

October 11, 2019

Ms. El Kromhout, P.G.
Mr. Cory Dilmore, P.E.
Florida Department of Environmental Protection
Permitting and Compliance Assistance Program
2600 Blair Stone Road, MS 4565
Tallahassee, FL 32399

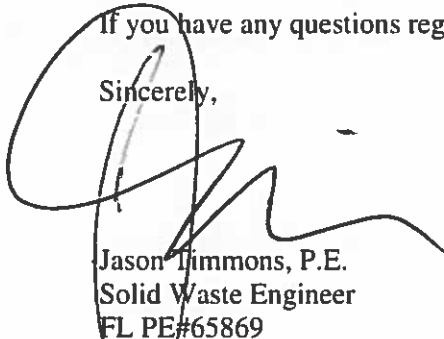
Re: Sarasota County
Central County Solid Waste Disposal Complex
Application for a Permit to Construct and Operate a Research, Development, and
Demonstration Facility
Wet Waste Processing Operation
WACS ID No. 51614

Sarasota County Public Utilities Solid Waste Division is pleased to submit the attached application for a permit to construct and operate a research, development and demonstration (RD&D) facility for wet waste processing at the Sarasota Central County Solid Waste Disposal Complex. The requested duration of the permit is 1 year with the option to renew as allowed by RD&D permit rules.

In accordance with Rule 62-701.315(9), attached is a check in the amount of \$1,000 made payable to the Florida Department of Environmental Protection.

If you have any questions regarding this application, please contact me anytime at 941-861-1572.

Sincerely,



Jason Timmons, P.E.
Solid Waste Engineer
FL PE#65869

Attachments:
Permit Application with Supporting Documents
Check #01103172

Cc: South District FDEP
Lois Rose, Sarasota County
File



BOARD OF COUNTY COMMISSIONERS
SARASOTA COUNTY
SARASOTA, FLORIDA

VENDOR ID	VENDOR NAME	CHECK DATE	CHECK NO.
004803	STATE OF FLORIDA DEPT OF ENVI	10/10/19	01103172

VOUCHER NO.	DESCRIPTION	ACCOUNT	AMOUNT
RD & D WET	100319	52840400 500489	1,000.00



TOTAL \$ 1,000.00

THIS CHECK IS VOID IF BLUE COLORED BACKGROUND IS ABSENT



BOARD OF COUNTY COMMISSIONERS
SARASOTA COUNTY
SARASOTA, FLORIDA

JPMorgan Chase Bank, N.A.
Columbus, OH

CHECK NO. 01103172

56-1544/441

DATE 10/10/19

APPROVED IN OPEN SESSION

EXACTLY ONE Thousand Dollars and ZERO Cents

CLEARING ACCOUNT

PAY TO THE ORDER OF STATE OF FLORIDA DEPT OF ENVIRONMENTAL PROTECTION
2600 BLAIR STONE RD
MS 5505
TALLAHASSEE FL 32399-2400



A/P ACCOUNT

PAY EXACTLY
\$*****1,000.00

NOT VALID AFTER 60 DAYS

ATTEST: KAREN E. RUSHING CLERK CIRCUIT COURT
EX-OFFICIO CLERK OF BOARD OF COUNTY COMMISSIONERS

Karen E. Rushing
Karen E. Rushing

⑈01103172⑈ ⑆044115443⑆ 208959327⑈



Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

DEP Form #: 62-701.900(32)
Form Title: Application For a Permit to Construct and Operate a Research, Development and Demonstration Facility
Effective Date January 6, 2010
Incorporated in Rule: 62-701.310(5), F.A.C.

APPLICATION FOR A PERMIT TO CONSTRUCT AND OPERATE A RESEARCH, DEVELOPMENT AND DEMONSTRATION FACILITY

GENERAL INSTRUCTIONS: Pursuant to Section 403.70715, Florida Statutes,(FS) the Department may issue a Research, Development and Demonstration (RD&D) Permit to the owner or operator of any solid waste management facility who proposes to utilize an innovative and experimental solid waste treatment technology or process...

Please Type or Print in Ink

A. GENERAL INFORMATION

1. Generally describe the type of facility to be operated under the RD&D permit:

The project will include processing incoming wet wastes to bind the liquid portion of the waste stream so that there are no "free liquids" remaining so that the material can be disposed of properly in the Class I Landfill. The process to be implemented will achieve the desired result in the least labor intensive and cost-effective manor while maintaining compliance with all applicable regulations...

2. Type of application:

Construction [] Construction/Operation [X]
Operation []

3. Classification of application:

New [X] Substantial Modification []
Renewal [] Minor Modification []

4. Facility name: Sarasota Central County Solid Waste Disposal Complex

5. DEP ID number: WACS# 51614 County: Sarasota

6. Facility location (mainentrance): North end of Knights Trail Road, 2 miles east of I-75, northeast of Venice, FL at 4000 Knights Trail Road, Nokomis, FL 34275

Northwest District
160 Government Center
Pensacola, FL32501-5794
850-595-8360

Northeast District
7825 Baymeadows Way Ste 200B
Jacksonville, FL 32256-7590
904-807-3300

Central District
3319 Maguire Blvd., Ste. 232
Orlando, FL 32803-3767
407-894-7555

Southwest District
13051 N. Telecom Pky.
Temple Terrace, FL
813-632-7600

South District
2295 Victoria Ave., Ste. 364
Fort Myers, FL 33901-3881
239-332-6975

Southeast District
400 North Congress Ave.
West Palm Beach, FL 33401
561-681-6600

7. Location coordinates:

Section: 1-4, 9-16 Township: 38S Range: 19E

Latitude: 27 ° 12 ' 11 " Longitude: 82 ° 23 ' 16 "

Datum: NAD 83 Coordinate Method: GIS/Mapping/Electronic

Collected by: Sarasota County Company/Affiliation: Sarasota County

8. Applicant name (operating authority): Sarasota County Solid Waste Division

Mailing address: 4000 Knights Trail Road Nokomis FL 34275
Street or P.O. Box City State Zip

Contact person: Jason Timmons, PE Telephone: (941) 861-1572

Title: Solid Waste Engineer

9. Authorized agent/Consultant: N/A

Mailing address: _____
Street or P.O. Box City State Zip

Contact person: _____ Telephone: (_____) _____

Title: _____

10. Landowner (if different than applicant): Same as applicant.

Mailing address: _____
Street or P.O. Box City State Zip

Contact person: _____ Telephone: (_____) _____

11. Approximate land area required for operation of this facility: Less than 1 acre within the lined area of the Class I Landfill

12. Anticipated construction starting and completion dates:

From: Upon issuance of permit To: 30 days after permit

13. Anticipated operation starting and completion dates:

From: 30 days after permit To: no longer than 360 days from permit issuance

B. ADDITIONAL INFORMATION

1. Attach a site plan, of a scale not greater than 200 feet to the inch, which shows the project location and identifies the proposed waste storage and handling areas, general facility layout, and any other relevant features such as water bodies or wetlands on or within 200 feet of the site and potable water wells on or within 500 feet of the site.

See Operations Plan Section 3 and Attachment 1.

2. Attach a facility design and operation plan which includes:

- a. A detailed description of how the wastes are to be handled or processed at the facility including any necessary testing required to properly operate the facility;

Operations Plan Section 4.A

- b. If applicable, process flow diagrams for the facility operations which are signed and sealed by a professional engineer;

Not Applicable.

- c. A description of the types of equipment that will be used at the facility;

Operations Plan Section 4.C.

- d. A projection of the volume and weights of material intended to be processed or handled at the facility;

Operations Plan Section 4.D.

- e. A description of any expected air emissions and wastewater discharges from the facility which may be potential pollution sources;

Operations Plan Section 4.E.

- f. A ground water monitoring plan which meets the applicable requirements of Rule 62-701.510 and Chapter 62-520, F.A.C. or a description why a ground water monitoring plan is not applicable to the facility; and

Operations Plan Section 4.F.

- g. A description of what steps will be taken to prevent discharge of leachate and mixing of leachate with stormwater.

Operations Plan Section 4.G.

3. Attach a closure plan which describes how the facility will be closed upon completion of the project and how the closure activities will be funded.

Operations Plan Section 5.

C. CERTIFICATION BY APPLICANT AND ENGINEER OR PUBLIC OFFICER

1. Applicant:

The undersigned applicant or authorized representative of Sarasota County is aware that statements made in this form and attached information are an application for a CONSTRUCTION AND OPERATION RESEARCH, DEVELOPMENT AND DEMONSTRATION FACILITY Permit from the Florida Department of Environmental Protection and certifies that the information in this application is true, correct and complete to the best of his/her knowledge and belief. Further, the undersigned agrees to comply with the provisions of Chapter 403, Florida Statutes, and all rules and regulations of the Department. It is understood that the Permit is not transferable, and the Department will be notified prior to the sale or legal transfer of the permitted facility.

Lois Rose
Signature of Applicant or Agent

Lois Rose, Manager Solid Waste
Name and Title (please type)

lrose@scgov.net
E-Mail address (if available)

4000 Knights Trail Rd.
Mailing Address

Nokomis, FL 34275
City, State, Zip Code

941 861-1589
Telephone Number

10/11/19
Date

Attach letter of authorization if agent is not a governmental official, owner, or corporate officer.

2. Professional Engineer registered in Florida (or Public Officer if authorized under Sections 403.707 and 403.7075, Florida Statutes):

This is to certify that the engineering features of this waste processing facility have been designed/examined by me and found to conform to engineering principles applicable to such facilities. In my professional judgment, this facility, when properly maintained and operated, will comply with all applicable statutes of the State of Florida and rules of the Department. It is agreed that the undersigned will provide the applicant with a set of instructions of proper maintenance and operation of the facility.

JASON E. TIMMONS
Name and Title (please type) Manager, Solid Waste Engineer

JETIMMONS@SCGOV.NET
E-Mail address (if available)

941, 861-1572
Telephone Number

4000 Knights Trail Rd.
Mailing Address

Nokomis FL 34275
City, State, Zip Code

jetimmons@scgov.net
E-Mail address (if available)

941, 861-1572
Telephone Number

[Signature]





Sarasota County
Solid Waste Operations

Central County Solid Waste Disposal Complex Wet Waste Processing Operations Plan

October 2019

Prepared by
Sarasota County Solid Waste Operations
4000 Knights Trail Road
Nokomis, FL 34275

Jason Timmons, PE
FL PE #65869

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- Attachment 1 General Site Layout Plan
- Attachment 2 CETCO Quik-Solid and Quik-Solid 50 Specification Sheets

1. INTRODUCTION

The Sarasota County Public Utilities Department owns, operates and maintains over 700 wastewater lift stations throughout the unincorporated areas of Sarasota County. Through a preventative maintenance program, these lift stations are periodically pumped out using pumper and vacuum trucks to remove grit, sediment, rags, trash, and other materials that could impact the performance of the pump systems. The pumped-out water and materials have historically been transported to drying beds located in North Sarasota County. Periodically the dried materials are removed from the drying beds and transported for disposal at the Central County Solid Waste Disposal (CCSWDC) Class I Landfill. In order to make this process more efficient, especially for lift stations located near the CCSWDC, Sarasota County Solid Waste is investigating alternative dewatering and drying processes that can be located at the CCSWDC. The Solid Waste Division intends to develop a process to handle these incoming wet wastes to bind the liquid portion of the waste stream so that there are no “free liquids” remaining allowing the material to be disposed of properly in the Class I Landfill. The process to be implemented will achieve the desired result in the least labor intensive and cost-effective manor while maintaining compliance with all applicable regulations.

2. PROJECT PARTICIPANTS

The project will be a joint effort between the Sarasota County Solid Waste and Water/Wastewater Divisions, Advanced Disposal (the operator of the landfill), and the County’s private wastewater lift station cleaning contractor(s). For the purposes of initial startup and testing of the project, only Sarasota County Public Utilities and the County’s contractors will participate in the project.

3. PROJECT LOCATION AND SITE PLAN

The project will be located at the Central County Solid Waste Disposal Complex within the limits of the Class I landfill working area. The actual location of the operation will be moved with the working face of the landfill and will always be within the non-storm watered area of the working face that is being drained and collected as leachate. In general, the wet waste processing area will be in proximity to the working face, within the leachate collection area, and out of the way of traffic and other landfill operations. The figure provided in Attachment 1 shows a schematic of a general layout of a typical work area to include the wet waste processing operations area. Please note that the areas shown move each day of operations depending on traffic patterns, weather, and fill sequence. The figure is simply intended as an illustration of the proposed location of the wet waste processing area to be located within the working area being collected as leachate.

4. PROPOSED WET WASTE PROCESSING OPERATIONS

A. Proposed Process

The following provides steps in the proposed process. The County may modify, add, or delete the specific steps, products, or sequence of operations to improve the outcome of the process.

1. Sarasota County Public Utilities or their contractors will notify Solid Waste that a truck with lift station cleaning materials will be coming to the landfill.

2. Advanced Disposal and Solid Waste will setup either a shallow lined excavation or a lined roll-off container within a designated area of the Class I Landfill that is within the leachate collection system. The wet waste processing operation will be contained within an area that has not been prepared for stormwater runoff within proximity to the landfill working face. If using an excavation, waste will not be left exposed. Any waste excavated will be taken directly to the working face for disposal and exposed waste will be covered with soil and lined for the wet waste processing operation.
3. The lined excavated area or roll off will be constructed/positioned so that liquid cannot run out of the area, therefore the excavation or container may be sloped with the closed end down. Other alternative containment methods may also be explored during the project.
4. The vehicle with the wet wastes will unload the material in the lined excavation or roll off container.
5. A solidifying/absorbent product will be added to the materials (CETCO Quik-Solid, Quik-Solid 50 or other product) – Note – product sheets for CETCO Quik-Solid and Quik-Solid 50 are provided in Attachment 2 for reference, however other products for solidifying the materials may be tested. Other bulking materials may be used, such as mulch, but will be minimized to the greatest extent possible.
6. The material will be mixed as needed to improve absorption of free liquids.
7. Determination of free liquid absorption will be made by visual observation and/or passing a field paint filter test.
8. Once free liquids are absorbed, the roll off will be picked up and the materials disposed of at the Class I Landfill. If in a lined excavation the material may be buried in place or removed and placed in the Class I working face for disposal.

B. Process Flow Diagram

Not applicable.

C. Equipment

Equipment to be used for the project may include 30 cubic yard roll-off containers, loader, excavator, bulldozer, skid steer or other equipment as may be needed to process the waste. Depending on the effectiveness of the solidification product, mixing may or may not be required. If equipment is needed to mix the materials, the County anticipates using an excavator, loader, skid steer or other similar equipment with appropriate buckets or attachments to aid in the mixing process to ensure solidification and binding of the liquid portion of the waste.

D. Volume of Materials

The volume of materials that may be processed will be limited by the size of the solidification excavation or container and the time required to solidify the liquid portion of the materials and remove the material from the area for disposal. For example, if using a roll off container with a capacity of 30 cubic yards and the slope that the container will be placed at, it is anticipated that less than half of the capacity will be used, or about 15 cubic yards or approximately 3,000 gallons. A typical pumper or vacuum truck has a capacity of between 2,000 and 2,800 gallons, therefore it is anticipated that only one truck load of material can be processed at any given time. The County does not expect to process more than 3 trucks per day during the project period.

E. Air Emissions and Wastewater Discharges

Air emissions or wastewater discharges are not expected due this project. Any liquid discharge will be contained with the landfill lined area and collected as part of the landfill leachate collection system.

F. Groundwater Monitoring Plan

The proposed wet waste processing operations will be contained with the landfill leachate collection system and subsequently also within the water quality monitoring network for the Class I Landfill at the CCSWDC. Therefore, no separate groundwater monitoring plan is needed for this project.

G. Prevention of Leachate and Stormwater Mixing

The wet waste processing operation will be entirely contained within the lined leachate collection areas of the Class I Landfill. No liquids will discharge from the area or will liquid be allowed to mix with stormwater. The wet waste processing operation will not be conducted during wet weather conditions.

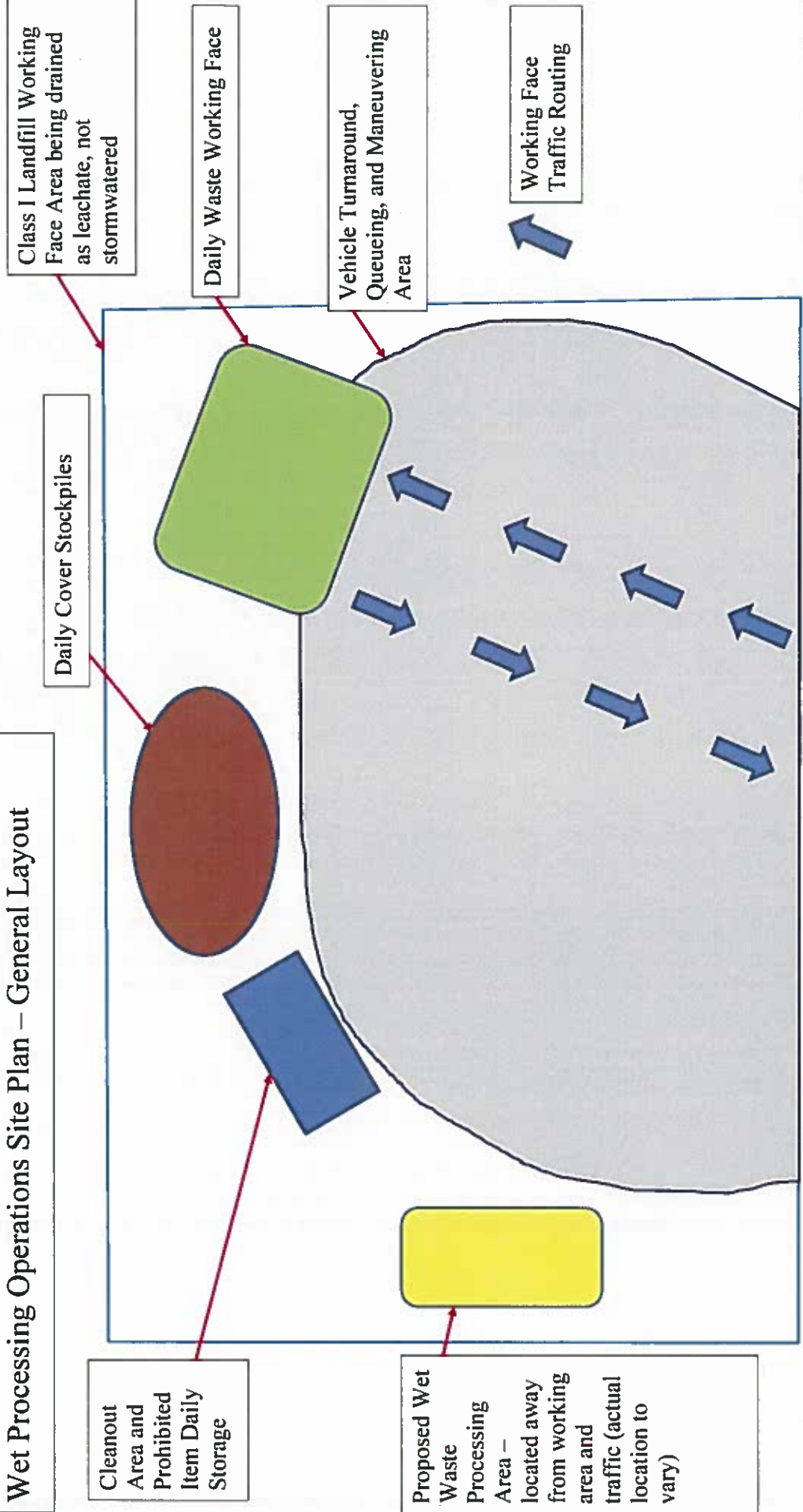
5. CLOSURE PLAN

The proposed wet waste processing operation does not require infrastructure or a special area for operation. An area near the working face of the landfill will be sloped to drain into the landfill and/or a roll-off container placed to accept the waste. The roll-off container will be owned by the County or Contractor. If any excavations are used, they will be filled. No infrastructure will require closing, therefore there will be no closure costs associated with the operation.

ATTACHMENT 1

General Site Layout Plan

Wet Processing Operations Site Plan – General Layout



Note: Schematic layout shown is for illustrative purposes only. Actual locations and dimensions of areas will be determined based on daily operations. Working area will be operated in accordance with the CCSWDC permitted operations plan. The proposed wet waste processing areas will be located within the area of the working area that is being collected as leachate and not within an area with intermediate cover and draining as stormwater.

ATTACHMENT 2

CETCO Quik-Solid and Quik-Solid 50

Specification Sheets

QUIK-SOLID®

SUPERABSORBENT MEDIA

DESCRIPTION

QUIK-SOLID® is a solid, granular cross-linked polyacrylate advanced superabsorbent media that rapidly absorbs and retains large volumes of fresh water aqueous solutions. Its absorptive properties are ideally suited for the absorption and solidification of hazardous and non-hazardous waste waters, soils, and semi-solid matter. This high efficiency absorbent is capable of absorbing up to 250 times by weight of aqueous matter and reduces waste disposal costs by maximizing volume expansion less than 1%.

APPLICATIONS

QUIK-SOLID® is specially formulated for use in the following applications:

- Solidification of dredge spoils, wet soils and other semi-solid matter
- High efficient solidification agent for Low Level Waste (LLW), Mixed and Hazardous wastes
- Moisture and free liquid control caused by container rain and other condensation

BENEFITS

- Expands in volume by less than 1%, reducing overall disposal costs
- Helps solid pass Paint Filter Test
- Easy to apply granular media requires little mixing
- Strong Ion Exchange allows for some heavy metals to be bound and stabilized
- Non-exothermic
- Freeze-Thaw Tested, will not release liquids after freezing and subsequent heating (160° F)
- Product is also available in sheets

PACKAGING

QUIK-SOLID® is available in the following packaging options:

- 30 lb pail
- 50 lb bag
- 500 lb super sack
- 1830 lb super sack



QUIK-SOLID® is a high efficiency product ideally suited for the solidification/stabilization of aqueous matter containing hydrocarbons and other organics.

TESTING DATA

PHYSICAL PROPERTIES		
PROPERTY	TEST METHOD	RESULTS
Bulk Density (g/cc)	CETCO Test Method	0.48-0.60
Absorbency Under No Load – AUNL, 0.9% saline solution	CETCO Test Method	48 g/g Minimum
Absorption Under Load – AUL, 0.7 psi, 0.9% saline solution	CETCO Test Method	18 g/g Minimum

North America: 847.851.1800 | 800.527.9948 | www.cetco.com

UPDATED: MAY 2017

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CETCO

QUIK-SOLID® 50

SUPERABSORBENT MEDIA

DESCRIPTION

QUIK-SOLID® 50 is a custom blend of granular cross-linked polyacrylate superabsorbent polymer and ORGANOCLAY®. This high performing product rapidly absorbs and retains large volumes of aqueous solutions, while also offering a hydrophobic component to adsorb low soluble organic matter. The absorptive properties of QUIK-SOLID® 50 are ideally suited for the solidification of wastewater, sediments and semi-solids containing organic laden contaminants.

APPLICATIONS

QUIK-SOLID® 50 is specially formulated for use in the following applications:

- Solidification of dredge spoils, wet soils and other semi-solid matter
- High efficient solidification agent for PCBs and other hazardous wastes
- High efficient solidification agent for LLW soils and semi solids containing organic contaminants

BENEFITS

- Minimal volume expansion reducing overall transportation and disposal costs
- Easy to apply granular media requires little mixing
- Unique sorption mechanism allows for typical adsorption up to 50% (by weight) of organic matter
- Freeze-Thaw tested; will not release liquids after freezing and subsequent heating (160° F)

PACKAGING

QUIK-SOLID® 50 is available in the following packaging options:

- 30 lb pail
- 500 lb super sack



QUIK-SOLID® 50 is a high-performance product ideally suited for the solidification of staining organic laden contaminants.

TESTING DATA

PHYSICAL PROPERTIES		
PROPERTY	TEST METHOD	RESULTS
Bulk Density	CETCO Test Method	44-56 lbs./cu.ft.
Oil Absorptive Capacity	CETCO Test Method	0.35 lb/lb minimum
Typical Absorbency (D.I. Water)	CETCO Test Method	75 x (by weight)

North America: 847.851.1800 | 800.527.9948 | www.cetco.com

UPDATED: MAY 2017

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FORM: TDS_QUIK-SOLID_50_AM_201705_V2

