pad level, for a total of 550 cubic feet. Demolish the well pad, cut all steel casings and FRP casing four (4) feet below grade, Task 5 and set a survey monument. This task includes all work associated with demobilizing the drilling rig and supporting equipment. Upon completion of demobilization, the contractor shall restore the site.

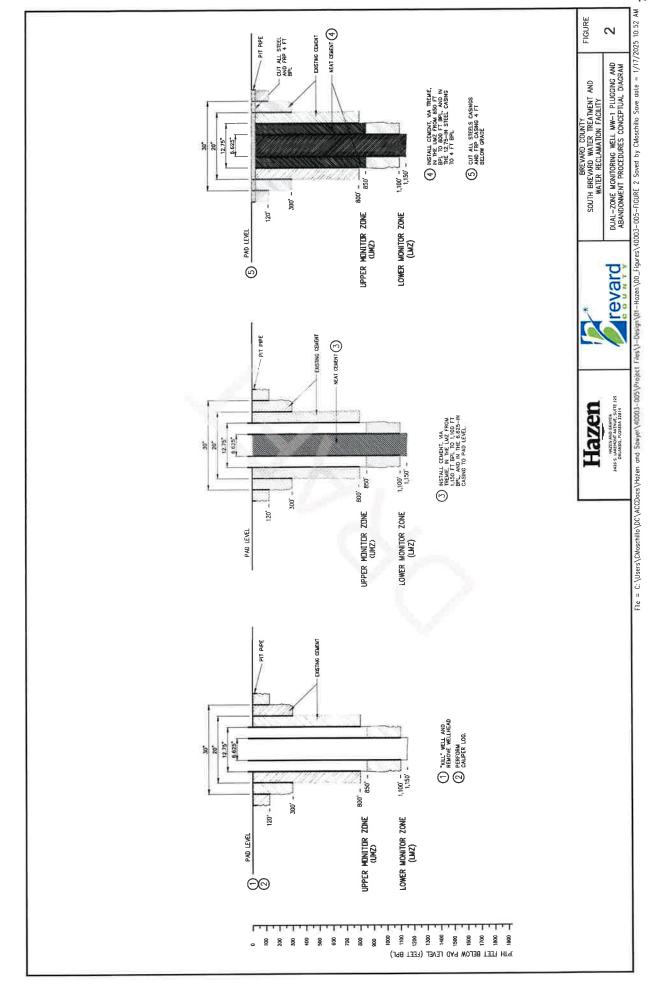
A cost estimate for plugging and abandoning each injection well and the dual-zone monitoring well is presented in Table 1. Figures 1 and 2 present the details of the plugging and abandonment plan in a conceptual diagram.



Table 1. Plugging and Abandonment Cost Estimate

Task	Unit Cost	Estimate
Injection Well, IW-1		
Abandonment Permit Application Fee	Unit	\$150
Mobilization/Demobilization, "kill" and remove wellhead, demolish well pad, cut casing and set survey	Lump Sum	\$110,000
Caliper Log	Lump Sum	\$20,000
Gravel – 2,600 cu ft	\$30/cu ft	\$78,000
Grout – 2,500 cu ft	\$30/cu ft	\$75,000
SUBTOTAL CONTRACTOR COST FOR IW-1		\$283,150
CONTINGENCY FEE (20%)		\$56,630
IW-1 TOTAL		\$339,780
Injection Well, IW-2		
Abandonment Permit Application Fee	Unit	\$150
Mobilization/Demobilization, "kill" and remove wellhead, demolish well pad, cut casing and set survey	Lump Sum	\$110,000
Caliper Log	Lump Sum	\$20,000
Gravel – 2,600 cu ft	\$30/cu ft	\$78,000
Grout – 2,500 cu ft	\$30/cu ft	\$75,000
SUBTOTAL CONTRACTOR COST FOR IW-1		\$283,150
CONTINGENCY FEE (20%)		\$56,630
IW-2 TOTAL		\$339,780
Dual-zone Monitor Well, MW-1		
Abandonment Permit Application Fee	Unit	\$150
Mobilization/Demobilization, "kill" and remove wellhead, demolish well pad, cut casing and set survey	Lump Sum	\$80,000
Caliper Log	Lump Sum	\$15,000
LMZ Grout – 200 cu ft	\$30/cu ft	\$6,000
UMZ Grout – 550 cu ft	\$30/cu ft	\$16,500
SUBTOTAL CONTRACTOR COST FOR MW-1		\$117,650
CONTINGENCY FEE (20%)		\$23,530
MW-1 TOTAL		\$141,180
TOTAL FORMATED CONTRACTORS COST FOR "" . "	ALO, AND RAMA	927.040
TOTAL ESTIMATED CONTRACTORS COST FOR IW-1, I	W-2, AND MW-1	827,940 \$66,235
ESTIMATED ENGINEERING FEE (8%) TOTAL COST FOR IW-1, IW-2, AND MW-1		\$894,175
TOTAL ROUNDED COST FOR IW-1, IW-2, AND MW-1	\$900,000	





62-528.435 Plugging and Abandonment Criteria and Procedures for Class I and III Wells.

- (1) Upon determination by the Department that a well poses a threat to waters of the State or within one year of determining that a well has been abandoned, the Department shall order the well plugged, unless otherwise provided for in a consent order.
- (2) Any Class I or III permit shall include conditions to ensure that plugging and abandonment of the well will not allow the movement of fluids either into an underground source of drinking water or from one underground source of drinking water to another. These conditions shall include mechanical integrity testing prior to plugging of the injection well, or monitor well which penetrates the injection zone or final confining unit, if fluid movement through channels adjacent to the injection well bore is suspected. Any applicant for an underground injection control permit shall be required to submit a plan for plugging and abandonment, which shall address post-closure monitoring of the injection operation. The post-closure monitoring plan shall be designed in accordance with the requirements of paragraph 62-528.425(1)(j), F.A.C. Where the plan meets the requirements of this chapter, the Department shall incorporate it into the permit as a condition. Where the Department's review of an application indicates that the permittee's plan is inadequate, the Department shall require the applicant to revise the plan, prescribe conditions meeting the requirements of this chapter, or deny the application. Where applicable, the plugging and abandonment plan shall address the proposed post-closure monitoring.
- (3) Prior to abandoning Class I or III wells, the well shall be plugged with cement, or other materials if a Class III well, in a manner which will not allow the movement of fluids either into or between underground sources of drinking water. To use other plugging materials for Class III wells, the applicant shall demonstrate in the plugging and abandonment permit application that the proposed plugging materials will prevent movement of fluids into or between underground sources of drinking water.
 - (4) Placement of the plugging material shall be accomplished by one of the following methods:
 - (a) The Balance Method;
 - (b) The Dump Bailer Method;
 - (c) The Two-Plug Method; or
- (d) Any other recognized method which is as effective or more effective than those listed above for the placement of plugging material in a manner that will not allow fluid movement to occur into or between underground sources of drinking water.
- (e) For wells with an open hole completion, the cement shall be emplaced beginning at the deepest point required in the permit and upward to land surface or other method approved by the Department following the process described in subsection 62-528.100(2), F.A.C.
- (5) The well to be abandoned shall be in a state of static equilibrium with the mud weight equalized from top to bottom, either by circulating the mud in the well at least once or by a comparable method prescribed by the Department, prior to the placement of the cement plug(s).
- (6) The permittee shall notify the Department at least 180 days before conversion or abandonment of a Class I well, unless abandonment within a lesser period of time is necessary to protect the waters of the State.
- (7) For all Class I wells, after removal of the tubing and packer (if applicable), the final or innermost string of casing shall be filled with neat cement grout or an approved equivalent from a depth of at least 10 feet below the bottom of the casing to land surface. Annular monitor tubes in an injection well are allowed to be left unplugged temporarily if they are to be used for their intended purpose and do not compromise the objectives listed above. If temporarily left open, the annular monitor tubes shall be plugged with cement at the end of post-closure monitoring. If the tubes are not used for monitoring, they shall be filled with neat cement from the bottom of the monitor zone to land surface.
- (8) The plugging and abandonment plan required in Rules 62-528.435 and 62-528.460, F.A.C., shall, in the case of a Class III well field which underlies or is in an aquifer which has been exempted under subsection 62-528.300(3), F.A.C., also demonstrate that no movement of contaminants from the mined zone into an underground source of drinking water will occur. The Department shall prescribe aquifer cleanup and monitoring where necessary and feasible to ensure that no migration of contaminants from the mined zone into an underground source of drinking water will occur.
- (9) Financial Responsibility. The permit shall require the permittee to demonstrate and maintain financial responsibility and resources necessary in the form of performance bonds or other equivalent form of financial assurance approved as described in paragraph (b) below, to close, plug, and abandon the underground injection operation.
- (a) Class I hazardous waste wells shall comply with the financial responsibility requirements of 40 C.F.R. pt. 144 Subpart F (1994).
 - (b) For Class I wells used to inject non-hazardous fluids these requirements are specified in the Department's document "State

of Florida Underground Injection Control Program Financial Responsibility Options for Owners and Operators of Injection Wells" (1996), which is incorporated herein by reference, and which may be obtained by writing to the Division of Water Resource Management, Department of Environmental Protection, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. In lieu of individual financial guarantees, the applicant shall furnish a financial guarantee covering all the applicant's injection wells in this State. The Department shall require a certificate showing that the applicant has assured, through a performance bond or other appropriate means, that resources necessary to cover post-closure monitoring and any corrective action resulting from this monitoring have been provided.

- (10) In the event a radioactive source tool has been irretrievably lost down an injection well, the Department shall be immediately notified. The well shall not be plugged until all applicable Nuclear Regulatory Commission regulations have been satisfied.
- (11) Within 90 days after completion of plugging and abandonment the permittee of a well shall provide documentation that the well was properly abandoned.

Specific Authority 403.061, 403.087 FS. Law Implemented 403.021, 403.061, 403.062, 403.087, 403.161 FS. History—New 4-1-82, Amended 8-30-82, 5-8-85, Formerly 17-28.27, 17-28.270, 62-28.270, Amended 8-10-95, 6-24-97.

62-528.340 Signatories to Permit Applications and Reports for Underground Injection Control.

- (1) Applications. All permit applications, except those submitted for Class II wells (see subsection (2) of this section), shall be signed as follows:
- (a) For a corporation, by a responsible corporate officer. For the purpose of this subsection, a responsible corporate officer means:
- 1. A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or
- 2. The manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

Note: Specific assignments or delegations of authority to responsible corporate officers identified in subparagraph 1. above is not required. The Department will presume that these responsible corporate officers have the requisite authority to sign permit applications unless the corporation has notified the Department to the contrary. Corporate procedures governing authority to sign permit applications may provide for assignment or delegation to applicable corporate positions under subparagraph 2. above rather than to specific individuals.

- (b) For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or
- (c) For a municipality, state, federal, or other public agency, by either a principal executive officer or ranking elected official. For purposes of this subsection, a principal executive officer of a state or federal agency includes the chief executive officer of the agency, or a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.
- (2) Reports. All reports required by permits and other information requested by the Department shall be signed by a person described in subsection (1) of this section, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - (a) The authorization is made in writing by a person described in subparagraph (1) of this section;
- (b) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and
 - (c) The written authorization is submitted to the Department.
- (3) Changes to authorization. If an authorization under subsection (2) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of subsection (2) of this section shall be submitted to the Department prior to or together with any reports, information, or applications to be signed by an authorized representative.
- (4) Certification. Any person signing a document under subsection (1) or (2) of this section shall make the following certification: "I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Specific Authority 373.309, 403.087 FS. Law Implemented 373.308, 403.087 FS. History-New 8-10-95, Amended 6-24-97.