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VIA ELECTRONIC CORRESPONDENCE

August 17, 2017

CCN: 61270
File No: 8.DC.52 & 77

Chief, Environmental Enforcement Section
Environment and Natural Resources Division
U.S. Department of Justice
P.O. Box 7611
Ben Franklin Station
Washington, D.C. 20044-7611
RE: DOJ No. 90-5-1-1-4022/1
Tom.Mariani@usdoj.gov

Chief, Clean Water Enforcement Branch
Water Protection Division
Attn: Brad Ammons
U.S. Environmental Protection Agency, Region 4
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Atlanta, Georgia 30303
Ammons.Brad@epa.gov

Rachael Amy Kamons
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Florida Department of Environmental Protection
Southeast District – West Palm Beach
3301 Gun Club Road, MSC 7210-1
West Palm Beach, FL 33406
Attn: Compliance/Enforcement Section
Jason.Andreotta@dep.state.fl.us

RE: Consent Decree (Case: No. 1:12-cv-24400-FAM)
Reference DOJ Case No. 90-5-1-1-4022/1
Section XI, Paragraph 52 – Force Majeure
Section XVII, Paragraph 77 – Notices
Delay Notification Letter for Consent Decree Appendix D-2, Capital Improvement Projects
2.17, Chlorination Facilities located at the Central District Wastewater Treatment Plant

Dear Sir/Madam:

In accordance with the provisions of Section XI, Paragraph 52 of the above referenced Consent Decree (CD), on August 3, 2017, Miami-Dade County (County) notified United States Environmental Protection Agency (EPA) and Florida Department of Environmental Protection (FDEP) of a delay of CD Capital Improvement Projects (CIPs) 2.17 Chlorination Facilities located at the Central District Wastewater Treatment Plant (CDWWTP), 3989 Rickenbacker Causeway, Miami, FL 33149. A delay has occurred in the execution of this project during its construction phase when the Contractor requested an extension of time of ninety-three (93) calendar days past the CD compliance date of September 29, 2017 to December 31, 2017.

In accordance with Section XI, Paragraph 52, this notification letter shall further describe and explain the reasons for the delay; the anticipated duration of the delay; all actions taken or to be taken to prevent or minimize the delay; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay; a statement as to whether, in the opinion of the County, such event may cause or contribute to an endangerment to public health, welfare or the environment.

Initial Schedule Challenges

In the course of setting up the process to address all of the Consent Decree projects, the County recognized the need to bring on additional staff to meet the aggressive schedules mandated by the Consent Decree. This was done by contracting with a professional consultant team of experts (AECOM) to assist the County in Program Management and oversight of multiple Design Services contracts. The process for hiring Engineering firms in the State of Florida is regulated under Florida Statute 287.055 “The Consultants Competitive Negotiation Act”. Following the constraints of this regulation, the process to bring the Program Management and the Design Professional firms on board took in excess of one year. This resulted in a late start in the validation and design of several projects, specifically those with CD compliance dates ending 2016 through 2018, which includes this project. In addition, dates for downstream activities have been affected as is evident in the County’s requests for modification of interim milestones (five (5) requests submitted to EPA/FDEP in 2016 and six (6) in 2017 to date). Overlapping/expediting of interim activities planned to complete respective projects in accordance with the final CD milestone date has proven to be a challenge. Additionally, transitions at the top levels of management at the Water and Sewer Department, during the first year of the contract, hindered startup of the Program Management Consultant.

Explanation and description of the reasons for the delay

The CD description for project 2.17 is the replacement of chlorine gas storage, liquid chlorination and dosing system with bulk sodium hypochlorite (NaOCl) storage and dosing system in separate outdoor structures. The new liquid hypochlorite facilities will provide the required levels of chlorine to properly disinfect the treated wastewater prior to discharge and to support other internal plant processes including the control of sludge bulking resulting from filamentous organisms (RAS dosing), flushing water, scum wells on the final clarifiers, and digester gas scrubbers.

During the detailed design phase, the project was further defined with construction of one main facility (Site 1) and one satellite facility (Site 2). Site 1 contains the Bulk Storage Building and the Mechanical/Electrical Building that will house NaOCl storage tanks and chemical feed pumps for dosing plant 1 and plant 2 effluent disinfection, plant 2 RAS, plant 1 flushing water, plant 1 and plant 2 scum wells, and plant 2 gas scrubbers; transfer pumps to move NaOCl from the long-term storage to three-day tanks at Site 2; and supporting auxiliary systems. Site 2 contains smaller storage tanks, metering pumps for dosing plant 2 RAS, plant 2 flushing water, and plant 2 scum wells, electrical equipment, and supporting auxiliary systems. As presented at today’s monthly teleconference, Site 1 was designed to address the CD description to disinfect the effluent and meet the CD compliance date. (See presentation in Attachment A.)

Due to the delay in project start as described under “Initial Schedule Challenges” section, the County took extraordinary measures to achieve the CD compliance deadline for this project including accelerating the design and preparation of bid documents, performing permitting and procurement phases simultaneously, and expediting approval of a structural foundation permit which allowed the Contractor to begin work while the remaining portion of the design was reviewed and approved by the City of Miami Building Department. These efforts have been successful in cutting down the timelines for the design, permitting, and procurement phases of this project while simultaneously adding 163 days for construction (providing a total of 550 days). It was determined early on during the design phase that the construction duration listed in the CD of 387 days was inadequate for construction of the new facilities required for this project; a more realistic estimate was 550 days.

Due to a number of issues that have occurred during procurement and construction, delays have been identified that cannot be mitigated completely through actions taken by the County or Contractor. These include the following:

- At the end of the procurement phase, Notice to Proceed (NTP) was issued to the Contractor on April 18, 2016, 21 days late based on achieving the CD deadline of September 29, 2017 with a construction duration of 550 days.
- As mentioned in the presentation, the Design Consultant has issued several design changes during construction that have contributed to construction delays by the Contractor. For example, in December 2016, operations and safety issues were identified that have required redesign of key elements of the electrical/instrumentation system controlling the NaOCl feed systems. Construction Manager (CM) convened a technical Specialty Meeting to review safety and operations concerns of the design. Revisions were done to the Contract Documents related to how instrumentation transmitters for flowmeters and level instruments are powered. Changes improved the safety and reliability of chlorination feed systems. However, the redesign and construction changes involved has had the greatest impact on the progress of the project.

This change order mentioned in the second bullet carries a time impact of 93 days as indicated on the Contractor schedule dated June 19, 2017 (received 123 days prior to the 550 day substantial completion milestone).

Actions taken or to be taken to prevent or minimize the delay

The Program Management and Construction Management (PMCM) met with the Contractor and discussed additional staffing resources and construction schedule changes to mitigate the effects of additional time impacting work orders. One of the items discussed was the delay due to the redesigned RTU/panelboard changes during construction. The PMCM met with the Contractor to review and discuss alternate scheduling of the work to minimize schedule impact. The fragnet (i.e., schedule fragment) for this item was analyzed to identify opportunities to re-sequence utilizing strategic overtime work to lessen the impact on the project’s critical path. The result of this effort could potentially reduce the delay from ninety-three (93) calendar days to fifty-eight (58) calendar days. (See Attachment B).

The County will initiate negotiation with the Contractor with an objective of shortening the construction duration by considering accelerated construction methods and additional resources necessary to achieve the CD compliance date. Depending on the outcome of the negotiation between the County and Contractor, the County will consider the available options to determine the best course of action to execute this project, minimizing delays.

Additional actions to be taken to minimize the delay are the following:

1. Monitor progress of re-sequenced work
2. Engage the Contractor in a focused schedule review of all potential change orders (PCOs) that may affect critical path

Anticipated duration of the delay

Currently, the Contractor's schedule update reported a delay of 93 days extending the CD compliance date from September 29, 2017 to December 31, 2017. This additional time would be required for Contractor to reach substantial completion.

Schedule for implementation of any measures to be taken to prevent or mitigate the delay or the effect of the delay

The County will take the following steps (in sequence) to prevent or mitigate delay or the effect of the delay:

1. Meet with Contractor monthly to assess other areas of remaining work that can be re-sequenced, and allow concurrent completion of critical path items of work.
2. Consider extended hours of work to improve schedule delivery of critical items of beneficial use to plant operations.
3. Meet with Contractor to discuss additional work resources on the project to expedite key elements of the work.

Cause or contribute to an endangerment to public health, welfare or the environment

Failure of existing chlorine gas storage system could lead to an unregulated discharge of chlorine gas and exposure of plant personnel and nearby community to chlorine gas. Additionally, a failure of the chlorine system would result in a lack of disinfection of effluent, an effluent violation. However, there is no indication that is the case and there is no present and immediate endangerment to the public health, welfare or the environment.

Should you have any questions regarding this matter, please call me at (786) 552-8894.

I certify under penalty of law that this document was 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 such 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.

Sincerely,



Maricela Fuentes, P.E., ENV SP
Assistant Director, Capital Projects

cc: Jonathan A. Glogau
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Florida Department of Environmental Protection
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Rolando Roque
Juan Bedoya
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Carlos Hernandez (RER-DERM)
Rashid Istambouli (RER-DERM)
David Wood (CD PMCM)
Andrea Suarez Abastida (CD PMCM)
Scott Eckler (CD PMCM)
Abby Diaz (CD PMCM)

**Attachment A – Request for Schedule Revision of CD CIP 2.17 Central
District Chlorination Facilities**



**Request for Schedule Revision of CD
CIP 2.17 Central District
Chlorination Facilities**

08.17.2017

Consent Decree Program Management and Construction Management



Purpose

The purpose of this presentation is to demonstrate reasonable argument for the respectful request for the schedule revision of CD CIP 2.17 Chlorination Facilities.

Justification Points

The justification points to be discussed include the following:

1. Initial schedule challenges
2. Complexity of the Project
3. Design acceleration resulting in Design changes during construction
4. Issues with the Contractor

Initial Schedule Challenges

As detailed in the First Status Report to the Court dated August 29, 2014, there was a lengthy delay in procuring the Program Management and Design Professional Firms.

- This resulted in a late start in the validation and design of this project.
- Dates for downstream activities have been affected as is evident in the County's requests for modification of interim milestones.
- Overlapping/expediting of interim activities planned to complete respective projects in accordance with the final CD milestone date has proven to be a challenge.

Complexity of Project

CD Project Description

- *“Replacement of chlorine gas storage, liquid chlorination and dosing system with bulk sodium hypochlorite storage and dosing system in separate outdoor structures.”*

CD Project Impact/Need

- *“Failure of existing chlorine gas storage system could lead to an unregulated discharge of chlorine gas and exposure of plant personnel and nearby community to chlorine gas. Additionally, a failure of the chlorine system would result in a lack of disinfection of effluent, a effluent violation.”*

Background

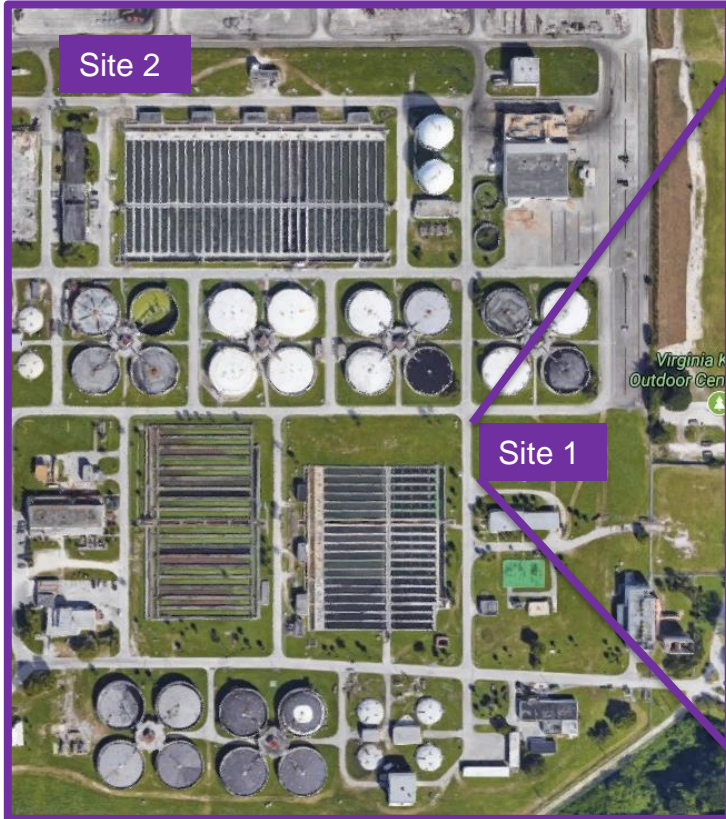
Validated Consent Decree Project – Under Construction

- Original CD Construction phase duration was 387 days as opposed to the validated 550 days
- Site 1 – Main Storage and Metering Facility
 - Meets CD description
 - Separate Storage and Electrical/Mechanical bldgs
 - Sixteen (16) 20,000 gallon FRP Storage Tanks
 - Eleven (11) Metering Pumps
 - Two (2) Transfer Pumps
- Site 2 – Satellite Storage and Metering Facility
 - Combined Storage and Electrical/Mechanical bldg
 - Two (2) 2,500 gallon HDPE Storage Tanks
 - Ten (10) Metering Pumps



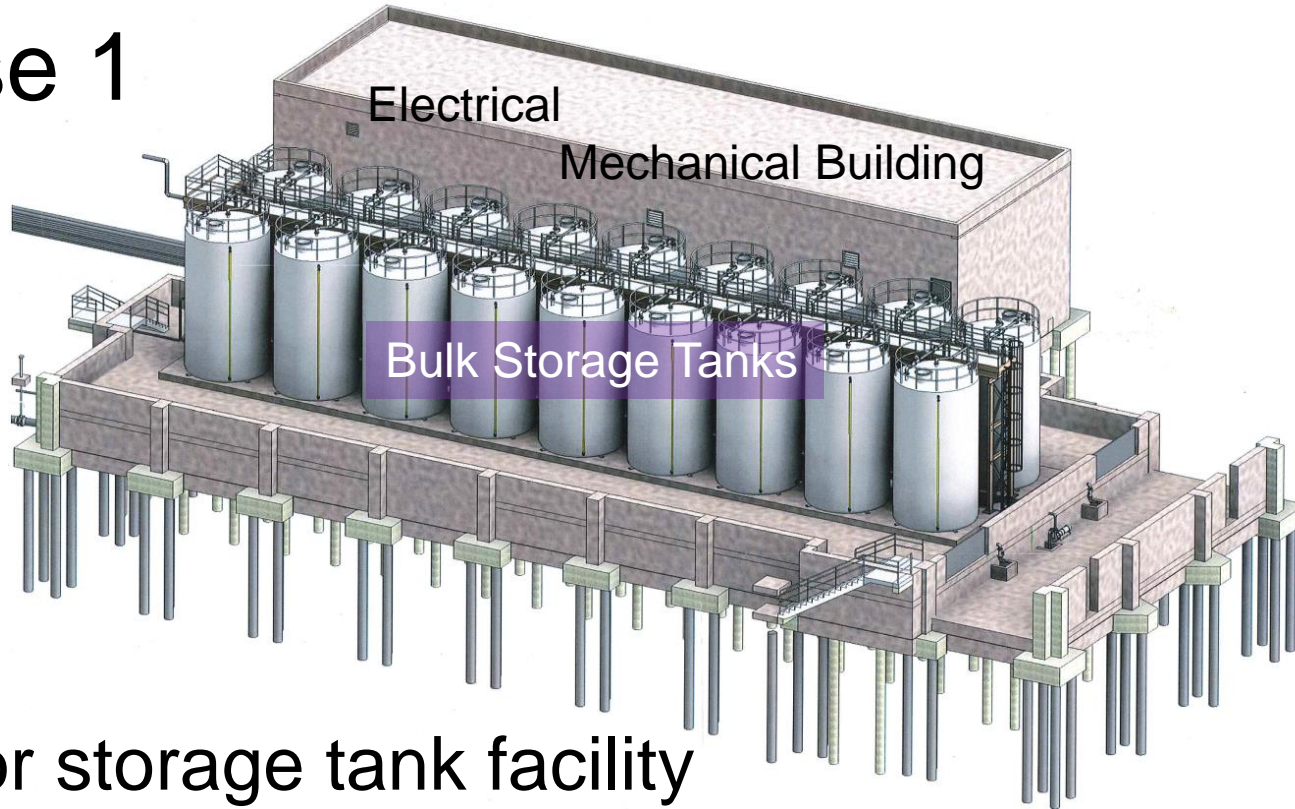
Site 2 Bldg under construction

Background



Background

Phase 1



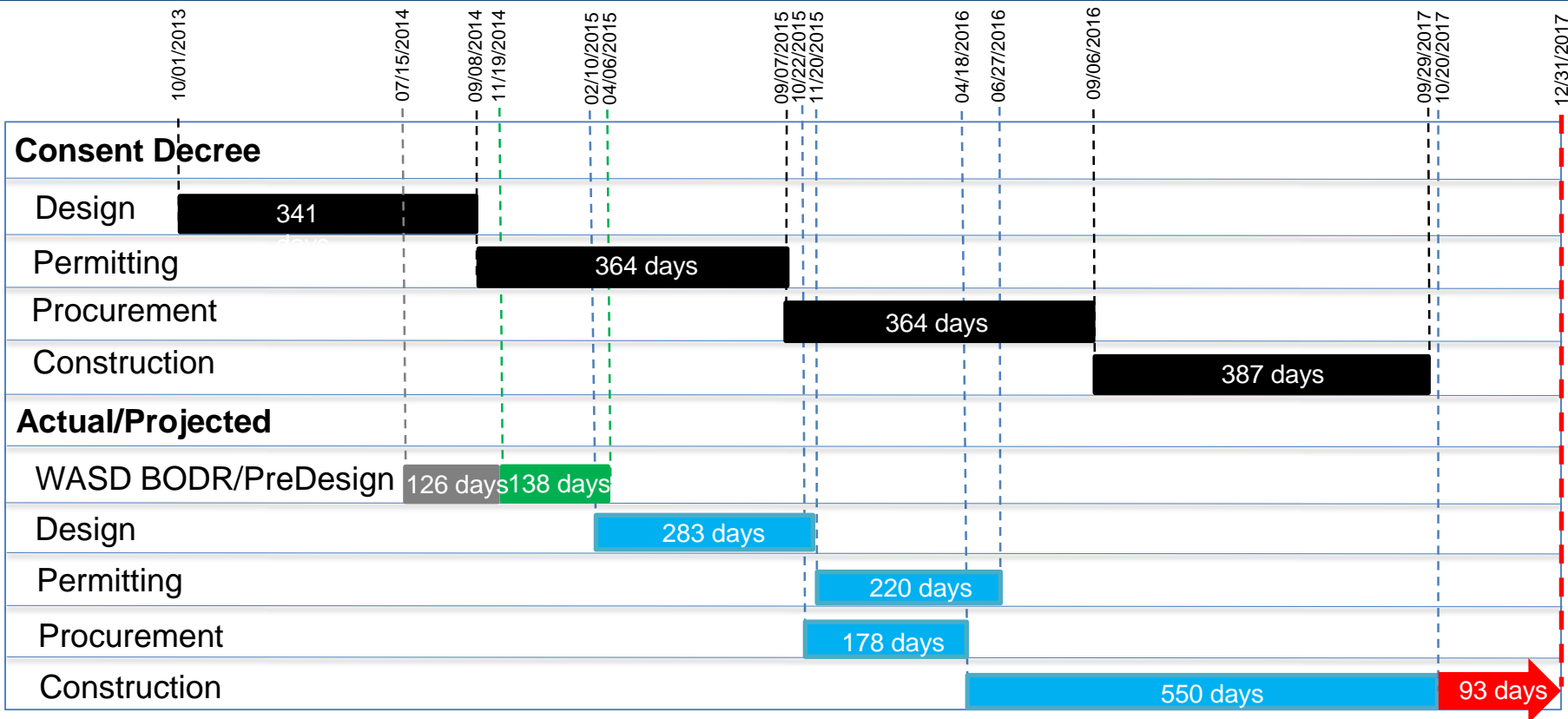
Outdoor storage tank facility

Design Acceleration

On July 22, 2015 Deputy Director requests the design to be super accelerated to attain CD compliance deadline. Design had already been accelerated from 8 to 6 months. Based on this new direction, the design was further accelerated to 4.5 months.

Due to the Design acceleration, Design Consultant has issued several design changes post NTP which the Contractor states will impact project completion dates. Currently, the Contractor's schedule update has a completion date for Site 1 that is 93 days past the CD compliance date. The PMCM is in the process of negotiating the schedule and cost impacts; however, these late design changes will delay the completion dates to some degree

Project Timeline – Design Bid Build Procurement



Original CD vs. Project Timeline – Design Bid Build

Interim Milestone	Original Dates	Duration	Actual/Projected Dates	Duration	Change
Pre-Design Start	NA	NA	Nov 19, 2014	138	NA
Pre-Design Finish	NA		Apr 6, 2015		
Design Start	Oct 1, 2013	341	Feb 10, 2015	283	-58
Design Finish	Sep 7, 2014		Nov 20, 2015		
Permitting Start	Sep 8, 2014	364	Nov 20, 2015	220	-144
Permitting Finish	Sep 7, 2015		Jun 27, 2016		
Procurement Start	Sep 8, 2015	364	Oct 22, 2015	178	-186
Procurement Finish	Sep 6, 2016		Apr 17, 2016		
Construction Start	Sep 7, 2016	387	Apr 18, 2016 (Actual NTP) Mar 28, 2016 (No Float NTP)	550 (Contract)	163
EPA Compliance Date	Sep 29, 2017		Oct 20, 2017 (a) (21 days over CD Deadline)		
		1,456		1,231 (a)	-225

(a) Does not include pre-design

Project Challenges – Construction Phase

Design Changes During Construction:

- The specified tank height for the 16 bulk storage tanks were incorrect.
- Metering pump manufacturer claimed Design Consultant's design would not function properly requiring the design consultant to add suction-side pulsation dampeners during construction.
- Design did not include power and communications wiring and RTU points for four (4) eye wash stations located storage tank area.
- Design included RTU panel with discrete power which should have been wired into the RTU Auxiliary Panel per WASD Standards.
- Design includes a conflict between potable water feed into Site 1 mechanical room with proposed location of Siemens Electrical Panels.

Project Challenges – Construction Phase

- Design Changes During Construction: (continued)
 - Design includes conflicting information on Site 2 coiled roll-up door.
 - Design misses safety hand rails surrounding electrical/mechanical building air conditioning cooling tower installation.

Contractor Issues

- All Potential Change Order's (PCOs) carried a potential time impact notice as indicated on the schedule dated 6/19/2017 (427 days into the 550 day substantial completion milestone). Latest Contractor schedule indicates a delay of 93 days.
- Limited Contractor Staff limits Contractor ability to administer project properly

Mitigation Efforts

Past Mitigation

- Performed permitting and procurement activities concurrently
- Decoupled the Satellite Storage and Metering Facility (Site 2) from the construction schedule with a separate interim milestone to meet CD compliance date
- Met with the Contractor and discussed additional staffing resources and construction schedule changes to mitigate time effect of additional work orders
- Met with the Contractor to review and discuss alternate scheduling of the work to minimize schedule impact. Analysis of the fragnet for the change in question identified the opportunity of resequencing and strategic overtime work to lessen the impact on the project's critical path.

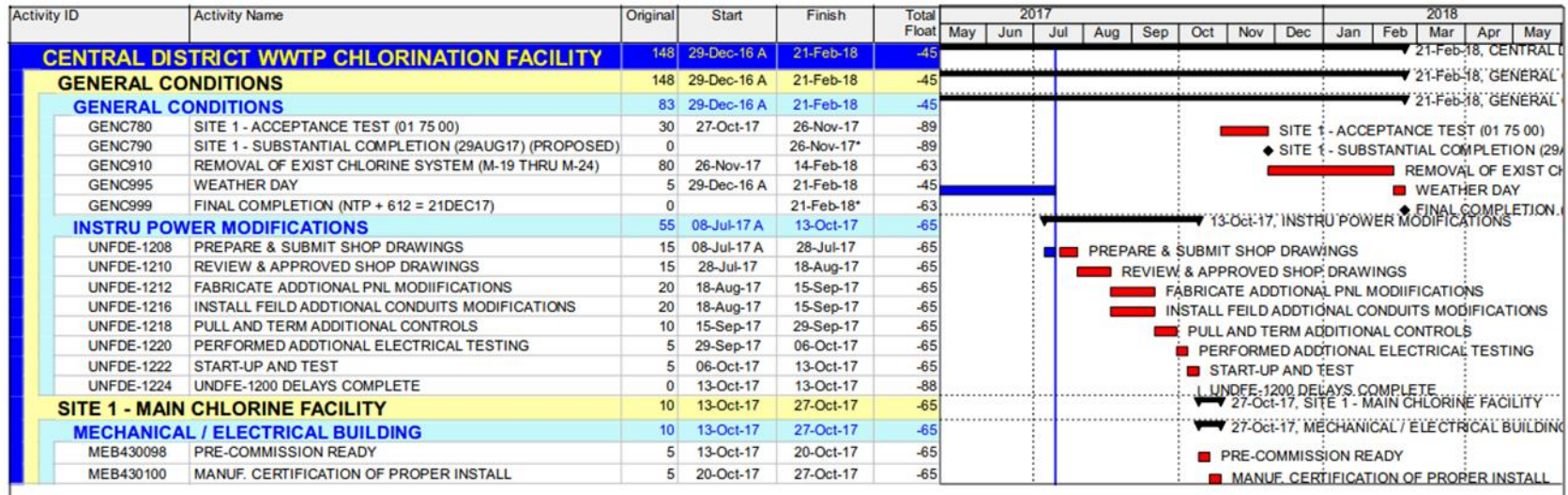
Contractor Schedule vs. Mitigation Schedule

Contractor June 2017 Schedule Update shows a completion date for Site 1 (CD Scope) of December 31, 2017, which is 93 days past the CD Compliance Date for Project 2.17 (September 29, 2017) due to instrumentation power design changes

Activity ID	Activity Name	Original	Start	Finish	Total Float	2017												2018				
						May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May				
CENTRAL DISTRICT WWTP CHLORINATION FACILITY		173	29-Dec-16 A	28-Mar-18	-70	28-Mar-18, CE																
GENERAL CONDITIONS		173	29-Dec-16 A	28-Mar-18	-70	28-Mar-18, GE																
GENERAL CONDITIONS		83	29-Dec-16 A	28-Mar-18	-70	28-Mar-18, GE																
GENC780	SITE 1 - ACCEPTANCE TEST (01 75 00)	30	01-Dec-17	31-Dec-17	-124	SITE 1 - ACCEPTANCE TEST (01 75 00)																
GENC790	SITE 1 - SUBSTANTIAL COMPLETION (29AUG17) (PROPOSED)	0		31-Dec-17*	-124	SITE 1 - SUBSTANTIAL COMPLETION (29AUG17) (PROPOSED)																
GENC910	REMOVAL OF EXIST CHLORINE SYSTEM (M-19 THRU M-24)	80	31-Dec-17	21-Mar-18	-98	REMOVAL OF EXIST CHLORINE SYSTEM (M-19 THRU M-24)																
GENC995	WEATHER DAY	5	29-Dec-16 A	28-Mar-18	-70	WEATHER DAY																
GENC999	FINAL COMPLETION (NTP + 612 = 21DEC17)	0		28-Mar-18*	-98	FINAL COMPLETION (NTP + 612 = 21DEC17)																
INSTRU POWER MODIFICATIONS		80	08-Jul-17 A	17-Nov-17	-90	17-Nov-17, INSTRU POWER MODIFICATIONS																
UNFDE-1208	PREPARE & SUBMIT SHOP DRAWINGS	15	08-Jul-17 A	28-Jul-17	-90	PREPARE & SUBMIT SHOP DRAWINGS																
UNFDE-1210	REVIEW & APPROVED SHOP DRAWINGS	20	28-Jul-17	25-Aug-17	-90	REVIEW & APPROVED SHOP DRAWINGS																
UNFDE-1212	FABRICATE ADDITIONAL PNL MODIFICATIONS	20	25-Aug-17	22-Sep-17	-90	FABRICATE ADDITIONAL PNL MODIFICATIONS																
UNFDE-1216	INSTALL FEILD ADDITIONAL CONDUITS MODIFICATIONS	20	22-Sep-17	20-Oct-17	-90	INSTALL FEILD ADDITIONAL CONDUITS MODIFICATIONS																
UNFDE-1218	PULL AND TERM ADDITIONAL CONTROLS	10	20-Oct-17	03-Nov-17	-90	PULL AND TERM ADDITIONAL CONTROLS																
UNFDE-1220	PERFORMED ADDITIONAL ELECTRICAL TESTING	5	03-Nov-17	10-Nov-17	-90	PERFORMED ADDITIONAL ELECTRICAL TESTING																
UNFDE-1222	START-UP AND TEST	5	10-Nov-17	17-Nov-17	-90	START-UP AND TEST																
UNFDE-1224	UNDFE-1200 DELAYS COMPLETE	0	17-Nov-17	17-Nov-17	-123	UNDFE-1200 DELAYS COMPLETE																
SITE 1 - MAIN CHLORINE FACILITY		10	17-Nov-17	01-Dec-17	-90	01-Dec-17, SITE 1 - MAIN CHLORINE FACILITY																
MECHANICAL / ELECTRICAL BUILDING		10	17-Nov-17	01-Dec-17	-90	01-Dec-17, MECHANICAL / ELECTRICAL BUILDING																
MEB430098	PRE-COMMISSION READY	5	17-Nov-17	24-Nov-17	-90	PRE-COMMISSION READY																
MEB430100	MANUF. CERTIFICATION OF PROPER INSTALL	5	24-Nov-17	01-Dec-17	-90	MANUF. CERTIFICATION OF PROPER INSTALL																

Contractor Schedule vs. Mitigation Schedule

Proposed mitigation schedule could have Site 1 substantially completed by November 26, 2017, or 58 days past the Project's CD Compliance Date



Next Steps

Next Steps

- Monitor progress of resequenced work
- Engage and request Contractor provide a schedule with dates associated to those PCOs on the critical path
- Discuss schedule impacts and make a formal request for a schedule revision to EPA/FDEP to reflect a compliance date of December 31, 2017 (Contractor schedule delay of 93 days).

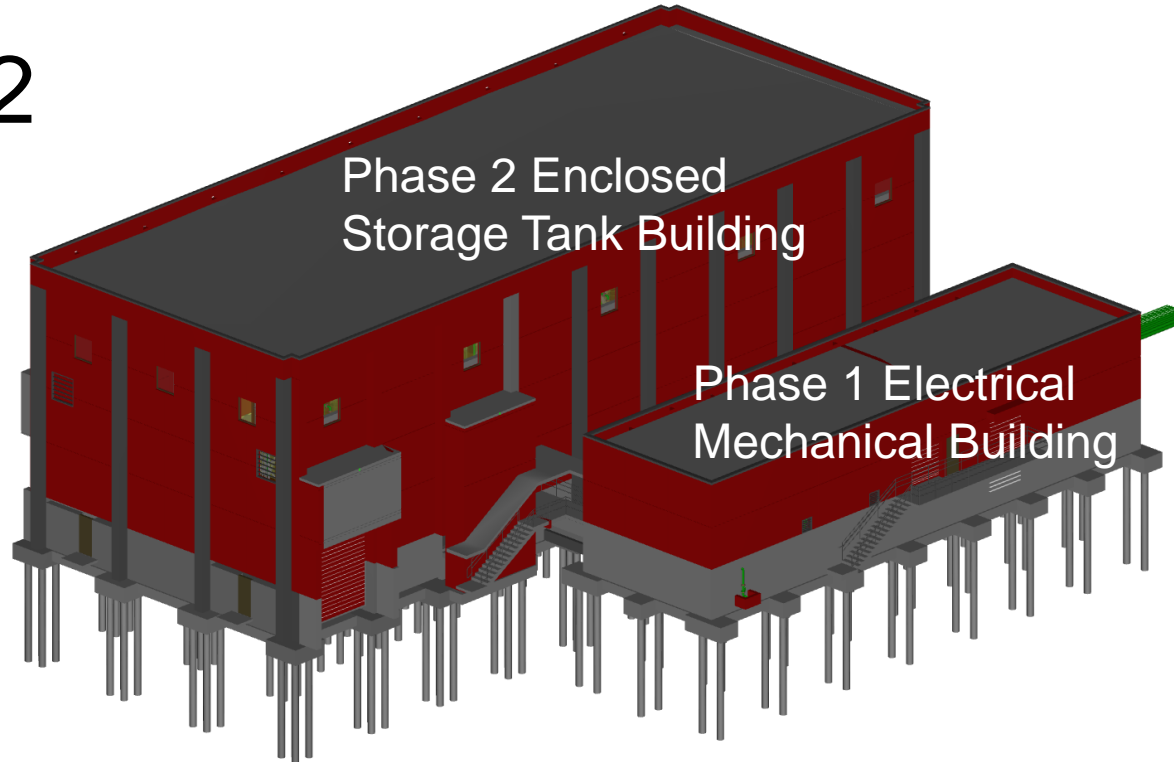
Additional Project Improvements

Storage Tank Building Enclosure (Phase 2) – Future CIP Project

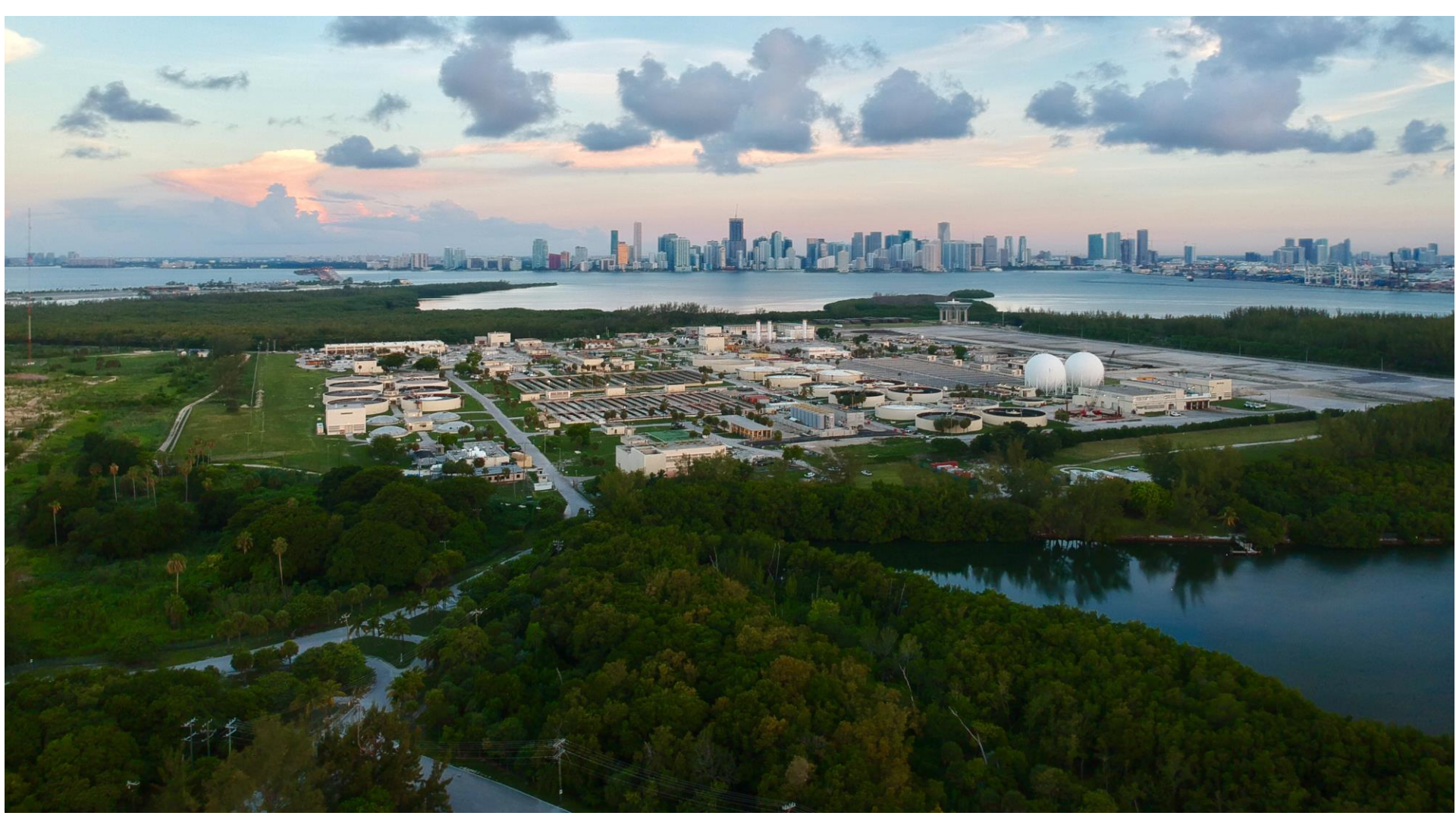
- Extension of walls and addition of roof over installed bulk storage tanks including overhead crane
- Separate design/bid package prepared and completed by design consultant through permit-ready
- Requires WASD to complete permitting and procurement process engaging design consultant and initiate and complete construction separate from CD Program

Rendering of Phase 2

Phase 2



Enclosed storage tank facility





**CD 2.17 Central District
Chlorination Facility**

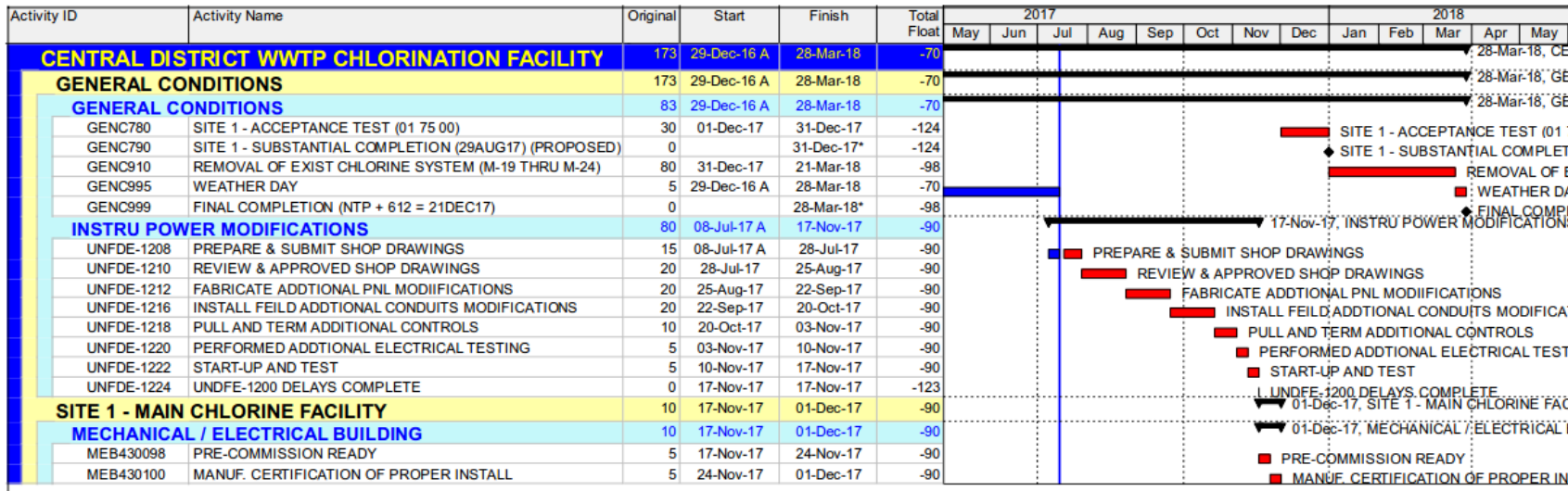
08.17.2017

Consent Decree Program Management and Construction Management



Attachment B – Critical Path Mitigation Schedule

Attachment B - Contractor June 2017 Schedule Update shows a completion date for Site 1 (Consent Decree Scope) of December 31, 2017, which is 93 days past the CD Compliance Date for Project 2.17 (September 29, 2017) due to instrumentation power design changes.



Proposed mitigation schedule could have Site 1 substantially completed by November 26, 2017, or 58 days past the Project's CD Compliance Date.

