

From: [Linton, William R](#)
To: [SCQ](#)
Subject: PA77-09A3 Duke Energy CREC COC Amendment Request
Date: Thursday, August 4, 2022 10:10:47 AM
Attachments: [Conditions of certification amendment request cover letter.pdf](#)
[20220804_092852.pdf](#)
[Screen Wash Slab.pdf](#)
[CRN Intake Screen Wash Area.pdf](#)
[CRN Intake Screen Wash Procedure.pdf](#)

EXTERNAL MESSAGE

This email originated outside of DEP. Please use caution when opening attachments, clicking links, or responding to this email.

Attached is a request for an amendment to the subject COC for the installation of a 20'x40' concrete wash down pad that will be used for pressure washing the cooling water intake screens. Attached are a project cover letter, an ERP general permit application form, engineered drawing of the proposed concrete slab, an aerial location drawing and a washdown procedural document. For any additional information, please contact: William Linton at william.linton@duke-energy.com or 727 560-4803.

William R. Linton
Sr. Environmental Specialist
Permitting and Compliance
Duke Energy Florida, LLC
299 First Avenue North
Mailcode (FL12AHYB)
St Petersburg, FL 33701
(727) 560-4803



August 2, 2022

Sent Via Email

Cindy Mulkey
Program Administrator
Siting Coordination Office
Florida Department of Environmental Protection
2600 Blair Stone Road, MS 5500
Tallahassee, Florida 32399

Subject: Duke Energy Florida (DEF), LLC-Crystal River Energy Complex
PA77-09A3 Conditions of Certification Amendment Request

Dear Ms. Mulkey:

DEF is proposing the installation of a 20' x 40' concrete wash down station for the pressure washing of cooling water intake screens. The screens will be cleaned using a hand-held pressure washer that uses approximately 4 gallons of water per minute. No detergents or chemicals will be used. The screen washing slab is curbed and graded to the North to direct wash water flow onto the uplands and away from adjacent surface waters.

Attached are an Environmental Resource Permit application, engineered drawing of the concrete wash pad design, an aerial depicting the location of the wash pad and a procedural document describing the screen washing protocol.

For additional information please contact: Ilia Balcom at ilia.balcom@duke-energy.com

Sincerely,

A handwritten signature in blue ink, appearing to read "Tommy Norris", written over a horizontal line.

Tommy Norris
Crystal River South Station Manager
Duke Energy Florida, L.L.C.
Enclosures

Notice of Intent to Use an Environmental Resource and/or State 404 Program General Permit

Instructions: This form is for projects that qualify for a General Permit in accordance with Chapter 62-330 F.A.C., and/or Chapter 62-331, F.A.C. General Permits (GP) are provided for certain activities that have been determined to have minimal impacts to the water resources of the state when conducted in compliance with the terms and conditions of the general permit. Complete and submit this form to the appropriate agency as identified in Part 3 below.

If activity is located on, or has the potential to be located on, state-owned sovereignty submerged lands (SSL), the reviewing Agency will begin processing the request for state-owned sovereignty submerged lands authorization. If you know that your project is located on SSL, (i.e., waterward of the line of mean or ordinary high water of rivers, streams, bays, bayous, sounds, the Gulf of Mexico, the Atlantic Ocean, or certain natural lakes, we recommend completing Section F of the Environmental Resource Permit Application. You are not required to complete Section F to receive a General Permit, but it will help the agency process the SSL authorization. Both authorizations are required prior to construction on SSL.

Part 1: General Information

A. Rule section number of the GP(s) for which you are applying:
62-330.052 / 62-331. ,F.A.C.

We recommend contacting your local Corps district office if your project is not within state-assumed waters regulated under Chapter 62-331, F.A.C., does not qualify for the State Programmatic General Permit (SPGP) and you are not sure whether the project requires separate Corps authorization. If Corps authorization is required, you will need to submit the appropriate federal application form separately to the Corps. Corps contact information may be found online at the Jacksonville District Regulatory Division website.

B. Applicant X This is a Contact Person for Additional Information

Name: Last: Linton First: William Middle: Robert
Title: Sr. Environmental Specialist Company: Duke Energy Florida, L.L.C.
Address: 199 First Avenue North
City: St. Petersburg State: FL Zip: 33701
Home Telephone: Work Telephone: 727 560-4803
Cell Phone:
E-mail Address: william.linton@duke-energy.com Correspondence will be sent via email, unless you
check here to receive it via ☐ US Mail



C. Consultant/Agent ☐ This is a Contact Person for Additional Information

Name: Last: _____ First: _____ Middle: _____
Title: _____ Company: _____
Address: _____
City: _____ State: _____ Zip: _____
Home Telephone: _____ Work Telephone: _____
Cell Phone: _____
E-mail Address: _____

Correspondence will be sent via email, unless you check here to receive it via ☐ US Mail

D. Land Owner(s) (If Different or in Addition to Applicant Identified Above)

Name: Last: _____ First: _____ Middle: _____
Title: _____ Company: _____
Address: _____
City: _____ State: _____ Zip: _____
Home Telephone: _____ Work Telephone: _____
Cell Phone: _____
E-mail Address: _____

Correspondence will be sent via email, unless you check here to receive it via US Mail: ☐

E. Location of proposed activities:

Tax Parcel Identification Number: _____

Address: 15760 Power Line Street

City: Crystal River

County: Citrus

Zip: 34428

Latitude (DMS) 28° 958111' "

Longitude (DMS) 82° 699722' "

F. Date activity is proposed: To Commence: 9/1/2022 To be Completed: 10/1/2022

G. Describe in general terms the proposed project, system, or activity: Installation of 20'x40' upland, concrete wash pad.

H. Describe wetland and aquatic habitats to be affected: There will be no wetland impacts.

I. Construction methods and schedule: Commence 9/2022

J. Additional information that demonstrates that you qualify for the general permit, addressing all the parameters, thresholds, and conditions required in the general permit. Please refer to project description in attached cover letter.

Part 2: Certification

I hereby certify I have read and will conduct the above activities in accordance with the criteria, limitations, and specific conditions of the general permit(s) identified in Part 1 Section A, and in accordance with the general conditions of Rule 62-330.405, and/or 62-331.201, F.A.C., as applicable. Unless otherwise provided in Chapter 62-330, F.A.C., or unless the timeframes in 62-330.402(4), F.A.C. have been waived below, activities conducted pursuant to an ERP general permit may commence thirty (30) days after providing written notice to the Department of Environmental Protection or the Water Management District, along with any required additional documentation which may be required to fulfill the requirements of the general permit, unless the Agency responds that the proposed work does not qualify for a general permit. For State 404 Program general permits that require pre-construction notice under Chapter 62-331, F.A.C., the activity shall not commence until the permittee receives written confirmation of qualification for the general permit from the Agency. If both an ERP and State 404 Program general permit is required for such projects, the activity shall not commence until thirty (30) days after notice is received by the Agency, or until written confirmation of qualification for the State 404 Program general permit is received by the permittee, whichever is later.

I understand I may have to provide any additional information/data that may be necessary to provide reasonable assurance or evidence that the proposed project will comply with the applicable state water quality standards or other environmental standards both before construction and after the process is completed.

I further acknowledge that work done under the general permit(s) may also require the review and approval of other federal, state, or local agencies, and that commencement of construction before such federal, state, or local agency approvals or permits are obtained may subject me to enforcement action and fines or penalties by such agencies. Further, the work shall be conducted in a manner that does not violate applicable water quality standards.

☐ **By checking this box,** I hereby voluntarily waive, in accordance with subsection 62-330.402(7), F.A.C., the 30-day or 60-day deadline in subsection 62-330.402(4), F.A.C., in the event my project also requires a State 404 Program authorization (other than an exemption) under Chapter 62-331, F.A.C., and request that the agency actions for the ERP general permit and State 404 Program be issued at the same time. (This is strongly recommended to ensure consistency, and to reduce the potential need for project modifications to resolve inconsistencies that may occur when the agency actions for the ERP and State 404 Program are issued at different times). If this box is checked and the Agency(ies) determines that no State 404 Program authorization is required, the Agency(ies) will continue to abide by subsection 62-330.402(4), F.A.C.

Typed/Printed Name of Applicant or Agent Signature of Applicant or Agent Date

An Agent May Sign Above If Applicant Completes the Following:

I hereby designate and authorize the agent listed in Item Part 1 Section C to act on my behalf as my agent in the processing of this permit application and to furnish on request, supplemental information in support of the application.

Typed/Printed Name of Applicant
(And corporate title, if applicable) Signature of Applicant Date

Certification of Sufficient Real Property Interest and Authorization for Staff to Access the Property:

I certify that:

☒ **I possess sufficient real property interest in or control, as defined in Section 4.2.3(d) of Applicant's Handbook Volume I**, over the land upon which the activities described in this application are proposed and I have legal authority to grant permission to access those lands. I hereby grant permission, evidenced by my signature below, for staff of the Agency to access, inspect, and sample the lands and waters of the property as necessary for the review of the proposed works and other activities specified in this application. I authorize these agents or personnel to enter the property as many times as may be necessary to make such review, inspection, and/ or sampling. Further, I agree to provide entry to the project site for such agents or personnel to monitor and inspect permitted work if a permit is granted.

OR

☐ I represent an entity having **the power of eminent domain and condemnation authority**, and I/we shall make appropriate arrangements to enable staff of the Agency to access, inspect, and sample the property as described above.

William R. Linton
Duke Energy Florida, L.L.C.
Typed/Printed Name of Applicant
(And corporate title, if applicable)



Signature of Applicant

8/4/2022
Date

Part 3: Submittal

In addition to the information described in this form, any Notice of Intent to use a General Permit must also include the following, as described in Section 4.2.2 of the Applicant's Handbook, Volume I:

- Location map(s) of sufficient detail to allow someone who is unfamiliar with the site to travel to and locate the specific site of the activity.
- One set of plans and drawings, calculations, environmental information, and other supporting documents that clearly and legibly depict and describe the proposed activities in sufficient detail to demonstrate that the work qualifies for the specified General Permit(s).
- The required fee made payable to the appropriate agency.

Fees for the appropriate agency are established in the rules adopted in subsection 62-330.071(1), F.A.C., as listed below:

Rule 62-4.050, F.A.C. (Department of Environmental Protection or the Northwest Florida Water Management District)
Rule 40B-1.706, F.A.C. (Suwannee River Water Management District)
Rule 40C-1.603, F.A.C. (St. Johns River Water Management District)
Rule 40D-1.607, F.A.C. (Southwest Florida Water Management District)
Rule 40E-1.607, F.A.C. (South Florida Water Management District)

Operating Agreements between the Department and the water management districts specify which agency will process any given application. For copies of the operating agreements, go to <https://floridadep.gov/ogc/ogc/content/operating-agreements>

This application form may be submitted online; to do so, follow the on-line submittal requirements of the agency:

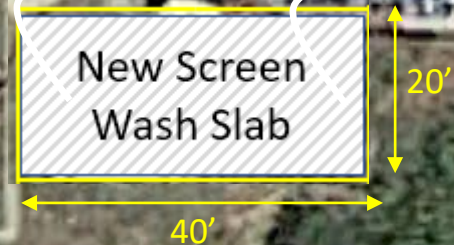
- o **Florida Department of Environmental Protection:** <http://www.fldeportal.com/go/>
- o **Northwest Florida Water Management District:**
<https://permitting.sjrwmd.com/nwepmitting/jsp/start.jsp>

- o **Suwannee River Water Management District:**
<https://permitting.sjrwmd.com/srepermitting/jsp/start.jsp>
- o **St. Johns River Water Management District:**
<https://permitting.sjrwmd.com/epermitting/jsp/AccountOverview.do?command=init>
- o **Southwest Florida Water Management District:**
<http://www.swfwmd.state.fl.us/permits/epermitting/>
- o **South Florida Water Management District:** **<http://my.sfwmd.gov/ePermitting/MainPage.do>**

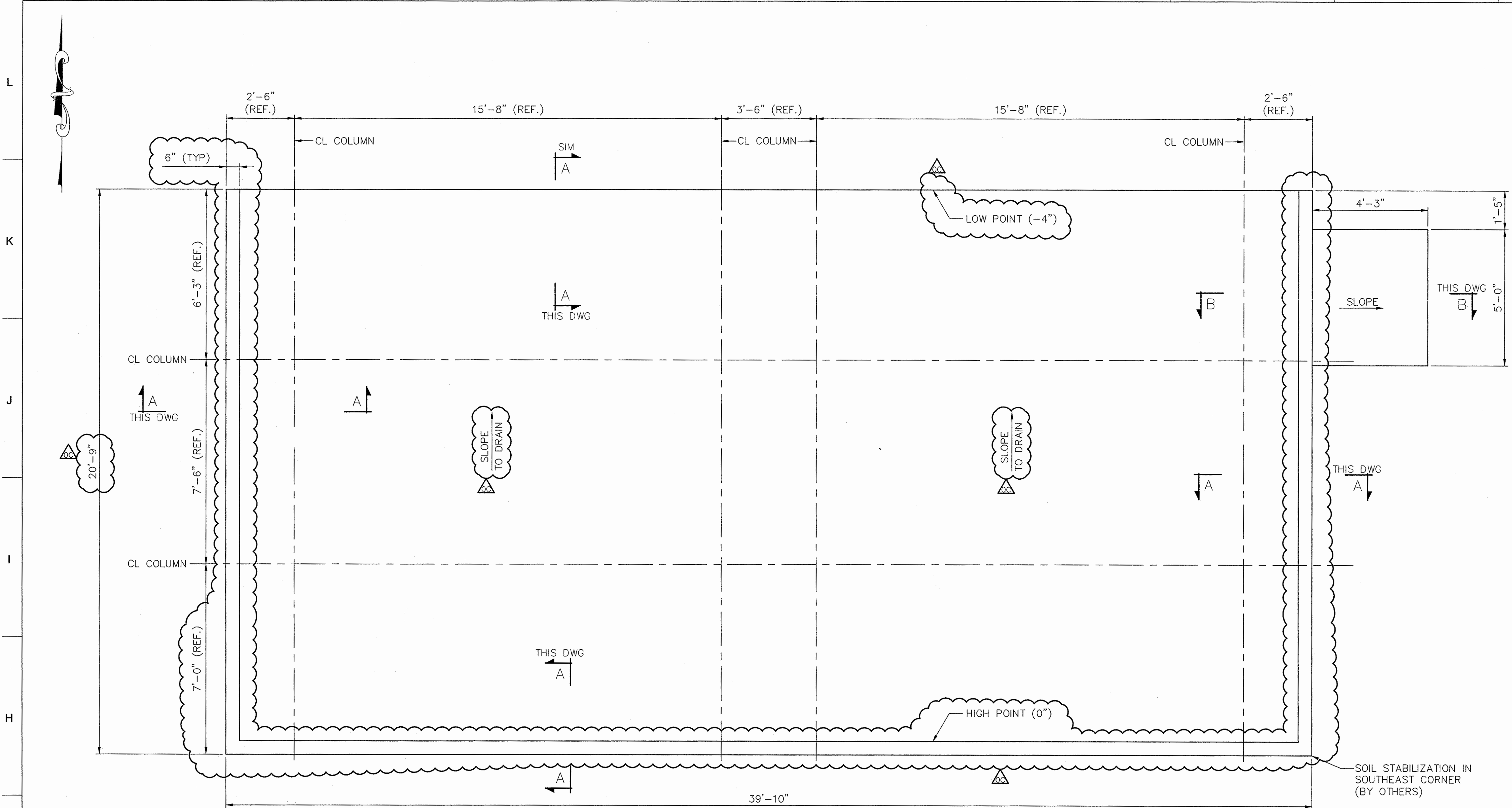
If submitting a paper application, please see Appendix A of Applicant's Handbook, Volume I for submittal locations.



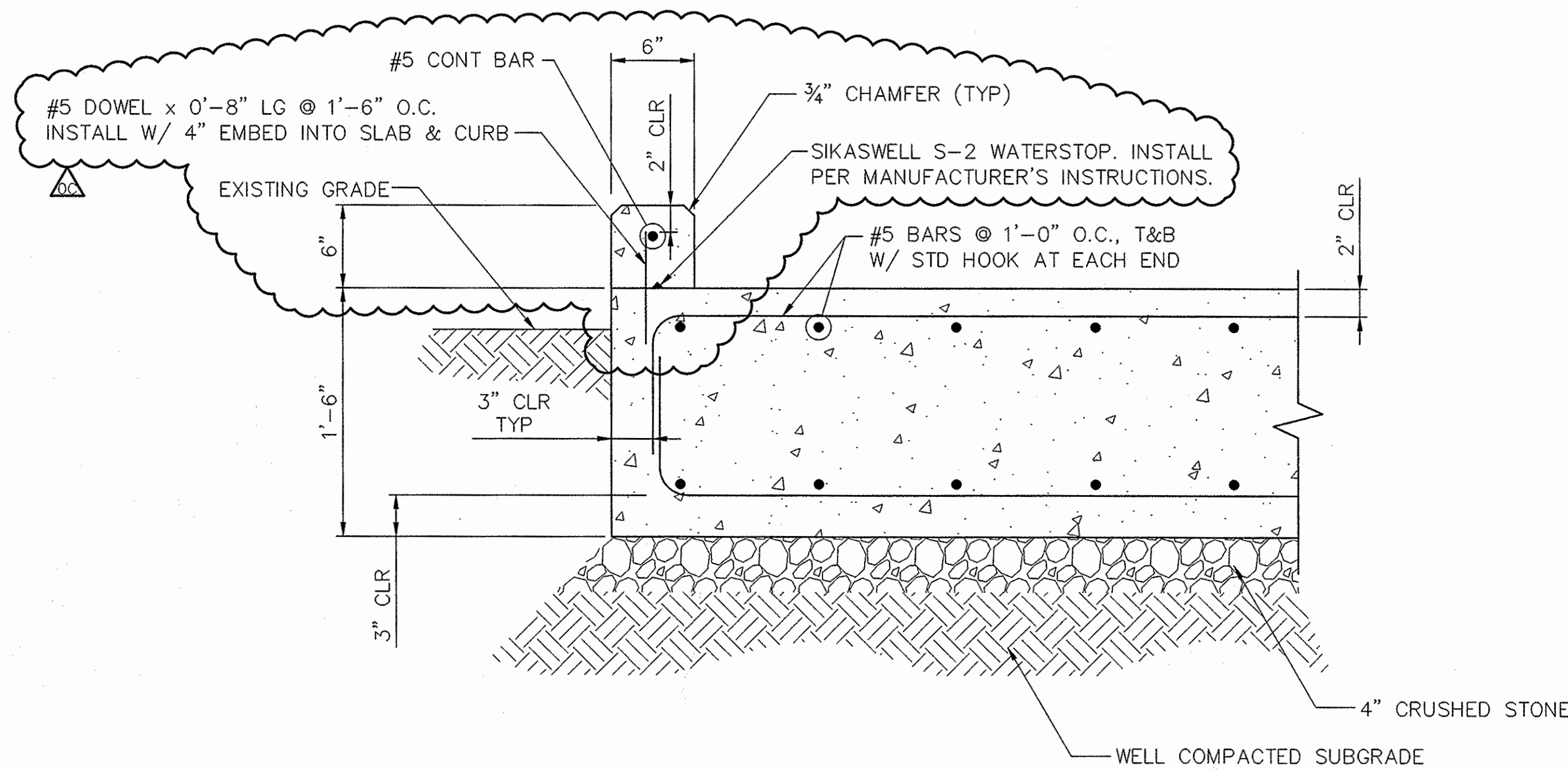
CRYSTAL RIVER NORTH Crystal River, FL



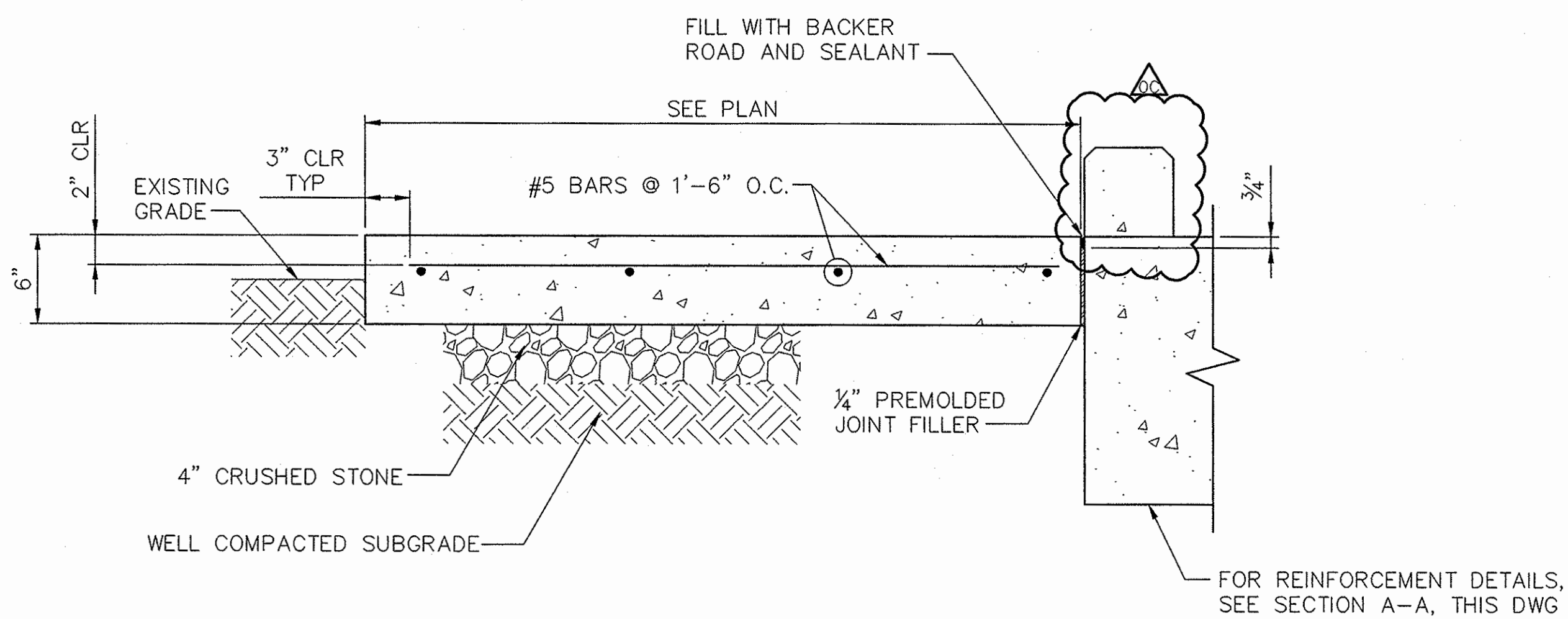
INTAKE STATIC SCREEN WASH
PUMP LOCATION AT
WATERFRONT



PLAN VIEW



SECTION A-A
SCALE: 3" = 1'-0"



SECTION B-B
SCALE: 3" = 1'-0"

CONCRETE GENERAL NOTES:

- ALL CONCRETE MATERIALS, CONSTRUCTION, AND WORKMANSHIP SHALL CONFORM TO ACI 318, AS WELL AS ALL LOCAL LAWS AND ORDINANCES.
- REINFORCED CONCRETE DESIGN SHALL CONFORM TO THE "ULTIMATE STRENGTH DESIGN" METHOD.
- CONCRETE MIXES SHALL BE DOCUMENTED BY A QUALIFIED TESTING LABORATORY AND SUBMITTED TO THE ENGINEER-OF-RECORD FOR APPROVAL PRIOR TO UTILIZATION. THE CONCRETE MIX DESIGN SHALL INCLUDE CONFORMANCE TO THE FOLLOWING PARAMETERS AS A MINIMUM:

STRUCTURAL FEATURE	MIN. 28-DAY COMP. STRENGTH	MAX W/C RATIO	SLUMP (BEFORE HRWR)	AIR ENTRAINED
ALL	5000 PSI	0.45	4"±1"	5% +/- 1.5%
- PORTLAND CEMENT IN CONCRETE MIX SHALL CONFORM TO ASTM C-150, TYPE I OR TYPE II.
- FINE AND COARSE AGGREGATES SHALL CONFORM TO ASTM C33. MAXIMUM AGGREGATE SIZE IS ¾".
- WATER USED IN THE MIX SHALL CONFORM TO ASTM C1602.
- CONCRETE MIXING OPERATIONS SHALL CONFORM TO ASTM C-94. ALL CONCRETE SHALL BE VIBRATED.
- CONCRETE PLACEMENT SHALL CONFORM TO ACI 301 AND THE PROJECT SPECIFICATIONS.
- CLEAN AND ROUGHEN TO ¼" AMPLITUDE ALL CONCRETE SURFACES AGAINST WHICH NEW CONCRETE OR GROUT IS TO BE PLACED.
- TESTING OF CONCRETE SHALL BE PER ACI 301 SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS; MINIMUM ONE STRENGTH TEST FOR EACH 50 CUBIC YARDS EACH DAY, FOR EACH MIX DESIGN.
- ALL REINFORCING BARS, ANCHOR BOLTS, AND OTHER CONCRETE INSERTS SHALL BE WELL SECURED IN POSITION PRIOR TO PLACING CONCRETE. REFER TO DRAWINGS OF OTHER DISCIPLINES (MECHANICAL, ELECTRICAL, ETC.), AND VENDOR DRAWINGS, FOR EMBEDDED ITEMS AND RECESSES NOT SHOWN ON STRUCTURAL DRAWINGS. ANY REQUIRED SLEEVES FOR PIPING OR CONDUIT SHALL BE IN PLACE PRIOR TO CONCRETE PLACEMENT. CUTTING OF REBAR AND CONCRETE CORING IS NOT PERMITTED WITHOUT PRIOR APPROVAL FROM THE ENGINEER-OF-RECORD.
- FORMWORK NOT SUPPORTING WEIGHT OF CONCRETE, SUCH AS SIDES OF BEAMS, WALLS, COLUMNS, AND SIMILAR PARTS OF WORK, MAY BE REMOVED AFTER CUMULATIVELY CURING AT NOT LESS THAN 50°F FOR 24 HOURS AFTER PLACING CONCRETE, PROVIDED CONCRETE IS SUFFICIENTLY HARD TO NOT BE DAMAGED BY FORM-REMOVAL OPERATIONS, AND PROVIDED CURING AND PROTECTION OPERATIONS ARE MAINTAINED.
- FLY ASH CONTENT SHALL NOT EXCEED 25% OF THE TOTAL WEIGHT OF CEMENT PLUS FLY ASH.
- FOUNDATION TO HAVE BROOM FINISH IN ACCORDANCE WITH ACI 301-10.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FORMWORK.
- ALL FORMWORK SHALL MEET THE REQUIREMENTS OF ACI 347 "GUIDE TO FORMWORK FOR CONCRETE".
- HOT WEATHER CONCRETING SHALL CONFORM TO ACI 305R. COLD WEATHER CONCRETING SHALL CONFORM TO ACI 306.1.
- PROVIDE A CLEAR, WATERBONE MEMBRANE CURING AND SEALING COMPOUND ON ALL INTERIOR SLAB-ON-GRADE SURFACES TO BE APPLIED TO FRESH CONCRETE WITHIN 24-HOURS AFTER CASTING OR FORM REMOVAL. CURING COMPOUND SHOULD BE APPLIED TO ALL OTHER EXPOSED SURFACES. CURING AND SEALING COMPOUND SHALL BE TYPE 1, CLASS A IN CONFORMANCE WITH ASTM C1315. CURING COMPOUND SHALL BE TYPE 1, CLASS B IN CONFORMANCE WITH ASTM C309.

CONCRETE REINFORCING STEEL:

- REINFORCING BARS SHALL CONFORM TO MATERIAL REQUIREMENTS OF ASTM A615, GRADE 60, UNLESS NOTED OTHERWISE.
- DETAILING OF CONCRETE REINFORCEMENT SHALL BE IN ACCORDANCE WITH THE ACI MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES, AND ACI 318.
- REINFORCING BARS SHALL BE FREE OF RUST, GREASE, OR OTHER MATERIALS THAT COULD LIKELY IMPAIR THEIR BONDING ABILITY TO CONCRETE. ALL REINFORCING BAR BENDS SHALL BE MADE COLD. REINFORCING BARS SHALL NOT BE HEATED OR WELDED.
- PROVIDE THE FOLLOWING MINIMUM CONCRETE COVER FOR REINFORCEMENT, UNLESS NOTED OTHERWISE ON SPECIFIC DRAWING DETAILS:

2" EXPOSED TO WEATHER OR 3" CAST AGAINST EARTH
--
- DEVELOPMENT LENGTH AND SPLICES OF REINFORCING BARS SHALL CONFORM TO REQUIREMENTS OF ACI 318, CLASS B TENSION LAPS UNLESS NOTED OTHERWISE ON DRAWINGS.
- REINFORCING STEEL SHALL BE STORED ABOVE GROUND ON PLATFORMS, SKIDS, OR RACKS, AND PROTECTED FROM PROLONGED EXPOSURE TO WEATHER.
- PLACING TOLERANCES FOR THE REINFORCING STEEL SHALL NOT BE MORE THAN ½" FOR STRUCTURAL SLABS.
- DO NOT WELD OR TACK WELD REINFORCING STEEL UNLESS APPROVED OR DIRECTED BY THE ENGINEER-OF-RECORD. ALL WELDING OF REINFORCING SHALL CONFORM TO THE REQUIREMENTS OF AWS D1.4, "STRUCTURAL WELDING CODE - REINFORCING STEEL" AND AWS D12.1, "REINFORCING STEEL WELDING CODE".

FOUNDATION:

- FOUNDATION DESIGN BASED ON THE FOLLOWING PARAMETERS:

- ALLOWABLE SOIL BEARING PRESSURE	=	2000 PSF
- MINIMUM MODULUS OF SUBGRADE REACTION FOR SLAB DESIGN	=	100 KCF
- FOUNDATION SHALL BEAR ON ENGINEERED COMPACTED FILL. IF AREAS OF HIGH ROCK ARE ENCOUNTERED, IT SHALL BE UNDERCUT TO A MINIMUM OF 2 FEET BELOW THE BOTTOM OF FOOTING AND REPLACED WITH A GRANULAR FILL. IF ANY OTHER SOIL ANOMALIES (SOFT SOIL, EXPANSIVE SOILS, WOOD CHIPS, ETC.) ARE DISCOVERED IN THE FIELD, THE ENGINEER-OF-RECORD SHALL BE CONTACTED IMMEDIATELY FOR RESOLUTION.
- WHERE FOUNDATION EXCAVATIONS ARE PLANNED ON REMAINING OPEN IN ADVANCE OF PREDICTED RAINFALL, THE EXCAVATION SHALL BE UNDERCUT, AND A 3" THICK PLACEMENT OF CONTROLLED LOW STRENGTH MATERIAL IN ACCORDANCE WITH ACI 229R (MUD MAT) SHALL PROTECT THE SOIL BEARING CAPACITY.
- WHERE COMPACTED FILL SOILS ARE SPECIFIED FOR USE, THE COMPACTION SHALL NOT BE LESS THAN 95% OF MAXIMUM DRY DENSITY PER ASTM D1557 IN LIFTS NOT TO EXCEED 6" IN LOOSE DEPTH.
- CONTRACTOR SHALL RETAIN THE SERVICES OF A LICENSED GEOTECHNICAL ENGINEER AND SHALL VERIFY THAT EXISTING SUBSURFACE CONDITIONS MEET OR EXCEED THE DESIGN PARAMETERS LISTED. CONTRACTOR SHALL PREPARE SITE AS PER GEOTECHNICAL ENGINEER'S REQUIREMENTS.

ISSUED FOR
CONSTRUCTION

DWG NO.	REV.	TITLE	REV.	DESCRIPTION	DRAWN	CHKD	APPRD	DATE	WORKPROM	ACT#
0C		SCREEN RACK STORAGE FRAME			JAW	NJM		6/7/22		
DRAWING REVISIONS										

CONTRACTOR/VENDOR INFORMATION

Mesa Associates, Inc.

Engineers and Consultants

40 PROCTOR AVE. SUITE 200
KNOXVILLE, TN 37920
(615) 526-2100
FAX (615) 526-2101

CERTIFICATE OF AUTHORIZATION: 7991

THE ABOVE IS RESERVED FOR VENDOR'S LOGO, NAME, ADDRESS, PHONE NUMBER, AND FAX NUMBER. PLEASE SIGN OFF ON ALL DRAWINGS TO BE PROVIDED AND PRINTED FOR THE USER'S USE.

SEAL

KYLE WALKER

LICENSE NO. 90102

10624 MURDOCK DR.

KNOXVILLE, TN 37920

FLORIDA PROFESSIONAL ENGINEER

NO 90102

STATE OF FLORIDA

CRYSTAL RIVER NORTH REGULATED & RENEWABLE ENERGY			
FACILITY:	GRN	UNIT:	00
PROJECT NO.:	CC NO.:	W.D. NO.:	CC NO.:
SCALE:	1/2"=1'-0"	PLOT:	24
SIZE:	44"x36"	ARCH/EE:	
APPRO DATE:			

DUKE ENERGY

SCREEN RACK STORAGE FRAME
CONCRETE FOUNDATION
GENERAL NOTES, PLAN VIEW, AND SECTIONS

DWG NO. 22510029-CD300-001

SHT.

REV. 0C



Regulated & Renewable Energy
Facility: CRYSTAL RIVER NORTH

Document No.

CRNOP/00/CWB/0002

Revision No.

000

Intake Pump Static Screen Wash Procedure

Effective Date:

6/27/2022

Issued Date:

6/27/2022

Information Use

Kishbaugh, J
Author

Long, J
Approver - Supt Operations

DOCUMENT REVISION DESCRIPTION

<u>REVISION no.</u>	<u>Pages or sections revised and description</u>
000	Initial Issue

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1. Purpose and Scope

- 1.1 The purpose for this procedure is to provide instructions and guidance for properly removing and cleaning the CRN Cooling Water Intake Static Screens to ensure safety and environmental compliance. The procedure addresses the recommended frequency for cleaning, the methods used, tools and equipment required, and the required qualifications for personnel performing the work.

2. Roles and Responsibilities

2.1 All Personnel

- 2.1.1 Understand and Comply with the "Procedure Use & Adherence, [RRE-PRC-NA-AD-0091](#)" document.
- 2.1.2 Use [Human Performance Tools](#) to ensure desired results are achieved.
- 2.1.3 Immediately stop work and notify supervision when unexpected outcomes result from work activities that could result in significant adverse effects to public health, personnel safety, asset damage, loss of generation, environmental, or regulatory non-compliance.

3. Precautions and Limitations

- 3.1 Spotters are required during crane operation to ensure the boom does not come in range of the overhead power lines. A minimum of 20' distance from the power lines must be always maintained.

4. Environmental, Health, and Safety

- 4.1 At Duke Energy and within the RRE organization, Environmental, Health, and Safety is a core Company Value. Employees are responsible for maintaining the highest regard for safety and the environment while planning and conducting work. Employees are responsible for ensuring a safe and healthy work environment for themselves and their coworkers. Employees must utilize the Principles of Safety while incorporating our commitment to being good environmental stewards.

4.1.1 Principles of Safety:

4.1.1.1 Personal Accountability

- A. Be responsible for your own safety.
- B. Always know and follow safety and environmental standards -- even when no one is watching.
- C. Employees are accountable for understanding environmental responsibilities in daily work activities. Employees should engage contractors to be responsible stewards of the environment and comply with all regulations and applicable company requirements.

4.1.1.2 Active Caring

- A. Observe, stop, and coach co-workers who are not in compliance or who exhibit at-risk behaviors.
- B. Take action to assure the safety of others and be willing to accept advice.
- C. Take a proactive approach to environmental issues and explore opportunities for prevention to reduce incidents.

4.1.1.3 Hazard Recognition

- A. Always be aware of your surroundings.
- B. Take time to actively seek out and mitigate hazards.
- C. Actively participate in pre-job briefs. Be fully aware of hazards associated with the task(s), work procedures involved, special precautions, energy source controls, chemical exposure, and environmental considerations or impact.

4.2 Pressure Washer

- 4.2.1 Recommended Protective Equipment: Hard hat, rain suit, leather gloves, safety glasses, face shield, hearing protection, metal toe covers.
- 4.2.2 Never Aim the Wand at Anyone. Always keep the wand pointed downward until you're comfortable with the strength of pressure. The 4000-psi pressure washer can etch CONCRETE, it WILL do damage to your body. Even if there is no visible damage, the power from a pressure washer can cause internal tissue damage. Your feet, hands, and eyes are at high risk of being injured. Not only from the high-pressure water spray but also from flying debris.
- 4.2.3 Do not operated the gas-powered engine of the pressure washer in an confined space. The pressure washer engine emits carbon monoxide, which is dangerous to inhale. Carbon monoxide poisoning can cause nausea, dizziness, and headaches. Pressure wash in well-ventilated areas.
- 4.2.4 Be Aware of Your Surroundings. Check around the area you'll be cleaning to ensure your safety. Consider all possible hazards before starting your pressure washer such as tripping hazards and uneven or slippery surfaces.
- 4.2.5 Select the Right Nozzle. Start out with the largest degree spray tip and move to a smaller degree as needed. remember, the smaller the degree, the higher the velocity of the water.
- 4.2.6 Be mindful of electrical outlets and equipment. Water is an excellent conductor of electricity. Never spray an electrical outlet or other energized equipment

4.3 Detergents and other Chemicals

- 4.3.1 Detergents or any other chemicals are NOT allowed to be used when pressure washing the screens due to the design of the containment which is open on the North side to allow the water to drain onto the ground.

5. Safety Systems and Functions

5.1 Containment

- 5.1.1 The screens are to be washed inside the containment area of the storage rack to prevent water from flowing into the canal.
- 5.1.2 The crane is to only be operated inside the containment area in case the crane breaks a hydraulic hose, coolant hose, or has some other failure resulting in a leak that could end up draining into the soil or canal.

6. Prerequisites/Initial Conditions

- 6.1 While LOTO is not required for this work, prior to removing a screen, the control room must shut down the corresponding pump to ensure no debris can be sucked into the pump during removal or installation.

7. Tools, Materials, Special Equipment

- 7.1 55 Ton Rough Terrane Crane (crane is to be operated inside a containment system to eliminate the possibility of an oil spill from a leaking hydraulic hose, engine oil, etc.
- 7.2 Rigging requirements for static screens (each screen weighs 5400 lbs); Rigging is to be rated for a minimum of 8400 lbs .
 - 7.2.1 2ea. 1" Shackle
 - 7.2.2 2ea. 20' nylon rigging straps.
- 7.3 4 GPM 4000 PSI pressure washer.
- 7.4 230g tank filled with fresh untreated well water
- 7.5 Brooms, shovels, dust pans, etc. for sweeping up debris laying on the concrete after the screen cleaning is complete.

8. Procedure

- 8.1 Notify the control room that you will be removing the screens for cleaning. While LOTO is not required for this work, prior to removing a screen, the control room must shut down the corresponding pump to ensure no debris can be sucked into the pump during removal or installation.
- 8.2 Set up the 55-ton crane at the waterfront crane containment pad located outside of the waterfront breaker building. Ensure the area has proper barricades and warning signs informing passersby that rigging and lifting is taking place.
- 8.3 Rig and remove the first screen (be sure the corresponding pump is not running) and place it in the vertical position in the screen rack.
 - 8.3.1 Be sure to utilize a spotter and be sure to maintain the minimum 20' boom distance from the power lines.
- 8.4 Rig to one of the clean screens in the screen rack and place it back in the intake structure in place of the one just removed.

- 8.5 Repeat this process until all 3 dirty screens are stored in the rack and all 3 clean screens are installed in the intake structure.
- 8.6 The rigging and lifting activities are now complete. You can release the crane and notify the control room that you are finished with swapping out the screens.
- 8.7 Set up the pressure washer inside the containment area and ensure the water tank is full of water (there is no fresh water source located at the CRN Waterfront).
- 8.8 Pressure wash each screen on both sides including the frames. Be sure to remove all bio growth. When working on the top elevation of the screen rack be sure that the removable handrail is installed in front of the open slot (4 slots with only 3 screens). Also, do not ever attempt to work outside of the handrail or off a ladder while operating the pressure washer. The screen rack is designed for safe operation of the pressure washer without the need for ladders or fall protection if you stay inside the work platform.
 - 8.8.1 The screen rack is designed with the right pitch to ensure no water can flow into the canal as part of this process, it is not designed for suing anything more than the 4gpm pressure washer so if other methods of cleaning are utilized it must be approved by the DE Environmental Specialist prior to use.
 - 8.8.2 Be sure to monitor the water flow and if anyone sees a potential for the water used to clean the screens to flow into the canal, immediately shut off the water source and notify the Environmental Specialist
- 8.9 When finished pressure washing, be sure to shut off the pressure washer gas valve and run the carbonator out of gas and store the pressure washing equipment in it's designated storage area.
- 8.10 Sweep up any remaining barnacles or other debris laying on the screen rack concrete and put the material in the trash bin.

9. Recordkeeping

- 9.1 Input completion notes on electronic work order stating the as found condition of the screens documenting any barriers or other issues. Follow up with a new work request for any corrective maintenance identified that could not be resolved while executing this work. Close out work order in Maximo when complete.

10. Procedure Deviation Documentation

- 10.1 Any deviation from this Information Use procedure requires approval from immediate supervision providing the deviation does not conflict with the original intent of the procedure. Feedback on this procedure or associated templates should be provided to the procedure owner or Corporate Compliance. Utilize the [Procedure Deviation and Change Request Form](#) to document any required feedback.
- 10.2 Contingency Plan

Critical Documents – Customers are encouraged to identify document(s) critical to work processes. A current hardcopy collection of such documents should be maintained by the customer (owner) to support the workflow during times of criticality and inaccessibility to electronic documents due to a complete system failure.

11. Enclosures

11.1 N/A